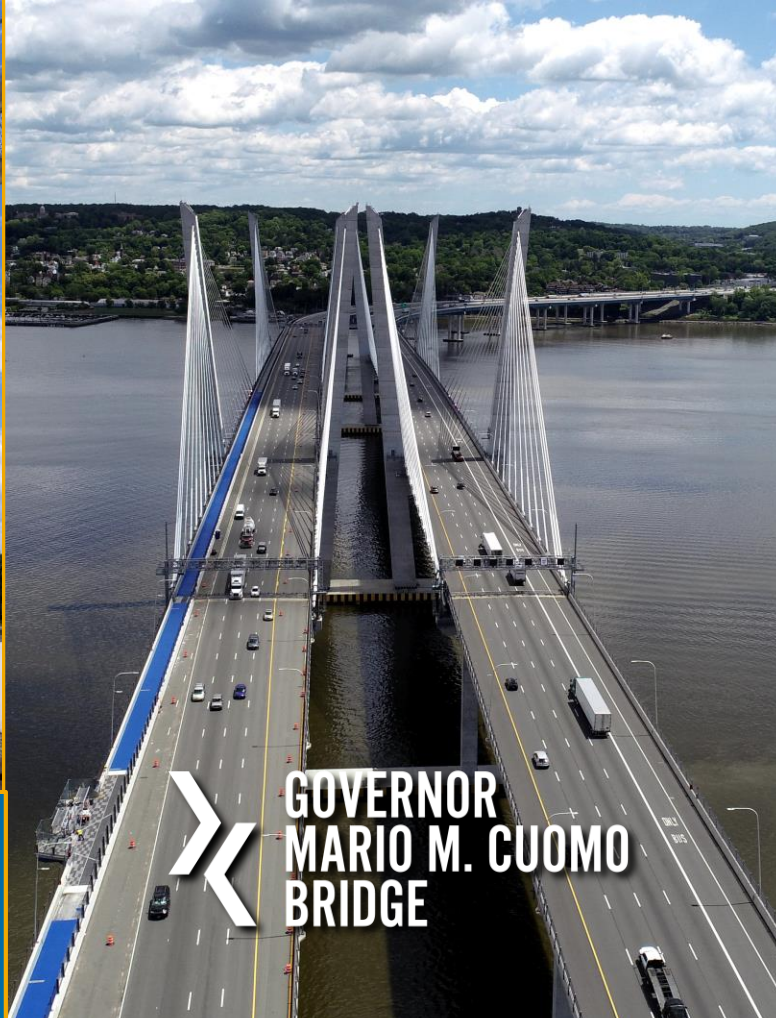
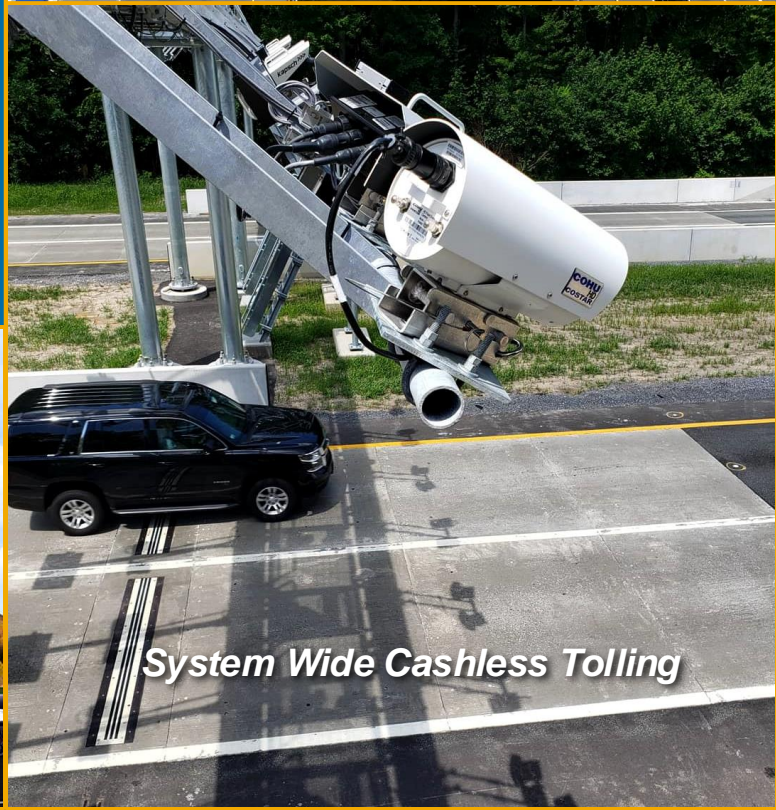




System Wide Cashless Tolling



GOVERNOR MARIO M. CUOMO BRIDGE



System Wide Cashless Tolling

New York State Thruway Authority 2021 BUDGET

Reimagining All 27 Thruway Service Areas



NEW YORK STATE OF OPPORTUNITY

Thruway Authority

TABLE OF CONTENTS

Board Members	4
Letter from Executive Director and Certification	6
Thruway Organization and Background	
Mission	10
History and Background	10
Organizational Structure and Organizational Chart	11
Budget Overview	
Budget At a Glance	17
Executive Summary	18
2020 Revised Financial Plan	
Comparison of Actual 2019 Expenditures to Revised 2020 Budget	34
Summary of Revised Financial Plan Changes - Revenues & Operating Expenses	35
Summary of Revised Financial Plan Changes - Capital Program	36
2020 Revised Budget - Sources and Uses of Funds	37
2021 Budget	
Comparison of Revised 2020 Budget to 2021 Budget	39
Toll, Concession and Sundry Revenues	40
Departmental Operating Expenses	41
General Charges	42
Debt Service	43
Flow of Funds - General Revenue Bond Resolution	44
Capital Program Funding Uses	45
Capital Program Funding Sources	46
Comparison of Actual 2019, Revised 2020 Budget and 2021 Budget New NY	47
Bridge 2021 Budget - Sources and Uses of Funds Schedule	48
2021 Budget at the Item and Department level	49
Personnel- 2021 Budgeted fill levels by department	52
Personnel History - Aggregate Budgeted Fill Levels since 1995	53
2021 Departmental Summary and Budget Information	
Board & Executive	55
Media Relations and Communications	57
Legal	60
Audit and Management Services	63
Administrative Services	65
Information Technology	68
Finance and Accounts	73
Engineering	75
Maintenance and Operations	78
Thruway Maintenance	78
Equipment & Inventory Management	80
Traffic and Communications	82
Toll Collection	84
Long Range Financial Plan	
Long-Term Financial Plan	87
Multi-Year Capital Plan	
2021 Budget - Capital Program - Sources and Uses Capital Planning Process	91
Multi-Year Capital Program - Letting Schedule	94
Appendix	
Independent Traffic Engineer's Report	104
Fund Structure/Budgeting Assumptions	
Fund Descriptions	137
Flow of Funds Chart	139
Net Revenue Requirement	140
Basis of Budgeting	140
Budget Process	140
Budget Assumptions	141
Assessment of Budgetary Risks	141
Thruway Bond Program	143

BOARD MEMBERS





New York State Thruway Authority Board of Directors

Joanne M. Mahoney, Chair, Board of Directors

George L. Miranda, Member

J. Donald Rice Jr., Member

José Holguín-Veras, Ph.D., P.E., Member

Robert L. Megna, Vice-Chair

Stephen M. Saland, Member

Heather C. Briccetti, Esq., Member

LETTER FROM EXECUTIVE DIRECTOR AND CERTIFICATION





December 2020

Honorable Liz Krueger
Chair
NYS Senate Finance Committee
State Capitol Building, Room 416
Albany, NY 12247

Honorable James L. Seward
Ranking Member
NYS Senate Finance Committee
State Capitol Building, Room 414
Albany, NY 12247

Honorable Helene E. Weinstein
Chairwoman
NYS Assembly Ways & Means Com.
923 Legislative Office Building
Albany, NY 12248

Honorable Edward P. Ra
Ranking Minority Member
NYS Assembly Ways & Means Com.
444 State Capitol
Albany, NY 12248

Mr. Jeffrey Pearlman
NYS Authorities Budget Office
P.O. Box 2076
Albany, NY 12220-0076

To the Addressees:

In compliance with the provisions of the Public Authorities Law and on behalf of the Board of the New York State Thruway Authority (Authority), I am submitting a summary of the Authority's Budget for the fiscal year beginning January 1, 2021. The overall 2021 Budget represents a total financial commitment of approximately \$1.1 billion. The 2021 Budget is one that is balanced; provides the necessary resources to maintain the current levels of maintenance, safety and service; and maximizes funding for critical infrastructure rehabilitation projects in the Authority's multi-year Capital Plan.

The COVID-19 pandemic that began in March has resulted in significant impacts to the Authority's financial condition. Most significantly, the Thruway has observed substantial declines in Thruway passenger and commercial traffic and toll revenues. While these declines were most severe during the height of the outbreak, continued impacts persist and are projected to continue through the remainder of 2020 with projected declines apparent throughout the multi-year projection period.

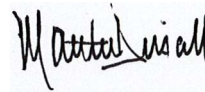
We are continuing our efforts to respond to these challenges in the coming year. Furthermore, the focus of improving our operations will continue into 2021, reflecting our long-term commitment to keep the Thruway Authority on a sound fiscal footing. The 2021 budget that has been prepared, continues our efforts to provide a balanced financial plan.

The 2021 Budget invests a total of \$374 million to support the capital program of the Thruway Authority. In addition, the 2021 Budget provides a 2021-2025 Capital Program that would provide \$1.8 billion for Thruway Authority capital projects. This includes \$268.8 million for New NY Bridge project that will result in the completion of the Governor Mario M. Cuomo Bridge and \$1.58 billion for system-wide projects on the Thruway.

Thanks to the hard work and dedication of our employees, we continue to operate and maintain a safe, reliable, statewide superhighway in a fiscally responsible manner. The Thruway Authority provides quality services for our customers while supporting economic growth and job creation across New York State. Under Governor Andrew Cuomo's leadership, we have instituted major initiatives and cost controls that have substantially reduced operating costs, improved services, and fostered strategic investments in our infrastructure.

Finally, none of these accomplishments would have been possible without strong support, guidance and leadership from our Chair, Joanne M. Mahoney and the dedicated members of the Thruway Authority Board of Directors. Thank you for your interest in the Thruway Authority.

Sincerely,

A handwritten signature in black ink, appearing to read "Matthew J. Driscoll", is written over a light blue rectangular background.

Matthew J. Driscoll
Executive Director



Certification of Assumptions and Method of Estimation for Budget and
Financial Plan 2021-2024 in accordance with the Comptroller's
Regulation Section 203.9 Certification

Date: December 2020

To: Board of Directors, New York State Thruway Authority

In accordance with Office of State Comptroller (OSC regulations), I certify that to the best of my knowledge and belief after reasonable inquiry, the Authority 2021 Budget is based on reasonable assumptions and methods of estimation; and the requirements of the OSC regulations have been satisfied.

A handwritten signature in blue ink that reads "Matthew Howard". The signature is written in a cursive style and is positioned above a horizontal line.

Matthew A. Howard
Chief Financial Officer

THRUWAY ORGANIZATION AND BACKGROUND



The New York State Thruway



Mission

We offer a user-fee supported highway that delivers high levels of safety and service.

History and Background

The New York State Thruway Authority, a body corporate and politic constituting a public corporation, created in 1950 by the New York State Thruway Authority Act, as amended, Title 9 of Article 2 of the Public Authorities Law, Chapter 43-A of the Consolidated Laws of the State of New York (the "Act"), is empowered, among other things, to finance, construct, operate and maintain as a toll facility, and to improve and reconstruct the New York State Thruway (the "Thruway"), subject to certain statutory limitations on the Authority's right to impose tolls on certain parts of the Thruway, including the Cross-Westchester Expressway. The Act also authorizes the Authority to issue, from time to time, negotiable bonds and notes for any corporate purpose secured by tolls, revenues, rates, fees, charges, rents and other earned income of the Authority.

Title to the real property utilized by the Authority is vested in the State, but the Authority has the right, so long as its corporate existence shall continue, to possess, use and dispose of all real property and rights therein. The Authority has the power to acquire, hold and dispose of personal property for its corporate purposes. The Authority has no taxing power.

The Act provides that the Authority consists of a Board of seven members appointed by the Governor of the State, with the advice and consent of the State Senate. Board members serve for terms of nine years each. Vacancies in the Authority occurring other than by expiration of term are filled for the remainder of the unexpired term in the manner previously stated. Pursuant to the New York State Public Officers Law, members of the Authority whose terms have expired continue to serve until a successor is appointed and qualified. The members of the Authority receive no salary but are reimbursed for their necessary expenses incurred in connection with their duties. The Chair serves in that capacity for the full term of his appointment as a member of the Authority. The members of the Authority may appoint other officers. The present members of the Board and the expiration dates of their terms of office are as follows:

<u>Name</u>	<u>Expiration of Term</u>
José Holguín-Veras.....	December 12, 2018
Joanne M. Mahoney	January 1, 2020
Robert L. Megna.....	January 1, 2017
George L. Miranda	June 23, 2026
J. Donald Rice, Jr.	June 13, 2018
Stephen M. Saland	January 1, 2023
Heather C. Briccetti.....	September 14, 2026

Thruway Facilities and Operations

The Thruway is one of the largest tolled highway systems in the United States and is a critical component in the national interstate network. The original Thruway roadway system was constructed between 1949 and 1960 and is one of the oldest components of the national interstate highway system. In 1991, State legislation made the Authority additionally responsible for the operation and maintenance of 11 miles of I-287 Cross-Westchester Expressway. (The New York State Department of Transportation (NYSDOT) remains responsible for capital improvements to this roadway.) The Thruway System is now more than 570 miles in total length and includes 134 interchanges.

The Thruway serves travelers with a variety of needs and purposes, including commuters, business travelers, recreational travelers, and commercial vehicle traffic and provides the major route of access for visitors to the State’s tourist destinations including Niagara Falls, the State Canal system, the Finger Lakes, the Adirondacks, the Catskills and New York City. The Thruway has provided a dependable roadway for these travelers, sustaining and encouraging economic growth, fostering job creation and generating tax revenues to the State and its local governments. Underscoring its importance to the state, region and nation, in 2019 Thruway customers traveled approximately 8.4 billion vehicle-miles on the highway, averaging more than 22.8 million vehicle-miles per day. Due to the extent of its maintenance activities, good infrastructure conditions and the dedication of a specialized troop of the New York State Police to patrol the Thruway System, it has remained one of the safest roadway networks in the nation.

The Thruway System is comprised of 2,840 lane miles of roadway. In addition, the Authority has maintenance responsibility for 814 bridges and also owns 27 service areas and three welcome centers located at intervals along the Thruway System, operated by three food service and two fuel concessionaires that are open 24-hours daily, 7 days a week. Routine maintenance activities are performed by Authority staff from 21 maintenance locations grouped into four divisions.

The Thruway connects the principal cities of the State from New York City to Albany, and on to Utica, Syracuse and Rochester through to Buffalo and the Pennsylvania state line. Because the Thruway corridor serves 37 of the State's 62 counties and the majority of the State's population, it is the principal artery of travel and commerce within the State. It also is an important interstate connector, joining with the Massachusetts Turnpike (I-90), Connecticut Turnpike (I-95), New Jersey's Garden State Parkway, as well as several other Interstate routes such as I-287 from New Jersey; I-90 in Pennsylvania; I-290 around the north side of Buffalo; I-390 and I-490 serving Rochester; I-81, I-481 and I-690 at Syracuse; I-790 in Utica; I-87 (the Northway), I-88, I-90, I-787, and I-890 at Albany; and I-84 at Newburgh. As a result, the Thruway is a vital link to long distance interstate travel and a high proportion of its patrons are from out-of-state.

The Thruway is comprised of two types of toll systems – a controlled (ticket) system and a barrier system. The controlled system (approximately 481 miles) makes up the largest portion of the Thruway, running from Woodbury (in the southeast corner of the State) north along I-87 to Albany, then west on I-90 to Buffalo and south of Lake Erie to the Pennsylvania border. In addition to this main stretch of the controlled system, there is a small tolled branch south and east of Albany, known as the Berkshire Spur.

On the controlled system, tolls are charged based on the actual distance traveled by the customer. Meanwhile, barrier toll plazas have a fixed toll rate for each vehicle class and payment type (*e.g.*, Cash, E-ZPass, as well as Commuter and other E-ZPass Discounts). The barrier systems are comprised of the Governor Mario M. Cuomo Bridge (formerly the Tappan Zee Bridge), Yonkers Barrier, New Rochelle Barrier, Spring Valley Barrier, Harriman Barrier and the Grand Island Bridges. Under the existing policy, toll rates across the system are based on vehicle classifications, related to the number of axles per vehicle and the height of the vehicle over the first two axles.

The Authority converted the barrier at The Governor Mario M. Cuomo Bridge to cashless tolling in April 2016. The Authority's conversion to cashless tolling of its remaining barriers (Grand Island Bridges, and the Harriman, New Rochelle, Yonkers and Spring Valley Barriers) occurred during 2018. The Authority converted the entire controlled system to cashless tolling on November 14, 2020.

Approximately 266.9 million toll transactions occurred on the Thruway in 2019, generating more than \$739.8 million in toll revenues.

Organization

To administer its responsibilities for the Thruway and other authority projects, the Authority is organized into nine operating departments and currently supports approximately 2,000 permanent employees.

The departments are Board and Executive, Engineering, Maintenance and Operations, Administrative Services, Finance and Accounts, Legal, Media Relations & Communications, Audit and Management Services and Information Technology.

The Department of Engineering includes Asset and Innovation Management, Capital Program and Contracts Management, Program Delivery, and Transportation Planning and Environmental Services. The Department oversees the development and implementation of the Authority's long range capital programs. It has the professional capacity to design and inspect some capital projects in-house and accordingly does not have to rely solely on outside consultants.

The Department of Maintenance and Operations manages and maintains the highway, bridge and facilities infrastructure and equipment in a cost-effective manner in order to offer Thruway users high levels of safety and service. It is responsible for all toll collection activities, traffic management and travelers' services including concessions. The Department helps develop the Multi-Year Capital Program designed to preserve the condition, serviceability and safety of the roadway, bridges and facilities. The Department also continues to explore and implement innovative designs and technologies to enhance the safety and efficiency of the Thruway System. Direct field management of the maintenance and operations functions is handled through the four division offices (New York, Albany, Syracuse and Buffalo) under the auspices of the four Division Directors who report to the Chief of Staff.

The Department of Maintenance and Operations also acts as liaison with New York State Police Troop T, whose 320 members patrol the Thruway. In April 2016, the Authority resumed financial responsibility for State Police Troop T enforcement on the Thruway.

Roadway

The original 2,800 lane mile Thruway roadway system was constructed between 1949 and 1960 and is one of the oldest components of the national Interstate Highway System. In 1991, State legislation made the Authority additionally responsible for the operation and maintenance of 11 miles of I-287 Cross-Westchester Expressway. The New York State Department of Transportation (NYSDOT) remains responsible for capital improvements to this roadway. The Thruway system is now more than 570 total miles in length and includes 134 interchanges. The various sections of roadway currently maintained by the Authority are listed in the table below.

THRUWAY BY SECTION AND MILES	
SECTION	MILES
THE MAINLINE (New York - Buffalo)	426 miles
ERIE SECTION (Buffalo - Pennsylvania Line)	70 miles
NIAGARA SECTION I-190 (Buffalo - Niagara Falls)	21 miles
BERKSHIRE SECTION (Selkirk - Massachusetts Line)	24 miles
NEW ENGLAND SECTION (I-95) (Bronx - Connecticut Line)	15 miles
GARDEN STATE PARKWAY CONNECTION (Spring Valley - New Jersey)	3 miles
CROSS WESTCHESTER EXPRESSWAY (I-287) (Mainline I-87 in Tarrytown - I-95 in Rye)	11 miles
Total	570 miles

Bridges

The Authority has maintenance responsibility for 814 bridges that carry local roads and state highways over the Thruway System. The structural characteristics of these bridges vary: about 15 percent are concrete structures, either pre-stressed girder, arch, rigid frame or box culverts. The remaining 85 percent of the bridges are steel structures with asphalt overlays, reinforced concrete decks. As with the roadway, an overwhelming majority of the structures date back to the original opening of the Thruway System in the 1950s and require continual and significant repair, rehabilitation and reconstruction investments to prevent deteriorating conditions.

By far, the largest bridge on the Thruway System is the Governor Mario M. Cuomo Bridge over the Hudson River, located approximately 20 miles north of New York City. Due to its size and importance, a permanent Authority maintenance team is assigned to the Bridge.

Besides the Governor Mario M. Cuomo Bridge, the Thruway maintains and operates seven other major bridge structures. These include the Castleton-on-Hudson Bridge across the Hudson River on the Berkshire Section; the four Grand Island Bridges spanning branches of the Niagara River north of Buffalo; the mile long Niagara Viaduct, and the Byram River Bridge on the New England Section.

Thruway Service Areas

The Thruway's 27 Service Areas and three welcome centers offer a variety of restaurants and other services designed to serve Thruway visitors for years to come. In addition, staffed tourism information centers are located at several Service Areas (and some interchanges).

The Service Areas are fun and memorable places to stop, with buildings reflecting New York State architecture such as Adirondack lodges, Shaker meeting halls and Hudson River Valley train stations. The Thruway Service Areas offer a wide variety of food as well as competitive fuel prices. In addition, Automated Teller Machines (ATMs) are available, as are tourist information centers and kiosks, gift shops, Wireless Fidelity (Wi-Fi), travel safety information, and up-to-date weather and traffic conditions. All of the Service Areas offer family-assist restrooms, allowing people with special needs to get help from a traveling companion in total privacy. Travel Plazas are now fully accessible to travelers with special needs. Also, parents will find diaper changing areas in both men's and women's restrooms.

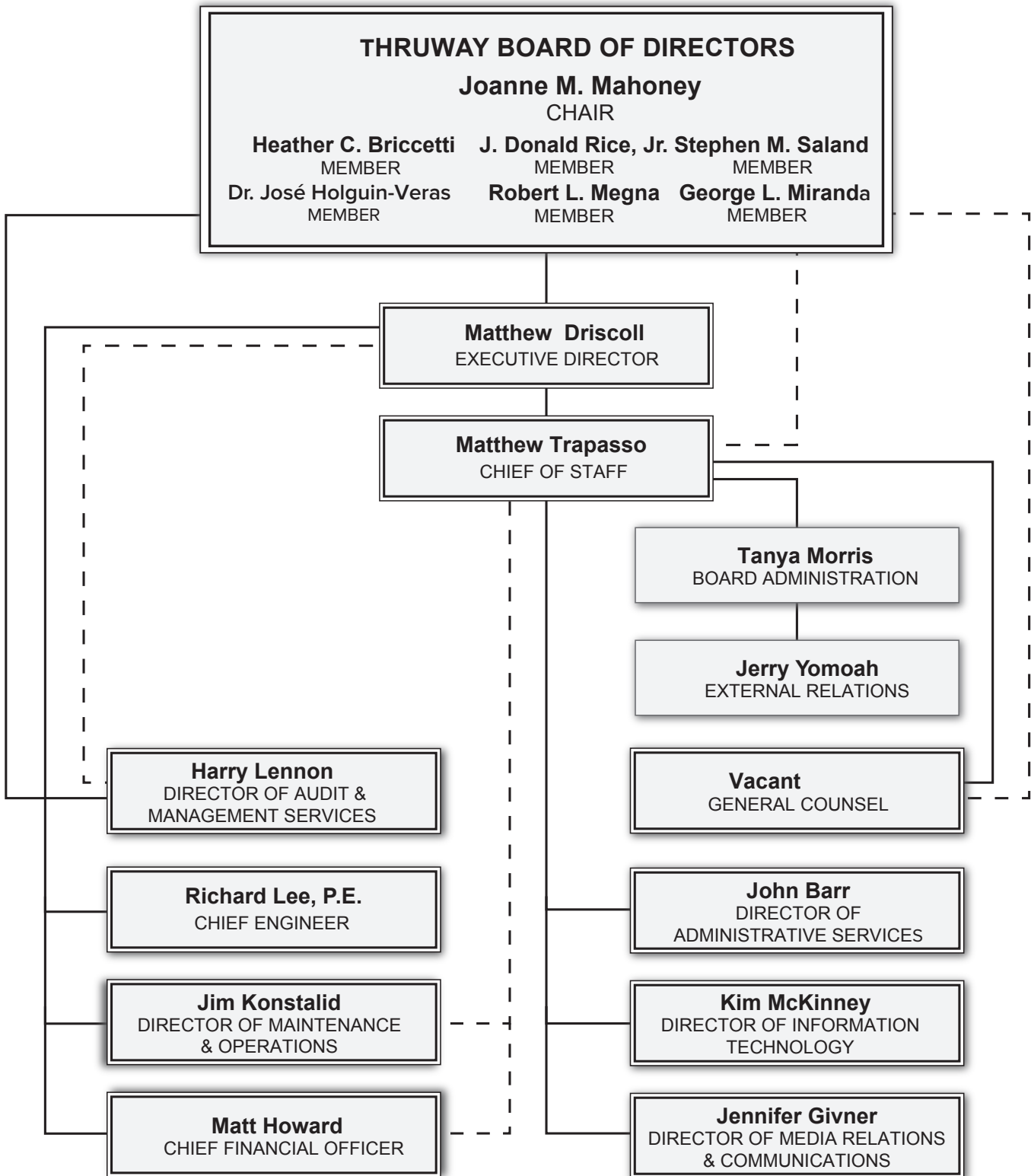
Service Areas are strategically located about every 30 to 40 miles along the Thruway. All gasoline stations at Thruway Service Areas have self-service islands. Upon request, people with disabilities and other travelers who so desire may receive full-service assistance at self-service pumps at self-serve prices.

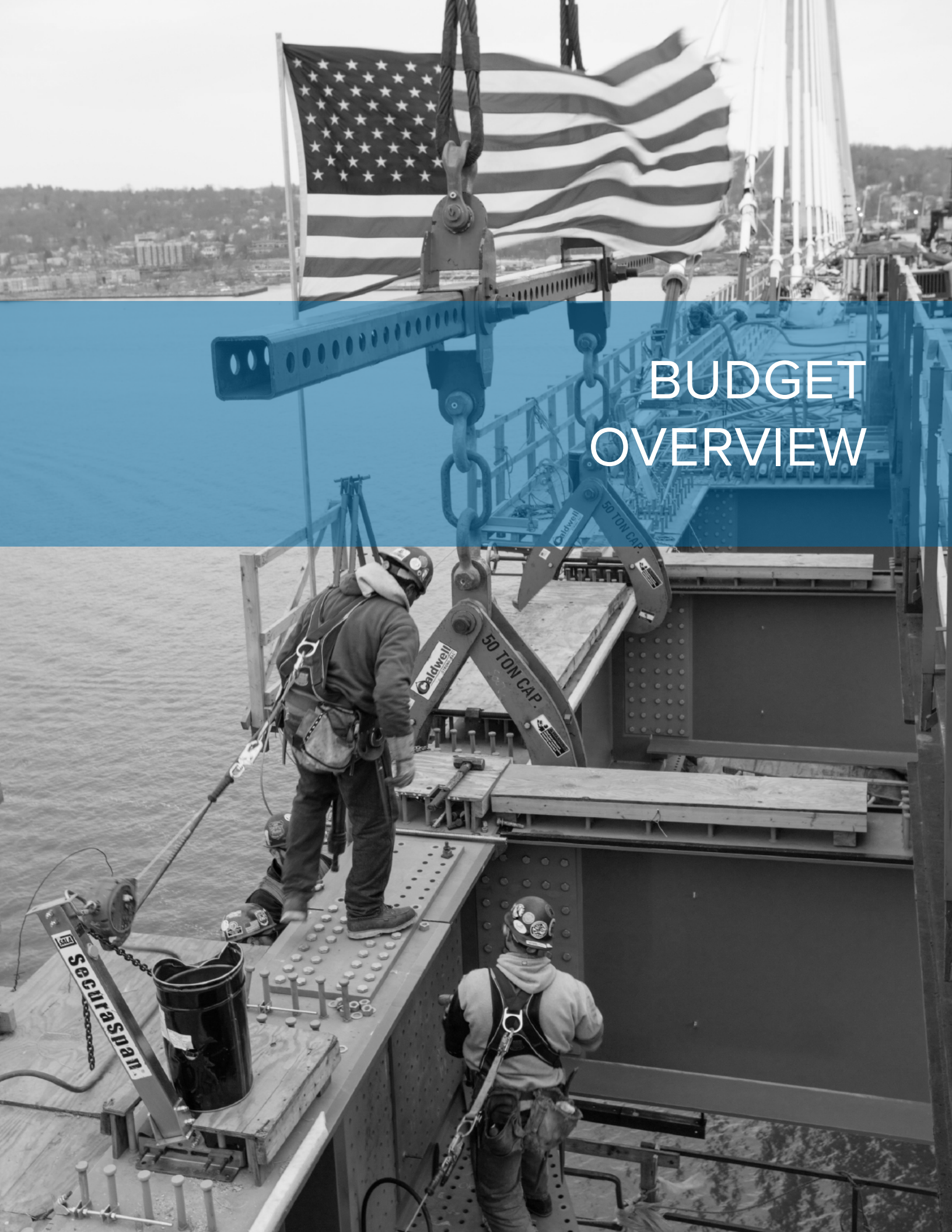
Rest Areas/Park and Ride Lots

There are conveniently located parking areas along the Thruway system where travelers are invited to stop and rest during their trips. There are emergency call boxes at these rest areas that connect directly to the Thruway Statewide Operations Center, located in the Thruway Headquarters Building.

The Thruway Authority does offer several commuter Park and Ride lots across the System. Parking at these commuter lots is posted for a maximum stay of 16 hours, and are not designated for multiple day stays. There are no overnight or long-term parking facilities on the System.

All Department Organization Chart





BUDGET OVERVIEW

Caldwell
50 TON CAP.

Securaman



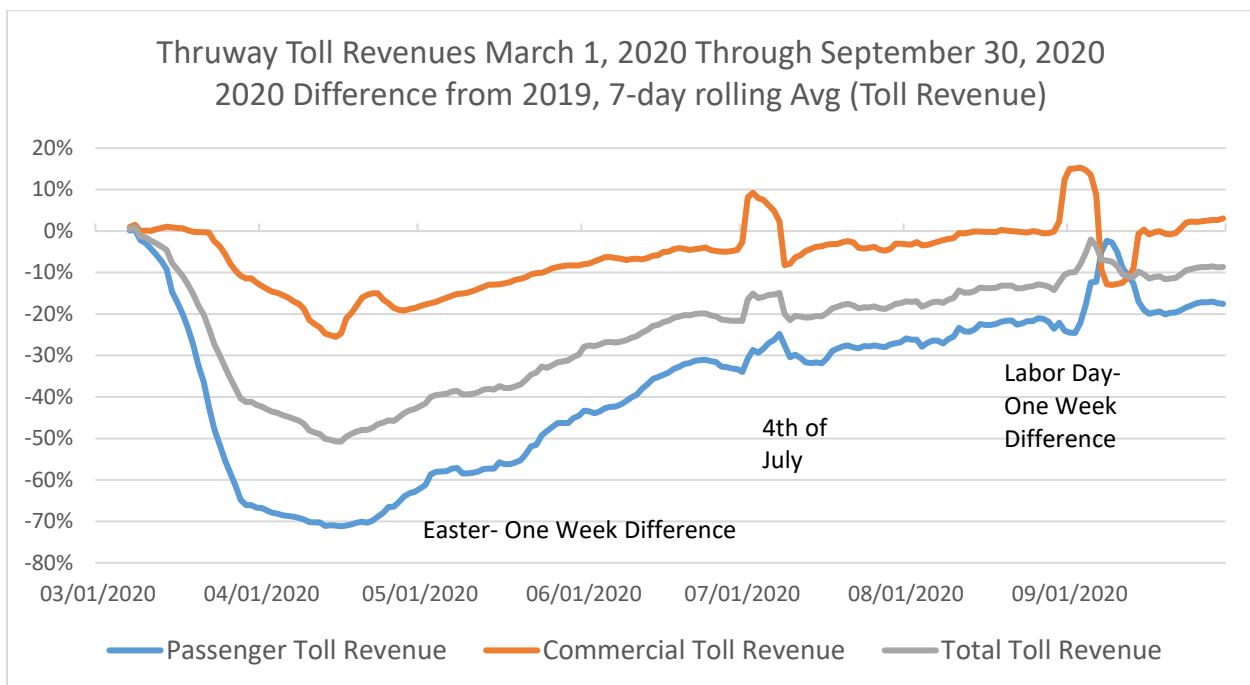
THRUWAY AUTHORITY 2021 BUDGET AT A GLANCE

- **2021 Overall Budget:** The 2021 Overall budget for the Thruway totals \$1.1 billion, which is \$14.3 million or 1.2 percent below revised 2020 levels. This includes \$360.4 million for the operating expenses of the Thruway Authority and \$374.3 million for capital projects across the Thruway system in 2021.
- **Traffic and Toll Revenues:** The 2021 Budget forecast total traffic of 244.9 million vehicles, reflecting growth of 35.3 million vehicles or 17 percent above revised 2020 levels. This corresponds to a \$708.6 million toll revenue forecast reflecting an increase of \$92 million or 15 percent above revised 2020 levels. In addition, the forecast includes revenues of \$11.6 million from the inclusion of a \$2 administrative surcharge included on bills mailed to Toll by Mail customers. The toll revenue forecast includes a downward revision from prior forecast for 2020-2024 to reflect the impacts Covid-19 during the projection period.
- **Toll Plan Implementation:** The 2021 Thruway Authority budget includes revenues from the Toll adjustment plan that the Board of Directors first approved in December 2019. These changes reflect the first toll adjustments made in 11-years since the last rate increase in 2010.
- **2021 Operating Budget:** The 2021 Thruway Authority operating budget totals \$360.4 million (with operating reserves), which is \$6.5 million or 1.8 percent above revised 2020 levels.
- **2021-2025 Capital Program:** The 2021-2025 Capital Program that would provide \$1.8 billion for Thruway Authority capital projects. This includes \$268.8 million for New NY Bridge project that will result in the completion of the Governor Mario M. Cuomo Bridge and \$1.58 billion for system-wide projects on the Thruway.
- **2021 State Police Troop T Reimbursement:** The 2021 Thruway Authority budget provides \$63.5 million for reimbursement to the State of New York for costs associated with New York State Police Troop T patrolling the system reflecting a \$1.8 million or 2.8 percent above revised 2020 levels.

2020 REVISED BUDGET SUMMARY

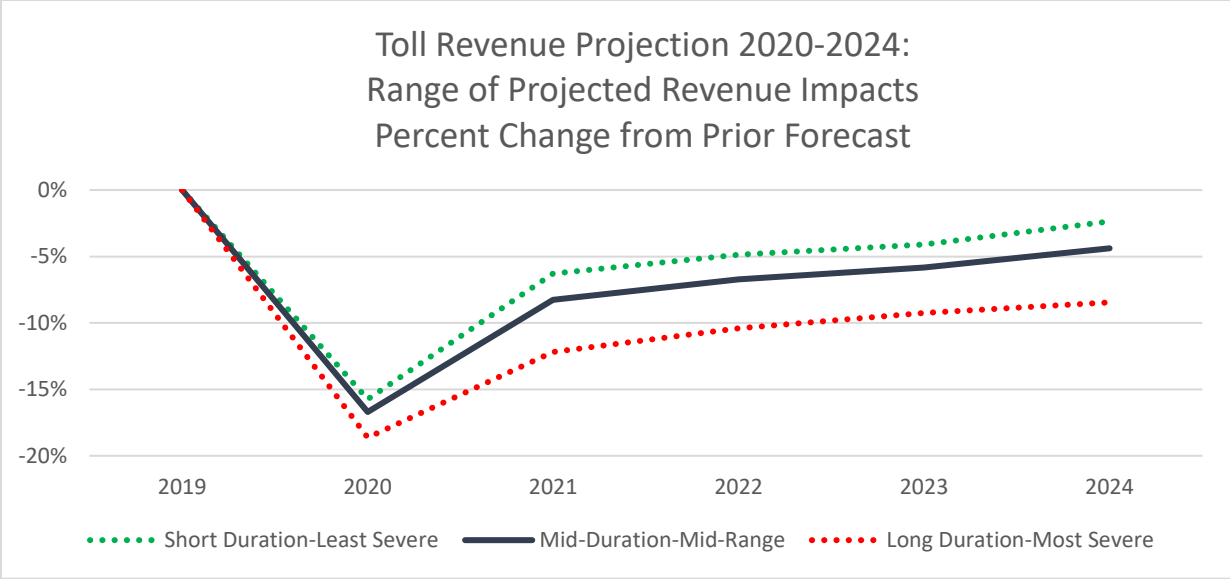
COVID-19 Revenue Impacts

Since the 2020 Budget was approved by the Thruway Authority Board of Directors in November 2019, the COVID-19 pandemic that began in March has resulted in significant impacts to the Authority's financial condition. Most significantly, the Thruway has observed substantial declines in Thruway passenger and commercial traffic and toll revenues. While these declines were most severe during the height of the outbreak, continued impacts persist and are projected to continue through the remainder of 2020 with projected declines apparent throughout the multi-year projection period.

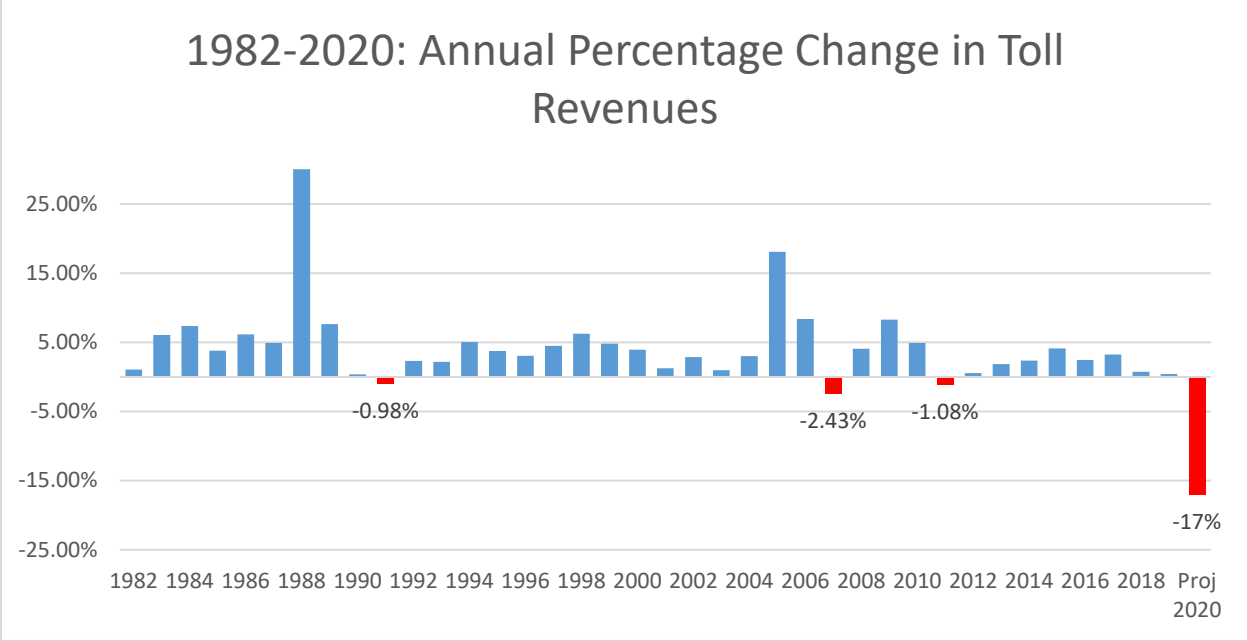


In response to the outbreak, the Thruway worked with the independent traffic engineer (Stantec Consulting Services, Inc.) to continuously monitor daily traffic and revenue results in order to gauge the range of estimated revenue impacts and produce revised toll revenue forecasts for which to guide Authority budget-making decisions.

The resulting forecast can be found within the attached appendices of this document. The forecast produces a series of estimates that consider varying assumptions on the duration of the continued impacts that COVID-19 will have on traffic and toll revenues. These scenarios are displayed as Short Duration (least severe), Mid-Duration (mid-range) and Long Duration (most severe) scenarios.



Over the course of the year, it has become apparent that the Mid-range projections are the most reasonable assumptions to incorporate into budget projections. The forecasted toll revenue decline of 17% for the Mid-Range Scenario in 2020 is unprecedented. As the following graph indicates, for the period of 1982-2019 there were only three years where the Thruway experienced negative year to year growth in toll revenues (1991, 2007 and 2011) the most significant of which was a -2.43% reduction in 2007. Thus, the currently forecasted 17% decline in toll revenues for 2020 represents a downturn in toll revenues that is nearly seven times greater than the largest decline the Thruway experienced over the preceding 38-year period.



The revised 2020 budget forecasts total Thruway revenues of \$667.6 million in 2020. This reflects a decrease of \$126.4 million or 15.9% from the original budget that was approved in November 2019. These figures incorporate the toll revenue impacts cited above, but also include all other Thruway revenue sources (interest earnings, concession rental payments, E-ZPass and Tolls by Mail Violations and Fees and various other Sundry Revenues).

Thruway Authority Revenues (in \$ millions)					
	2019	2020	2020	\$	%
	Actual	Original	Revised	Change	Change
Tolls	739.88	735.78	616.64	(119.14)	-16.2%
Concessions	14.78	8.48	4.49	(3.99)	-47.1%
Interest	12.18	8.25	4.00	(4.25)	-51.5%
Sundry	45.24	41.44	42.42	0.98	2.4%
Total	812.09	793.94	667.54	(126.40)	-15.9%

2020 Budget Revisions- Responding to COVID Impacts

In response to the unprecedented decline in revenues, the Authority needed to address the financial challenges it faced as a result of COVID-19. The focus of this plan was (i) assuring short and intermediate term liquidity needs of the Authority were met, and (ii) beginning to work on continuing solutions. This effort has led to the revised budget which used existing resources for on-going cashflow needs; directed operating expense and capital project spending reductions; and executed short-term financing agreements to provide further support of potential cashflow requirements. Specifically, this resulted in the following:

- Reduced Thruway operating expenses of \$17.8 million or 5% of budgeted 2020 expenses and a reduction of \$4.8 million in budgeted New York State Police Troop T reimbursement costs based on revised spending estimates;
- Revised 2020 Capital Program spending to \$543.5 million, a reduction of \$62.6 million or 10.3% from the Original 2020 budget level.
- Deployment of \$126.2 million in Series N bond proceeds to support capital expenditures that were previously budgeted to be supported by Thruway revenues. This includes: reimbursement for \$71.2 million in previous capital expenses that were initially supported by the Reserve Maintenance Fund and Thruway Stabilization funds in the first instance, and \$55 million for 2020 Reserve Maintenance Fund capital expenses that were identified as being funded by Thruway revenues in the original 2020 budget;
- In March 2020, the Authority Board of Directors approved a short-term borrowing of up to \$350 million to help meet cash flow needs. Pursuant to this authorization, the Thruway has entered into two agreements for short term financing. These include: a revolving line of credit with JP

Morgan Chase for an amount not to exceed \$125 million with a one-year term (\$50 million has been drawn on this line of credit to date); and a \$100 million direct bond purchase agreement with the Royal Bank of Canada for an amount not to exceed \$100 million over a two-year term.

2020 REVISED BUDGET SUMMARY

2020 Revised Budget Summary (in \$ millions)					
	Actual 2019	Original 2020	Revised 2020	\$ Change	% Change
Operating Expenses (including Thruway and State Police)	423.14	438.20	415.58	(22.62)	-5.2%
Retained for Working Capital	5.00	-	-	-	-
Debt Service	301.19	295.81	192.05	(103.76)	-35.1%
Capital Program	564.47	606.09	543.48	(62.61)	-10.3%
Total	1,293.80	1,340.10	1,151.11	(188.99)	-14%

- The revised 2020 Budget totals \$1.15 billion, reflecting a \$189.0 million or 14% reduction from the level approved by the board in November 2019.
- The revised 2020 Budget provides a total of \$353.8 million for operating expenses of the Thruway Authority (including provisions). This represents a decrease of \$17.8 million or 5 percent below originally approved 2020 budget levels. The 2020 Budget also provides \$61.72 million for reimbursement to the State Police for the cost of the Troop T patrolling of the system a reduction of \$4.79 million or 7.2 percent from the original 2020 budget.

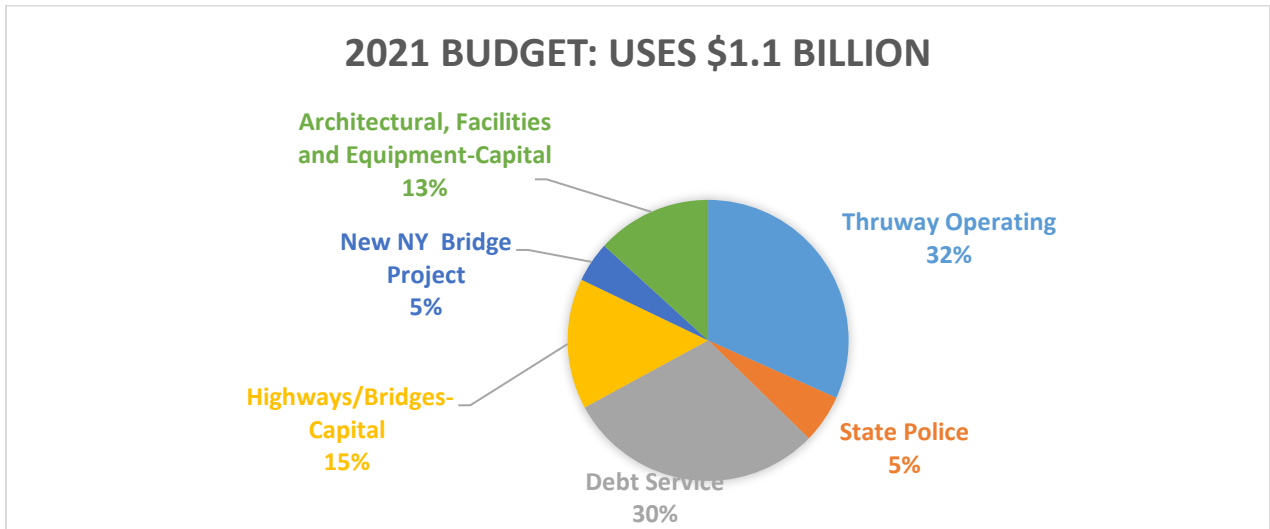
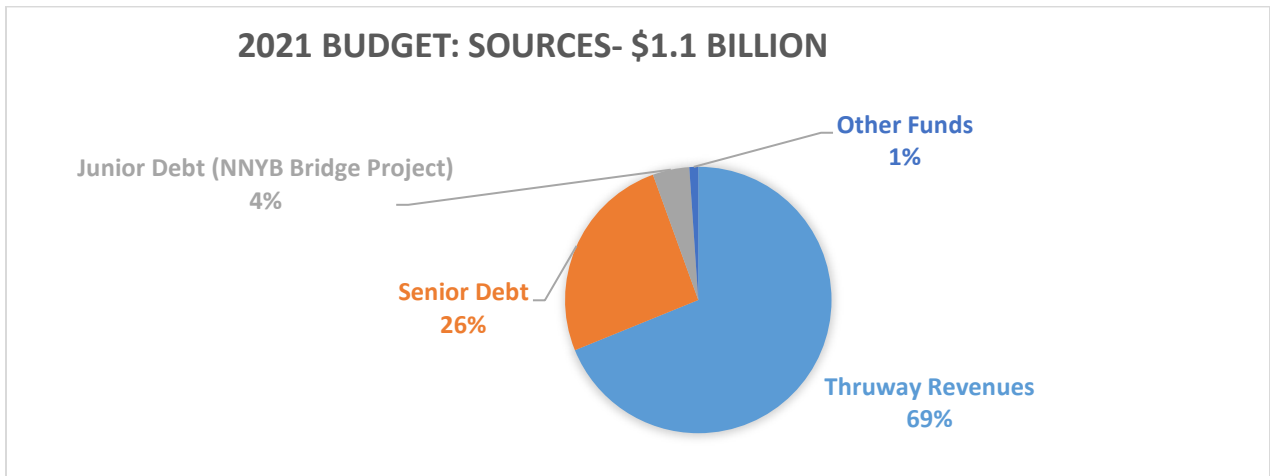
2020 Revised Budget- Revisions Operating Budget Revisions	
Description	Budget Revision
Lower Personal Services Costs (reduced headcount, suspend 2% salary increases, steps/longevity for MC)	(8,098,993)
Lower Benefit costs-HI, WC, Pensions (reduced headcount, suspend 2% salary increases, steps/longevity)	(2,468,000)
Increased Reimbursement by Claim (Exxon-Mobil Settlement)	(4,757,500)
Reduced Equipment and Projects not capitalized	(638,672)
Reduced Maintenance and Repair Costs	(3,913,795)
Reduced Fuel Costs	(1,000,000)
Snow and Ice Control- Additional Salt Usage	(2,000,000)
Reduced Operating Supplies Expenses	(3,279,003)
Reduced New York State Police Troop T Reimbursement Costs	(4,788,330)
Increase Expenses due to reduced Federal Aid reimbursement for O&M Expenses	2,732,607
Increased Personal Service Salary and Benefits costs due to reduced Allocations	5,592,029
TOTAL- 2020 Operating Budget Revisions	(22,619,657)

- The revised 2020 Budget provides a total of \$543 million to support the capital program of the Thruway Authority. This represents a net decrease of \$62.6 million or 10 percent below the originally approved 2020 levels.
 - The revised 2020 Budget provides \$95 million for the New NY Bridge project, an increase of \$22.6 million or 31.2 percent from the original 2020 budget. This increase is associated with timing differences that resulted from lower actual project spending in 2019, which shifts these project expenses into the revised 2020 budget.
 - The revised 2020 Budget provides \$448.5 million for System-wide Thruway capital project spending, a reduction of \$85.2 million or 16 percent from the original 2020 budget. This reduction is comprised of \$20.2 million in timing differences (Contractors spent more in 2019 than expected, thus reducing 2020 cash flow. Also, some contractors spending less in 2020 than originally projected); and, \$65 million in Adjustments made to reduce the overall program due to significant revenue reductions associated with the COVID-19 pandemic.

2021 THRUWAY AUTHORITY BUDGET

2021 BUDGET SUMMARY

2021 Budget Summary (in \$ millions)					
	Actual 2019	Revised 2020	Budget 2021	\$ Change	% Change
Operating Expenses (including Thruway and State Police)	423.14	415.58	423.88	8.30	2.0%
Retained for Working Capital	5.00	-	-	-	-
Debt Service	301.19	192.05	338.68	146.63	76.3%
Capital Program	564.47	543.48	374.29	(169.19)	-31.1%
Total	1,293.80	1,151.11	1,136.85	(14.26)	-1.2%



- The 2021 Budget provides for an overall budget of \$1.1 billion, representing a \$14.26 million reduction or 1.2 percent decrease from revised 2020 levels.
- The 2021 Budget forecasts total traffic of 244.9 million vehicles, reflecting growth of 35.3 million vehicles or 17 percent above 2020. This corresponds to a toll revenue forecast of \$708.6 million, reflecting an increase of \$92 million or 15 percent above 2020 levels. In addition, the forecast includes revenues of \$11.6 million from the inclusion of a \$2 administrative surcharge included on bills mailed to Toll by Mail customers. The toll revenue forecast includes a downward revision from prior forecast for 2020-2024 to reflect the impacts Covid-19 during the projection period.
- The toll revenue forecast for the 2021 Budget incorporates planned adjustments to Thruway tolling policy that were first approved in December 2019. These modifications have undergone the public toll adjustment process and are scheduled to go into effect on January 1, 2021. Specifically, the toll adjustments are listed below.

Proposed Toll Modifications

GOVERNOR MARIO M. CUOMO BRIDGE RATES	
Toll Modification Element	Description
Increase NY E-ZPass by \$0.50 per year in 2021 and 2022	On January 1, 2021 the NY E-ZPass toll rates on the Bridge will be increased by the amount of 50 cents to \$5.25. On January 1, 2022 the NY E-ZPass toll rates on the Bridge will be increased another 50 cents to \$5.75.
40% Commuter Discount Program	Beginning on January 1, 2021, the commuter discounted rate will be 40 percent off the NY E-ZPass rate for passenger vehicles that opt in-to the program. Similar to today, the rates assume that a minimum of 20 trips are made in that month; if fewer than 20 trips are taken per month, customers are charged for each trip not taken. This program is offered to class 2L vehicles only, with a New York E-ZPass.
Resident Discount Program	A new resident E-ZPass Plan will be offered for Westchester and Rockland residents that will keep their rate frozen at the current \$4.75 rate. This program is offered only to class 2L vehicles with a New York E-ZPass who opt in-to the plan and provide proof of residency (e.g., have a vehicle registered in one of these counties).
Commercial Rates	Class 2H through 4H and S class tolls will be increased proportionate to the car toll increases for each payment type. Class 5H through 7H truck tolls will be increased 20% more than the car toll increases for each payment type.
CHANGES TO SUPPORT SYSTEM-WIDE CONVERSION TO CASHLESS TOLLING	
Incentivize NY E-ZPass Usage	Establish that with the conversion to system-wide cashless tolling in 2020, NY E-ZPass toll rates would be based on the current toll rates first established in 2010, and beginning on January 1, 2021 a 30 percent rate differential (a toll rate 30 percent above the NY E-ZPass rate) would be established for Tolls by Mail toll rates.
Non-NY E-ZPass Rates	Beginning on January 1, 2021, establish a 15 percent rate differential (a toll rate 15 percent above the NY E-ZPass rate for non-NY E-ZPass tolls).
Image Tolls Policy	Clarify Board Policy that beginning on January 1, 2021, all transactions that are processed as image tolls will pay the Tolls by Mail toll rate. This clarification would apply to customers who have an E-ZPass account yet their toll transaction must be processed via the Tolls by Mail process (e.g., due to failure to mount the E-ZPass transponder properly and a toll transaction is processed through a license plate image review).
Impose a \$2 Administrative Surcharge on Tolls by Mail Bills	Beginning on January 1, 2021, implement a \$2 administrative surcharge per billing statement for non-E-ZPass statements to support the administrative costs associated with processing transactions through the Tolls by Mail program and to incentivize more customers to sign up for an E-ZPass account.

- The 2021 Budget provides a total of \$360.4 million for operating expenses of the Thruway Authority (including provisions). This represents an increase of \$6.54 million or 1.8 percent above revised 2020 levels. The 2021 Budget also provides \$63.4 million for reimbursement to the State Police for the cost of the Troop T patrolling of the system.
- The 2021 Budget provides a total of \$374.3 million to support the capital program of the Thruway Authority. This represents a decrease of \$169.2 million or 31.1 percent below revised 2020 levels.
- The 2021 Budget provides a 2021-2025 Capital Program that would provide \$1.8 billion for Thruway Authority capital projects. This includes \$268.8 million for New NY Bridge project that will result in the completion of the Governor Mario M. Cuomo Bridge and \$1.58 billion for system-wide projects on the Thruway.

THRUWAY AUTHORITY 2021 REVENUE SUMMARY

Thruway Authority Revenues (in \$ millions)					
	2019	2020	2021	\$	%
	Actual	Revised	Budget	Change	Change
Tolls	739.88	616.64	708.63	91.99	14.9%
Concessions	14.78	4.49	5.08	0.59	13.2%
Interest	12.18	4.00	6.65	2.65	66.3%
Sundry	45.24	42.42	65.82	23.40	55.2%
Total	812.09	667.54	786.17	118.63	17.8%

- The 2021 Budget forecasts total Thruway Authority revenues of \$786.2 million, an increase of \$118.6 million or 17.8 percent above revised 2020 levels. This corresponds to a toll revenue forecast of \$708.6 million reflecting an increase of \$92 million or 14.9 percent above revised 2020 levels; concessions revenues of \$5.08 million, E-ZPass and Tolls By Mail Violations and fees of \$57.5 million; sundry revenues of \$8.32 million; and, interest income of \$6.65 million.

2021 Thruway Authority Operating Budget Summary

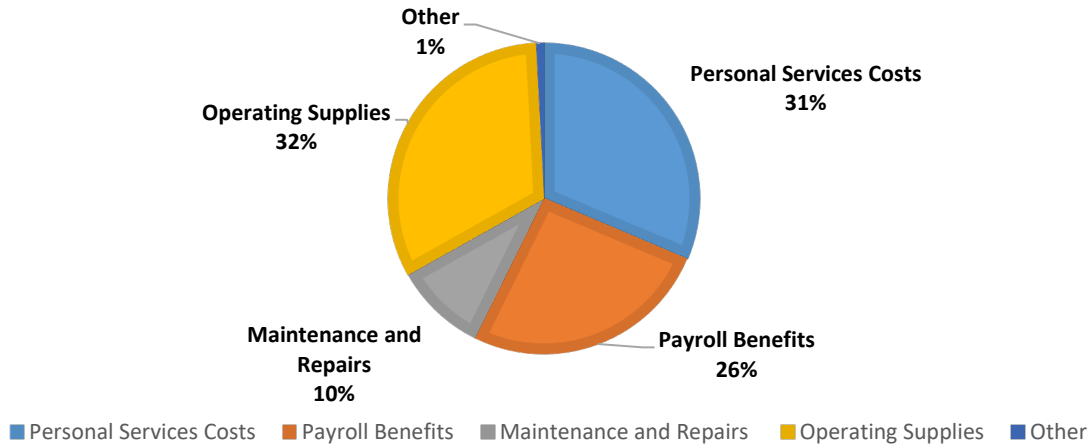
(in \$ millions)					
	Actual	Revised Budget	2021		
	2019	2020	Budget	\$ Change	% Change
Departmental Operating Expenses	197.67	249.31	251.49	2.18	0.9%
General Charges	153.19	103.56	100.42	(3.14)	-3.0%
Operating Reserves (Environmental and Legal)	5.98	1.00	1.00	-	0.0%
Subtotal	356.85	353.87	352.91	(0.96)	-0.3%
Fiber Optic Leasing Expenses	-	-	7.50	7.50	n/a
Total	356.85	353.87	360.41	6.54	1.8%

- The 2021 Budget provides a total of \$360.4 million (with provisions for legal claims and environmental remediation) to support the operating expenses of the Thruway Authority. This represents an increase of \$6.54 million or 1.8 percent above revised 2020 levels. This includes \$251.5 million for departmental operations (a \$2.18 million or 0.9 percent increase from revised 2020 levels), \$100.4 million for general charges, a decrease of \$3.14 million or 3.0 percent from revised 2020 levels, \$1 million for operating reserves which reflects no change from revised 2020 levels and the inclusion of \$7.5 million for Fiber Optic Leasing expenses associated with marketing costs and the Thruway's beginning to directly administer the leasing of its system-wide fiber optic network to third-party users.

Thruway Authority 2021 Operating Budget Major Components of Annual Change

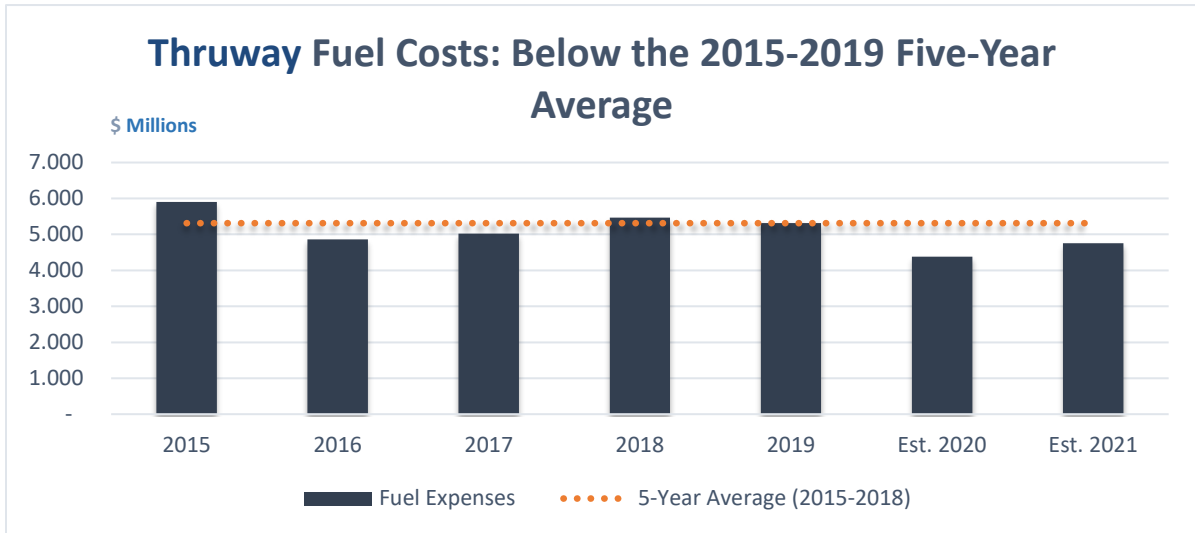
	Amount (\$ millions)
Revised 2020 Operating Budget (excluding State Police)	353.87
Personal Services	(23.13)
Payroll Benefits (Workers' Comp, HI and Pensions)	(3.58)
Operating Supplies	29.41
Maintenance and Repairs (snow and ice, fuel, bridge & highway)	4.57
Allocations to Other Funds	(5.32)
Studies and equipment projects not capitalized	4.59
Provisions for Environmental Remediation and Legal Claims	-
2021 Operating Budget (excluding State Police)	360.41
Year to Year Change	6.54
% Change	1.8%

2021 BUDGET: COMPONENTS OF THE THRUWAY AUTHORITY OPERATING BUDGET

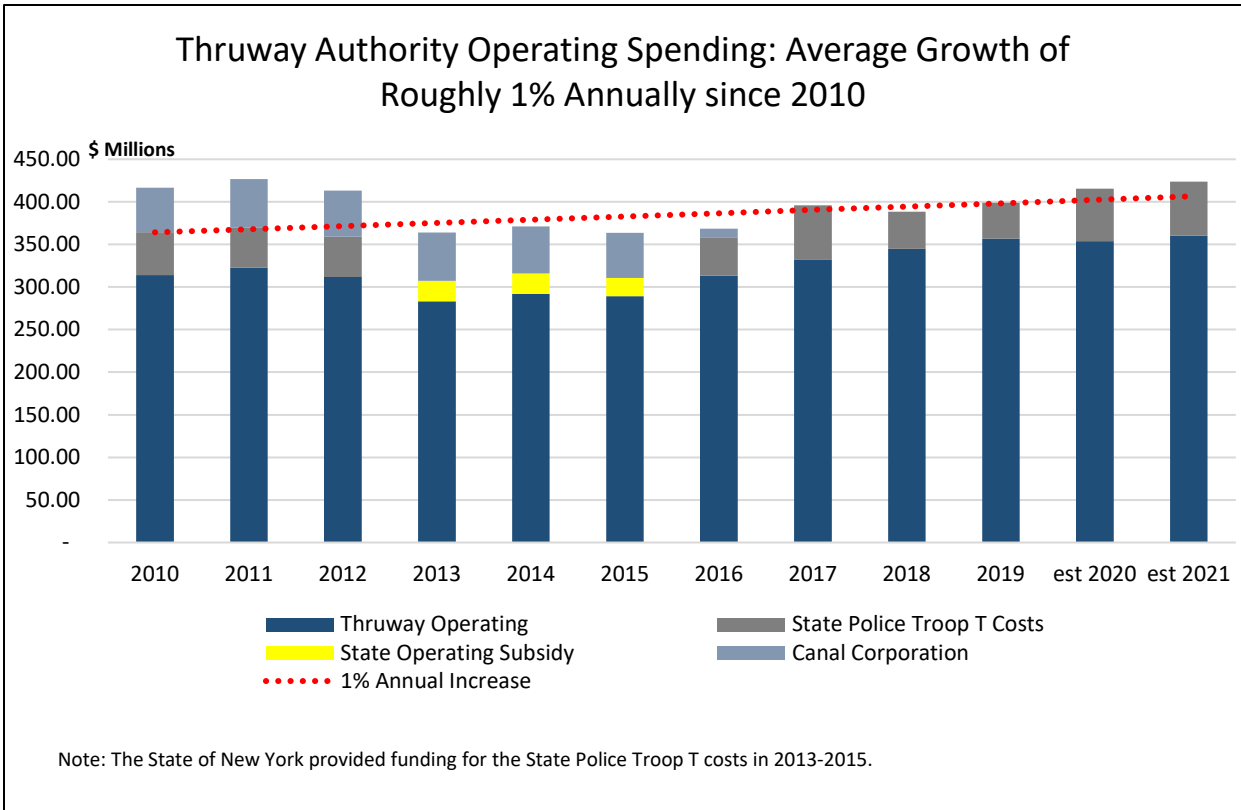


- Major components of the \$6.54 million annual change in the Thruway Authority Operating Budget include the following:
 - A reduction in Personal Services costs of \$23.13 million or 15 percent from 2020 levels. This reflects savings resulting from the full annualization of lower headcount levels that result from the system-wide conversion to cashless tolling in the last quarter of 2020. Further, the budgeted personal services costs incorporate \$4.7 million in salary savings resulting from continued efforts to maintain base level headcount at prior year levels.
 - A net reduction of \$3.58 million for employee benefits or 3.3 percent from 2020 levels. This also reflects savings resulting from the full annualization of lower headcount levels that result from the system-wide conversion to cashless tolling in the last quarter of 2020. Further, this includes an increase of \$1.6 million for health insurance costs; a reduction of \$1.48 million in pension costs associated with employer contribution rate requirements recently announced by the New York State and Local Retirement System; a \$2.1 million reduction in Social Security expenses; no change associated with contribution costs for the Employee Benefit Fund and, a \$1.8 million decrease in Workers' Compensation Insurance costs based on recent projections for determining premium costs.
 - An increase of \$29.41 million in operating supplies. This includes an additional \$22.1 million associated with E-ZPass account management and Tolls by Mail administrative costs associated with the conversion to cashless tolling system-wide. In addition, this also includes \$7.5 million for Fiber Optic Leasing expenses associated with marketing costs and the Thruway's beginning to directly administer the leasing of its system-wide fiber optic network to third-party users.

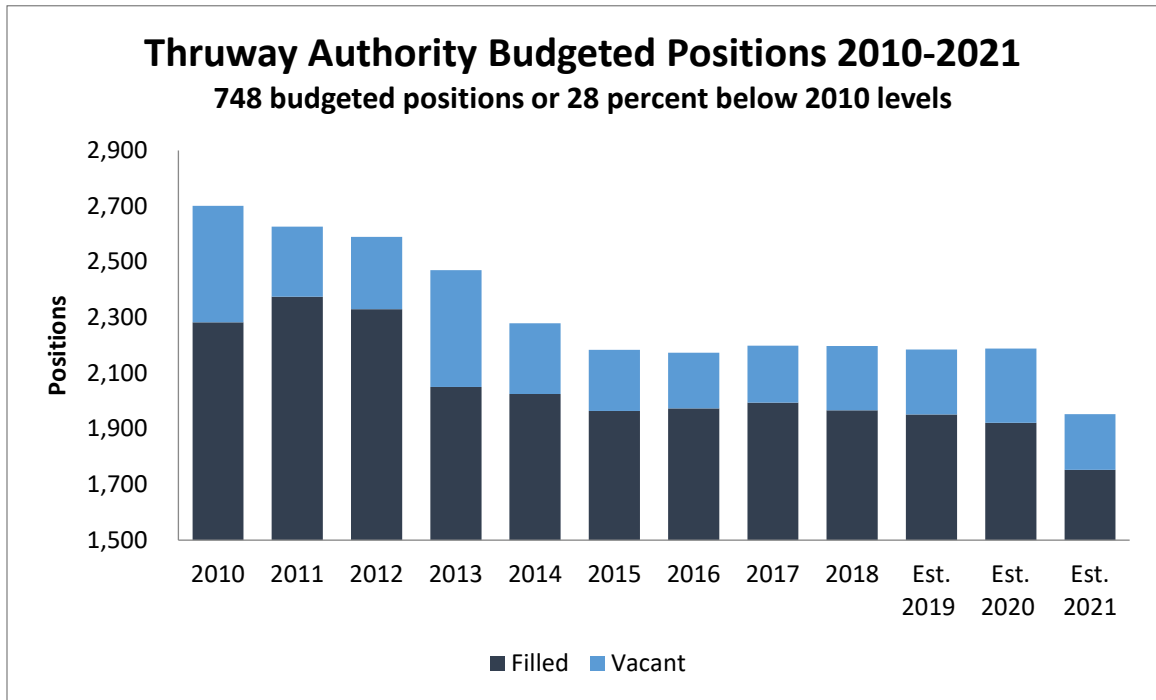
- A \$4.57 million or 15 percent increase in maintenance and repair costs. Bridge operating contract costs increased by \$1.9 million and highway operating contracts increased by \$1.7 million from revised 2020 levels. Maintenance and repair expenses also include \$3.69 million to support fuel expenses which are budgeted at a level slightly less than the five-year average (the graph below includes the combined Thruway and State Police fuel expenses included in the 2020 Budget).



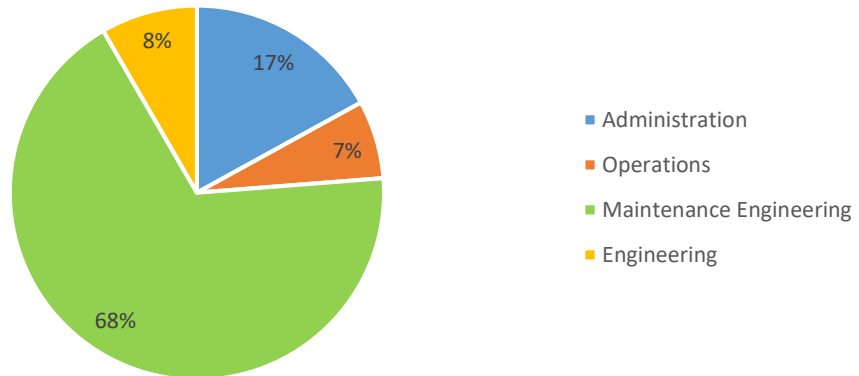
- The 2021 Budget also includes \$1.97 million for non-capitalized project costs, reflecting an increase of \$4.59 million from revised 2020 levels. The revised 2020 budget included a non-recurring claim reimbursement of \$4.76 million associated with a legal settlement with Exxon-Mobil.
- Savings of \$5.32 million resulting from increased allocations to capital and other funds based on the level of work included in the 2021 capital plan and is consistent with levels set for such allocations in prior years.
- The 2021 Budget provides \$1 million for provisions for Environmental Remediation and Legal Claims reflecting no change from revised 2020 levels.
- Since 2010, the Thruway Authority has operated at reduced levels and limited operating spending growth. In fact, for the period 2010-2021 annual growth of Thruway Authority operating expenses averaged roughly one percent annually (see figure below).



- The 2021 budget provides for 1,953 budgeted positions. This level is roughly 748 positions or 28 percent lower than the budgeted positions in 2010.



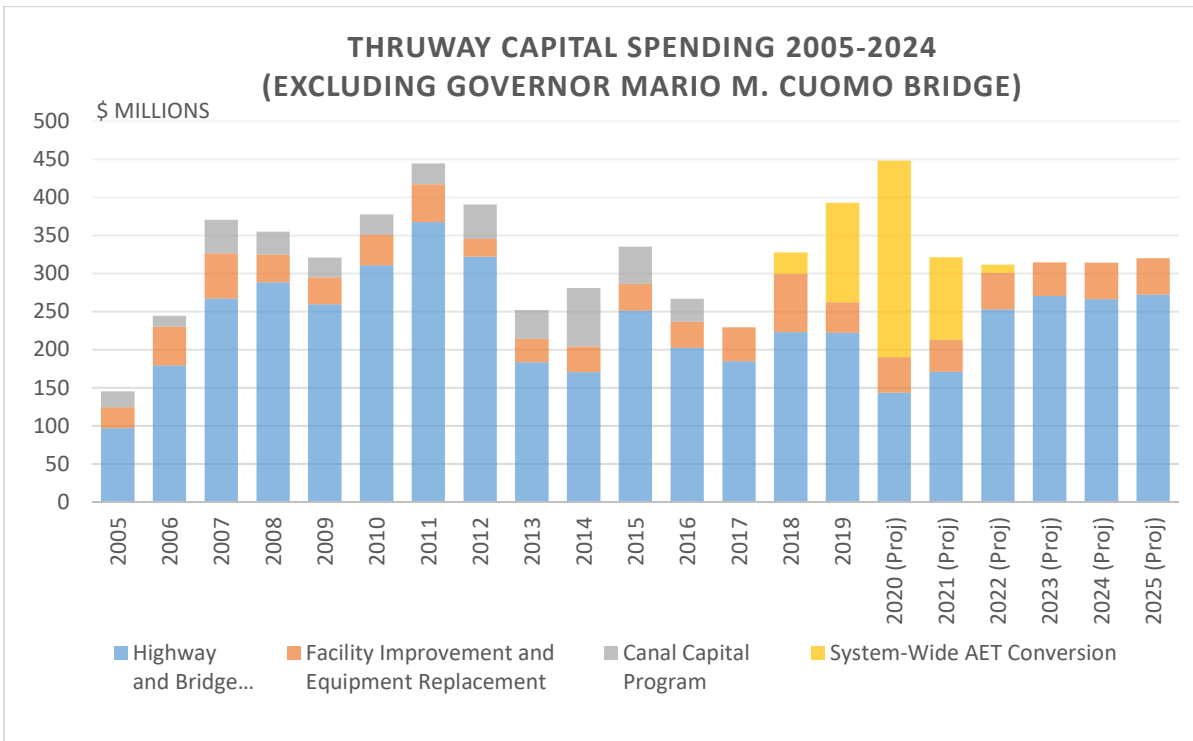
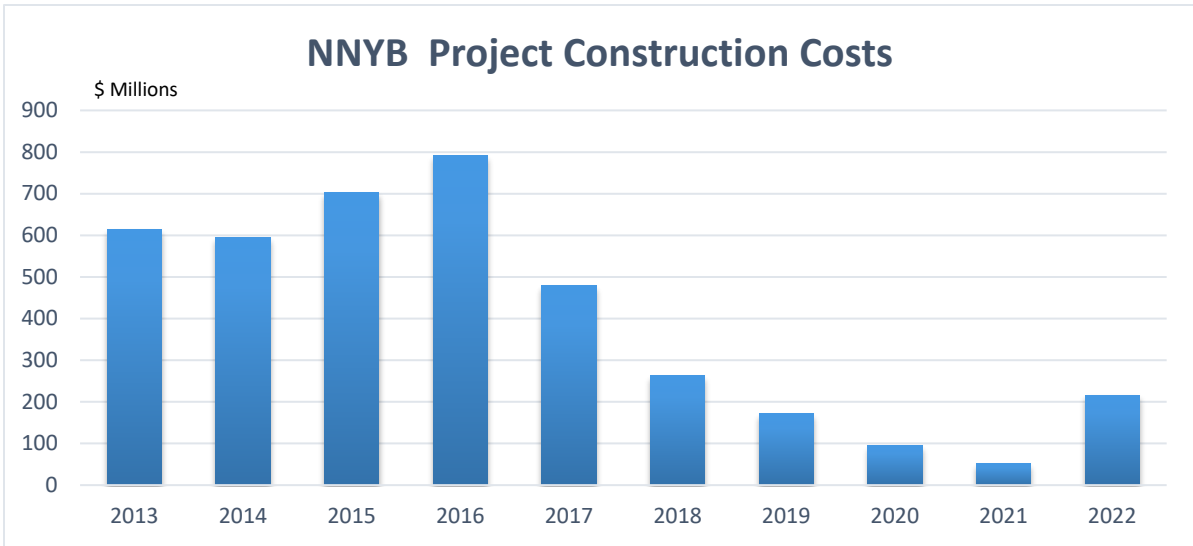
**2021 Thruway Authority
Percentage of Budgeted Staffing by Function**



2021 CAPITAL PROGRAM

2021 Budget					
Capital Program Funding Uses (in \$ millions)					
	2019 Actual	2020 Revised	2021 Budget	\$ Change	% Change
Highway & Bridge	222.14	143.58	170.94	27.36	19.1%
Architectural (Facilities)	12.38	11.60	9.82	(1.77)	-15.3%
Equipment & Systems and ITS	158.24	293.27	140.70	(152.57)	-52.0%
NYSP Equipment and Facilities	0.07	0.03	0.03	-	0.0%
Sub Total - Thruway	392.83	448.48	321.49	(126.99)	-28.3%
New NY Bridge Project	171.64	95.00	52.80	(42.20)	-44.4%
TOTAL	564.48	543.48	374.29	(169.19)	-31.1%

- The 2021 Budget provides a total of \$374.29 million to support the capital program of the Thruway Authority. This represents a decrease of \$169.19 million or 31.1 percent below Revised 2020 levels.
- The 2021 Budget estimates spending of \$52.8 million in capital program funding for the NNYB project in 2021, a reduction of \$42.2 million or 44.4 percent below Revised 2020 levels.
- The 2021 Budget provides a 2021-2025 Capital Program that would provide \$1.8 billion for Thruway Authority capital projects. This includes \$268.8 million for New NY Bridge project that will result in the completion of the Governor Mario M. Cuomo Bridge and \$1.58 billion for system-wide projects on the Thruway.



2021 Debt Service

2021 Budget					
Debt Service Expenses (in \$ millions)					
	2019	2020	2021	\$	%
	Actual	Revised	Budget	Change	Change
Senior Debt Service	226.78	167.78	240.83	73.05	43.5%
Junior Debt Service	47.42	23.17	46.36	23.19	100.1%
Junior Indebtedness Anticipation Notes	26.99	0.00	0.00	0.00	-
Subordinate Debt - Line of Credit	0.00	1.10	51.49	50.39	4589.5%
TOTAL	301.19	192.05	338.68	146.63	76.3%

- The 2021 Budget provides a total of \$338.68 million to support debt service expenses of the Thruway Authority. This represents an increase of \$146.63 million or 76.3 percent above revised 2020 levels.



2020 REVISED
FINANCIAL
PLAN

Actual 2019 vs. Revised 2020 Budget

	Actual 2019	Revised 2020	Amount of Change
<u>SOURCES:</u>			
Thruway Revenues	812,087,172	662,741,079	(149,346,093)
Prior Year Reserve Balances	103,216,022	78,433,507	(24,782,515)
Senior Debt	0	237,204,603	237,204,603
Junior Debt	10,742,795	75,000,000	64,257,205
Federal Funds	0	0	0
Other Funds	3,179,576	3,554,384	374,808
Thruway Stabilization Program Funds	364,576,024	94,179,031	(270,396,993)
Total Sources	1,293,801,589	1,151,112,604	(142,688,985)
Total Sources - New NY Bridge Project	171,703,590	95,111,515	(76,592,075)
Total Sources - Net of New NY Bridge Project	1,122,097,999	1,056,001,089	(66,096,910)
<u>USES:</u>			
Operating Expenses:			
Thruway Operating	350,865,799	352,865,673	1,999,874
State Police Operating	66,291,275	61,717,907	(4,573,368)
Sub Total	417,157,074	414,583,580	(2,573,494)
Provisions for Claims, Env Remediation & Cashless Tolling Transition	5,982,239	1,000,000	(4,982,239)
Total	423,139,313	415,583,580	(7,555,733)
Retained for Working Capital	5,000,000	0	(5,000,000)
Debt Service:			
Senior Debt	226,776,426	167,776,796	(58,999,630)
Junior Debt	47,419,298	23,174,025	(24,245,273)
Subordinate Debt - Line of Credit	0	1,097,916	1,097,916
JIAN Interest	26,994,410	0	(26,994,410)
Total	301,190,134	192,048,737	(109,141,397)
Capital Program:			
Thruway Capital - Highways and Bridges	222,139,980	143,578,648	(78,561,332)
Thruway Capital - New NY Bridge	171,640,814	95,000,000	(76,640,814)
Thruway Capital - Architectural & Facilities	12,372,932	11,598,700	(774,232)
Thruway Capital - Equipment & Systems/ITS	158,243,488	293,272,939	135,029,451
Thruway Capital - SP Equipment/Facilities	74,928	30,000	(44,928)
Total	564,472,142	543,480,287	(20,991,855)
Total Uses	1,293,801,589	1,151,112,604	(142,688,985)
Total Uses - New NY Bridge Project	171,703,590	95,111,515	(76,592,075)
Total Uses - Net of New NY Bridge Project	1,122,097,999	1,056,001,089	(66,096,910)

2020 Revised Financial Plan
New York State Thruway Authority
(in millions)

2020 Budget - Revenues	793.9
Revised Financial Plan Adjustments:	
Toll Revenue	(119.1) Decrease in passenger and commercial toll revenue due to decreased traffic as a result of the COVID-19 pandemic
Concession Revenue	(4.0) Decrease in restaurant and fuel revenue due to reduced traffic as a result of the COVID-19 pandemic
Interest Earnings	(4.3) Decrease in interest rates and cash balances
Sundry Revenues	1.0 Increase in rental income related to the fiber network.
2020 Revised Budget - Revenues	<u><u>667.5</u></u>
2020 Budget - Thruway Operating Expenses	370.7
Revised Financial Plan Adjustments:	
Allocations (Salaries and Benefits)	5.6 Decrease in personal service and fringe benefit allocations due to fewer capital and technology projects
Unemployment Insurance	0.7 Increase in billings due to COVID-19 impact
Professional Services	0.7 Increase for professional services related to the new Service Area agreement
Highway and Bridge Operating Contracts	0.5 Increase in budget for bridge repairs/inspections
Social Security	(0.4) Decrease based on lower salary base due to fewer filled positions
Electric and Natural Gas	(0.5) Lower utility costs due to mild winter
Projects and Equipment not Capitalized	(0.6) Decrease due to delayed project/equipment procurements
Vehicle Supplies/Repairs	(0.6) Lower costs due to reduced staffing associated with COVID-19 pandemic
Fuel	(1.0) Lower than projected fuel prices
Pensions	(1.0) Based on estimated billing received from Retirement system
Health Insurance	(1.7) Based on actual premiums and enrollment
Snow and Ice Control	(2.0) Decrease based on mild winter and fewer storms in first quarter of 2020
E-ZPass and Tolls By Mail Administration	(3.4) Savings due to lower traffic so fewer per transaction fees
Non Federal Reimbursement of Project	(4.8) Reimbursement based on settlement with Exxon Mobil
Personal Services	(8.1) Salary savings due to vacancies
Miscellaneous	(1.2) Miscellaneous adjustments to various accounts
2020 Revised Thruway Operating Budget	<u><u>352.9</u></u>

2020 Revised Financial Plan
New York State Thruway Authority
(in millions)

2020 Budget - Capital Program	606.1
Revised Financial Plan Adjustments:	
New NY Bridge Project	22.6
Thruway Capital	(85.2)
2020 Revised Budget - Capital Program	<u><u>543.5</u></u>

2020 Budget - Capital Program Explanations	606.1
Revised Financial Plan Adjustments:	

New NY Bridge Project

Timing Differences	22.6	Based on updated spending and project schedule
--------------------	------	--

Thruway Capital

Contract Bids and Projects completed under Contract value		Bid savings and projects closed out lower than contract value
---	--	---

Capital Program Adjustments	(65.0)	Adjustments made to reduce overall program due to significant revenue reductions associated with the COVID-19 pandemic.
-----------------------------	--------	---

Timing Differences	(20.2)	Contractors spent more in 2019 than expected, thus reducing 2020 cash flow. Also, some contractors spending less in 2020 than originally projected.
--------------------	--------	---

0.0

2020 Revised Capital Program Budget	<u><u>543.5</u></u>
--	----------------------------

2020 Revised Budget - Consolidated Budget Schedule

Use of Funds		Source of Funds							
Category	Amount	2020 Thruway Revenues	Prior Year Reserve Balances	Senior Debt	Junior Debt	Federal Funds	Thruway Stabilization Program Funds (1)	Other Funds	Total
Thruway and Canal									
Thruway Operating	352,865,673	352,865,673	0	0	0	0	0	0	352,865,673
Provision for Claims	0	0	0	0	0	0	0	0	0
Provision for Environ. Rem.	1,000,000	1,000,000	0	0	0	0	0	0	1,000,000
Provision for Cashless Tolling Transition	0	0	0	0	0	0	0	0	0
Senior Debt Service	167,776,796	167,776,796	0	0	0	0	0	0	167,776,796
Junior Debt Service	23,174,025	23,174,025	0	0	0	0	0	0	23,174,025
Capital Program	543,480,287	55,108,762	78,433,507	237,204,603	75,000,000	0	94,179,031	3,554,384	543,480,287
Highways/Bridges	143,578,648	0	0	63,495,919	0	0	79,864,228	218,501	143,578,648
Architectural (Facilities)	11,598,700	8,262,817	0	0	0	0	0	3,335,883	11,598,700
Equipment & Systems/ITS	293,272,939	46,815,945	72,748,310	173,708,684	0	0	0	0	293,272,939
State Police Equipment/Facilities	30,000	30,000	0	0	0	0	0	0	30,000
New NY Bridge	95,000,000	0	5,685,197	0	75,000,000	0	14,314,803	0	95,000,000
State Police - Troop T	61,717,907	61,717,907		0	0	0	0	0	61,717,907
Subordinate Debt - Line of Credit	1,097,916	1,097,916	0	0	0	0	0	0	1,097,916
Working Capital	0	0		0	0	0	0	0	0
Grand Total	1,151,112,604	662,741,079	78,433,507	237,204,603	75,000,000	0	94,179,031	3,554,384	1,151,112,604

(1) Represents a portion of the \$1.285 billion included in the enacted 2015-16 New York State Budget, as well as a portion of the \$700 million included in the enacted 2016-17 New York State Budget.

EXIT 4

Smith St
Fillmore Ave



2021
BUDGET

EXIT
4



Revised 2020 Budget vs. 2021 Budget

	2020 Revised	2021 Budget	Change from Revised
<u>SOURCES:</u>			
Thruway Revenues	662,741,079	782,716,171	119,975,092
Prior Year Reserve Balances	78,433,507	12,261,148	(66,172,359)
Senior Debt	237,204,603	291,292,187	54,087,584
Junior Debt	75,000,000	50,541,303	(24,458,697)
Federal Funds	0	0	0
Other Funds	3,554,384	41,813	(3,512,571)
Thruway Stabilization Program Funds	94,179,031	0	(94,179,031)
Total Sources	1,151,112,604	1,136,852,622	(14,259,982)
Total Sources - New NY Bridge Project	95,111,515	52,886,580	(42,224,935)
Total Sources - Net of New NY Bridge Project	1,056,001,089	1,083,966,042	27,964,953
<u>USES:</u>			
Operating Expenses:			
Thruway Operating	352,865,673	359,406,222	6,540,549
State Police Operating	61,717,907	63,475,871	1,757,964
Sub Total	414,583,580	422,882,093	8,298,513
Provisions for Claims, Env. Remediation & Cashless Tolling Transition	1,000,000	1,000,000	0
Total	415,583,580	423,882,093	8,298,513
Retained for Working Capital	0	0	0
Debt Service:			
Senior Debt	167,776,796	240,825,893	73,049,097
Junior Debt	23,174,025	46,362,550	23,188,525
Subordinate Debt - Line of Credit	1,097,916	51,487,153	50,389,237
JIAN Interest	0	0	0
Total	192,048,737	338,675,596	146,626,859
Capital Program:			
Thruway Capital - Highways and Bridges	143,578,648	170,936,078	27,357,430
Thruway Capital - New NY Bridge	95,000,000	52,802,451	(42,197,549)
Thruway Capital - Architectural & Facilities	11,598,700	9,823,802	(1,774,898)
Thruway Capital - Equipment & Systems/ITS	293,272,939	140,702,602	(152,570,337)
Thruway Capital - SP Equipment/Facilities	30,000	30,000	0
Total	543,480,287	374,294,933	(169,185,354)
Total Uses	1,151,112,604	1,136,852,622	(14,259,982)
Total Uses - New NY Bridge Project	95,111,515	52,886,580	(42,224,935)
Total Uses - Net of New NY Bridge Project	1,056,001,089	1,083,966,042	27,964,953

Toll, Concession & Sundry Revenues

	2019 Actual	2020 Revised	2021 Budget	Change from Revised
Toll Revenue				
Passenger	435,808,439	325,784,675	385,089,097	59,304,422
Commercial	304,076,109	290,852,256	323,539,541	32,687,285
Sub Total	<u>739,884,548</u>	<u>616,636,931</u>	<u>708,628,638</u>	<u>91,991,707</u>
Concession Revenue				
Gas Stations	2,853,091	1,900,000	2,200,000	300,000
Restaurants	11,925,155	2,585,000	2,875,000	290,000
Sub Total	<u>14,778,246</u>	<u>4,485,000</u>	<u>5,075,000</u>	<u>590,000</u>
Interest Revenue				
Interest	12,180,686	4,000,000	6,650,500	2,650,500
Sub Total	<u>12,180,686</u>	<u>4,000,000</u>	<u>6,650,500</u>	<u>2,650,500</u>
E-ZPass Violations and Fees				
E-ZPass Violations	9,621,516	8,000,000	5,000,000	(3,000,000)
E-ZPass Airport Fees	368,821	200,000	300,000	100,000
E-ZPass Admin Fees	2,846,924	2,500,000	1,200,000	(1,300,000)
Tag Lease Fees	6,643,900	6,700,000	6,700,000	-
Sub Total	<u>19,481,161</u>	<u>17,400,000</u>	<u>13,200,000</u>	<u>(4,200,000)</u>
Tolls By Mail Fees				
AET Violations and Fees	15,613,407	15,500,000	44,300,000	28,800,000
Sub Total	<u>15,613,407</u>	<u>15,500,000</u>	<u>44,300,000</u>	<u>28,800,000</u>
Sundry Revenue				
Special Hauling Permits	2,523,200	2,200,000	2,200,000	-
Permits & Other				
Rental Income	3,857,915	4,200,000	3,300,000	(900,000)
Logo Signs	125,756	120,000	120,000	-
Scrap Material Sales	278,980	150,000	200,000	50,000
Unpaid Tolls	691,475	400,000	-	(400,000)
Emerg.Service Permits	116,830	100,000	100,000	-
Canadian Exch.	36,839	(50,000)	-	50,000
Real Property	-	-	-	-
Fiber Network Fees	2,119,849	2,000,000	2,000,000	-
Miscellaneous Revenue	398,280	400,000	400,000	-
Total Permits & Other	<u>7,625,924</u>	<u>7,320,000</u>	<u>6,120,000</u>	<u>(1,200,000)</u>
Sub Total	<u>10,149,124</u>	<u>9,520,000</u>	<u>8,320,000</u>	<u>(1,200,000)</u>
Grand Total	<u>812,087,172</u>	<u>667,541,931</u>	<u>786,174,138</u>	<u>118,632,207</u>

Departmental Operating Expenses

	2019 Actual	2020 Revised	2021 Budget	Change from Revised
Operating Expenses				
Board & Executive	865,318	909,578	1,080,232	170,654
Media and Government Relations	501,806	496,575	502,616	6,041
Legal	2,206,315	2,507,639	2,457,582	(50,057)
Audit and Management Services	837,954	859,977	766,382	(93,595)
Administrative Services	5,366,920	5,389,826	5,618,184	228,358
Information Technology	11,679,594	11,780,343	21,471,746	9,691,403
Engineering	5,886,249	6,612,529	6,800,640	188,111
Maintenance and Engineering				
Thruway Maintenance	93,173,356	88,439,007	89,892,841	1,453,834
Equipment & Inventory Management	28,645,788	28,162,589	30,382,659	2,220,070
Finance and Accounts	8,597,188	8,566,371	7,964,255	(602,116)
Operations				
Traffic Services	8,918,379	9,111,669	9,440,399	328,730
Toll Collection	30,994,416	86,472,504	82,610,094	(3,862,410)
Sub Total	<u>197,673,283</u>	<u>249,308,607</u>	<u>258,987,630</u>	<u>9,679,023</u>
General Charges	153,192,516	103,557,066	100,418,592	(3,138,474)
Sub Total	<u>350,865,799</u>	<u>352,865,673</u>	<u>359,406,222</u>	<u>6,540,549</u>
Operating Reserves				
Reserve for Claims & Indemnities	1,082,292	0	500,000	500,000
Reserve for Environmental Remediation	799,947	1,000,000	500,000	(500,000)
Reserve for Cashless Tolling Transition	4,100,000	0	0	0
Sub Total	<u>5,982,239</u>	<u>1,000,000</u>	<u>1,000,000</u>	<u>0</u>
Total Thruway	<u><u>356,848,038</u></u>	<u><u>353,865,673</u></u>	<u><u>360,406,222</u></u>	<u><u>6,540,549</u></u>
<u>Other Authority Projects</u>				
State Police				
Operations	63,901,100	59,492,907	62,475,871	2,982,964
Equipment	2,390,175	2,225,000	1,000,000	(1,225,000)
Sub Total	<u>66,291,275</u>	<u>61,717,907</u>	<u>63,475,871</u>	<u>1,757,964</u>
Total Other Authority Projects	<u><u>66,291,275</u></u>	<u><u>61,717,907</u></u>	<u><u>63,475,871</u></u>	<u><u>1,757,964</u></u>
Total Thruway and OAP	<u>423,139,313</u>	<u>415,583,580</u>	<u>423,882,093</u>	<u>8,298,513</u>

General Charges

	2019 Actual	2020 Revised Budget	2021 Budget	Change from Revised
Payroll Benefits				
Health Insurance	57,151,050	58,458,000	60,115,000	1,657,000
Pension Contributions	21,818,189	22,826,000	21,344,000	(1,482,000)
Social Security Contributions	11,681,610	12,001,583	9,852,000	(2,149,583)
Employee Benefits Fund	5,640,911	6,000,000	6,000,000	0
Workers' Compensation Insurance	7,707,889	9,000,000	7,200,000	(1,800,000)
Unemployment Insurance	130,067	750,000	1,000,000	250,000
Survivor's Benefits	105,000	175,000	175,000	0
Metropolitan Commuter Transportation Mobility Tax	104,252	100,000	95,000	(5,000)
Anticipated Salary Savings	0	0	0	0
Sub Total	<u>104,338,968</u>	<u>109,310,583</u>	<u>105,781,000</u>	<u>(3,529,583)</u>
Other				
E-ZPass/Tolls by Mail Account Management	53,368,344	0	0	0
Non Labor Federal Reimbursement	0	(4,757,500)	0	4,757,500
Insurance Premiums and Surety Bonds	3,501,516	3,627,000	3,858,500	231,500
Professional Services	1,017,892	2,073,200	666,000	(1,407,200)
Rentals	0	1,020,126	1,020,126	0
Special Events	19,698	100,000	50,000	(50,000)
Environmental Expense	382,819	400,000	450,000	50,000
Reimbursement to Civil Service	462,822	472,840	482,300	9,460
Employee Vacation Leave Expense	36,000	150,000	100,000	(50,000)
Tuition Assistance Program	180,236	141,500	78,000	(63,500)
Cash Discount Earned	(186,184)	(120,000)	(120,000)	0
Employee Safety Equipment	150,381	135,000	150,000	15,000
Inventory Obsolescence Expense	158,490	400,000	200,000	(200,000)
All Others	36,854	67,100	47,000	(20,100)
Sub Total	<u>59,128,868</u>	<u>3,709,266</u>	<u>6,981,926</u>	<u>3,272,660</u>
Allocations				
Allocations to Other Funds	(10,275,320)	(9,462,783)	(12,344,334)	(2,881,551)
Equipment and Projects Not Capitalized				
Transportation Studies	0	0	0	0
Total General Charges	<u><u>153,192,516</u></u>	<u><u>103,557,066</u></u>	<u><u>100,418,592</u></u>	<u><u>(3,138,474)</u></u>

Debt Service

	Year of Issuance	2019 Actual	2020 Revised Budget	2021 Budget
Debt Service				
Senior Debt				
Series I Bonds	2012	72,623,463	29,541,928	33,524,156
Series J Bonds	2014	44,804,500	30,043,350	44,753,950
Series K Bonds	2014	61,819,387	44,323,594	61,869,788
Series L (Refunding)	2018	63,414,013	50,734,806	56,526,763
Series M (Refunding)	2019	(9,774,601)	13,133,118	26,266,236
Series N Bonds	2020	0	0	18,585,000
Subtotal Proposed Senior Debt Service		232,886,762	167,776,796	241,525,893
Less: Interest Earnings		6,110,336	0	700,000
Net Senior Debt Service - Twy Bonds		226,776,426	167,776,796	240,825,893
Interest Earnings				
Junior Debt				
Series 2013A Bonds	2013	19,879,225	0	0
Series 2016A Bonds	2016	27,299,834	20,724,875	41,192,250
Series 2019B Bonds	2019	500,505	2,820,150	5,541,300
Subtotal Junior Debt		47,679,564	23,545,025	46,733,550
Less: Interest Earnings		260,266	371,000	371,000
Net Junior Debt Service		47,419,298	23,174,025	46,362,550
JIAN/TIFIA Interest				
JIAN Series 2019A Notes Interest	2019	16,251,616	0	0
TIFIA Interest	2019	10,742,794	0	0
Subtotal JIAN Interest		26,994,410	0	0
Less: Interest Earnings			0	0
Net JIAN Interest		26,994,410	0	0
Subordinated Indebtedness				
Interest - LoC		0	708,333	559,028
Commitment Fee		0	212,500	167,708
Principal		0	0	50,000,000
		0	920,833	50,726,736
Interest - Drawdown Notes		0	0	0
Commitment Fee		0	177,083	760,417
Principal		0	0	0
		0	177,083	760,417

Flow of Funds
General Revenue Bond Resolution

	2019 Actual	2020 Revised	2021 Budget	Change from Revised
Revenues				
Tolls	739,884,548	616,636,931	708,628,638	91,991,707
Concessions	14,778,246	4,485,000	5,075,000	590,000
Interest	12,180,686	4,000,000	6,650,500	2,650,500
E-ZPass Violations and Fees	19,481,161	17,400,000	13,200,000	(4,200,000)
Tolls By Mail Fees	15,613,407	15,500,000	44,300,000	28,800,000
Sundry	10,149,124	9,520,000	8,320,000	(1,200,000)
Sub Total	<u>812,087,172</u>	<u>667,541,931</u>	<u>786,174,138</u>	<u>118,632,207</u>
Operating Expenses				
Departmental Operating Expenses	197,673,283	249,308,607	258,987,630	9,679,023
Undistributed Charges	153,192,516	103,557,066	100,418,592	(3,138,474)
Reserve for Claims & Indemnities	1,082,292	0	500,000	500,000
Reserve for Environmental Remediation	799,947	1,000,000	500,000	(500,000)
Reserve for Cashless Tolling Transition	4,100,000	0	0	0
Sub Total	<u>356,848,038</u>	<u>353,865,673</u>	<u>360,406,222</u>	<u>6,540,549</u>
Net Revenues (A)	<u>455,239,134</u>	<u>313,676,258</u>	<u>425,767,916</u>	<u>112,091,658</u>
Senior Debt Service (B)				
Senior Debt	226,776,426	167,776,796	240,825,893	73,049,097
Adjust to Cash basis/Retain for Working Capital	13,615,655	67,947,458	6,542,033	(61,405,425)
Net Revenue After Debt Service and Retentions	<u>242,078,363</u>	<u>213,846,920</u>	<u>191,484,056</u>	<u>(22,362,864)</u>
Reserve Maintenance Provisions				
Equipment and Facilities	156,417,021	127,857,072	30,158,482	(97,698,590)
Highway and Bridge	(25,000,000)	0	0	0
Sub Total	<u>131,417,021</u>	<u>127,857,072</u>	<u>30,158,482</u>	<u>(97,698,590)</u>
Junior Debt Service (C)				
Junior Debt	47,419,298	23,174,025	46,362,550	23,188,525
Facilities Capital Improvement Provision				
New NY Bridge Project	8,000,000	0	0	0
General Reserve Fund				
State Police	41,901,576	61,717,907	63,475,871	1,757,964
Other	13,340,468	1,097,916	51,487,153	50,389,237
Sub Total	<u>55,242,044</u>	<u>62,815,823</u>	<u>114,963,024</u>	<u>52,147,201</u>
Balance	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Senior Debt Service Coverage Ratio (A/B)	2.01	1.87	1.77	
Senior & Junior Debt Service Coverage Ratio (A/(B+C))	1.66	1.64	1.48	

Capital Program Funding Uses

	2019 Actual	2020 Revised	2021 Budget
Thruway			
<u>Highway & Bridge</u>			
Contracts	207,954,697	126,046,743	147,199,204
Thruway Forces & Materials	14,185,283	17,531,905	23,736,874
Sub Total	222,139,980	143,578,648	170,936,078
<u>Architectural (Facilities)</u>			
Facilities Contracts	12,372,932	11,598,700	9,823,802
Sub Total	12,372,932	11,598,700	9,823,802
<u>Equipment & Systems and ITS</u>			
Equipment & Systems	25,243,336	31,683,910	31,266,466
Intelligent Transportation Systems Contracts	133,000,152	261,589,029	109,436,136
Sub Total	158,243,488	293,272,939	140,702,602
<u>State Police Equipment/Facilities</u>			
Equipment & Systems	74,928	30,000	30,000
Sub Total	74,928	30,000	30,000
Sub Total - Thruway	392,831,328	448,480,287	321,492,482
New NY Bridge Project			
<u>New NY Bridge</u>			
Contracts	167,360,264	92,032,209	50,541,303
Thruway Forces & Materials	4,280,550	2,967,791	2,261,148
Sub Total - New NY Bridge	171,640,814	95,000,000	52,802,451
GRAND TOTAL	564,472,142	543,480,287	374,294,933

Capital Program Funding Sources

	2019 Actual	2020 Revised	2021 Budget
Thruway			
<u>Federal Funds</u>			
Highway & Bridge	0	0	0
Sub Total	0	0	0
<u>Note/Bond Proceeds</u>			
Senior Debt - Thruway and Canal	0	237,204,603	291,292,187
Sub Total	0	237,204,603	291,292,187
<u>Prior Years Balances/Thruway Revenues</u>			
Reserve Maintenance Fund: Highway & Bridge	20,206,988	0	0
Reserve Maintenance Fund: Equipment	36,019,823	0	0
General Reserve Fund	74,928	0	0
Thruway Revenues	131,417,021	127,857,072	30,158,482
Sub Total	187,718,760	127,857,072	30,158,482
<u>Other Funds</u>			
State & Miscellaneous - TWY & Canal	2,173,778	3,554,384	41,813
Equipment Auction Proceeds	1,005,798	0	0
Thruway Stabilization Program Funds	201,932,992	79,864,228	0
Sub Total	205,112,568	83,418,612	41,813
Sub Total - Thruway and Canal	392,831,328	448,480,287	321,492,482
New NY Bridge Project			
<u>Federal Funds</u>			
Loan and Grant Proceeds	\$0	\$0	\$0
<u>Note/Bond Proceeds</u>			
Junior Debt	0	75,000,000	50,541,303
Sub Total	0	75,000,000	50,541,303
<u>Prior Years Balances/Thruway Revenues</u>			
Thruway Revenues	8,997,782	5,685,197	2,261,148
Sub Total	8,997,782	5,685,197	2,261,148
<u>Other Funds</u>			
Thruway Stabilization Program Funds	162,643,032	14,314,803	0
Sub Total - New NY Bridge	171,640,814	95,000,000	52,802,451
GRAND TOTAL	564,472,142	543,480,287	374,294,933

**Actual 2019, Revised 2020 Budget vs. 2021 Budget
New NY Bridge**

	2019 Actual	2020 Revised	2021 Budget
<u>SOURCES:</u>			
Thruway Revenues	8,062,776	111,515	84,129
Prior Year Reserve Balances	997,782	5,685,197	2,261,148
Junior Debt		75,000,000	50,541,303
Federal Funds		0	0
Thruway Stabilization Program Funds	162,643,032	14,314,803	0
Total Sources	171,703,590	95,111,515	52,886,580
<u>USES:</u>			
Operating Expenses:			
Thruway Operating	62,776	111,515	84,129
Thruway Capital - Equipment & Systems/ITS:			
Equipment	0	0	0
Thruway Capital - New NY Bridge:			
Thruway Forces & Materials	4,210,972	2,967,791	2,261,148
Contracts	164,596,896	92,032,209	50,541,303
Community Benefits Fund	2,832,946	0	0
Sub Total	171,640,814	95,000,000	52,802,451
Total Uses	171,703,590	95,111,515	52,886,580

2021 Budget - Sources and Uses of Funds

Use of Funds		Source of Funds							
Category	Amount	2021 Thruway Revenues	Prior Year Reserve Balances	Senior Debt	Junior Debt	Federal Funds	Thruway Stabilization Program Funds (1)	Other Funds	Total
Thruway and Canal									
Thruway Operating	359,406,222	359,406,222	0	0	0	0	0	0	359,406,222
Provision for Claims	500,000	500,000	0	0	0	0	0	0	500,000
Provision for Environ. Rem.	500,000	500,000	0	0	0	0	0	0	500,000
Provision for Cashless Tolling	0	0	0	0	0	0	0	0	0
Senior Debt Service	240,825,893	240,825,893	0	0	0	0	0	0	240,825,893
Junior Debt Service	46,362,550	46,362,550	0	0	0	0	0	0	46,362,550
Capital Program	374,294,933	30,158,482	2,261,148	291,292,187	50,541,303	0	0	41,813	374,294,933
Highways/Bridges	170,936,078	0	0	170,894,265	0	0	0	41,813	170,936,078
Architectural (Facilities)	9,823,802	9,823,802	0	0	0	0	0	0	9,823,802
Equipment & Systems/ITS	140,702,602	20,304,680	0	120,397,922	0	0	0	0	140,702,602
State Police Equipment/Facilities	30,000	30,000	0	0	0	0	0	0	30,000
New NY Bridge	52,802,451	0	2,261,148	0	50,541,303	0	0	0	52,802,451
State Police- Troop T	63,475,871	63,475,871	0	0	0	0	0	0	63,475,871
Subordinate Debt - Line of Credit	51,487,153	41,487,153	10,000,000	0	0	0	0	0	51,487,153
Grand Total	1,136,852,622	782,716,171	12,261,148	291,292,187	50,541,303	0	0	41,813	1,136,852,622

(1) Represents a portion of the \$1.285 billion included in the enacted 2015-16 New York State Budget, as well as a portion of the \$700 million included in the enacted 2016-17 New York State Budget.

2021 Operating Budget Summary by Account

Acct Description	2019 Actual	2020 Revised Budget	2021 Budget	Diff between 2020 Revised & 2021 Budget
SALARIES REGULAR	123,834,814	140,328,506	123,079,156	(17,249,350)
SALARIES TEMPORARY	15,710,804	15,534,772	2,038,624	(13,496,148)
SALARIES REIMBURSED FEDERAL	(41,270)	0	0	0
SHIFT DIFFERENTIAL	1,405,943	1,231,132	498,744	(732,388)
SALARY SAVINGS	0	(15,607,336)	(4,727,824)	10,879,512
SALARY REDISTRIBUTED	(161,013)	(169,700)	(117,000)	52,700
OT PAY REGULAR	10,595,789	7,053,915	5,567,325	(1,486,590)
OT PAY TEMPORARY	592,289	516,122	34,122	(482,000)
TOLL INCENTIVE PAYMENTS	(184,250)	0	0	0
SALARIES REIMBURSED NONFEDERAL	(238,000)	(76,524)	(76,524)	0
EXCESS/BONUS SICK & VAC	1,953,623	1,978,402	1,920,401	(58,001)
CHECK OUT PAYMENT	620,587	587,000	29,000	(558,000)
Total Personal Services	154,089,316	151,376,289	128,246,024	(23,130,265)
ALLOC TO RESERVE MTCE - EQPT	(10,536,554)	(1,341,785)	(2,514,826)	(1,173,041)
ALLOC TO FAC CAP IMPR FUND	(2,471,652)	(1,771,219)	(1,391,732)	379,487
ALLOC TO SP	(706,901)	(589,797)	(604,092)	(14,295)
ALLOC TO TWY CAPITAL PROJ	0	(9,260,480)	(10,645,657)	(1,385,177)
BENE/M&O ALLOC RES MTCE	(7,417,195)	(936,432)	(2,022,423)	(1,085,991)
SIGN SHOP LABOR	(118,218)	(90,000)	(90,000)	0
BENEFITS REDISTRIBUTED	(154,508)	(117,891)	(94,091)	23,800
BENEFITS REIMBURSED FEDERAL	(39,012)	0	0	0
BENEFITS REIMBURSED-NON FEDERA	(49,945)	(80,214)	(61,541)	18,673
BEN ALLOC TO SP	(497,384)	(402,785)	(485,811)	(83,026)
BEN ALLOC TO TWY CAPITAL PROJ	0	(6,462,889)	(8,561,237)	(2,098,348)
BEN ALLOC TO FAC CAP IMPR FUND	(1,739,745)	(1,216,572)	(1,119,231)	97,341
Total Allocations	(23,731,114)	(22,270,064)	(27,590,641)	(5,320,577)
AUTO - GAS, OIL	3,784,322	3,532,200	3,685,250	153,050
AUTO - SUPPLIES	5,838,108	5,400,000	5,140,000	(260,000)
AUTO - INSURANCE	0	0	0	0
AUTO - GENERAL EXP	372,350	363,253	345,000	(18,253)
REPAIRS DUE TO ACCIDENTS	43,784	1,450,000	0	(1,450,000)
R&D PARTS NON INVENTORY	1,471	1,000	0	(1,000)
REPAIRS DUE TO ACCIDENTS	2,201,566	1,088,450	791,620	(296,830)
MFG SIGNS - NON INVENTORY	119,468	110,000	110,000	0
SNOW & ICE CONTROL	15,480,823	10,000,000	10,499,990	499,990
THRUWAY ROADWAY	1,854,427	1,299,757	1,546,681	246,924
SIGNS - INVENTORY	259,759	202,143	152,143	(50,000)
BRIDGES	462,650	423,030	463,171	40,141
BRIDGE CONTRACTS OPERATING	4,627,222	7,610,196	9,549,004	1,938,808
HIGHWAY CONTRACTS OPERATING	1,483,726	652,531	2,360,000	1,707,469
BUILDINGS - CONTRACTS	0	0	0	0
BUILDINGS	2,413,212	2,024,546	2,024,546	0
BLDG ADMIN HQ	3,825	1,200	1,200	0
REIMB FROM NYPA	(246,000)	(246,000)	0	246,000
TOLL AND ITS EQPT THRUWAYWIDE	641,821	550,000	700,000	150,000
SCRAP & OBSOLETE	0	0	0	0
PARTS REPAIRED FOR RET	0	0	0	0
RETURNABLE CONTAINER	16,064	18,800	18,800	0
REIMB OF MTCE EXP	(19,569)	(10,000)	(50,000)	(40,000)
PERISHABLE TOOLS	723,956	601,249	595,606	(5,643)
MISC MTCE SUPPLIES	571,868	402,839	393,234	(9,605)
REIMB BY CLAIM	(5,613,020)	(5,598,100)	(3,880,000)	1,718,100
Total Mtce & Repairs	35,021,833	29,877,094	34,446,245	4,569,151
COMPUTER SUPPLIES	70,477	76,400	85,610	9,210
MTCE & REPAIR TO EQPT	2,314,426	2,878,164	2,644,856	(233,308)
STATIONARY FORMS	199,327	177,196	166,462	(10,734)
POSTAGE	140,053	124,300	125,250	950
NATURAL GAS	738,177	770,500	665,300	(105,200)
TELEPHONE	1,603,969	1,642,175	1,627,960	(14,215)
HEATING FUEL	278,686	242,100	85,500	49 (156,600)

2021 Operating Budget Summary by Account

Acct Description	2019 Actual	2020 Revised Budget	2021 Budget	Diff between 2020 Revised & 2021 Budget
WATER	227,795	209,151	177,851	(31,300)
PROPANE	73,806	68,750	65,350	(3,400)
ELECTRIC	2,999,463	2,928,501	3,017,601	89,100
ADVERTISING	121	1,400	2,200	800
PRINTING & DUPLICATING	37,601	45,000	45,000	0
PRINTING OUTSIDE	524,918	300	1,518	1,218
FIRST AID & PERSON SAFETY SUPP	383,253	258,363	259,912	1,549
JANITORIAL SUPPLIES	438,533	380,502	307,272	(73,230)
EMPLOYEE SAFETY EQPT	154,703	135,600	151,000	15,400
DUES, BOOKS, SUBSCRIPTIONS	849,651	972,496	1,244,536	272,040
TUITION ASSISTANCE	180,236	141,500	78,000	(63,500)
TRAINING EXP	75,261	313,031	217,923	(95,108)
MEDICAL SERVICES	245,615	273,100	293,090	19,990
OVERTIME MEAL EXPENSE	283,284	219,043	155,245	(63,798)
CLOTHES CLEANING	255,189	242,140	156,650	(85,490)
CLOTHING SUPPLIES	799,242	737,494	623,029	(114,465)
ENGINEERING SUPPLIES	4,789	6,583	6,333	(250)
TRAFFIC CONTROL SAFETY SUPP	274,157	304,000	291,213	(12,787)
RENTALS	1,512,036	1,597,378	1,686,381	89,003
SPECIAL EVENTS	19,698	100,000	50,000	(50,000)
INSURANCE PREM & SURETY BONDS	3,501,516	3,627,000	3,858,500	231,500
PHOTO SUPPLIES	0	100	475	375
PROMOTION EXPENSE	27,671	2,150	14,650	12,500
EZ-PASS ADMINISTRATION	0	37,146,000	42,500,000	5,354,000
PROFESSIONAL SERVICES	1,333,306	3,046,645	11,129,000	8,082,355
EMPLOYEE DEVELOPMENT	38,674	33,100	38,300	5,200
FREIGHT PARCEL POST	72,591	66,464	76,764	10,300
CREDIT CARD FEES	31,810	60,000	40,000	(20,000)
SPECIAL CONTRACTS	58,577,425	5,440,521	6,989,531	1,549,010
DEMURRAGE	23,424	21,800	21,800	0
ADMIN COST RECOVERY	0	0	0	0
CASH DISCOUNT EARNED	(186,184)	(120,000)	(120,000)	0
ENVIRONMENTAL EXPENSE	382,819	400,000	450,000	50,000
SERVICE CHARGE EXP	135,261	100,000	115,000	15,000
PROVISION FOR DOUBTFUL A/R	0	0	0	0
TOLLS BY MAIL ADMINISTRATION	0	21,294,000	38,100,000	16,806,000
EMPLOYEE CLAIM EXP	690	2,000	1,500	(500)
CONCESSION UTILITY	30,093	20,000	20,000	0
STANDARD PURCHASE PRICE	0	(2,000)	(2,000)	0
PURCHASE VARIANCE	(7,422)	(4,000)	(4,000)	0
INVENTORY VARIANCE	(1,779)	2,000	2,000	0
INVENTORY ITEMS REPAIRED	2,509	(39,000)	(39,000)	0
STORES CLEARING ACCT	912	200	200	0
PROJECTS FROM SAVINGS	0	0	(83,934)	(83,934)
PROMPT PAYMENT INTEREST EXP	4,348	5,000	4,500	(500)
M&O REIMB FED AID	(1,431,172)	(157,393)	(1,900,000)	(1,742,607)
TRAVEL EXP REGULAR	154,171	107,940	151,691	43,751
TRAVEL EXP CARS	1,169	1,137	1,637	500
REIMB VOLUNTEER FIRE CO	108,074	99,750	105,000	5,250
REIMB TO NYS LAW DEPARTMENT	0	84,225	0	(84,225)
REIMBURSEMENT TO CIVIL SERVICE	462,822	472,840	482,300	9,460
FIDUCIARY FEES	12,293	84,450	68,750	(15,700)
PROV RES FOR INVENTORY OBSOL	158,490	400,000	200,000	(200,000)
Total Operating Supplies	78,117,977	87,040,096	116,453,706	29,413,610
PENSIONS NYS EMPLOYEES	21,781,000	22,781,000	21,344,000	(1,437,000)
PENSIONS VDCP EMPLOYEES	37,189	45,000	0	(45,000)
EMPLOYEE BENEFIT FUND	5,640,911	6,000,000	6,000,000	0
SOCIAL SECURITY	11,681,610	12,001,583	9,852,000	(2,149,583)
WORKERS COMPENSATION	7,707,889	9,000,000	7,200,000	(1,800,000)
UNEMPLOYMENT INSURANCE	130,067	750,000	1,000,000	250,000
HEALTH INSURANCE	28,515,050	27,976,000	24,470,000	(3,506,000)
HEALTH INSURANCE RETIREES	28,636,000	30,482,000	35,645,000	5,163,000
SURVIVORS BENEFITS	105,000	175,000	175,000	0
MTA TAX	104,252	100,000	95,000	(5,000)

2021 Operating Budget Summary by Account

Acct Description	2019 Actual	2020 Revised Budget	2021 Budget	Diff between 2020 Revised & 2021 Budget
EE VACATION LEAVE	36,000	150,000	100,000	(50,000)
Total Payroll Benefits	104,374,968	109,460,583	105,881,000	(3,579,583)
FACILITIES IMPROV EXP	1,061,408	999,014	1,100,450	101,436
REPL OF OFFICE EQPT	51,096	59,020	51,500	(7,520)
REPL OF COMPUTER EQPT	219,181	137,511	88,850	(48,661)
REPL OF HWY & MARINE EQPT	112,819	80,000	146,250	66,250
TOLL & ITS SYS IMPROV	0	0	0	0
TECHNOLOGY PROJECTS	760,838	174,900	85,000	(89,900)
SHOP EQPT REPL	30,245	0	0	0
HWY & BRIDGE EXP	453,274	430,000	180,000	(250,000)
STUDIES	0	0	0	0
COMMUNICATION EQPT REPL	31,113	88,880	140,000	51,120
EQUIPMENT ADDITIONAL	10,095	0	0	0
COMPUTER HARDWARE NEW	202,775	69,836	44,150	(25,686)
COMPUTER SOFTWARE NEW	102,127	89,634	131,488	41,854
MOTORIZED EQPT NEW	8,212	3,200	0	(3,200)
SHOP EQPT NEW	10,215	2,200	0	(2,200)
NON LABOR REIMB NON FED PROJ REL	(180,000)	(4,757,500)	0	4,757,500
OFFICE EQPT NEW	119,422	4,980	2,200	(2,780)
Total Eqpt & Proj not capitalized	2,992,820	(2,618,325)	1,969,888	4,588,213
PROVISION FOR ENV REMEDIATION	799,947	1,000,000	500,000	(500,000)
CLAIMS & INDEMNITY EXPENSE	1,082,292	0	500,000	500,000
PROVISION FOR CASHLESS TOLLING TRANSITION	4,100,000	0	0	0
ROUNDING	(1)	0	0	0
GRAND TOTAL	356,848,038	353,865,673	360,406,222	6,540,549
Total Operating Budget by Account	356,848,038	353,865,673	360,406,222	6,540,549

2021 Budgeted Full-Time Employees

Department	2019	2020	Net Change 2019- 2020	2021	Net Change 2020-2021
Board & Executive	12	20	8	22	2
Media and Government Relations	5	4	(1)	4	-
Legal	24	23	(1)	21	(2)
Audit and Management Services	9	8	(1)	7	(1)
Administrative Services	72	73	1	72	(1)
Information Technology	86	86	-	87	1
Engineering	167	163	(4)	163	-
Maintenance and Engineering	1,308	1,325	17	1,326	1
Thruway Maintenance	1,002	1,016	14	1,016	-
Equipment & Inventory Management	306	309	3	310	1
Finance and Accounts	136	127	(9)	119	(8)
Operations	382	359	(23)	132	(227)
Traffic Services	104	102	(2)	111	9
Toll Collection	278	257	(21)	21	(236)
Total	2201	2188	-13	1953	-235

Personnel - History of Budgeted Positions

	Budgeted Positions				Change Since	
	Mainline	I-84 ⁽¹⁾	Canal ⁽²⁾	Total	Change	1995
1995	3,174	142	557	3,873	NA	NA
1996	3,032	136	536	3,704	(169)	(169)
1997	2,913	112	529	3,554	(150)	(319)
1998	2,873	102	535	3,510	(44)	(363)
1999	2,868	101	539	3,508	(2)	(365)
2000	2,851	95	542	3,488	(20)	(385)
2001	2,881	91	568	3,540	52	(333)
2002	2,887	90	556	3,533	(7)	(340)
2003	2,867	90	555	3,512	(21)	(361)
2004	2,831	90	553	3,474	(38)	(399)
2005	2,796	89	551	3,436	(38)	(437)
2006	2,780	89	544	3,413	(23)	(460)
2007	2,784	89	544	3,417	4	(456)
2008	2,776	89	542	3,407	(10)	(466)
2009	2,730	89	538	3,357	(50)	(516)
2010	2,701	89	539	3,329	(28)	(544)
2011	2,626	0	533	3,159	(170)	(714)
2012	2,590	0	528	3,118	(41)	(755)
2013	2,470	0	498	2,968	(150)	(905)
2014	2,279	0	458	2,737	(231)	(1,136)
2015	2,260	0	457	2,717	(20)	(1,156)
2015 Modified	2,184	0	441	2,625	(92)	(1,248)
2016	2,176	0	435	2,611	(14)	(1,262)
2017	2,162	0	0	2,162	(449)	(1,711)
2018*	2,165	0	0	2,165	3	(1,708)
2019	2,201	0	0	2,201	36	(1,672)
2020	2,188	0	0	2,188	(13)	(1,721)
2021	1,953	0	0	1,953	(235)	(1,907)

(1) Effective October 11, 2010, the Authority turned over all operation and maintenance responsibilities for I-84 to the New York State Department of Transportation.

(2) Effective January 1, 2017, legal responsibility for the Canal Corporation was transferred to the New York State Power Authority.

** Please note: 2018 estimates do not include an estimated 38 additional positions associated with Snow and ice and Other Major Initiatives*



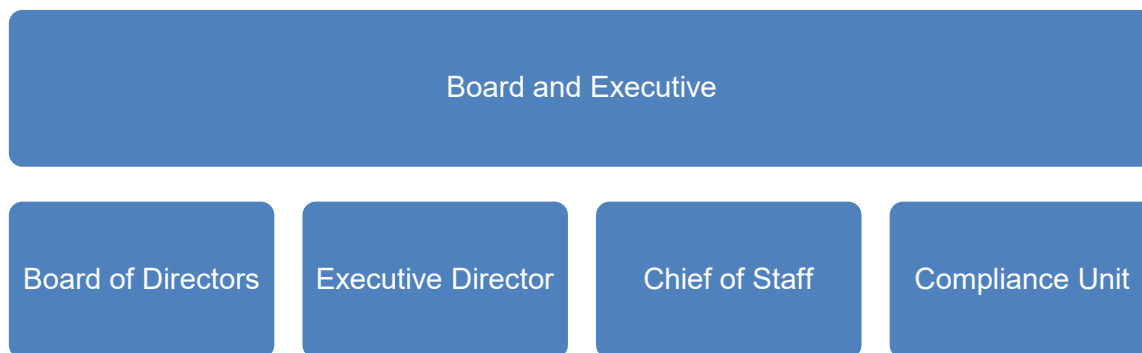
2021 DEPARTMENTAL SUMMARY AND BUDGET INFORMATION

Board and Executive

Department Description

The Board and Executive Department is responsible for the overall executive management of the Thruway Authority. It includes the Thruway Authority Board of Directors, which consists of seven unsalaried members, the Executive Director, Chief of Staff and support personnel. The Executive Office is also responsible for the oversight of the Authority's Compliance Unit, which is responsible for implementing, monitoring and providing DBE, MWBE, SDVOB and EEO Program oversight in accordance with State and Federal laws, rules, regulations and Executive Orders.

Department Organization



Department Budget Summary

BOARD & EXECUTIVE DEPARTMENT BUDGET						
Account Description	2019 Actual	2020 Revised	2021 Budget	\$ Change	% Change	
Personal Services	858,796	890,000	1,053,940	163,940	18.4%	
Allocations	(15,672)	-	-	-	0.0%	
Maintenance & Repair	-	-	-	-	0.0%	
Operating & Supplies	20,523	19,578	26,292	6,714	34.3%	
Equipment/Projects not Capitalized	1,671	-	-	-	-	
Department Total	865,318	909,578	1,080,232	170,654	18.8%	

The 2021 Budget request is \$1.1 million, an increase of \$170,654 or 18.8 percent above the 2020 Revised Budget amount. Total wages and salaries are \$1.0 million and this includes 22 positions, including 7 unsalaried Board members.

Department Budget Highlights

- Personal Services increased by \$163,940, or 18.4 percent, and reflects projected wages based on current salary levels. Two positions were transferred into the Board and Executive 2021 Budget from other Departments.

2020 Accomplishments

- Successfully converted to Cashless Tolling on the ticketed system.
- Successfully completed and opened the Governor Mario M. Cuomo Bridge Shared Use Path.
- Approved the selection of the Design-Build team who through public-private partnership will redevelop the 27 service areas located on the Thruway.
- Successfully lead the Authority to maintaining a safe and healthy environment for employees and customers during the New York State PAUSE and the COVID-19 Public Health Emergency while upholding the organization's goals and mission.

2021 Goals

- Finalize the conversion to Cashless Tolling on the ticketed system and associated contract.
- Finalize the completion of the Governor Mario M. Cuomo Bridge and Shared Use Path.
- Continue the process of redeveloping and modernizing the Authority's 27 service areas through public-private partnerships

Office of Media and Government Relations

Department Description

The Media Relations and Government Relations Department merged to streamline intra and inter-agency communications. The office works closely to deliver effective strategic messaging to elected officials, government bodies and media outlets in New York State and beyond.

Media Relations - Roles and Responsibilities

- Draft and issue press releases regarding Thruway projects, policies, initiatives and events
- Respond to media inquiries via email and telephone as needed
- Organize Thruway press events across the state
- Respond to hundreds of public inquiries, concerns and complaints via email
- Issue initial statements and subsequent updates in the event of an emergency situation, such as severe weather or serious incidents on the Thruway
- Manage and update social media accounts (Facebook, Twitter, Instagram) in real-time for the Thruway Authority to keep customers informed of traffic incidents, policies, initiatives, upcoming projects and events
- Coordinate inter-agency communications
- Assist in the creation of numerous marketing materials related to E-ZPass and cashless tolling, including videos and graphics

Government Relations - Roles and Responsibilities

- Coordinate communications with elected officials at the executive, state and local level
- Work closely with Thruway staff and counsel to develop legislative agenda
- Develop strategies to support the Thruway Authority's legislative agenda
- Work with local elected officials and representatives to respond to constituent concerns
- Attend legislative committee meetings and monitor proposed legislation during session on behalf of the Thruway Authority

Department Organization



Department Budget Summary

MEDIA & GOVERNMENT RELATIONS DEPARTMENT BUDGET					
Account Description	2019 Actual	2020 Revised	2021 Budget	\$ Change	% Change
Personal Services	486,242	467,000	475,116	8,116	1.7%
Allocations	-	-	-	-	-
Maintenance & Repair	-	-	-	-	-
Operating & Supplies	15,564	29,575	27,500	(2,075)	-7.0%
Equipment/Projects not Capitalized	-	-	-	-	-
Department Total	501,806	496,575	502,616	6,041	1.2%

The 2021 Budget request is \$0.5 million, an increase of \$6,041 or 1.2 percent above the fiscal year 2020 Revised Budget amount. Total wages and salaries are \$475,116 and this includes 4 positions.

Department Budget Highlights

- Personal Services increased by \$8,116, or 1.7 percent.

2020 Accomplishments

- Successfully issued dozens of press releases and advisories to the media and public to generate positive news coverage
- Amplified awareness about Cashless Tolling and the Tolls By Mail billing process ahead of the transition to Cashless Tolling on the Thruway system wide by the end of 2020
- Successfully hosted Cashless Tolling Customer Assistance Sessions at the WNY Welcome Center in Grand Island to educate and assist customers about cashless tolling and E-ZPass
- Effectively communicated with a more than 48,000 social media followers on Facebook, Twitter and Instagram
- Successfully managed approximately 300 public inquiries a month
- Continuously updated content on the Thruway's website as to keep the site fresh and relevant
- Successfully launched a new landing page on the Thruway's website dedicated to the Cashless Tolling project
- Successfully launched a new website and social media accounts for the Governor Mario M. Cuomo Bridge
- Successfully managed media coverage for the opening of the new Governor Mario M. Cuomo Bridge shared bicycle and pedestrian path which was officially opened by Governor Andrew Cuomo

- Continued to actively communicate with, and provide project webpage updates for, residents, emergency responders and elected officials regarding progress on the \$135 million New England Thruway (I-95) Reconstruction Project, commonly referred to as the “Last Mile” project
- Effectively worked with numerous statewide and municipal officials to address their constituent’s questions regarding the Thruway System
- Assisted motorists with questions regarding bill payment and the bill dispute process during and after the implementation of the Emergency Tolling Procedures because of COVID-19.
- Successfully notified travelers in real-time about any COVID-19 related modifications at Thruway Service Areas statewide
- Highlighted the work of dozens of Thruway employees who effectively delivered thousands of cases of hand sanitizer, COVID-19 test kits, PPE, and more to locations across the state.

2021 Goals

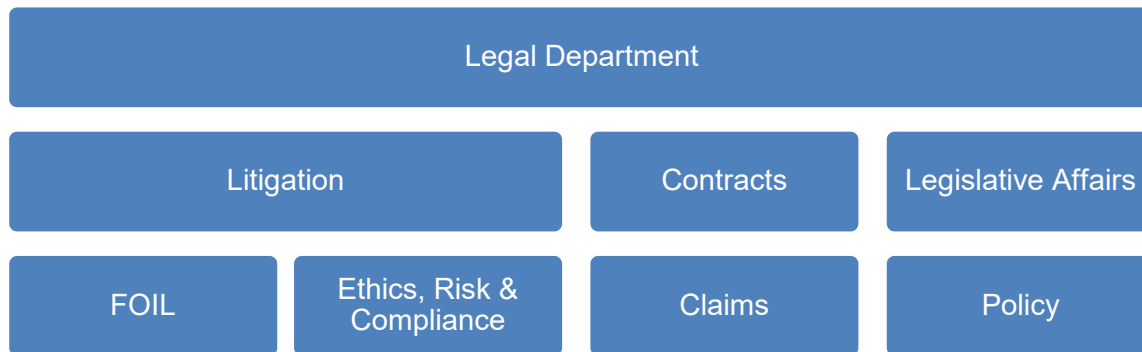
- Adjust messaging on the Thruway’s website and social media accounts following the system-wide roll out of cashless tolling across the ticketed system
- Continue to strategically communicate an effective and uniform message to all media outlets as needed

Legal Department

Department Description

The Legal Department is responsible for providing legal advice and services to the Board, Executive Director and the Thruway Authority. The Legal Department handles litigation, Thruway Authority contracts, claims against or by the Thruway Authority, Freedom of Information Law (FOIL) requests, legislation, real property transactions, ethics, employment law, Thruway Authority policy, Board issues, supervision of outside counsel services and research as requested. The Legal Department is involved with every aspect of the Thruway Authority's functions.

Department Organization



Department Budget Summary

LEGAL DEPARTMENT BUDGET					
Account Description	2019 Actual	2020 Revised	2021 Budget	\$ Change	% Change
Personal Services	2,116,349	2,248,012	2,299,956	51,944	2.3%
Allocations	(102,844)	(48,656)	(64,000)	(15,344)	31.5%
Maintenance & Repair	-	-	-	-	-
Operating & Supplies	191,263	306,783	220,626	(86,157)	-28.1%
Equipment/Projects not Capitalized	1,547	1,500	1,000	(500)	-
Department Total	2,206,315	2,507,639	2,457,582	(50,057)	-2.0%

The 2021 Budget request is \$2.5 million, a decrease of \$50,057 or 2.0 percent below the fiscal year 2020 Revised Budget amount. Total wages and salaries were \$2.3 million, and this includes 21 positions.

Department Budget Highlights

- Personal Services increased by \$51,944, or 2.3 percent, and includes funding for 21 permanent positions and temporary law interns.
- Personal Service Allocations increased \$15,344, or 31.5 percent, due to continued work on the New NY Bridge Project.
- Operations & Supplies decreased \$86,157, or 28.1 percent. 2020 included reimbursement to NYS Attorney General for unpaid legal fees on the ExxonMobil litigation.

2020 Accomplishments

- Provided advice and counsel on matters related to COVID-19.
- Assisted in the Thruway Authority's and State's response to COVID-19.
- Aided in the obtaining of short-term financing to mitigate the financial impacts of COVID-19 on the Thruway Authority.
- Provided advice and counsel on matters related to the Governor Mario M. Cuomo Bridge including, but not limited to, contracts, the environment, financing, intellectual property, maintenance, and safety.
- Assisted with the negotiation of a long-term lease agreement for the modernization and transformation of the Thruway Authority's 27 Service Areas.
- Provided advice and counsel regarding the Thruway Authority's fiber optics system, and assisted with the procurement and negotiation of agreements related to such.
- Provided advice and counsel to Thruway Authority Board, Executive Director, departments and Executive Chamber.
- Drafted legislation necessary for the achievement of Thruway Authority's mission, including the Thruway Authority's fiber optics system and the operation of tandem trucks.
- Asserted property and equipment damage claims totaling \$3,628,243.56 and collected \$2,150,451.39 as of July 31, 2020.
- Aided in the issuance of Series N General Revenue Bonds
- Reviewed, updated, amended and streamlined Thruway Authority policies and procedures.
- Continued with efforts to identify risks to the Thruway Authority and implement risk mitigation strategies and best practices.
- Drafted, reviewed and approved contracts for the Thruway Authority.
- Responded to 84% of FOIL requests received on or before August 3, 2020.
- Responded to 80 subpoenas received from law enforcement.
- Provided ethics guidance and training to ensure that all Thruway Authority employees practice the highest ethical standards.
- Continued to implement the use of DMS to archive legal files electronically.

2021 Goals

- Continue to provide advice and counsel on matters relating to the Governor Mario M. Cuomo Bridge including, but not limited to, contracts, the environment, financing, intellectual property, maintenance, and safety.
- Continue to assist in the Thruway Authority's transition to cashless tolling.
- Continue to pursue lawsuits concerning the Vergnet wind turbines located in the Buffalo Division.
- Continue to defend and settle litigation in a cost-effective manner.

- Assist in the modernization and transformation of the Thruway Authority's 27 Service Areas including the transition to new Service Area operators and contract management related to the lease agreement.
- Assist in new agreements related to the use of the Thruway Authority's fiber optics system.
- Continue to defend lawsuits related to All Electronic Toll Collection.
- Continue to focus on customer service and quality provided by the Legal Department and develop Key Performance Indicators to measure performance.
- Continue to ensure that best practices are followed by the Thruway Authority with respect to procurement/contracting matters.
- Continue to ensure that the Thruway Authority is in full compliance with new statutory and regulatory requirements and offer ideas to exceed requirements.
- Continue to review Thruway Authority policies and procedures to identify existing risks and potential risk mitigation strategies and best practices.
- Continue to explore technology opportunities and solutions that apply to legal services to reduce workload and increase productivity while lowering costs.
- Close the remaining Statement of Services (SOSs) related to the New York Canal Corporation transfer.
- Continue to prioritize and deliver on collecting revenue from claims.
- Analyze administrative processes and streamline tasks to improve efficiency.

Audit & Management Services

Department Description

The Department of Audit and Management Services is responsible for performing independent audits, reviews and analyses of all Thruway Authority operations; conducting confidential investigations to detect and prevent fraud, waste, and abuse; promoting security and protection of Thruway Authority employees, customers and assets which includes the Governor Mario M. Cuomo Bridge; ensuring compliance with the New York State Governmental, Accountability and Internal Control Act; and other requested services from the Thruway Authority Board and Executive Management.

Department Organization



Department Budget Summary

AUDIT & MANAGEMENT SERVICES DEPARTMENT BUDGET					
Account Description	2019 Actual	2020 Revised	2021 Budget	\$ Change	% Change
Personal Services	826,420	849,025	752,982	(96,043)	-11.3%
Allocations	-	-	-	-	-
Maintenance & Repair	-	50	-	(50)	-100.0%
Operating & Supplies	11,335	10,902	13,400	2,498	22.9%
Equipment/Projects not Capitalized	199	-	-	-	-
Department Total	837,954	859,977	766,382	(93,595)	-10.9%

The 2021 Budget request is \$0.8 Million, a decrease of \$93,595 or 10.9 percent below the fiscal year 2020 Revised Budget amount. Total wages and salaries are \$752,982 and this includes 7 positions.

Department Budget Highlights

- Personal Services decreased by \$96,043, or 11.3 percent and reflects the transfer of 1 position to another Department.

2020 Accomplishments

- Conducted Thruway Authority investigations related to fraud, waste and abuse
- Conducted audits of operational programs to ensure compliance with policies, procedures, laws and regulations
- Implemented and oversaw security operations for the Governor Mario M. Cuomo Bridge project, including the hiring and training of twelve new security personnel
- Conducted safety inspections and evaluations of designated Thruway Authority assets
- Coordinated the annual certification of compliance with the New York State Governmental Accountability and Internal Control Act
- Implemented security measures and systems for Welcome Centers
- Followed up on issues noted in the Headquarters Threat Assessment Program
- Additional security cameras were installed at the Administrative Headquarters and Henzel Powers buildings

2021 Goals

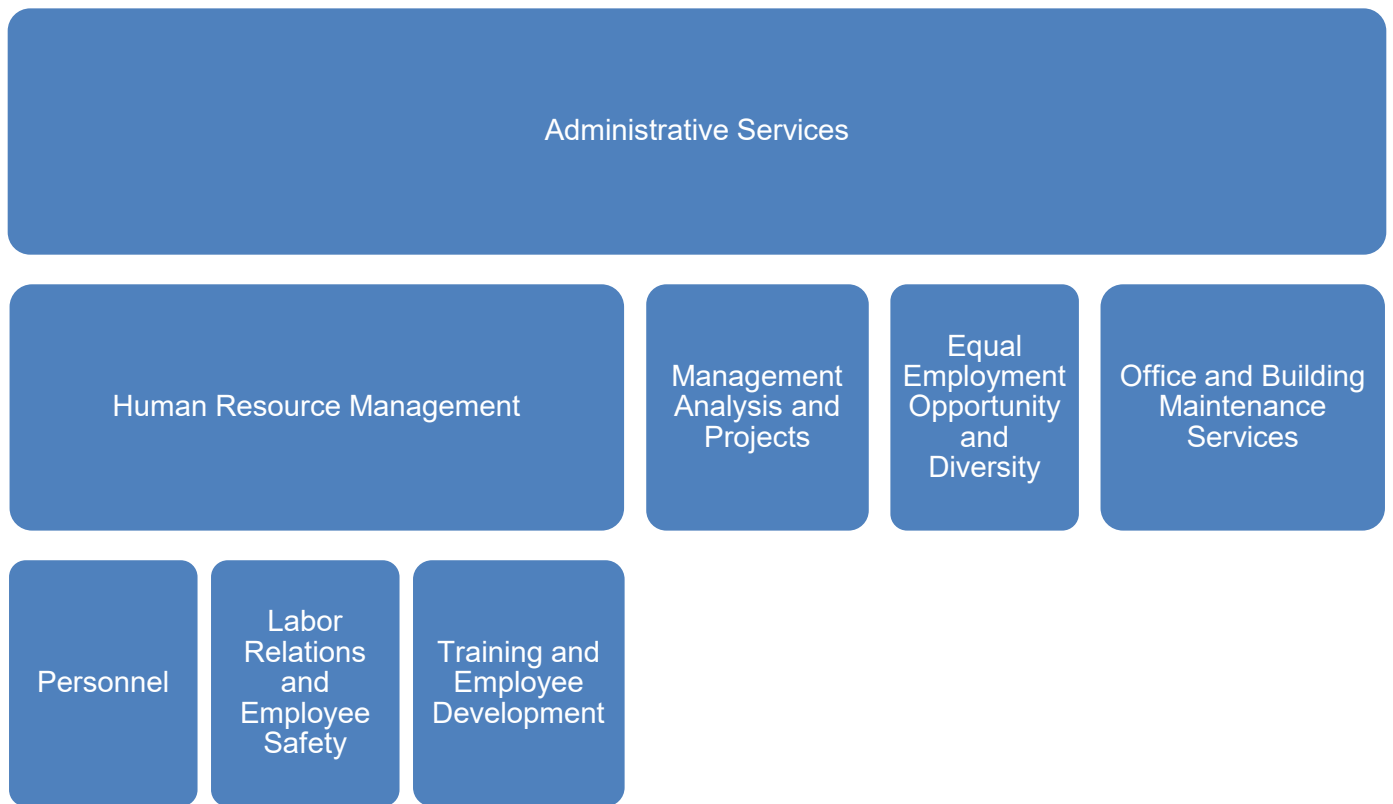
- Hire audit staff to conduct audits and internal control reviews
- Continue installation of security devices in Thruway Authority properties
- Continue security audits of Travel Plazas
- Continue to implement the Fraud, Waste and Abuse Program at the Thruway Authority
- Continue to implement operational, compliance and management audits
- Continuously improve compliance with the New York State Governmental Accountability and Internal Control Act
- Continue to fulfill requests for other management services
- Continue to facilitate all external audits
- Continue to facilitate all external investigations and requests

Administrative Services

Department Description

Administrative Services provides support to all Departments in the Thruway Authority's Administrative Headquarters, as well as the four Divisions in the areas of Personnel (Staffing Services and Benefits Administration), Training and Employee Development, Equal Employment Opportunity and Diversity, Labor Relations and Employee Safety, Administrative Analysis, and Office and Building Maintenance Services. The Department has nearly 70 employees.

Department Organization



Department Budget Summary

ADMINISTRATIVE SERVICES DEPARTMENT BUDGET					
Account Description	2019 Actual	2020 Revised	2021 Budget	\$ Change	% Change
Personal Services	4,418,344	4,447,430	4,609,863	162,433	3.7%
Allocations	(1,868)	-	-	-	-
Maintenance & Repair	6,811	3,900	4,250	350	9.0%
Operating & Supplies	941,280	935,496	1,001,071	65,575	7.0%
Equipment/Projects not Capitalized	2,353	3,000	3,000	-	0.0%
Department Total	5,366,920	5,389,826	5,618,184	228,358	4.2%

The 2021 Budget request is \$5.6 million, an increase of \$228,358 or 4.2 percent above the fiscal year 2020 Revised Budget amount. Total wages and salaries are \$4.6 million and this includes 72 positions.

Department Budget Highlights

- Personal Services increased by \$162,433, or 3.7 percent. The 2021 budget reflects the elimination of 2 positions offset by the transfer in of a position from another Department.
- Operating & Supplies increased by \$65,575, or 7.0 percent, mainly due to Medical Services and Travel. These two accounts experience significant decreases in 2019 due to the COVID-19 shutdown.

2020 Accomplishments

- 22 Part-time Toll Collectors enrolled in expanded Tuition Assistance Program
- 21 employees participated in the Tuition Assistance Program including 4 toll impacted staff and 3 Skilled Trades Scholarship employees
- 8 employees enrolled in the CDL training program
- Conducted 8 non-technical training courses and 3 specialized workshops, from January 1 through March 16, 2020
- Developed on-line training courses for Handling Change & Stress and Business Communication
- Conducted Authority-wide in-person and web-based Race Awareness Training
- Conducted Drug Awareness and Emotional Wellness Training in the Buffalo Division, with the remainder of the Authority scheduled for 2021
- Performed System-wide safety related site visits/inspections
- Issued a comprehensive Legal Bulletin outlining the Authority's Ethics policies and revised the Authority's Code of Ethics Governing Board Members
- Implemented the NYSTA Alerts System used to notify employees of when there is an unanticipated event which may prevent them from coming to work or direct them to another reporting location
- Implemented the Federal Clearinghouse of all employees who are required to maintain a CDL
- Renewed the Authority's contract for the Drug & Alcohol Program

- Provided support in response to the COVID-19 pandemic, including coordination of DOH and DOL volunteer call center initiatives, and development of numerous internal publications and safety related documents/guidance
- Administered new GOER paid leave and federal emergency sick and family paid leaves to accommodate employees required to quarantine or need to attend to family due to COVID-19, including working with IT and Payroll to create new Timekeeper and HRMS codes and FAQ guidance
- Developed and implemented a Site Safety Plan which adheres to the State's stringent COVID-19 related protocols, including enhanced cleaning procedures, a daily wellness survey, and completion of mandatory GOER return to work training video
- Processed a higher than normal volume of Unemployment Claims due to layoffs during the PAUSE
- Finalized the reimbursement of 19 Civil Service Examination fees for employees impacted by the cashless tolling initiative, from January 2020 – June 2020
- Working closely with Operations to manage the transition to cashless tolling, including payment of incentives and continuously reviewing plans to hire and retain personnel to staff toll lanes
- Conducted virtual toll outreach sessions for impacted employees in conjunction with Career Mobility Office, Department of Labor, Retirement System and Employee Assistance Program (3rd quarter)

2021 Goals

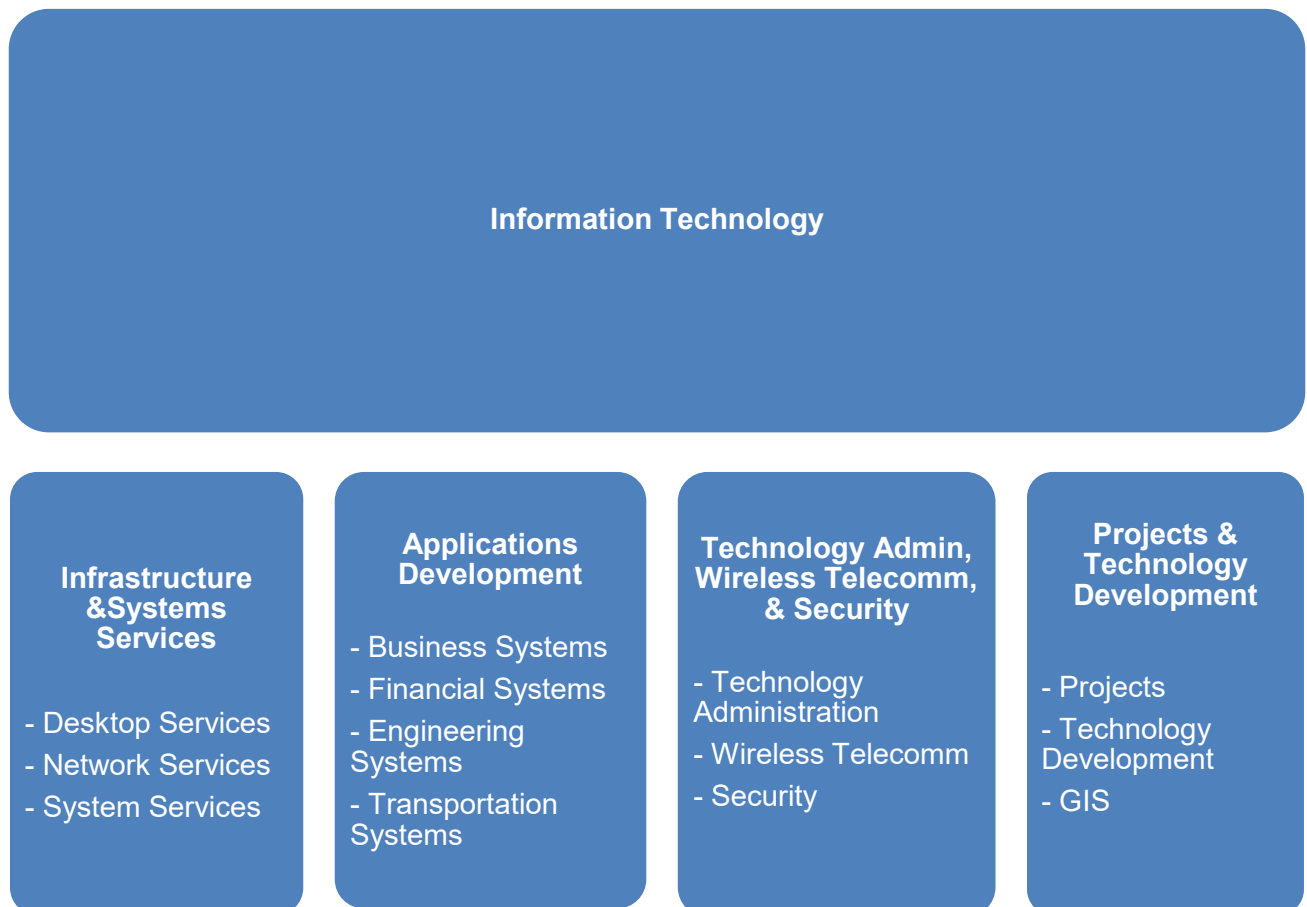
- Support staffing needs for the Governor Mario M. Cuomo Bridge and Shared Use Path by establishing/filling appropriate items necessary for its operation and maintenance and transition staff back to Authority positions, where necessary
- Support staffing needs for cashless tolling transition, including expansion of the E-ZPass Office
- Assist departments in succession planning
- Reach 100 percent participation for mandatory GOER training
- Resume Defensive Driving Training
- Complete Drug Awareness and Emotional Wellness training for the remainder of the Authority
- Schedule Diversity Day 2021
- Recommence the Skilled Trades Scholarship Program
- Promote Wellness initiative, including resuming the Wellness Fairs and Great Race
- Equal Employment Opportunity and Diversity Unit and Personnel will continue to enhance recruitment efforts with an emphasis on critical winter maintenance and skilled trade positions
- Update Authority policies and procedures, as necessary
- Revise the Supervisor's Handbook

Information Technology

Department Description

The Information Technology (IT) Department is responsible for managing the Thruway Authority's computer resources and infrastructure including the fiber optic communications network, video conferencing, cloud computing, Intranet and Internet services, email system, GIS, intelligent transportation systems, security systems, and the use of all computers, software, and telecommunications systems as well as the storing, retrieving, and transmission of the electronic data of the Thruway Authority. IT also develops and maintains financial systems, toll and transportation systems, business systems, engineering systems, network systems, and supports Federal Communications Commission licensing, the Governor Mario M. Cuomo Bridge systems, and all desktop, laptop, modems, and iPad devices. Moreover, IT developed and now manages the Thruway Mobile App. In addition, IT maintains several Data Centers including Headquarters, Tarrytown, and a Disaster Recovery site.

Department Organization



Department Budget Summary

INFORMATION TECHNOLOGY DEPARTMENT BUDGET					
Account Description	2019 Actual	2020 Revised	2021 Budget	\$ Change	% Change
Personal Services	7,553,474	7,562,026	7,580,318	18,292	0.2%
Allocations	(597,529)	(932,369)	(647,456)	284,913	-30.6%
Maintenance & Repair	828	1,650	-	(1,650)	-100.0%
Operating & Supplies	3,556,807	4,701,190	14,096,156	9,394,966	199.8%
Equipment/Projects not Capitalized	1,166,014	447,846	442,728	(5,118)	-1.1%
Department Total	11,679,594	11,780,343	21,471,746	9,691,403	82.3%

The 2021 Budget request is \$21.5 million, an increase of \$9,691,403 or 82.3 percent above the fiscal year 2020 Revised Budget amount. Total wages and salaries are \$7.6 million and this includes 87 positions.

Department Budget Highlights

- Personal Services increased by \$18,292, or 0.2 percent, and includes funding for 87 permanent positions, one more than last year.
- Allocations decreased by \$284,913, or 30.6 percent relative to anticipated labor hours associated with the AETC project.
- Operating & Supplies increased by \$9,394,966, or 199.8 percent mainly due to Fiber maintenance and marketing services costs.
- Equipment/Projects not Capitalized decreased by \$5,118, or 1.1 percent. 2019 includes funding for several one-time AETC related equipment purchases.

2020 Accomplishments

- For AETC:
 - Design, configure and install network equipment
 - Begin configuration and deployment of 70 plus VMS connections
 - Connect Yonkers 2nd phase CCTV and Fuel Station
 - Complete switch to automated toll collection
- For GMMCB Completed:
 - Maintenance Building and State Police Building connections and phone system installation
 - Shared Use Path Kiosks, Wi-Fi, and Pedestrian Counters
 - Comfort Station and Visitor Center network connections
 - TOC move from 303 to 333

- Accept the transfer and management responsibilities for numerous technology systems on the Governor Mario M. Cuomo Bridge (including security, structural health, intelligent transportation systems, bridge model, lighting, websites, and networks)
- Purchase, configure, and deploy 60 laptops and 45 desktops
- Update the standard image to include drivers from 2 additional models
- Facilitate & support the following changes:
 - Implementation of Microsoft Multifactor Authentication (MFA) for O365
 - Implementation of Microsoft Self-Service Password Reset (SSPR)
 - Implementation of MFA to replace RSA
 - Implement a Microsoft 365 training site for all users
 - Implement & maintain an Information Technology SharePoint site which is accessible from home without a token
- Upgrade Windows 10 to version 1909 and upgrade Microsoft Office to 64-bit
- Begin implementation of Microsoft cloud co-management to better secure and manage devices off our network and modernize our imaging process
- Deployed Chromium Edge and made it the default web browser
- Completed Windows 10 upgrade and complete Windows 7 support system clean up
- Plan for and facilitate a remote workforce which includes BYOD to cut costs
- Finalize development of a centralized statewide Computer-Aided Dispatch (CAD) system in partnership with New York State Police, ITS, and DOT
- Continued development of new Project Management Office policies and procedures (including full implementation of Microsoft Teams) to better track and manage major Authority IT initiatives
- Construct new circuit boards for Seasonal Weather Information System, to aid with highway maintenance needs during winter season.
- Develop infrastructure and policies to allow for telecommuting environment
- Redevelop desktop GIS tools and GISWeb applications with new ArcGIS Pro technology, to move away from obsolete environment and tools
- Facilitated new Verizon Authorized User Agreement enabling tens of thousands of dollars in service yearly savings
- Manage IT's 2020 hiring process, administrative purchasing and maintenance contract needs, and IT's 2021 budget process
- Upgrade 450+ 3G devices (phones and modems) to 4G to conform to Verizon's network upgrade and move the TDS modems to a Private VPN
- Implement Mobile Device Management (MDM) to enable tracking and security on mobile devices
- Reassigned several IT staff members to focus on areas such as security and systems with increased focus on:
 - Daily monitoring of security alerts
 - Responding to tasks identified by select security product scans
 - Data protection, risk prioritization and remediation, regulatory compliance, threat detection, and better securing the computing environment
 - Enhanced protection of Authority IT assets, including its reputation, from cyber security threats and attacks
 - Building greater resilience to cyber security threats and reduce disruption to business in response to cyber security incidents
- Perform Ongoing enhancements to the Thruway Mobile App in order to support the release of new mobile devices and operating systems on both Android and iOS platforms

- Replaced the legacy budget preparation and analysis application BRASS with Oracle Planning and Budgeting Cloud Service (PBCS)
- Begin Radio Tower Replacement Project's design and upgrade of network equipment
- Begin WIM site's fiber connection installation at 60.1 and DOT camera replacement at 60.4-TMC
- Upgrade Internet circuit, replacing existing circuit/service
- Continue design and installation of equipment for the Lower Hudson Valley Transit Link
- Move Transmit Sites from DOT/NITTEC to Albany Transcom Servers
- Improve surveillance system
- Developed Wellness Survey and Wellness Certification
- Added Juneteenth variations to Kronos/Timekeeper
- Complete modifications and upgrades in the HQ Data Center to address risk of non-redundant cooling due to added hardware, replace the UPS, and increase redundant electrical capacity to accommodate additional data center hardware; HQ Data Center reconstruction and network changes

2021 Goals

- Purchase, configure and deploy as many laptops and desktops we are allowed to purchase
- Continue implementation of Microsoft cloud co-management to better secure and manage devices off our network and modernize our imaging process
- Upgrade Dell Data Protection Enterprise encryption software
- Manage the Fiber Optic Program and new contract for fiber maintenance
- Facilitate and support a remote workforce
- Manage IT's 2021 hiring process, administrative, purchasing, and maintenance contract needs, and IT's 2022 budget process
- Update IT's Disaster Recovery Plan; test selected recovery procedures
- Full implementation and training for centralized statewide Computer-Aided Dispatch (CAD) system
- Rollout of ArcGIS Pro GIS software, with full suite of tools, end-user training, and support
- Commence multi-year project for the development of a major radio system upgrade to bring the Authority's land mobile radio system into compliance with the Governor's mandate for statewide emergency communications interoperability
- For AETC:
 - Removal/Decommission of plazas and relocation of ITSM elements
 - Complete configuration and deployment of the remaining 70 plus VMS connections
 - Remove ISDN/POTS/Circuits to Plazas
 - Integrate AETC security cameras into the GMMCB Nice Vision video management system
 - Enhance the AETC system as needed
- Transition to new E-ZPass CSC
- Migrate to new traffic counters
- Integrate new CAD system into existing systems
- Integrate the Exit 10 project security elements into the GMMCB Lenel and Nice Vision systems
- Upgrade the HQ Lenel install to the enterprise edition to expand licensing capacity

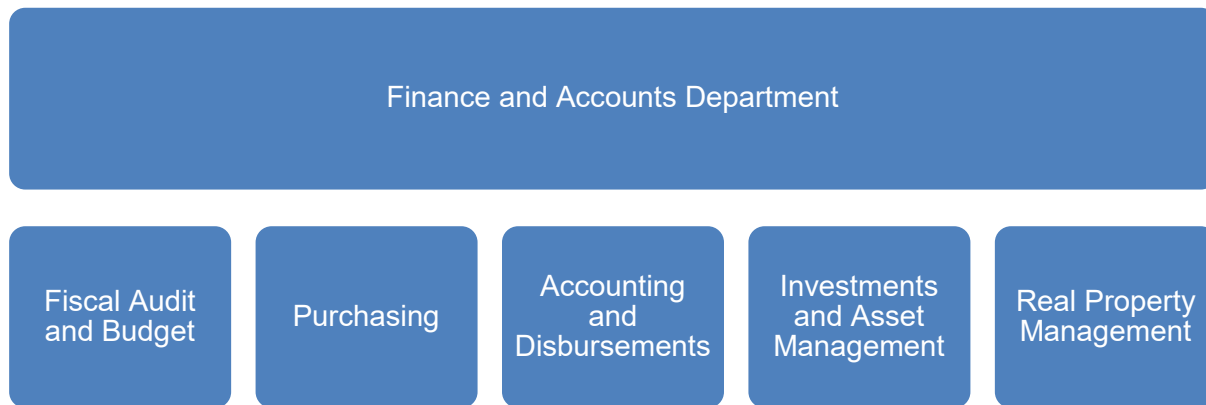
- Upgrade the service area Visix channel players to the latest-supported operating system release
- Update the legacy check processing Positive Pay and TFP Check application to new technology
- Complete the design and upgrade of network equipment for the Radio Tower Replacement Project
- Complete WIM site's fiber connection installation at 60.1
- Continue design and installation of equipment for the Lower Hudson Valley Transit Link
- Upgrade Travel Plazas in areas of fiber, Wi-Fi, and cameras
- Expand DocuSign environment
- Expand UIPath (RPA) for Accounts Receivable
- Maintain management responsibilities for the GMMCB systems and equipment that were newly transitioned from contractors
- Continue to focus on cyber security and compliance with ITS security policies
- Update various web apps to the latest supported operating systems
- Modify HRMS PeopleSoft due to the Toll RIF
- Interface equipment/vehicle info to NYS Asset Management System
- Implement interface(s) to NYS Contract System (with help from B2G)
- Upgrade apps to managed drivers and move to supported servers (TIPS, TMMS, SPARS, PBSS, ARMS, Online Prop Transfers, TOWR)

Finance and Accounts

Department Description

The Finance Department is responsible for the Thruway Authority’s fiscal matters. The Department ensures compliance with financial requirements, manages the Thruway Authority’s resources, structures financial plans to maintain debt service coverage, and works with all Departments to manage costs. Overall financial policies and reporting requirements are dictated by the terms of the Thruway Authority’s Bond Resolution, and mandated by statute or Executive Order. The Finance Department is also responsible for meeting deadlines and financial covenants of the bond resolution.

Department Organization



Department Budget Summary

FINANCE & ACCOUNTS DEPARTMENT BUDGET						
Account Description	2019 Actual	2020 Revised	2021 Budget	\$ Change	% Change	
Personal Services	7,922,465	7,809,061	7,473,644	(335,417)	-4.3%	
Allocations	(64,123)	(37,900)	(15,000)	22,900	-60.4%	
Maintenance & Repair	-	-	-	-	-	
Operating & Supplies	729,458	793,210	496,851	(296,359)	-37.4%	
Equipment/Projects not Capitalized	9,388	2,000	8,760	6,760	338.0%	
Department Total	8,597,188	8,566,371	7,964,255	(602,116)	-7.0%	

The 2021 Budget request is \$8.0 million, a decrease of \$602,116 or 7.0 percent below The 2020 Revised Budget amount. Total wages and salaries are \$7.5 million, and this includes 119 permanent positions which is down 8 positions from 2020.

Department Budget Highlights

- Personal Services decreased by \$335,417, or 4.3 percent, and includes funding for 119 permanent positions. The 2021 budget reflects the elimination of 8 positions.
- Operating & Supplies decreased by \$296,359, or 37.4 percent, mainly due to a reduction in toll deposit counting services associated with the anticipated transition to system-wide cashless tolling.

2020 Accomplishments

- Completed the issuance of the \$450 million New York State, General Revenue Bonds, Series N issuance.
- Managed the drawdown of an estimated \$94.2 million in State Thruway Stabilization funds supporting capital expenditures on the NNYB project (\$14.3 million) and system-wide maintenance and repair projects (\$79.9 million)
- Executed a plan to utilize existing Thruway resources as well as entering into short-term financing agreements to mitigate the negative revenue impacts associated with COVID-19 effects on the regional and national economy.
- Executed the development and implementation of a new authority-wide budgeting system.
- Developed and published the monthly financial reports, which can be found on the Thruway Authority's website

2021 Goals

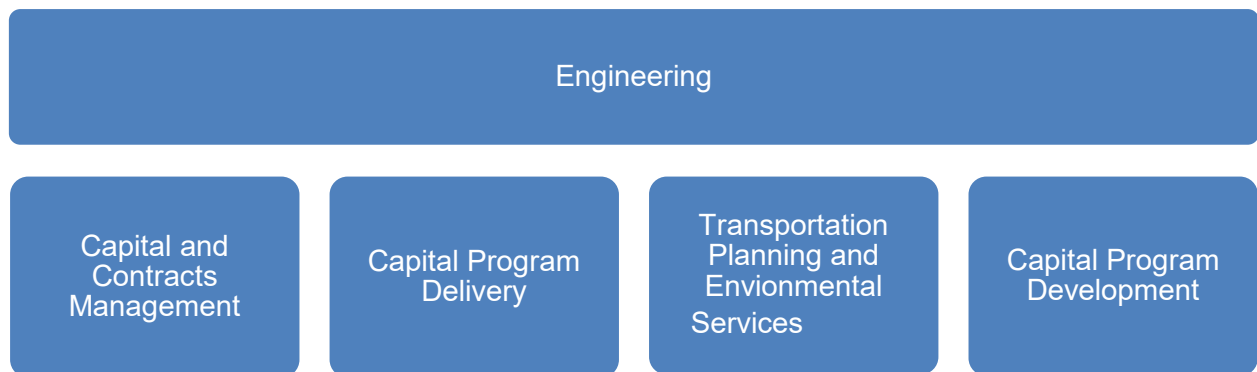
- Continue to monitor and respond to the revenue impacts associated with COVID-19 effects on the regional and national economy.
- Continuously improve the annual plan process for clarity and more transparency
- Produce a five-year capital plan based on best estimates for future planning needs
- Continue the complete and accurate reporting of the Thruway Authority's finances, including producing monthly financial statements, and focus on development of policies and procedures.

Engineering

Department Description

The Department of Engineering, led by the Chief Engineer, is comprised of Headquarters and Division staff, responsible for the engineering needs of the Thruway Authority. These functional areas of the Department all work collectively to develop and implement the Capital Program, starting with planning and program development, through project inception and design, to construction completion. The Engineering Department also supports the Department of Maintenance and Operations, at both the Headquarters and Division levels. The Department manages the Capital and Contracts Programs in accordance with the Contracts Program Board resolution and other mandates.

Department Organization



Department Budget Summary

ENGINEERING DEPARTMENT BUDGET					
Account Description	2019 Actual	2020 Revised	2021 Budget	\$ Change	% Change
Personal Services	13,207,424	13,744,545	14,263,815	519,270	3.8%
Allocations	(7,909,190)	(7,991,855)	(8,272,432)	(280,577)	3.5%
Maintenance & Repair	3,481	2,861	2,361	(500)	-17.5%
Operating & Supplies	544,941	812,478	795,896	(16,582)	-2.0%
Equipment/Projects not Capitalized	39,593	44,500	11,000	(33,500)	-75.3%
Department Total	5,886,249	6,612,529	6,800,640	188,111	2.8%

The 2021 Budget request is \$6.8 million, an increase of \$188,111 or 2.8 percent above the 2020 Revised Budget amount. Total wages and salaries are \$14.3 million and this includes 163 positions.

Department Budget Highlights

- Personal Services increased by \$519,270 or 3.8 percent and includes funding for 163 permanent positions.
- Allocations increased by \$280,577 or 3.5 percent, mainly due to projected increased wage rates which will result in higher allocations.
- Equipment/Projects not capitalized decreased \$33,500 or 75.3 percent.

2020 Accomplishments

- Completed work on the Shared Use Path crossing the Gov. Mario M Cuomo bridge to include conversion of Interchange 10 to incorporate a Comfort Station and parking lot on the Rockland side of the path.
- Completed the conversion of the ticketed system to Cashless Tolling. (Phase 1 of the Design-Build Best Value Contract).
- Completed rehabilitation of the pavement and reconstruction of the shoulders through the Cattaraugus Territory of the Seneca Nation of Indians.
- Continued the I-95 (New England Thruway) “Last Mile” construction contract, which was awarded using a Design-Bid-Build Best Value procurement process.

2021 Goals

- Continue coordination efforts and initiatives with our transportation partners (including NYSDOT, NYS Bridge Authority and NYS Canal Corp), with the result of realizing efficiencies and savings through “shared services” and other arrangements.
- Reorganize and Re-imagine Engineering Staff positions and tasks to optimize Engineering Consultant expenditures.
- Continue promoting environmental compliance and instituting sustainable practices. The implementation of cashless tolling is estimated to result in GHG emission reductions which equate to an approximate annual savings of 4.4 million gallons of gasoline, or \$10.7 million.
- Continue the process to replace the existing capital and contracts management systems with a new system that supports electronic bidding, electronic submission of estimates for contractors and consultants, and enhanced reporting.
- Continue developing long range plans for all 814 bridges.
- Complete the removal of existing toll plaza structures following the conversion of the ticketed system to Cashless Tolling. (Phase 2 of the Design-Build Best Value Contract).
- Completion of the I-95 (New England Thruway) “Last Mile” construction contract, which was awarded using a Design-Bid-Build Best Value procurement process.
- Begin structural steel rehabilitation and deck replacement on the Castleton Bridge over the Hudson River.

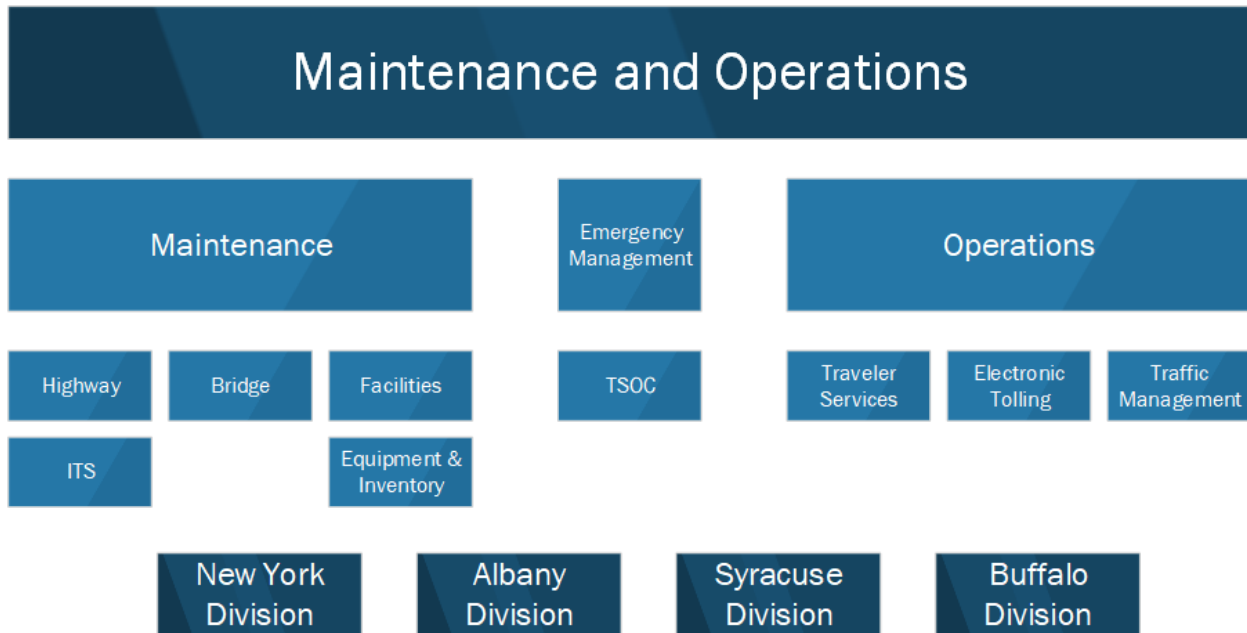
Maintenance and Operations

Department Description

The Department of Maintenance and Operations establishes budgets, priorities and performance standards for maintenance activities for the highway, bridge and facilities infrastructure, as well as the motorized, toll and ITS equipment owned and operated by the Thruway Authority. The Department includes the four Divisions where the daily operations of the Thruway Authority are directed. Whether repairing bridge and highway infrastructure, maintaining vehicles and construction equipment, or collecting toll revenue, employees work to ensure safe and reliable travel for patrons each day. The Thruway Authority's winter maintenance program is implemented in the Divisions with overall program direction provided by Headquarters staff. The Department works in collaboration with the Department of Engineering to develop the Authority's multi-year Capital Program. This effort involves project initiation, prioritization and programming of capital work for the entire Thruway system.

The Department is also responsible for managing programs for cash Toll Collection, and Travelers' Services, which manage contracts that operate 27 Service Areas throughout the system. Traffic Management includes administration of the Thruway Authority's authorized towing program and the tandem truck permit program. The E-ZPass office manages electronic toll collection contracts which include E-ZPass, cashless tolling and violation enforcement. In addition, Maintenance and Operations includes the Thruway Statewide Operations Center (TSOC). TSOC is a twenty-four hours a day modified 911 center. The Department is also responsible for the Thruway Authority's emergency response and incident management activities through the Office of Emergency Management.

Department Budget Summary



MAINTENANCE BUDGET					
Account Description	2019 Actual	2020 Revised	2021 Budget	\$ Change	% Change
Personal Services	64,240,710	62,460,923	63,097,468	636,545	1.0%
Allocations	(4,307,637)	(2,601,808)	(5,138,301)	(2,536,493)	97.5%
Maintenance & Repair	24,480,298	19,907,753	24,335,285	4,427,532	22.2%
Operating & Supplies	7,016,713	7,149,125	6,243,639	(905,486)	-12.7%
Equipment/Projects not Capitalized	<u>1,743,272</u>	<u>1,523,014</u>	<u>1,354,750</u>	<u>(168,264)</u>	<u>-11.0%</u>
Department Total	93,173,356	88,439,007	89,892,841	1,453,834	1.64%

The 2021 Budget request is \$89.9 million, an increase of \$1,453,834 or 1.64 percent above the fiscal year 2020 Revised Budget amount. Total wages and salaries are \$63.1 million and this includes 1,016 positions.

Maintenance Budget Highlights

- Personal Services increased by \$636,545, or 1.0 percent, and includes funding for 1,016 permanent positions.
- Personal Service Allocations increased \$2,536,493, or 97.5%, based on planned capital projects.

- Maintenance and Repair increased \$4,427,532 or 22.2 percent, mainly due to anticipated increases in bridge inspection and pavement striping contract costs, snow and ice control and non-contract highway costs.
- Operating and Supplies decreased by \$905,486 or 12.7 percent, mainly due to anticipated federal reimbursement on pavement striping contracts.
- Equipment & Projects Not Capitalized decreased \$168,264, or 11.0%, mainly attributable to a reduction in operating project funding and work.

2020 Accomplishments

- Completed comprehensive program of preventive and corrective maintenance on the bridge, highway, and facility infrastructure
- Conducted simulated “road closure” drills in all divisions
- Trained first responder partners utilizing a modified Highway Safety Training/TIMS program
- Improved winter operations program with addition of strategic salt storage and operational enhancements.
- Took occupancy of new maintenance facility at Governor Mario M. Cuomo Bridge.
- Completed Malden Service Area water tie into the Saugerties municipal waterline.
- Completed Junius Pond Service Area sewer tie into the Seneca County municipal sewer line.
- Upgraded three fueling sites in Syracuse Division to support storm responses and vehicle deployments.
- Replaced over 200 highway light poles and fixtures in Buffalo Division.
- Finalized transition plan for the Governor Mario M. Cuomo Bridge, full responsibility for the operation and maintenance of the bridges and Shared Use Path.

2021 Goals

- Complete all programmed maintenance projects and preventive maintenance
- Implement training and resources for new required safety standards
- Continue strategic plan to upgrade facilities to meet current standards and operational needs
- Further expand the Thruway Authority’s alternative energy initiatives
- Refine sustainable right-of-way management practices to advance environmental stewardship goals
- Conduct staffing review of Maintenance and Operations positions across Headquarters and all Divisions to identify inconsistencies and improve operational efficiency

EQUIPMENT & INVENTORY MANAGEMENT BUDGET

Account Description	2019 Actual	2020 Revised	2021 Budget	\$ Change	% Change
Personal Services	17,201,000	17,812,745	18,012,168	199,423	1.1%
Allocations	(834,462)	(1,440,693)	(1,109,118)	331,575	-23.0%
Maintenance & Repair	10,774,918	10,203,150	10,151,649	(51,501)	-0.5%
Operating & Supplies	1,327,329	1,501,177	3,181,710	1,680,533	111.9%
Equipment/Projects not Capitalized	177,003	86,210	146,250	60,040	69.6%
Department Total	28,645,788	28,162,589	30,382,659	2,220,070	7.9%

The 2021 Budget request is \$30.4 million, an increase of \$2,220,070 or 7.9 percent above the fiscal year 2020 Revised Budget amount. Total wages and salaries are \$18.0 million and this includes 310 positions.

Equipment and Inventory Budget Highlights

- Personal Services increased by \$199,423, or 1.1 percent, and includes funding for 310 permanent positions. The 2021 budget reflects increased wage rates that are part of negotiated union contracts.
- Allocations decreased by \$331,575 or 23.0 percent, mainly due to decrease in anticipated labor hours associated with ITSM capital work.
- Maintenance & Repairs decreased by \$51,501 or 0.5 percent mainly due to decreases in Auto Repairs, Perishable Tools and claim reimbursement offset by an increase in fuel and toll and ITS equipment costs.
- Operating & Supplies increased \$1,680,533 or 111.9 percent, mainly due to an anticipated increase in toll system monitoring and maintenance costs.

2020 Accomplishments

- Electric Vehicle Initiative – The Thruway Authority’s fleet added our first level 3 fast charge vehicle and expanded charging stations to several sites in the Albany Division.
- Two battery powered UTV’s have been added for exclusive use on the Shared Use Path on the Governor Mario M. Cuomo Bridge.
- Fuel System Networked – All fueling locations are now networked which has improved system dependability and data flow improving maintenance operations
- Continue second year of the Toll Electronic Systems Technician Trainee program
- Successfully maintained a high level of reliability for over 400 toll lanes, 800 ITS elements and associated peripheral equipment
- Completed installation of four additional permanent Variable Message Signs to replace current use of portable signs
- As part of cashless tolling transition, installed open road tolling ramp gantry equipment at 34 interchange locations

2021 Goals

- Continue to enhance the Thruway Authority's fleet by replacing a number of gasoline powered vehicles in division pools with electric and expand charging station infrastructure across the system.
- Upgrade the Thruway Authority's fueling system to Ward 4 terminals and improve operating infrastructure and efficiency
- Continue to maintain a high reliability of toll and ITS systems while training and adapting personnel to new technologies in these areas including the new cashless tolling system
- Surplus all toll ticket system machines, components and parts
- Continue to investigate the potential use of alternative fuel equipment, including solar, to further reduce our carbon footprint.

TRAFFIC & COMMUNICATIONS BUDGET					
Account Description	2019 Actual	2020 Revised	2021 Budget	\$ Change	% Change
Personal Services	6,721,705	7,033,188	7,288,322	255,134	3.6%
Allocations	-	-	-	-	-
Maintenance & Repair	6,981	2,930	2,700	(230)	-7.8%
Operating & Supplies	2,166,108	2,051,276	2,146,977	95,701	4.7%
Equipment/Projects not Capitalized	23,585	24,275	2,400	(21,875)	-90.1%
Department Total	8,918,379	9,111,669	9,440,399	328,730	3.6%

The 2021 Budget request is \$9.4 million, an increase of \$328,730 or 3.6 percent above the fiscal year 2020 Revised Budget amount. Total wages and salaries are \$7.3 million, and this includes 111 positions.

Traffic and Communications Budget Highlights

- Personal Services increased by \$255,134, or 3.6 percent, and includes funding for 111 permanent positions.
- Operating & Supplies increased by \$95,701 or 4.7 percent, mainly due to addition of the Intelligent Transportation System for Governor Mario M. Cuomo Bridge offset by a reduction in Telephone expense.
- Equipment & Projects Not Capitalized decreased \$21,875, or 90.1%. 2020 included added costs for monitors and related equipment for TSOC.

2020 Accomplishments

- Integrated laptops into Traffic Supervisor vehicles to support emergency response
- Implemented aggressive Move Over Law education campaign through events on and off the Thruway system
- Developed a public service announcement for Move Over safety campaign
- Developed a Continuity of Operations plan
- Updated the Thruway Authority’s Emergency Management Operations Protocol (EMOP) document.
- Completed the Service Area procurement with the selection of a vendor to modernize and operate the Thruway Authority’s 27 Service Areas
- Installed Level 2 Electric Vehicle charging stations at select commuter lots, Level 3 at select service areas and Level 2 and Level 3 units at the Governor Mario M. Cuomo Bridge landings.
- Trained first responder partners utilizing a modified Highway Safety Training/TIMS program
- Held the first of three, first responder partners meetings to discuss access and response to incidents on the Governor Mario M. Cuomo Bridge Shared Use Path (SUP)

2021 Goals

- Continue to work with local first responders to improve and streamline response to incidents on the new Governor Mario M. Cuomo Bridge
- Replace the CARS System used for Traffic Management in TSOC with DYNAC, the new technology used on the new Governor Mario M. Cuomo Bridge
- Continue to educate motorists and train staff, including Authorized Tow Operators, on the Move Over Law.
- Implement a new Computer Aided Dispatch in conjunction with State Police and NYSDOT
- Build out a new TSOC that will upgrade the capabilities for traffic management and dispatching services.
- Begin construction at select Service Areas
- Update Service Area inspections to account for change in services due to the new lease agreement and impacts due to COVID-19.
- Increase efficiencies within the Office of Travelers' Service and Traffic Management by processing forms online and via email.

TOLL COLLECTION BUDGET					
Account Description	2019 Actual	2020 Revised	2021 Budget	\$ Change	% Change
Personal Services	28,487,918	26,052,334	1,338,432	(24,713,902)	-94.9%
Allocations	-	-	-	-	0.0%
Maintenance & Repair	14,083	10,800	-	(10,800)	-100.0%
Operating & Supplies	2,484,220	60,402,540	81,271,662	20,869,122	34.6%
Equipment/Projects not Capitalized	8,195	6,830	-	(6,830)	-100.0%
Department Total	30,994,416	86,472,504	82,610,094	(3,862,410)	-4.5%

The 2021 Budget request is \$82.6 million, a decrease of \$3,862,410 or 4.5 percent below the fiscal year 2020 Revised Budget amount. Total wages and salaries are \$1.3 million and this includes 21 positions.

Toll Collection Budget Highlights

- Personal Services decreased by \$24,713,902 or 94.86 percent, and includes funding for 21 permanent positions, an overall reduction of 236 positions from 2020. This reduction is relative to the transition to cashless tolling.
- Operating & Supplies increased \$20,869,122, or 34.6 percent, mainly due to increased costs associated with E-ZPass Administration and Tolls By Mail Administration.

2020 Accomplishments

- Coordinated with Kapsch to implement their cashless tolling system at the mainline gantries.
- Implemented Emergency Tolling Program on ticketed System in response to COVID-19
- Reissued the systems and operations RFPs for the E-ZPass/Toll By Mail Customer Service Center services
- Continued to work with Human Resources to implement strategies to assist affected toll positions in obtaining other employment and retention until Cashless Tolling Go Live
- Developed and implemented a Toll Advocacy Program
- Developed an E-ZPass email snapshot that is sent to E-ZPass customers with their statement notification.
- Worked with MTA Bridges & Tunnels and Port Authority of NY & NJ to implement a TollsNY app to support E-ZPass and Tolls By Mail customers
- Issued RFP for collections contract
- Assisting New York Bridge Authority in their transition to cashless tolling
- Working with Conduent to implement transaction processing changes to support the cashless tolling on the ticketed system.
- Worked with E-ZPass group to convert entire state of Florida and Georgia to E-ZPass
- Worked with New York Department of Motor Vehicles to receive updated plate files to support E-ZPass customers

2021 Goals

- Implement first-call resolution to improve customer service
- Develop methods for 3rd party applications (Amazon Alexis, Google Voice, chat bots) to enhance the E-ZPass customer experience
- Further efforts with the E-ZPass Interagency Group to implement a HUB that will support regional and national interoperability
- Develop Pilot program with State Police to focus on E-ZPass violators/DMV suspensions
- Execute reciprocal agreements with other states in support of violation enforcement
- Adjust E-ZPass office staffing levels to provide service levels that support the growth in cashless tolling
- Develop an Agreement with the Province of Ontario for obtaining customer names and addresses in support of Cashless Tolling



LONG RANGE FINANCIAL PLAN

Long-Term Financial Plan
Per the Thruway Authority General Revenue Bond Resolution
(millions)

	ACTUAL 2019	Revised Rev. Budget 2020	Proposed 2021	Estimated 2022	Estimated 2023	Estimated 2024
Toll Revenue	739.9	616.6	708.6	750.5	765.8	785.7
Other Revenues	72.2	50.9	77.5	97.2	92.1	92.1
Additional Revenue Need					0.0	0.0
Total Revenue Target	812.1	667.5	786.2	847.7	857.9	877.8
Thruway Operating Expenses	350.9	352.9	359.4	358.9	366.1	373.4
Reserve for Claims and Indemnities, Environmental Remediation & Cashless Tolling Transition	6.0	1.0	1.0	1.0	1.0	1.0
Net Revenue (A)	455.2	313.7	425.8	487.7	490.8	503.4
Current Senior Debt Service Outstanding	232.9	167.8	241.5	264.1	252.6	257.3
Proposed Senior Bonds and refunding	0.0	0.0	0.0	0.0	0.0	1.7
Less Interest Earnings on Sr. Debt Srvc Res Funds	(6.1)	0.0	(0.7)	(0.8)	(0.8)	(0.9)
Net Senior Debt Service (B)	226.8	167.8	240.8	263.3	251.7	258.2
Net Revenue after Senior Debt Service	228.5	145.9	184.9	224.4	239.1	245.2
Adjust to Cash basis/Retain for Working Capital	13.6	67.9	6.5	0.0	0.0	0.0
Reserve Maintenance Deposit	131.4	127.9	30.2	95.8	64.6	64.2
Total Junior Debt Service	47.7	23.5	46.7	63.6	108.7	110.5
Proposed Junior Bonds	0.0	0.0	0.0	0.0	0.0	3.5
Less Interest Earnings on Jr. Debt Srvc Res Funds	(0.3)	(0.4)	(0.4)	(0.3)	(0.3)	(0.3)
Net Junior Debt Service (C)	47.4	23.2	46.4	63.3	108.4	113.7
Facilities Capital Improvement Deposit	8.0	0.0	0.0	0.0	0.0	0.0
General Reserve Fund Provision - State Police and JIAN int.	55.2	62.8	115.0	65.3	66.0	67.4
Balance	0.0	0.0	0.0	0.0	0.0	0.0
Senior Debt Service Coverage Ratio (A/B) (1)	2.01	1.87	1.77	1.85	1.95	1.95
Senior & Junior Debt Service Coverage Ratio (A/(B+C))	1.66	1.64	1.48	1.49	1.36	1.35

Schedule of Senior Debt Service for The Thruway Capital Program (millions)							
Series	Principal Balance 1/1/21 or when issued	Year of Issuance	2020	2021	2022	2023	2024
Series I	177.9	2012	29.5	33.5	33.5	4.0	4.0
Series J	593.1	2014	30.0	44.8	44.7	69.1	82.3
Series K	686.8	2014	44.3	61.9	61.9	61.9	48.8
Series L (Refunding)	492.2	2018	50.7	56.5	79.1	54.7	54.7
Debt Refunding (Series M)	857.6	2019	13.1	26.3	26.3	44.2	49.0
Series N	450.0	2020	0.0	18.6	18.6	18.6	18.6
Subtotal : Current Debt Service			167.8	241.5	264.1	252.6	257.3
Series O (Proposed)	68.7	2021	0.0	0.0	0.0	0.0	1.7
Series P (Proposed)	234.7	2022	0.0	0.0	0.0	0.0	0.0
Series Q (Proposed)	270.4	2023	0.0	0.0	0.0	0.0	0.0
Series R (Proposed)	244.0	2024	0.0	0.0	0.0	0.0	0.0
Summary			2020	2021	2022	2023	2024
Total Annual Senior Debt Service			167.8	241.5	264.1	252.6	259.0
Annual Change in Senior Debt Service as a % of Revenues			-3.5%	5.6%	0.4%	-1.3%	-1.7%
Cumulative Senior Debt Service as a % of Revenues			25.1%	30.7%	31.2%	29.4%	29.5%
Outstanding Senior Debt at End of Year			3,257.7	3,223.6	3,327.9	3,443.6	3,550.5

Notes:

The Projected Senior Debt Service is based on issuing 30 year bonds in the amount needed to fund the Thruway Capital Program and assumes it would be issued during the year at an interest rate between 3.5 percent and 5.0 percent. In some years, Capitalized interest is used to fund Debt service. Total revenues from Thruway tolls, concessionaire revenue, interest and other revenue sources are pledged to senior debt service. The limit on senior debt capacity is reached once the debt service coverage ratio drops below 1.2 X coverage.

Schedule of Junior Indebtedness Obligation for The New NY Bridge Project

Series	Principal Balance 1/1/21 or when issued	Year of Issuance	2020	2021	2022	2023	2024
Series 2016 A	849.8	2016	20.7	41.2	41.2	41.2	42.9
TIFIA 2019 B	1,628.0	2019	0.8	1.7	18.5	63.7	63.7
Series 2019 B (New)	64.7	2019	2.0	3.9	3.9	3.9	3.9
Series 2021 A (Proposed)	312.3	2021	0.0	0.0	0.0	0.0	3.5

Summary	2020	2021	2022	2023	2024
Total Annual Junior Debt Service	23.5	46.7	63.6	108.7	114.0
Annual Change in Junior Debt Service as a % of Revenues	-2.3%	2.4%	1.6%	1.6%	5.5%
Cumulative Junior Debt Service as a % of Revenues	3.5%	5.9%	7.5%	7.5%	13.0%
Outstanding Junior Debt at End of Year	2,542.4	2,541.1	2,539.7	2,538.2	2,535.0

Notes:

The Projected Jr. Debt Service is based on issuing short term notes and bonds in the amount needed to fund the New NY Bridge Project and includes the Series 2013 A JIO's taken out in September 2019 with the Tifia Loan which was then refinanced in October 2019. After 2019, JIO's would be issued between 3.5 percent and 5.0 percent. Total revenues from Thruway tolls, concessionaire revenue, interest and other revenue sources are pledged to debt service. The limit on debt capacity is reached once the debt service coverage ratio drops below 1.2 X coverage.



MULTI-YEAR CAPITAL PLAN

2021 Budget - Capital Program Sources and Uses

(millions)

	2019	2020 Revised	2021 - 2025 Capital Program					2021-25 Total
			2021	2022	2023	2024	2025	
Thruway:								
Highways	148.2	103.0	79.5	164.2	188.7	177.9	158.0	768.3
Bridges	73.9	40.6	91.4	88.6	82.0	88.4	114.3	464.8
Facilities	12.4	11.6	9.8	10.1	7.6	12.7	11.7	52.0
Equipment	25.2	31.7	31.3	33.0	34.2	34.8	34.8	168.1
Cashless Tolling	130.4	258.2	108.6	11.1	0.0	0.0	0.0	119.7
Intelligent Transportation Systems	2.6	3.4	0.8	5.0	2.1	0.3	1.1	9.3
Sub Total - Thruway	392.8	448.5	321.5	311.9	314.6	314.2	320.1	1,582.3
New NY Bridge Project:								
New NY Bridge	171.6	95.0	52.8	216.0	0.0	0.0	0.0	268.8
Sub Total - New NY Bridge Project	171.6	95.0	52.8	216.0	0.0	0.0	0.0	268.8
Grand Total	564.5	543.5	374.3	527.9	314.6	314.2	320.1	1,851.1

	2019	2020 Revised	2021 - 2024 Capital Program					2021-25 Total
			2021	2022	2023	2024	2025	
Thruway:								
Senior Debt	0.0	237.2	291.3	216.2	249.9	249.9	288.6	1,295.8
Reserve Maintenance Fund	112.8	127.9	30.2	95.8	64.6	64.2	30.0	284.7
General Reserve Funds	74.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Federal, State and Other Funds	3.2	3.6	0.0	0.0	0.1	0.1	1.5	1.8
Thruway Stabilization Program Funds	201.9	79.9	0.0	0.0	0.0	0.0	0.0	0.0
Sub Total - Thruway and Canal	392.8	448.5	321.5	311.9	314.6	314.2	320.1	1,582.3
New NY Bridge Project:								
Junior Debt	0.0	75.0	50.5	216.0	0.0	0.0	0.0	266.5
Facilities Capital Improvement Fund	9.0	5.7	2.3	0.0	0.0	0.0	0.0	2.3
Federal, State and Other Funds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Thruway Stabilization Program Funds	162.6	14.3	0.0	0.0	0.0	0.0	0.0	0.0
Sub Total - New NY Bridge Project	171.6	95.0	52.8	216.0	0.0	0.0	0.0	268.8
Grand Total	564.5	543.5	374.3	527.9	314.6	314.2	320.1	1,851.1

CAPITAL PROGRAM DEVELOPMENT SUMMARY

Overview:

- The Authority maintains a “rolling” 5-year Capital Program. Annually, a team comprised of members from Maintenance & Operations, Engineering, and Divisions, will develop a draft new fifth year of the Program and re-evaluate the current Program based on conditions, finances, emergencies, regulatory requirements, etc.

Tasks and Timeline:

- **By 1st week in January** – Engineering and Maintenance & Operations will meet to discuss programmatic or other priorities and any new/revised construction methods which could influence project identification or prioritization for Highway, Bridge, Architecture and ITS needs Thruway-wide.
- **By 3rd week in January** – Based upon asset management data, Engineering will provide the following in order to start preparing for the annual project review field visits:
 - A draft proposed list of projects for the new fifth year of the Capital Program with recommended treatments.
 - A draft proposed list of projects that may need to be reviewed/re-scoped based upon discussions (see above) and trends/conditions. These changes will be limited to the 4th and 5th years of the current capital program.
 - Note: In the revised process, the Capital Program Project Proposal (CPPP) will be replaced with project lists and some project detail sheets (for field visit use). These will be used to document the Capital Program update.
- **By 4th week in January** - Maintenance & Operations sends the draft lists to the Divisions for review and input.
- **By 2nd week in March** – Using the draft lists provided to them, the Divisions will submit their program recommendations for the new fifth year to Maintenance & Operations. The submission will include appropriate project checklists for new projects, as well as an identification of any unusual items of work likely to have significant cost impact. For changes requested to existing projects, a revised project checklist will be submitted. (Revised checklists will be developed for this effort and they will be used during the field visits).
- **By 3rd week in March** – Working together, Maintenance & Operations and Engineering will develop a final list of projects to be reviewed during the field visits. Lists can be updated based upon spring conditions.

- **By end of April** - The Department of Finance & Accounts will provide funding projections to Capital Program & Contracts Management. Capital Program & Contracts Management will provide proposed annual letting totals to the Department of Maintenance & Operations to assist in program development.
- **By 2nd week of May** – Maintenance & Operations will ensure completion of all capital project field visits. Attendees for the field visits will include staff from Maintenance & Operations, Division Maintenance, Engineering and others as determined by the team.
- **By 2nd week of June** - Maintenance & Operations and Engineering will develop a new draft 5-year Program based on review and concurrence of the Division submissions and the outcome of the field visits. This 5-year Program will be submitted to Capital Program & Contracts Management.
- **By 3rd week of June** - Capital Program & Contracts Management will coordinate review by Design and Environmental Services for program deliverability. Any necessary changes will be coordinated with Maintenance & Operations and the Department of Engineering, as appropriate.
- **By 1st week of July** - Capital Program & Contracts Management will review the program for final conformance to the financial model to meet cash flow requirements. Any necessary changes will be coordinated with the Department of Maintenance & Operations and Department of Engineering, as appropriate.
- **By mid-July** - The Capital Program Executive Committee will review the proposed Capital Program for conformance to established goals and objectives.
- **By late-July** - Cash flow numbers for inclusion in the annual Budgets (to be presented to the Boards for final approval) will be finalized.
- **By early September** – Final 5-year Capital Program project lists will be developed for inclusion in the annual budget books for presentation to the Boards and public.

NYS THRUWAY AUTHORITY

Proposed 2021-2025 Capital Program Letting List as of 9/25/2020

New York Division Projects

LETTING		ITEM NO.	MILEPOST	PROJECT DESCRIPTION	ESTIMATED CONSTRUCTION CONTRACT VALUE
YEAR	QTR.				
2021	3	H353.1	MP: 600.00	I-95, New England Thruway: Highway Improvements 2022-2023	\$10,000,000
	1	B763.1	MP: 600.17	I-95 (New England Thruway) Bridge Maintenance Cleaning for Steel Preservation - 2021	\$700,000
	3	B284.1	MP: 605.76	MP NE5.76: North Avenue Bridge over I-95 (New England Thruway) - Replacement	\$18,000,000
	1	H343.1	MP: 608.80	I-95, New England Thruway: North of Exit 17 to north of Exit 18B Northbound Only and north of Exit 19 to north of Exit 21: Pavement Resurfacing	\$25,000,000
	1	H748.1	NY Div.	New York Division: Pavement Safety Striping - 2021	\$700,000
2021 Total					\$54,400,000
2022	3	H9.1	MP: 12.85	MP 12.85: Improvements to I-87 Interchange 9 Ramp Intersection with Route 9 and Construct Route 9/I-87 Pedestrian Bridge	\$14,000,000
	1	H342.1	MP: 16.20	South of Nyack (MP 16.2) to south of Spring Valley Toll Barrier: Pavement Resurfacing	\$34,000,000
	1	H165.1	MP: 29.40	I-287/Route 17S (Exit 15, MP 29.4) to north of Suffern (MP 38.7): Pavement Resurfacing	\$35,000,000
	1	H440.1	MP: 43.00	South of Harriman Toll Barrier (Exit 16, MP 43.0) to north of Woodbury Toll Barrier (MP 46.0): Pavement Resurfacing	\$5,000,000
	2	A750.1	MP: 45.20	Harriman Maintenance Section and Toll Building (Exit 16, MP 45.2): Connect to Municipal Water, Sewer and Gas	\$1,600,000
	4	B762.1	MP: 60.95	MP 60.95: Meadow Hill Road Bridge over Thruway - Rehabilitation	\$2,500,000
	1	H345.1	MP: 600.00	I-95, New England Thruway: Highway Improvements 2022-2023	\$48,000,000
	1	B780.1	MP: 600.17	I-95 (New England Thruway) Bridge Maintenance Cleaning for Steel Preservation - 2022	\$700,000
	1	H864.2	MP: 640.00	Garden State Parkway Connector (MP GS0.00 to MP GS2.40): Pavement Resurfacing	\$3,500,000
	1	I112.1	NY Div.	Replacement of ITS Equipment in New York Division	\$2,500,000
	4	B778.1	NY Div.	New York Division: On-Demand Repair Contract - 2023-2024	\$3,000,000
2022 Total					\$149,800,000

New York Division Projects

LETTING		ITEM NO.	MILEPOST	PROJECT DESCRIPTION	ESTIMATED
YEAR	QTR.				CONSTRUCTION
					CONTRACT VALUE
2023	2	H1045.1	MP: 0.00	Major Deegan Expressway (MP 0.00) to Cross Westchester Expressway (Exit 8, MP 11.3): Pavement Resurfacing	\$34,000,000
	1	H139.1	MP: 24.00	North of Garden State Parkway Connector (MP 24.0) to south of I-287/Route 17S (Exit 15, MP 29.4): Pavement Resurfacing	\$12,200,000
	1	H161.1	MP: 46.00	North of Harriman Toll Barrier (MP 46.0) to Newburgh (MP 60.1): Pavement Resurfacing	\$28,200,000
	4	H355.1	MP: 600.00	I-95, New England Thruway: Highway Rehabilitation 2024-2025	\$34,000,000
	4	H556.1	MP: 600.00	I-95, New England Thruway: Highway Improvements 2024-2025	\$10,000,000
	1	B782.1	MP: 600.17	I-95 (New England Thruway) Bridge Maintenance Cleaning for Steel Preservation - 2023	\$700,000
	4	B728.1	MP: 600.23	Rehabilitation of Four I-95 (New England Thruway) Bridges	\$1,500,000
	4	B630.1	MP: 601.56	222nd Street and Dyre Avenue Pedestrian Bridges and Baychester Road Bridge: Substructure Rehabilitations	\$3,500,000
2023 Total					\$124,100,000
2024	2	H138.1	MP: 11.30	I-287 (MP 11.00) to Governor Mario M. Cuomo Bridge Toll Barrier (MP 13.0): Pavement Resurfacing	\$3,900,000
	1	A169.1	MP: 18.80	MP 18.80: New York Maintenance Facility - Replace Metal Buildings	\$2,500,000
	1	A361.1	MP: 18.80	MP 18.8: Nyack Maintenance - Construct Vehicle Wash Bay and Storage	\$2,313,000
	1	A877.1	MP: 45.20	MP 45.2: Harriman Maintenance Section - Equipment Storage Building Wash Bay	\$950,000
	4	A359.1	MP: 45.20	MP 45.2: Replacement of a Deteriorated Roof at the Harriman Maintenance Section	\$370,000
	4	A370.1	MP: 45.20	MP 45.2: Harriman Maintenance Section - Renovations	\$1,000,000
	3	B884.1	MP: 47.58	MP 47.58: Pine Hill Road Bridge over Thruway - Replacement	\$6,500,000
	1	H25.1	NY Div.	New York Division: Various Culvert Rehabilitations/Replacements - 2023	\$5,000,000
2024 Total					\$22,533,000

New York Division Projects

LETTING		ITEM NO.	MILEPOST	PROJECT DESCRIPTION	ESTIMATED CONSTRUCTION CONTRACT VALUE
YEAR	QTR.				
2025	1	H555.1	MP: 60.10	Newburgh (Exit 17, MP 60.1) to south of New Paltz (Exit 18, MP 68.0): Pavement Resurfacing	\$10,000,000
	1	B661.1	MP: 605.09	MP NE5.09: I-95 (New England Thruway) Viaduct, Railroad Span (New Rochelle) - Rehabilitation	\$4,000,000
	1	B2223.1	MP: 607.64	MP 607.64: Chatsworth Avenue Bridge over I-95 (New England Thruway) - Rehabilitation	\$2,500,000
	1	B700.1	MP: 607.72	MP NE7.72: Larchmont Station Plaza - Substructure Repairs	\$2,000,000
	1	H434.1	MP: 608.80	I-95 (New England Thruway), Mamaroneck (MP NE8.8, Exit 18A) to White Plains (MP NE10.8, Exit 18B): Pavement Resurfacing (SB Only)	\$2,500,000
2025 Total					\$21,000,000
2021-2025 New York Division Total					\$371,833,000
Albany Division Projects					
2021	2	B686.1	MP: 84.14	Albany Division: Bridge Scour Repairs at Various Locations	\$1,200,000
	1	H331.3	MP: 121.20	North of Coxsackie (MP 121.2) to south of Albany (MP 141.9): Safety Upgrades	\$5,000,000
	1	A368.2	MP: 141.92	MP 141.92: Administrative Headquarters - Computer Room Renovations	\$2,000,000
	1	B735.1	MP: 801.08	MP 801.08: Castleton Bridge - Rehabilitation	\$50,000,000
	1	H748.2	ALB Div.	Albany and Syracuse Divisions: Pavement Safety Striping - 2021	\$550,000
	2	H15.4	ALB Div.	Albany Division: Various Culvert Rehabilitations/Replacements - 2021	\$3,500,000
2021 Total					\$62,250,000
2022	1	A171.1	MP: 103.00	MP 103 NB: Malden Service Area - Rehabilitate/Replace Wastewater Treatment Plant	\$1,000,000
	2	A368.3	MP: 141.92	MP 141.92: Administrative Headquarters - TSOC and State Police - Renovations	\$3,000,000
	1	I113.1	ALB Div.	Replacement of ITS Equipment in Albany Division	\$2,000,000
	4	B778.2	ALB Div.	Albany Division: On-Demand Repair Contract - 2023-2024	\$3,000,000
2022 Total					\$9,000,000

Albany Division Projects

LETTING		ITEM NO.	MILEPOST	PROJECT DESCRIPTION	ESTIMATED
YEAR	QTR.				CONSTRUCTION
					CONTRACT VALUE
2023	1	B975.1	MP: 81.72	MP 81.72: Thruway Bridge over Wallkill River - Rehabilitation	\$13,000,000
	1	H1138.1	MP: 93.80	North of Kingston (MP 93.8) to south of Saugerties (MP 100.8): Pavement Resurfacing	\$6,000,000
	3	B346.1	MP: 112.57	MP 112.57: Leeds-Old Kings Highway Bridge over Thruway - Replacement	\$6,500,000
	1	B773.1	ALB Div.	Albany Division: Bridge Preservation for Various Bridges - 2023	\$4,000,000
2023 Total					\$29,500,000
2024	1	H435.1	MP: 100.80	South of Saugerties (MP 100.80) to south of Catskill (MP 109.30): Pavement Resurfacing	\$7,100,000
	1	A360.1	MP: 141.90	MP 141.9: Albany Maintenance Facility - Replace Metal Building	\$3,000,000
	1	H140.1	MP: 154.40	West of Schenectady / I-890 (Exit 25, MP 154.40) to west of Schenectady / Scotia (Exit 26, MP 163.30): Pavement Resurfacing	\$9,500,000
	3	B786.1	MP: 801.08	MP 801.08: Castleton Bridge - Rehabilitation	\$30,000,000
2024 Total					\$49,600,000
2025	1	H1134.1	MP: 109.30	South of Catskill (MP 109.3) to south of Coxsackie (MP 121.2): Pavement Resurfacing	\$10,000,000
	1	H559.1	MP: 148.20	Northway (Exit 24, MP 148.2) to west of Schenectady (Exit 25, MP 154.4): Pavement Resurfacing	\$9,500,000
	1	H558.1	MP: 817.90	Berkshire Thruway, Canaan Toll Barrier (MP BS17.9) to Massachusetts State Line (MP BS24.3): Pavement Resurfacing	\$6,500,000
2025 Total					\$26,000,000
2021-2025 Albany Division Total					\$176,350,000

Syracuse Division Projects

LETTING		ITEM NO.	MILEPOST	PROJECT DESCRIPTION	ESTIMATED
YEAR	QTR.				CONSTRUCTION
					CONTRACT VALUE
2021	3	H337.1	MP: 284.10	Electronics Parkway (Exit 37, MP 284.1) to I-690 (Exit 39, MP 289.3): Pavement Replacement	\$55,000,000
	3	B695.1	MP: 287.11	MP 287.11: Thruway Bridge over Onondaga Parkway - Rehabilitation	\$3,000,000
	3	B696.1	MP: 287.25	MP 287.25: Thruway Bridge over Onondaga Lake Outlet - Rehabilitation	\$9,000,000
	3	B193.1	MP: 288.13	MP 288.13: Thruway Bridge over CSX Railroad (Geddes) - Replacement	\$8,000,000
	3	B914.1	MP: 292.06	MP 292.06: Canton Street Bridge over Thruway - Removal	\$1,500,000
	3	B439.1	MP: 292.49	MP 292.49: Warners-Ionia Road Bridge over Thruway - Replacement	\$7,000,000
	2	H1147.2	MP: 304.50	Weedsport (Exit 40, MP 304.5) to east of Waterloo (MP 313.8): Safety Upgrades	\$2,500,000
	4	B745.3	SYR Div.	Syracuse Division: On-Demand Repair Contract - 2021-2022	\$3,000,000
2021 Total					\$89,000,000
2022	3	A354.2	MP: 304.20	MP 304.2: Weedsport Maintenance - Construct Municipal Sewer Connection	\$650,000
	1	A865.4	MP: 310.00	MP 310 EB: Port Byron Service Area - Replace Waterline	\$500,000
	1	H350.1	MP: 320.70	Waterloo (Exit 41) to Geneva (Exit 42): Pavement Resurfacing	\$13,600,000
	1	I114.1	SYR Div.	Replacement of ITS Equipment in Syracuse Division	\$2,000,000
	4	B778.3	SYR Div.	Syracuse Division: On-Demand Repair Contract - 2023-2024	\$3,000,000
2022 Total					\$19,750,000
2023	1	B754.1	MP: 197.93	Syracuse Division: Bridge Preservation for Various Bridges	\$4,000,000
	2	A865.1	MP: 210.00	MP's 210 WB and 266 WB: Iroquois and Chittenango Service Areas - Rehabilitate/Replace Wastewater Treatment Plants	\$1,450,000
	1	H163.1	MP: 253.00	West of Verona (MP 253.0) to west of Canastota (MP 262.0): Pavement Resurfacing	\$18,000,000
	1	A172.1	MP: 304.20	MP 304.20: Weedsport Maintenance Section - Renovations to Section Maintenance Building and Roof Replacement	\$1,250,000
	4	A865.2	MP: 310.00	MP's 310 EB and 337 EB: Port Byron and Clifton Springs Service Areas - Rehabilitate/Replace Wastewater Treatment Plants	\$1,900,000
	1	A356.1	SYR Div.	Syracuse Division: Upgrade Waste Water Treatment Plants Division-Wide	\$2,000,000
2023 Total					\$28,600,000

Syracuse Division Projects

LETTING		ITEM NO.	MILEPOST	PROJECT DESCRIPTION	ESTIMATED
YEAR	QTR.				CONSTRUCTION
					CONTRACT VALUE
2024	1	H162.1	MP: 197.90	West of Canajoharie (MP 197.9) to east of Little Falls (MP 210.3): Pavement Resurfacing	\$10,400,000
	1	A173.1	MP: 252.70	MP 252.70: Verona Maintenance Section - Equipment Storage Building Wash Bay	\$750,000
	3	B573.1	MP: 261.73	MP 261.73: North Peterboro Street (Route 13) Bridge over Thruway - Replacement	\$6,000,000
	1	H141.1	MP: 262.00	Canastota (Exit 34, MP 262.0) to west of Canastota (MP 268.0): Pavement Resurfacing	\$5,000,000
	3	A348.1	MP: 278.90	MP 278.90: Tarbell Road Maintenance Building (M3341) - Reconfigure/Refurbish	\$8,500,000
	1	B679.2	MP: 285.67	Syracuse Division: Bridge Painting at Various Locations	\$4,000,000
	4	B498.1	MP: 310.98	MP 310.98: Thruway Bridge over Crane Brook - Replacement	\$10,000,000
	3	B697.1	MP: 327.54	MP 327.54: Thruway Bridge over Canandiagua Outlet - Replacement	\$13,400,000
	3	A299.3	SYR Div.	Construct Sandblast Booth in Syracuse Division	\$750,000
2024 Total					\$58,800,000
2025	1	H430.1	MP: 210.30	Little Falls (Exit 29A, MP 210.3) to Herkimer (Exit 30, MP 220.0): Pavement Resurfacing	\$10,800,000
	1	H560.1	MP: 220.00	Herkimer (Exit 30, MP 220.0) to west of Utica (MP 233.5): Pavement Resurfacing	\$13,500,000
	3	A354.1	MP: 252.71	MP 252.71: Verona Maintenance - Construct Municipal Sewer / Water Connections	\$750,000
	1	H428.1	MP: 313.80	West of Weedsport (MP 313.8) to Waterloo (Exit 41, MP 320.7): Pavement Resurfacing	\$7,000,000
	1	H561.1	MP: 327.50	Geneva (Exit 42, MP 327.5) to east of Manchester (MP 337.5): Pavement Resurfacing	\$10,000,000
	1	H562.1	MP: 337.50	East of Manchester (MP 337.5) to Canandaigua (Exit 44, MP 347.1): Pavement Resurfacing	\$10,000,000
	1	A864.1	MP: 340.20	Manchester Maintenance Section: Addition and Roof Replacememts	\$1,500,000
	1	H557.1	MP: 347.10	Canandaigua (Exit 44, MP 347.1) to Rochester (Exit 45, MP 351.4): Concrete Pavement Restoration	\$8,000,000
2025 Total					\$61,550,000
2021-2025 Syracuse Division Total					\$257,700,000

Buffalo Division Projects

LETTING		ITEM NO.	MILEPOST	PROJECT DESCRIPTION	ESTIMATED
YEAR	QTR.				CONSTRUCTION
					CONTRACT VALUE
2021	1	H341.1	MP: 483.00	East of Westfield (MP 483.0) to Pennsylvania State Line (MP 496.0) Eastbound: Pavement Resurfacing	\$27,000,000
	1	H748.4	BUF Div.	Syracuse and Buffalo Divisions: Pavement Safety Striping - 2021	\$750,000
	2	H354.1	BUF Div.	Buffalo Division: Sign Structure - Replacement	\$1,000,000
	3	B778.4	BUF Div.	Buffalo Division: On-Demand Repair Contract - 2022-2023	\$3,000,000
2021 Total					\$31,750,000
2022	1	H1153.1	MP: 378.20	LeRoy (Exit 47, MP 378.2) to West of Batavia (Exit 48, MP 393.7): Pavement Resurfacing	\$14,500,000
	1	H143.1	MP: 393.70	West of Batavia (MP 393.7) to West of Pembroke (MP 404.7): Pavement Resurfacing	\$10,100,000
	4	B230.1	MP: 411.60	MP 411.60: Ransom Road Bridge over Thruway - Replacement	\$7,800,000
	1	H146.1	MP: 467.00	Dunkirk (Exit 59, MP 467.0) to east of Westfield (Exit 60, MP 483.0): Pavement Resurfacing	\$16,200,000
	1	B668.1	MP: 485.59	MP 485.59, MP 485.60 and MP 485.86: Chautauqua Creek (Eastbound & Westbound) and Hawley Street Bridges - Rehabilitations	\$1,000,000
	1	B784.1	MP: 908.75	Thruway Bridge over Scajaquada Creek - Retaining Wall Stabilization	\$5,500,000
	1	B469.1	MP: 914.35	MP 914.35, MP 914.99, MP 920.35 and MP 921.12: North and South Grand Island Bridges - Retrofit / Repair Roller Bearings, Pins and Hangers	\$20,500,000
	1	B772.1	MP: 914.35	South Grand Island Bridges: Maintenance Cleaning for Steel Preservation - 2022	\$400,000
	1	B645.1	MP: 920.35	North Grand Island Bridges - Steel Repairs	\$15,000,000
2022 Total					\$91,000,000
2023	1	H144.1	MP: 419.40	East of Williamsville Toll Barrier (MP 419.4) to west of Buffalo-Williams Street (Exit 52A, MP 425.9): Pavement Resurfacing	\$17,800,000
	1	H145.1	MP: 430.60	Lackawanna Toll Barrier (MP 430.6) to west of Hamburg (MP 438.5): Pavement Resurfacing	\$7,500,000
	1	B781.1	MP: 914.35	South and North Grand Island Bridges: Maintenance Cleaning for Steel Preservation - 2023	\$800,000
	1	B773.2	BUF Div.	Buffalo Division: Bridge Preservation for Various Bridges - 2023	\$4,000,000
	1	H20.2	BUF Div.	Buffalo Division: Various Culvert Rehabilitations/Replacements - 2023	\$1,750,000
2023 Total					\$31,850,000

Buffalo Division Projects

LETTING		ITEM NO.	MILEPOST	PROJECT DESCRIPTION	ESTIMATED
YEAR	QTR.				CONSTRUCTION
					CONTRACT VALUE
2024	1	H142.1	MP: 351.40	Victor (Exit 45, MP 351.4) to Henrietta (Exit 46, MP 362.5): Pavement Rehabilitation, Safety Upgrades and Drainage Improvements	\$7,500,000
	3	B724.1	MP: 362.44	MP 362.44: West Henrietta Interchange Bridge over Thruway - Replacement	\$9,000,000
	1	H438.1	MP: 416.90	East of Depew (Exit 49, MP 416.90) to east of Niagara Falls (Exit 50, MP 419.40): Pavement Resurfacing	\$2,500,000
	1	H152.1	MP: 425.90	I-90, west of William St. (Exit 52A) to west of West Seneca (Exit 54) and I-190 (Niagara Section), I-90 to Route 266 (Exit 17): Pavement Resurfacing	\$20,600,000
	1	B699.1	MP: 434.48	MP 434.48 EB and 434.49 WB: Thruway Bridges over Erie RR - Rehabilitations	\$2,000,000
	1	B679.1	MP: 447.78	Buffalo Division: Bridge Painting at Various Locations	\$4,000,000
	3	B521.1	MP: 901.06	MP 901.06: Weiss Street Bridge over Thruway - Removal	\$1,000,000
	1	B779.1	MP: 914.35	South and North Grand Island Bridges: Maintenance Cleaning for Steel Preservation - 2024	\$800,000
	3	B558.1	MP: 915.46	MP N15.46: Beaver Island State Parkway Bridge over I-190 Thruway - Replacement	\$9,000,000
	1	B641.1	MP: 920.35	MP N20.35 and MP N21.12: North Grand Island Southbound and Northbound Bridges - Painting	\$37,500,000
2024 Total					\$93,900,000
2025	1	H437.1	MP: 455.20	East of Silver Creek (MP 455.2) to Dunkirk (Exit 59, MP 467.0): Pavement Resurfacing	\$11,900,000
2025 Total					\$11,900,000
2021-2025 Buffalo Division Total					\$260,400,000

Statewide Projects

2021	4	H752.1	TWY wide	Statewide: Pavement Safety Striping - 2022	\$2,000,000
2021 Total					\$2,000,000
2022	4	H749.1	TWY wide	Statewide: Pavement Safety Striping - 2023	\$2,000,000
2022 Total					\$2,000,000

Statewide Projects

LETTING		ITEM NO.	MILEPOST	PROJECT DESCRIPTION	ESTIMATED CONSTRUCTION CONTRACT VALUE
YEAR	QTR.				
2023	1	B776.1	TWY wide	NY Division: Bridge Preservation for Various Bridges - 2023	\$5,000,000
	4	H750.5	TWY wide	Statewide: Pavement Safety Striping - 2024	\$2,000,000
2023 Total					\$7,000,000
2024	1	B785.1	TWY wide	Statewide: Bridge Rehabilitations - 2024-2025	\$22,500,000
	4	I116.1	TWY wide	Replacement of ITS Equipment Statewide	\$3,000,000
2024 Total					\$25,500,000
2021-2025 Statewide Total					\$36,500,000

Thruway Project Totals by Division

2021-2025 New York Division Total:	\$371,833,000
2021-2025 Albany Division Total:	\$176,350,000
2021-2025 Syracuse Division Total:	\$257,700,000
2021-2025 Buffalo Division Total:	\$260,400,000
2021-2025 Statewide Total:	\$36,500,000
2021-2025 Thruway Authority Total:	\$1,102,783,000

Thruway Project Totals by Year

2021 Total:	\$239,400,000
2022 Total:	\$271,550,000
2023 Total:	\$221,050,000
2024 Total:	\$250,333,000
2025 Total:	\$120,450,000
2021-2025 Thruway Authority Total:	\$1,102,783,000

09/25/2020



APPENDIX

To: Karen Osborn, New York State Thruway Authority From: Suzanne Seegmuller
Subject: Budget Forecast
Date: September 30, 2020

Reference: NYS Thruway Authority 2021 Budget Forecast Estimates

The New York State Thruway Authority (“the Authority”) has requested that Stantec Consulting Services, Inc. (“Stantec”) provide updated estimates of traffic and revenue for budgeting purposes. It is important to note that the estimates contained herein assume the following:

- A potential range of COVID-related impacts. Because of the unprecedented nature of the COVID-19 pandemic and uncertainties related to future impacts on traffic, instead of a single forecast Stantec has prepared a range of revenue estimates for the full year 2020 and future years through 2024 to capture potential effects on travel from the pandemic and the associated socioeconomic repercussions.
- The proposed toll modifications as presented to the Board in December 2019. A systemwide toll modification is planned for January 1, 2021, followed by a second, incremental toll modification at the Gov. Mario M. Cuomo Bridge on January 1, 2022.
- Conversion of the remainder of the Thruway System – the Ticket Controlled System– to all-electronic toll collection (AETC) in November 2020. All of the Toll Barriers have been converted to AETC in recent years: the Gov. Mario M. Cuomo Bridge (formerly the Tappan Zee Bridge) on April 23, 2016, Grand Island Bridges on March 30, 2018, Harriman on September 28, 2018, Yonkers Barrier on November 19, 2018, and New Rochelle and Spring Valley on December 20, 2018.

These traffic and revenue estimates have been prepared for 2020 – 2024.

COVID-19 Closures and Restrictions

The COVID-19 pandemic has had an unprecedented effect on traffic throughout the nation, especially the northeastern U.S. Its effects can be seen as threefold: government-mandated closures and restrictions and suggested behaviors meant to reduce the spread of the disease; economic fallout from job losses related to these restrictions and behaviors; and long-term behavioral changes that are likely to occur as a large share of the population has shifted to working from home, and may continue to work from home more often than before the pandemic. We discuss the closures and restrictions below. The Appendix to this memo focuses on the socioeconomic side.

The first confirmed case of COVID-19 in New York State was on March 1, 2020, which quickly grew to over 25,000 confirmed cases by late March. The state’s suggested/required public responses included

implementing “social distancing”, closure of educational facilities (March 18), closure of non-essential services (March 20), and the “NY on PAUSE” stay at home order (March 22).

After about two months of these closures and restrictions, the state saw marked reduction in the number of COVID-19 infections and deaths since a mid-April peak. The governor then began implementing the reopening plan as each of the ten regions fell within the approved health metrics established with guidance from the CDC and WHO and other public health experts. Phase I began in the Finger Lakes, Southern Tier, and Mohawk Valley Regions on May 15. New York City was the last region to enter Phase I on June 8. Phase I included the reopening of construction, manufacturing, supply-chain businesses, and retail curbside pickup.

Since the health metrics remained below the predetermined threshold, New York was able to initiate Phase II and Phase III for each region, with each phase lasting about two weeks. Again, New York City was the last of the ten regions to enter both phases with Phase II and Phase III commencing on June 22 and July 6, respectively. Phase II included offices, playgrounds, in-store shopping with limited capacity, barbershops and hair salons, outdoor dining, real estate showings, car dealerships, and commercial building management, all with appropriate social distancing and safety measures. Phase III included the reopening of personal care businesses and some indoor recreation. This phase was supposed to include indoor dining, but the governor rescinded that option based on trends in other states.

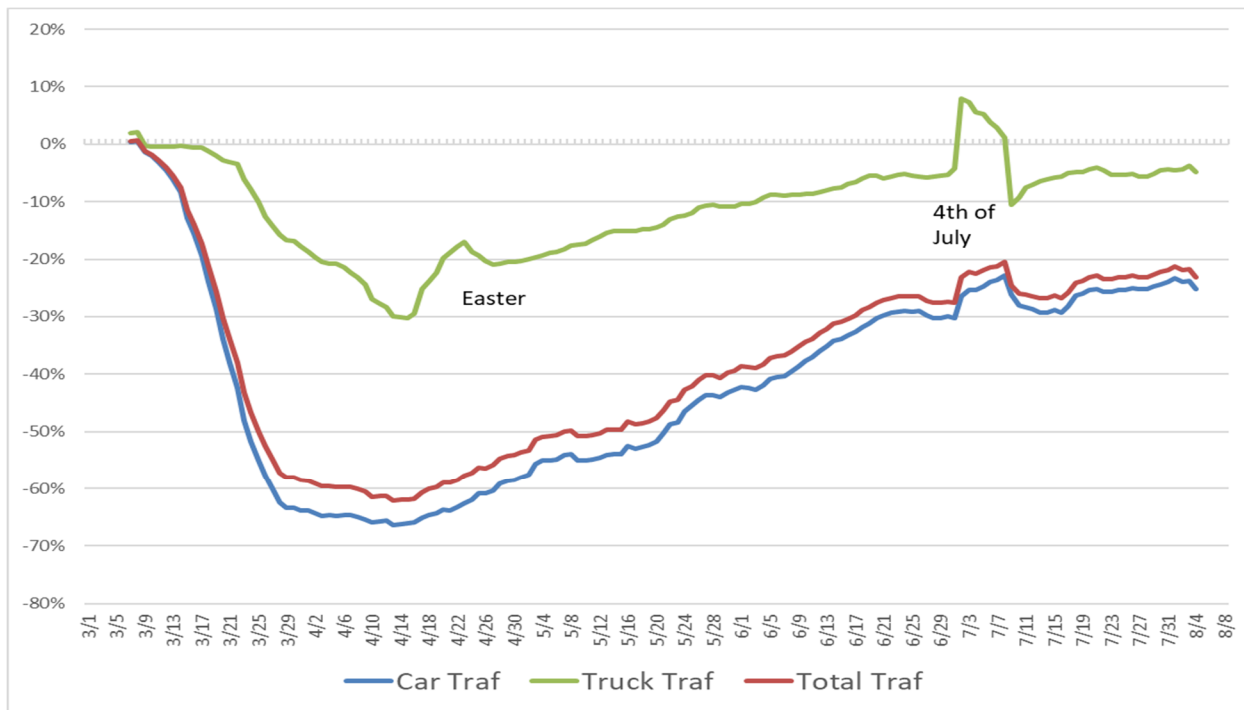
As of August 4, all ten regions are in Phase IV, with New York City entering this phase last on July 20. Phase IV allows for gatherings of up to 50 people as well as the reopening of schools, low-risk arts, entertainment, and recreation businesses, all with social distancing requirements. Indoor dining/bars, movie theatres, shopping malls, museums, and gyms are still prohibited from reopening.

Despite the fact that some industries still remain closed in Phase IV, there is no indication of whether another phase will be added at this point. The governor cautioned that with outbreaks in other areas of the country, the overall situation is still fluid. Though many offices have reopened with social distancing restrictions, a large portion of employees who began working from home in March are continuing to work mainly from home.

On August 7, the governor announced that all school districts across the state are cleared to open for in-person learning, with social distancing restrictions. Each district, however, is required to submit and follow its own plan, which may include some combination of in-person and remote learning. If infection rates spike, plans may be revised.

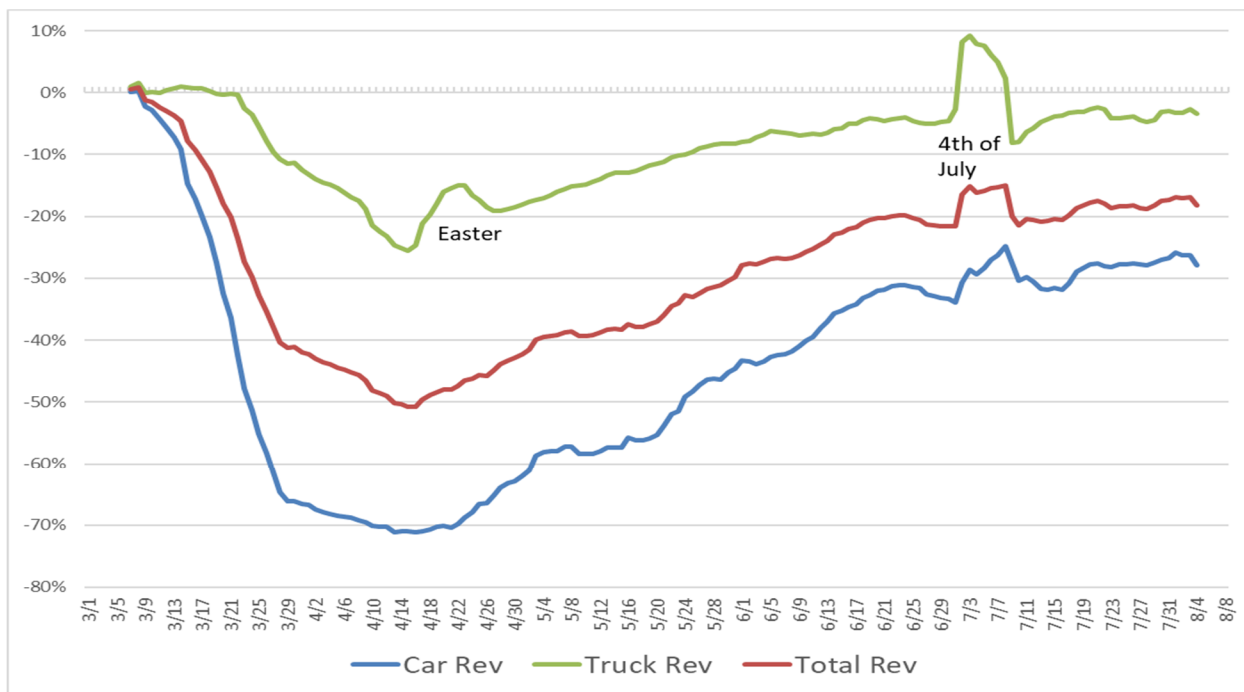
Throughout the pandemic, Stantec has been monitoring monthly and daily traffic and revenue data from the Authority. Figure 1 and Figure 2 show the impacts on Thruway System traffic and toll revenue, respectively, from March through early August 2020 compared to the same days in 2019 (seven-day rolling average). We have analyzed cars and trucks separately, as different impacts have been seen on the two different vehicle types. Note that with Easter occurring on April 12 of this year compared to April 21 of last year, and July 4th occurring on different days of the week, there were some definitive impacts on revenues not reflective of COVID-19 trends alone.

Figure 1: Comparison of 2020 to 2019 Daily Toll Traffic, Rolling 7-Day Average



Source: New York State Thruway Authority

Figure 2: Comparison of 2020 to 2019 Daily Toll Revenue, Rolling 7-Day Average



Source: New York State Thruway Authority

Proposed Toll Modifications

Tolls on the Thruway System have not been adjusted since 2010. The Authority, supported by analyses by Stantec, has determined that there will be additional revenues needed to fulfill its system-wide operating, debt service, and capital needs through the upcoming forecast period. On December 19, 2019 the Authority Board of Directors approved a proposal to begin the toll adjustment process on the Gov. Mario M. Cuomo Bridge and other tolling changes that support the statewide conversion to cashless tolling, scheduled to be completed by the end of this year. The approval authorizes the Thruway Authority to begin the public process required to implement the toll rate changes supporting the fiscal stability of the Thruway Authority. The proposed toll modifications summarized in Table 1 were used to produce the budget forecast estimates presented in this memorandum. The modifications as shown in the table are in the early phases of the legislatively mandated approval process and have not been formally adopted.

Table 1: Proposed Toll Modifications (not formally adopted at this time)

GOVERNOR MARIO M. CUOMO BRIDGE RATES	
<u>Toll Modification Element</u>	<u>Description</u>
Increase NY E-ZPass by \$0.50 per year in 2021 and 2022	On January 1, 2021 the NY E-ZPass toll rates on the Bridge will be increased by the amount of 50 cents to \$5.25. On January 1, 2022 the NY E-ZPass toll rates on the Bridge will be increased another 50 cents to \$5.75.
40% Commuter Discount Program	Beginning on January 1, 2021, the commuter discounted rate will be 40 percent off the NY E-ZPass rate for passenger vehicles that opt in to the program. Similar to today, the rates assume that a minimum of 20 trips are made in that month; if fewer than 20 trips are taken per month, customers are charged for each trip not taken. This program is offered to class 2L vehicles only, with a New York E-ZPass.
Resident Discount Program	A new resident E-ZPass Plan will be offered for Westchester and Rockland residents that will keep their rate frozen at the current \$4.75 rate. This program is offered only to class 2L vehicles with a New York E-ZPass who opt in to the plan and provide proof of residency (e.g., having a vehicle registered in one of these counties).
Commercial Rates	Class 2H through 4H and S class tolls will be increased proportionate to the car toll increases for each payment type. Class 5H through 7H truck tolls will be increased 20% more than the car toll increases for each payment type
CHANGES TO SUPPORT SYSTEM-WIDE CONVERSION TO CASHLESS TOLLING	
Incentivize NY E-ZPass Usage	Establish that with the conversion to system-wide cashless tolling in 2020, NY E-ZPass toll rates would be based on the current toll rates first established in 2010, and beginning on January 1, 2021 a 30 percent rate differential (a toll rate 30 percent above the NY E-ZPass rate) would be established for Tolls By Mail toll rates.
Non-NY E-ZPass Rates	Beginning on January 1, 2021, establish a 15 percent rate differential (a toll rate 15 percent above the NY E-ZPass rate for Non-NY E-ZPass tolls).
Image Tolls Policy	Clarify Board Policy that beginning on January 1, 2021, all transactions that are processed as image tolls will pay the Tolls By Mail toll rate. This clarification would apply to customers who have an E-ZPass account yet their toll transaction must be processed via the Tolls by Mail process (e.g., due to failure to mount the E-ZPass transponder properly and a toll transaction is processed through a license plate image review).
Impose a \$2 Administrative Surcharge on Tolls by Mail Bills	Beginning on January 1, 2021, implement a \$2 administrative surcharge per billing statement for non-E-ZPass statements to support the administrative costs associated with processing transactions through the Tolls by Mail program and to incentivize more customers to sign up for an E-ZPass account.

Pro Forma Forecasts of Traffic and Toll Revenue

Because of the uncertain nature of the pandemic and associated socioeconomic effects going out into the future, Stantec first prepared a pro forma forecast (i.e., without COVID impacts), then assessed a range of impacts for the full year 2020 and future years through 2024 to capture potential effects on Thruway System traffic and revenue. This section presents the pro forma forecasts.

As stated previously, AETC began on the Gov. Mario M. Cuomo Bridge in April 2016. The remaining toll barriers were converted to AETC in 2018, and the rest of the system (ticket controlled) is estimated to begin AETC starting in November 2020. January 1, 2021 and January 1, 2022 proposed toll modifications are included in these estimates.

Table 2 presents actual traffic for the Thruway System from 2017 through 2019 and pro forma forecasts (i.e., without COVID-19 impacts) for 2020 through 2024. As shown in the table, there has been flat to moderate growth system-wide over the past several years, with generally greater growth on the Mario M. Cuomo Bridge than at the other locations, and commercial vehicle growth offsetting some small losses in passenger car traffic.

Pre-pandemic data indicated continued moderate growth, therefore, we have kept future pro forma growth rates similar to those used for last year's budget forecasts. Note that due to the toll modification we estimate a loss of 0.8 percent of traffic in 2021.

Table 2: Annual Tolled Traffic, Actual and Pro Forma Forecasts (in millions)

Year	Passenger Cars			Commercial Vehicles			Total	Annual Growth
	Control System	Gov. Mario M. Cuomo Br.	Other Barriers	Control System	Gov. Mario M. Cuomo Br.	Other Barriers		
2017 ¹	139.6	24.6	73.3	17.6	2.4	9.1	266.6	0.9%
2018 ^{1,2}	139.5	24.8	72.5	18.0	2.4	9.3	266.4	-0.1%
2019 ¹	139.6	25.5	72.1	18.0	2.5	9.3	267.0	0.2%
2020 ³	141.0	25.9	72.5	18.1	2.6	9.4	269.4	0.9%
2021 ⁴	139.7	25.8	71.7	18.1	2.6	9.4	267.2	-0.8%
2022 ⁴	141.2	26.1	72.5	18.2	2.6	9.5	270.1	1.1%
2023	142.6	26.5	72.9	18.3	2.6	9.6	272.5	0.9%
2024	144.0	26.8	73.3	18.4	2.6	9.6	274.8	0.9%

¹ Actual 2017-2019

² AETC began at Grand Island Bridges on 3/30/18, Harriman Barrier on 9/28/18, Yonkers Barrier on 11/19/18, and Spring Valley and New Rochelle Barriers on 12/20/18.

³ The rest of the system (ticket controlled) is assumed to have AETC starting in November 2020

⁴ Proposed toll modifications on January 1, 2021 (system-wide) and January 1, 2022 (Gov. Mario M. Cuomo Bridge only)

Notes: These forecasts are PRO FORMA and do not contain the potential impacts of COVID-19.

Numbers may not add due to rounding. Non-revenue traffic not included.

Table 3 presents the pro forma toll revenue forecasts for the Thruway System – before application of any COVID-related impacts. The proposed 2021 and 2022 toll increases are included in these forecasts, which are presented separately for the Control System, Gov. Mario M. Cuomo Bridge, and the remaining toll barriers.

Note that the forecasts incorporate a level of Tolls by Mail revenue ‘uncollectability’ due to factors such as bad license plate images, inability to find customer DMV mailing addresses, or customers not paying the invoice. Additionally, there is an adjustment for the lag in revenue collection from Tolls by Mail customers that has been applied to the early months of AETC at each facility, as it may take several months or more between the time a toll transaction takes place and when it is paid. Adjustments for commercial vehicle volume discounts are also included in the forecasts shown in the table.

In general, moderate growth in toll revenue is expected, with some losses in toll revenue in 2020 and 2021 when AETC begins on the ticket controlled mainline, which are more than offset by revenue increases due to the 2021/2022 proposed toll modification.

Table 3: Annual Toll Revenue, Actual and Pro Forma Forecasts (in millions)

Year	Passenger Cars			Commercial Vehicles				Unadj. Total	Adj. to Cash Basis for Tolls by Mail	Adj. Total	Annual Growth
	Control System	Gov. Mario M. Cuomo Br.	Other Barriers	Control System	Gov. Mario M. Cuomo Br.	Other Barriers	Comm'l Vehicle Disc.				
2017 ^{1,2}	\$251.6	\$103.4	\$84.1	\$233.3	\$47.8	\$38.7	\$(27.4)	\$731.5		\$731.5	4.2%
2018 ^{1,3}	250.3	104.2	81.3	242.0	47.8	39.1	(28.0)	736.5	(\$0.7)	735.8	0.6%
2019 ¹	253.0	105.1	77.7	243.1	50.2	38.8	(28.0)	739.9	-	739.9	0.6%
2020 ⁴	249.3	107.3	78.8	243.4	51.0	39.3	(28.6)	740.4	(5.8)	734.7	-0.7%
2021 ⁵	233.0	120.3	84.2	247.4	71.0	43.5	(29.6)	769.7	(3.8)	766.0	4.3%
2022 ⁵	237.0	130.8	85.8	249.5	87.6	44.3	(30.6)	804.2	-	804.2	5.0%
2023	240.5	132.7	86.4	251.3	88.5	44.9	(31.0)	813.4	-	813.4	1.1%
2024	243.7	134.6	87.0	253.1	89.3	45.5	(31.2)	821.9	-	821.9	1.0%

¹ Actual 2017-2019

² Removal of discounts for vehicles with out-of-state E-ZPass began on 1/1/17

³ AETC began at Grand Island Bridges on 3/30/18, Harriman Barrier on 9/28/18, Yonkers Barrier on 11/19/18, and Spring Valley and New Rochelle Barriers on 12/20/18.

⁴ The rest of the system (ticket controlled) is assumed to have AETC starting in November 2020

⁵ Proposed toll modifications on January 1, 2021 (system-wide) and January 1, 2022 (Gov. Mario M. Cuomo Bridge only)

Notes: These forecasts are PRO FORMA and do not contain the potential impacts of COVID-19.

Numbers may not add due to rounding.

Pro Forma Violation and Fee Revenues

Violation and late fee revenues are also collected from E-ZPass customers and Tolls by Mail customers who do not pay their toll invoices on time. Changes made in recent years to violation fees charged on the New York State Thruway System are as follows:

- On January 20, 2016 an enforcement measure was enacted whereby drivers of New York state registered vehicles with toll violations on five days over an 18-month period would have their registration suspended. In 2017 this was changed to three violations over a five-year period. This enforcement measure was applied to all past unpaid tolls and violations from prior years.
- Starting January 1, 2017, violations for systemwide E-ZPass vehicles and Gov. Mario M. Cuomo Bridge Tolls by Mail customers that did not pay their toll bills increased from \$25 to \$50.
- Starting January 17, 2017, this Tolls by Mail violation fee increased again to \$100 at the Gov. Mario M. Cuomo Bridge.
- On January 9, 2018, the Authority announced a short-term amnesty program that allowed Tolls by Mail customers with open toll violations to pay their outstanding tolls and have all violations and late fees waived. This program ran from January 22nd through February 26th, and resulted in \$1.1M in additional toll revenue for the Governor Mario M. Cuomo Bridge.
- Starting May 15, 2018, the Tolls by Mail violation fee was reduced to \$50 at the Gov. Mario M. Cuomo Bridge.

In 2017, the first full year with AETC on the Governor Mario M. Cuomo Bridge, \$7.7M was collected in total E-ZPass violation fees system-wide. This grew to \$10.6M in 2018. The increases can be attributed to enforcement measures and included a significant amount of delayed violation payments (i.e., violations from trips made in prior years). In addition, all E-ZPass violation trips made in 2017 and after were charged the increased E-ZPass violation fee of \$50.

Also in 2017, \$1.0M was collected in \$5 per-bill late fee charges that appear on the second bill sent to Tolls by Mail customers, and \$14.6M was collected in Tolls by Mail violation fees that are charged per transaction on the third bill sent to Tolls by Mail customers. With subsequent reduction in the violation fee from \$100 to \$50 at the Gov. Mario M. Cuomo Bridge in May of 2018, the Tolls by Mail violations collected from bridge customers dropped to \$9.0M in 2018; however, since AETC is now installed at all the barriers, there has been recent growth in fee revenues collected for the remainder of the system. In 2019, a total of \$1.4M in late fees and \$14.2M in violation fees was collected.

Table 4 provides pro forma forecasts of late and violation fee revenues. The current Tolls by Mail violation fee of \$50 has been assumed at all facilities throughout the forecast period. There is an estimated three-month lag in collection of the \$5 per-bill late fees and five-month lag in collection of violation fees built into the forecasts, as it takes time after a trip is made to bill and collect these fees, if any are charged. Note that as part of the toll modification, billing fees of \$2 per bill for Tolls by Mail customers are proposed, and are estimated to generate roughly \$12M per year.

The forecasts show a decline in systemwide E-ZPass violation revenues as more facilities are converted to AETC. This is because these revenues include both E-ZPass and cash customer violations, and there are no longer cash customer violations at AETC facilities.

With these assumptions, a total of \$28.2 in annual violation and late fee revenues is estimated for 2020 (a pro forma forecast, before COVID-19 impacts are applied), growing to more than \$73M by 2022, after there has been more than a full year of AETC on the controlled system. This number will decline slightly as some Tolls by Mail customers acquire an E-ZPass in the future.

Table 4: Pro Forma Violation/Late Fee Revenue Forecast (in millions)

Year	System-wide E-ZPass Violation Revs ¹	Gov. Mario M Cuomo Br.		Remainder of System		Total Late/Violation Fees	System-wide Billing Fee Revenue	TOTAL
		TBM Violation Revs ^{2,3}	TBM \$5 Per Bill Late Fee Revs	TBM Violation Revs ³	TBM \$5 Per Bill Late Fee Revs			
2017 ⁴	\$7.7	\$14.6	\$1.0			\$23.3		\$23.3
2018 ^{4,5}	10.6	9.0	0.7	\$1.7	\$0.2	22.1		22.1
2019 ⁴	9.6	5.5	0.6	8.7	0.9	25.2	-	25.2
2020 ⁶	9.5	4.7	0.6	12.5	0.9	28.2	-	28.2
2021 ⁷	5.8	4.2	0.5	29.6	3.6	43.7	\$12.8	56.6
2022 ⁷	1.8	4.2	0.5	50.1	4.2	60.8	12.4	73.2
2023	1.8	4.3	0.5	46.1	4.1	56.7	12.1	68.8
2024	1.8	4.3	0.5	45.1	4.0	55.7	11.9	67.6

¹ Includes both E-ZPass and cash customer violations. The E-ZPass violation fee increased from \$25 in 2016 to \$50 on 1/1/17

² AETC violation fee at the Gov. Mario M. Cuomo Bridge increased from \$25 in 2016 to \$50 on 1/1/17 and to \$100 on 1/17/17. This was reduced back to \$50 on 5/15/18.

³ AETC violation fee assumed to be \$50 in the future at all facilities.

⁴ Actual

⁵ An amnesty program ran from 1/22/18 through 2/26/18 waiving violation fees for customers who paid outstanding tolls. AETC began at the Grand Island Bridges on 3/30/18, Harriman Barrier on 9/28/18, Yonkers Barrier on 11/19/18, and Spring Valley and New Rochelle Barriers on 12/20/18.

⁶ The rest of the system (ticket controlled) is assumed to have AETC starting in November 2020.

⁷ Proposed toll modifications on January 1, 2021 (system-wide) and January 1, 2022 (Gov. Mario M. Cuomo Bridge only)

Traffic and Toll Revenue Estimates Including COVID-19 Impacts

Stantec's COVID-19 impact scenarios updated as of August 4, 2020 consider a range of potential outcomes based on specific assumptions that vary by the extent and duration of the COVID-19 impacts on Thruway Authority toll revenue. Note that we will continue to prepare updates for the Authority periodically, as more information is analyzed including daily revenue data from the Authority and the latest recommendations, policies, and projections by federal and state entities.

The following summarizes the high-level findings from this COVID-19 impact analysis based on the specific stated assumptions and with impact ranges determined using the "shorter duration" and "longer duration" scenarios as bookends, and a third scenario we are calling "mid duration" which is approximately one-third of the way between the "shorter" and "longer" scenarios. Note that toll revenue

loss is not as severe as traffic loss because commercial vehicles, which pay higher tolls than cars, have been less affected by the pandemic, as illustrated previously in Figure 1 and Figure 2.

- System-wide March 2020 toll traffic was 27 percent lower than March 2019 traffic levels, and also 27 percent below our current pro forma traffic forecast. Toll revenue for this month was 16 percent lower than revenue from March 2019 and 15 percent lower than the pro forma forecast.
- System-wide April 2020 toll traffic was 58 percent below both the 2019 traffic for that month and our current pro forma forecast. Toll revenue was 47 percent lower than April 2019, and 46 percent lower than the pro forma forecast. Data indicates that the systemwide “floor” was likely reached in mid-April, with around a 66 percent loss in weekly traffic and 51 percent loss in weekly revenue for the most affected week.
- System-wide May 2020 toll traffic was 47 percent lower than both the 2019 traffic for that month and our current pro forma forecast. Toll revenue was 38 percent lower than May 2019, and 37 percent lower than our current pro forma forecast.
- System-wide June 2020 toll traffic was 30 percent lower than June 2019 traffic levels, and 31 percent below our current pro forma traffic forecast. Toll revenue for this month was 24 percent lower than revenue from June 2019 and 23 percent lower than the pro forma forecast.
- Preliminary data for July 2020 indicates that system-wide toll traffic was 23 to 25 percent lower than 2019 traffic and our pro forma forecast. Toll revenue for this month was 17 to 20 percent lower than revenue from July 2019 and the pro forma forecast.
- Data from the end of July and the first days of August show further improvement. System-wide toll traffic was 22 to 23 percent lower than the same week in 2019, and toll revenue was 17 to 18 percent lower.
- We have made certain growth assumptions for the rest of the year 2020 for the different scenarios.
 - For the “shorter duration” scenario, we assumed continued traffic growth throughout the state, using the June to July improvement as a guideline for August, followed by a lesser rate of improvement throughout the fall. By December, we have assumed that traffic and toll revenue would reach levels 9 percent and 8 percent below Stantec’s pro forma forecasts of traffic and toll revenue for December, respectively.
 - For the “longer duration” scenario, we assumed that traffic would improve throughout the rest of the year but at a much slower pace, as it is not yet known when remaining restrictions will be lifted, or how continuing fears of COVID-19 (including a potential second wave) would keep people away from places to which they had normally traveled. There would be a higher rate of improvement in the late fall, as it is assumed that schools would open at least in some regions, perhaps after several months of delay. By December, we have assumed that traffic and revenue would reach a level 18 and 21 percent below Stantec’s pro forma traffic and toll revenue forecasts, respectively.
 - The “mid duration” scenario assumes something between these two scenarios, with 2020 summer month traffic ranging from 19 to 25 below the pro forma forecasts, and toll revenue that ranges between 16 and 19 below pro forma forecasts. Likewise, for this scenario we have estimated December traffic and toll revenue to be 12 and 10 percent below the pro forma traffic and toll revenue forecasts, respectively.

- We estimate that total 2020 calendar year toll revenue will range from 16 to 19 percent below our pro forma forecast. Total 2021 calendar year toll revenue is estimated to range from 6 to 12 percent below our pro forma forecast.
- There may be longer-term impacts. We have based our future year estimates on a substantial revenue recovery in 3 to 6 years (similar to the “Great Recession”) to a “new normal” which assumes a small drop in overall travel as a share of people choose to drive less. In addition to economic effects, the reasons for this reduction include increased working from home and fewer personal trips, as the use of technology during this time of COVID-19 may encourage many people to work, shop, and even socialize remotely from home after the pandemic more often than they did before the pandemic.

Table 5 and Table 6 show the actual Thruway Authority traffic and toll revenue performance through the end of June 2020, respectively, with preliminary data for July. Both the pro forma and the three COVID-19 scenario results are shown to represent a range of potential impacts through 2024. To provide further detail of our analysis, potential passenger car and commercial impacts are shown separately in each table. Estimated percent losses have been color-coded to represent the severity of the potential impacts.

Not included in these numbers are billing fee revenues or late fee/fine revenues, which are analyzed in the section that follows.

Table 5: 2020 Pro Forma Forecast and Range of COVID-19 Estimates
NYS Thruway Authority Toll Traffic (Updated August 4, 2020)

	2020 Jan	2020 Feb	2020 Mar	2020 Apr	2020 May	2020 Jun	2020 Jul	2020 Aug	2020 Sep	2020 Oct	2020 Nov	2020 Dec	Total 2020	Total 2021	Total 2022	Total 2023	Total 2024
Pro Forma Forecast:													269.4	267.2	270.1	272.5	274.8
SHORTER DURATION impacts compared to Pro Forma																	
Change in Passenger Car Traf	3%	3%	-30%	-63%	-51%	-34%	-26%	-19%	-13%	-11%	-10%	-10%	-23%	-6%	-4%	-3%	-2%
Change in Commercial Traf	4%	1%	-4%	-21%	-20%	-8%	-6%	-4%	-3%	-3%	-3%	-2%	-6%	-2%	-1%	-1%	-1%
Change in Total Traf	3%	2%	-27%	-58%	-47%	-31%	-24%	-17%	-12%	-10%	-9%	-9%	-21%	-6%	-4%	-3%	-2%
New Total Toll Traf	19.8	18.9	15.5	9.0	12.6	16.4	19.3	21.6	20.4	21.3	19.7	19.0	213.3	251.9	259.2	264.7	269.6
MID DURATION impacts compared to Pro Forma																	
Change in Passenger Car Traf	3%	3%	-30%	-63%	-51%	-34%	-27%	-21%	-17%	-15%	-14%	-13%	-24%	-9%	-7%	-5%	-4%
Change in Commercial Traf	4%	1%	-4%	-21%	-20%	-8%	-6%	-5%	-4%	-4%	-4%	-3%	-6%	-3%	-2%	-2%	-1%
Change in Total Traf	3%	2%	-27%	-58%	-47%	-31%	-25%	-19%	-16%	-14%	-13%	-12%	-22%	-8%	-6%	-5%	-4%
New Total Toll Traf	19.8	18.9	15.5	9.0	12.6	16.4	19.2	21.0	19.6	20.4	18.9	18.3	209.6	244.9	253.0	259.0	264.2
LONGER DURATION impacts compared to Pro Forma																	
Change in Passenger Car Traf	3%	3%	-30%	-63%	-51%	-34%	-28%	-26%	-24%	-23%	-21%	-20%	-27%	-15%	-12%	-10%	-8%
Change in Commercial Traf	4%	1%	-4%	-21%	-20%	-8%	-7%	-6%	-6%	-6%	-5%	-5%	-7%	-4%	-4%	-3%	-3%
Change in Total Traf	3%	2%	-27%	-58%	-47%	-31%	-25%	-24%	-22%	-21%	-20%	-18%	-25%	-14%	-11%	-9%	-8%
New Total Toll Traf	19.8	18.9	15.5	9.0	12.6	16.4	19.0	19.9	18.0	18.6	17.5	17.0	202.2	230.9	240.5	247.6	253.4

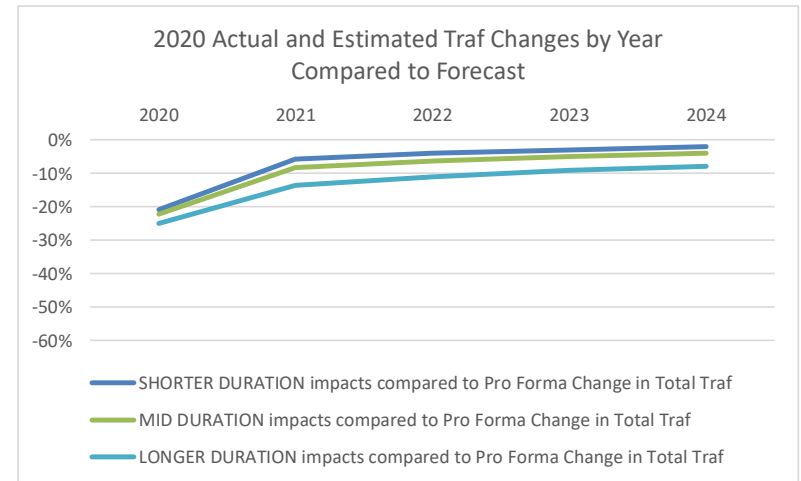
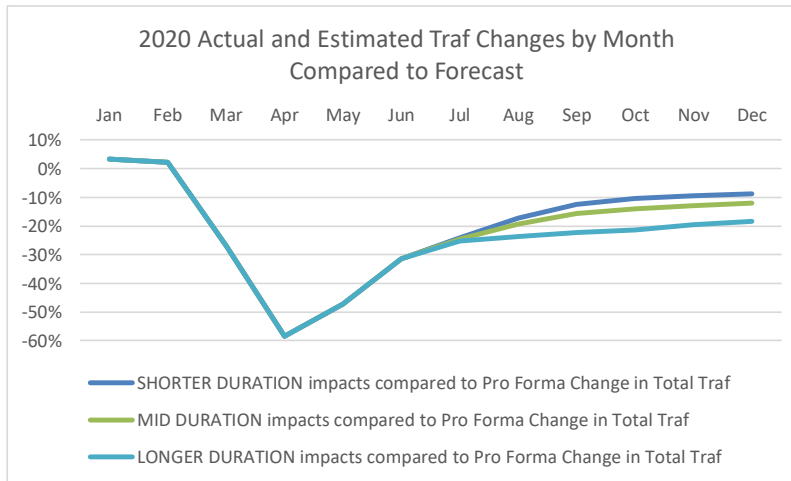
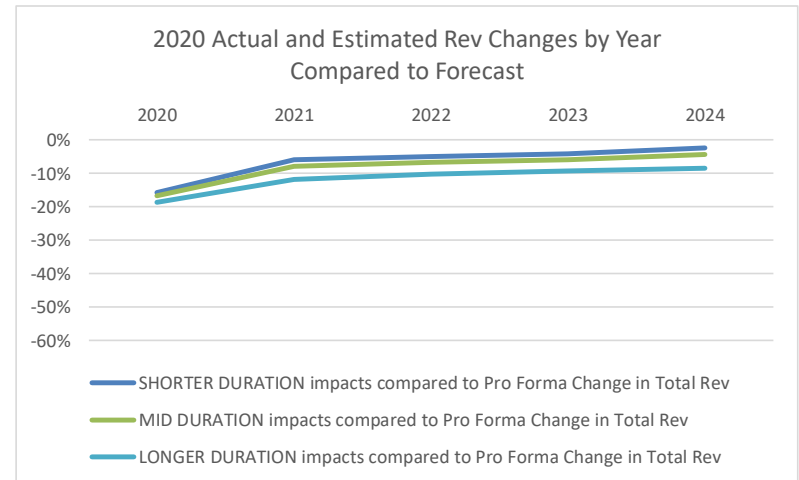
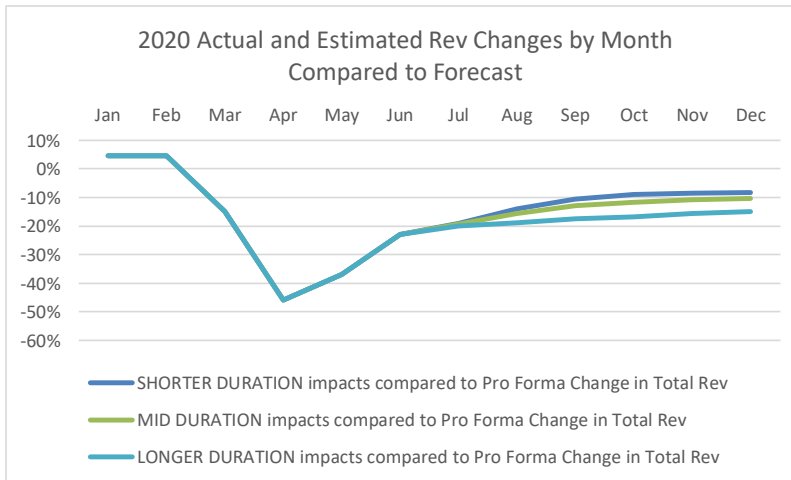


Table 6: 2020 Pro Forma Forecast and Range of COVID-19 Estimates
NYS Thruway Authority Toll Revenue (Updated August 4, 2020)

	2020 Jan	2020 Feb	2020 Mar	2020 Apr	2020 May	2020 Jun	2020 Jul	2020 Aug	2020 Sep	2020 Oct	2020 Nov	2020 Dec	Total <u>2020</u>	Total <u>2021</u>	Total <u>2022</u>	Total <u>2023</u>	Total <u>2024</u>
	Pro Forma Forecast:												\$ 734.7	\$ 766.0	\$ 804.2	\$ 813.4	\$ 821.9
SHORTER DURATION impacts compared to Pro Forma																	
Change in Passenger Car Rev	8%	8%	-27%	-67%	-52%	-36%	-28%	-21%	-16%	-14%	-13%	-12%	-24%	-9%	-7%	-6%	-4%
Change in Commercial Rev	0%	0%	1%	-17%	-16%	-4%	-4%	-3%	-3%	-2%	-2%	-2%	-4%	-2%	-2%	-2%	-1%
Change in Total Rev	5%	5%	-15%	-46%	-37%	-23%	-19%	-14%	-10%	-9%	-8%	-8%	-16%	-6%	-5%	-4%	-2%
New Total Toll Rev	\$ 53.8	\$ 51.5	\$ 48.5	\$ 31.7	\$ 40.7	\$ 50.6	\$ 57.1	\$ 63.0	\$ 57.2	\$ 59.2	\$ 54.0	\$ 51.7	\$ 619.1	\$ 720.1	\$ 764.9	\$ 779.5	\$ 802.4
MID DURATION impacts compared to Pro Forma																	
Change in Passenger Car Rev	8%	8%	-27%	-67%	-52%	-36%	-29%	-23%	-19%	-18%	-17%	-16%	-25%	-12%	-10%	-9%	-6%
Change in Commercial Rev	0%	0%	1%	-17%	-16%	-4%	-4%	-3%	-3%	-3%	-3%	-3%	-5%	-3%	-2%	-2%	-2%
Change in Total Rev	5%	5%	-15%	-46%	-37%	-23%	-19%	-16%	-13%	-12%	-11%	-10%	-17%	-8%	-7%	-6%	-4%
New Total Toll Rev	\$ 53.8	\$ 51.5	\$ 48.5	\$ 31.7	\$ 40.7	\$ 50.6	\$ 56.8	\$ 61.9	\$ 55.7	\$ 57.6	\$ 52.6	\$ 50.5	\$ 611.8	\$ 705.2	\$ 750.5	\$ 765.8	\$ 785.7
LONGER DURATION impacts compared to Pro Forma																	
Change in Passenger Car Rev	8%	8%	-27%	-67%	-52%	-36%	-30%	-28%	-27%	-26%	-24%	-23%	-28%	-18%	-15%	-14%	-12%
Change in Commercial Rev	0%	0%	1%	-17%	-16%	-4%	-4%	-4%	-4%	-4%	-4%	-4%	-5%	-4%	-4%	-4%	-4%
Change in Total Rev	5%	5%	-15%	-46%	-37%	-23%	-20%	-19%	-17%	-17%	-16%	-15%	-19%	-12%	-10%	-9%	-8%
New Total Toll Rev	\$ 53.8	\$ 51.5	\$ 48.5	\$ 31.7	\$ 40.7	\$ 50.6	\$ 56.3	\$ 59.6	\$ 52.7	\$ 54.2	\$ 49.8	\$ 47.9	\$ 597.4	\$ 675.3	\$ 721.6	\$ 738.4	\$ 752.3



Fee Revenue and Total Revenue Estimates Including COVID-19 Impacts

Stantec's estimates of COVID-19 impacts on fee revenues are expected to be similar to total traffic impacts, as fees do not differ among vehicle types. However, because there is a lag in fee collection (for example, violations can take five months or more to collect after a trip is made), this has been considered in the estimates. Table 7 presents results of total toll and fee revenues, comparing each COVID-19 scenario to the pro forma forecast. Estimated percent losses have been color-coded to represent the severity of the potential impacts.

Table 7: 2020 Pro Forma Forecast and Range of COVID-19 Estimates
Total Toll and Fee Revenue (in millions)

PRO FORMA / Without COVID-19 Impacts

Year	Toll Rev	Adjustment to Cash Basis	Late Fees+ Violation Rev	Billing Fee Rev	TOTAL
2020	\$740.4	\$(5.8)	\$28.2	-	\$762.9
2021	769.7	(3.8)	43.7	\$12.8	822.5
2022	804.2	-	60.8	12.4	877.4
2023	813.4	-	56.7	12.1	882.2
2024	821.9	-	55.7	11.9	889.5

WITH COVID-19 IMPACTS - SHORTER DURATION

Year	Toll Rev	Adjustment to Cash Basis	Late Fees+ Violation Rev	Billing Fee Rev	TOTAL	Diff from Pro Forma
2020	\$623.9	\$(4.9)	\$23.6	-	\$642.7	-16%
2021	723.6	(3.5)	38.5	\$12.0	770.6	-6%
2022	764.9	-	57.9	11.8	834.7	-5%
2023	779.5	-	54.8	11.7	846.0	-4%
2024	802.4	-	54.5	11.6	868.5	-2%

WITH COVID-19 IMPACTS - MID DURATION

Year	Toll Rev	Adjustment to Cash Basis	Late Fees+ Violation Rev	Billing Fee Rev	TOTAL	Diff from Pro Forma
2020	\$616.6	\$(4.8)	\$23.5	-	\$635.4	-17%
2021	708.6	(3.5)	37.7	\$11.6	754.5	-8%
2022	750.5	-	56.4	11.6	818.5	-7%
2023	765.8	-	53.6	11.5	830.8	-6%
2024	785.7	-	53.3	11.4	850.4	-4%

WITH COVID-19 IMPACTS - LONGER DURATION

Year	Toll Rev	Adjustment to Cash Basis	Late Fees+ Violation Rev	Billing Fee Rev	TOTAL	Diff from Pro Forma
2020	\$602.0	\$(4.7)	\$23.4	-	\$620.7	-19%
2021	678.6	(3.3)	36.0	\$10.9	722.2	-12%
2022	721.6	-	53.5	11.0	786.1	-10%
2023	738.4	-	51.1	11.0	800.5	-9%
2024	752.3	-	51.1	10.9	814.3	-8%

Comparison to Previous Budget Forecast

The following two tables compare Stantec’s new estimates of traffic and total revenue (toll revenue plus late, violation, and billing fees) for the pro forma case and three COVID-19 scenarios to the previous Budget Forecast completed in June 2019. Actual traffic for 2019 was slightly lower than previously forecasted, while total toll and fee revenues were slightly higher. Note that the previous forecast did *not* include any toll modifications.

Table 8: 2020 Pro Forma Forecast and Range of COVID-19 Estimates

Year	Previous Budget Forecast ¹	New Pro Forma Forecast	Estimates with COVID-19 Impacts		
			Shorter Duration	Mid Duration	Longer Duration
2019	267.2	267.0	267.0	267.0	267.0
2020	269.6	269.4	213.3	209.6	202.2
2021	272.2	267.2	251.9	244.9	230.9
2022	275.0	270.1	259.2	253.0	240.5
2023	277.4	272.5	264.7	259.0	247.6
2024	279.6	274.8	269.6	264.2	253.4

¹ Previous forecast did not include toll modifications.

Table 9: 2020 Pro Forma Forecast and Range of COVID-19 Estimates

Year	Previous Budget Forecast ¹	New Pro Forma Forecast	Estimates with COVID-19 Impacts		
			Shorter Duration	Mid Duration	Longer Duration
2019	\$763.8	\$765.1	\$765.1	\$765.1	\$765.1
2020	761.1	768.7	647.6	640.2	625.4
2021	761.8	826.3	774.1	757.9	725.5
2022	782.0	877.4	834.7	818.5	786.1
2023	788.8	882.2	846.0	830.8	800.5
2024	795.4	889.5	868.5	850.4	814.3

¹ Previous forecast did not include toll modifications.

Stantec will continue to carefully monitor ongoing COVID-19 impacts and economic developments on the Authority’s traffic and revenue and will provide updates and revisions to this budget forecast report upon request.

Limits and Disclaimers

It is Stantec's opinion that the traffic and toll revenue estimates provided herein made for the Authority for their budget forecasting have been prepared in accordance with accepted industry-wide practice. In Stantec's opinion, the assumptions underlying the study provide a reasonable basis for the analysis. There are likely to be differences between the projections and actual results, and those differences may be material. Because of these uncertainties, Stantec makes no guaranty or warranty with respect to the projections in this study.

We are performing this analysis based on your request. Due to the dynamic and fluid situation at this current time with the COVID-19 pandemic, we are able to prepare this analysis only using the specific assumptions that are noted in the document for the resulting traffic and revenue estimates.

The estimates contained in this document, while presented with numeric specificity, are based on a number of estimates and assumptions which, though considered reasonable to us, are inherently subject to uncertainties and contingencies, most of which are beyond the control of the Authority and cannot be predicted with certainty. In many instances, a broad range of alternative assumptions could be considered reasonable, and any changes in the assumptions used could result in material differences in estimated outcomes.

This document, and the opinions, analysis, evaluations, or recommendations contained herein are for the sole use and benefit of the contracting parties. There are no intended third-party beneficiaries, and Stantec Consulting Services Inc. (and its affiliates) shall have no liability whatsoever to any third parties for any defect, deficiency, error, omission in any statement contained in or in any way related to this document or the services provided.

Neither this document nor any information contained therein or otherwise supplied by Stantec in connection with the study and the services provided to the Authority shall be used in connection with any financing solicitation, proxy, and proxy statement, proxy soliciting materials, prospectus, Securities Registration Statement or similar document without the express written consent of Stantec Consulting Services Inc.

* * * * *

Stantec Consulting Services Inc.



Suzanne Seegmuller
Senior Transportation Specialist

Phone: +1-212-732-6908
Suzanne.Seegmuller@stantec.com

APPENDIX

Economic Backdrop and Outlook for the Future

ECONOMIC BACKDROP AND OUTLOOK FOR THE FUTURE

Historically, Thruway traffic trends have been influenced by socio-economic conditions and correlations have been found between passenger car growth and Gross Domestic Product (GDP) growth, and between commercial vehicle growth and Industrial Production Index (IPI) growth.

Stantec typically uses the consensus forecast from a group of financial institutions and economic forecasting firms as an input into its traffic growth forecasts for revenue estimation purposes. The most recent consensus forecast, derived from projections from more than 50 financial institutions and professional forecasting firms, is that real GDP will fall by 5.5 percent in 2020 but rebound to 4 percent in 2021.¹

Any forecast of toll traffic and revenues will, of necessity, recognize the significant variations that can and do occur in the national, regional and local economies and population changes within the Thruway corridors. Considering this, Stantec performed a detailed analysis of the historical economic trends seen over the last few decades, particularly as they relate to the economic influences that occurred and how traffic on the Authority's facilities reacted to those trends. In addition, Stantec has been monitoring the impact of COVID-19 which introduces considerable uncertainty in the short term as well as long-term implications for economic growth and traffic impacts.

A.1 RECENT MACROECONOMIC TRENDS

A.1.1 Gross Domestic Product

As noted previously, Thruway passenger car traffic growth trends have been influenced by socio-economic conditions, and correlations have been found between car traffic growth and GDP growth. Figure A-1 shows the real *annual* GDP from 1980 through the first quarter of 2020. From 2000 through 2018, real GDP in the United States increased at an average annual rate of 1.9 percent. This period included the 2001 recession and the recession that began in late 2007 and ended in June 2009. This recession, which some economists termed the "Great Recession", was far more severe than originally predicted and significantly deeper and longer than previous recessions. In 2008, real GDP decreased by 0.3 percent, and in 2009 the recession reached its nadir, with real GDP decreasing by 2.8 percent. Since 2009 and until very recently, the U.S. economy had recovered and shown consistent growth. Real GDP increased on an annual basis by between 1.6 and 2.9 percent in the years 2010 to 2016,² then increased at annual rates of 2.4 percent in 2017, 2.9 percent in 2018, and 2.1 percent in 2019.³ The fourth quarter 2019 real GDP was estimated at \$19.2 trillion.⁴

¹ Blue Chip Economic Indicators, Top Analysts' Forecasts of the U.S. Economic Outlook for the Year Ahead", Wolters and Kluwer Law & Business, July 10, 2020

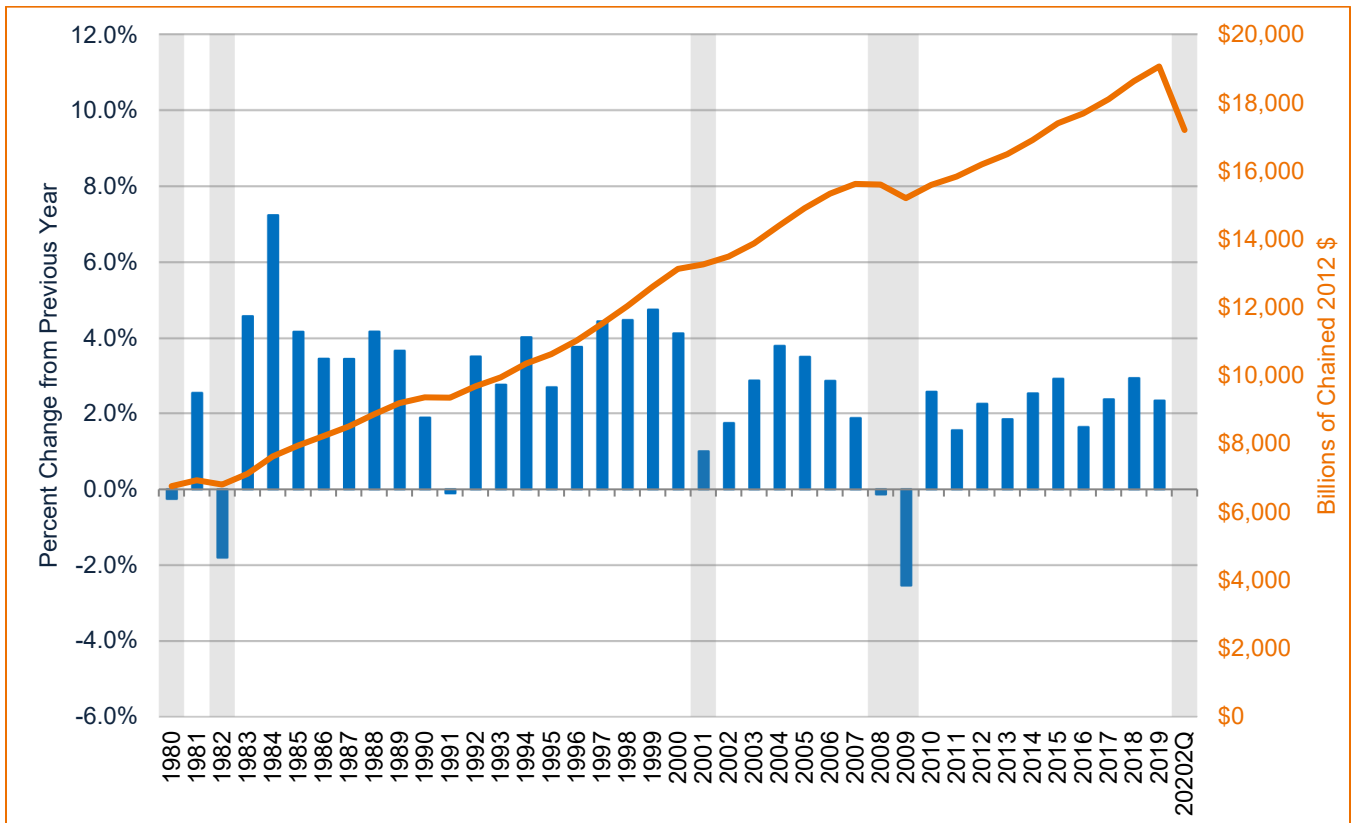
² U.S. Bureau of Economic Analysis, Real Gross Domestic Product [A191RL1A225NBEA], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/A191RL1A225NBEA>, March 14, 2019

³ Bureau of Economic Analysis, News Release, "Gross Domestic Product, First Quarter 2020 (Third Estimate), June 25, 2020

⁴ Ibid.

Note that gray shaded areas on the figures in this section represent U.S. recessions as determined by the National Bureau of Economic Research. Recessions are technically defined as two consecutive calendar quarters of negative GDP growth.

Figure A-1: Real Gross Domestic Product (GDP), Historical Annual, 1980 – 2nd Quarter 2020



Source: U.S. Census Bureau, Bureau of Economic Analysis, National Bureau of Economic Research

Note: gray shaded areas of the graphic represent U.S. recessions

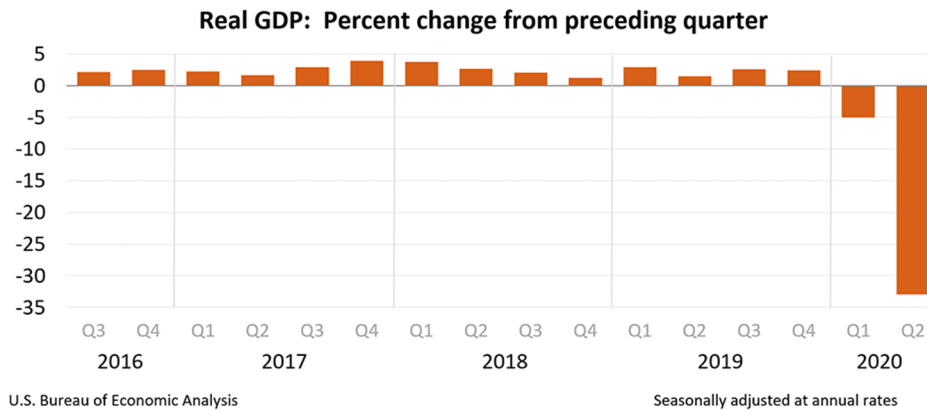
As shown Figure A-2, real gross domestic product (GDP) then *decreased* at an annual rate of 5.0 percent in the first quarter of 2020 according to the Bureau of Economic Analysis (BEA), with first quarter real GDP estimated at \$18.98 trillion. Advance estimates for the second quarter of 2020 confirm that the U.S. is in its first recession since recovering from the 2007-2009 recession, indicating that the second quarter real GDP fell at an annual rate of 32.9 percent with real GDP estimated at \$17.2 trillion.⁵ Reporting on this historic decline, the New York Times notes the following⁶:

⁵ U.S. Bureau of Economic Analysis News Release, July 30, 2020 As accessed on 7-31-2020 at <https://www.bea.gov/news/2020/gross-domestic-product-2nd-quarter-2020-advance-estimate-and-annual-update>

⁶ The Numbers Behind the U.S. Economic Decline, Ben Casselman, The New York Times, July 30, 2020.

- The percentage decrease in GDP is by far the biggest on record.
- The GDP fell 4 percent during the entirety of the Great Recession ---- and took 18 months to get there.
- In essence, the U.S. wiped out five years of economic growth in a matter of months.

Figure A-2: Quarterly Changes in Real Gross Domestic Product (GDP)- 2016-2020

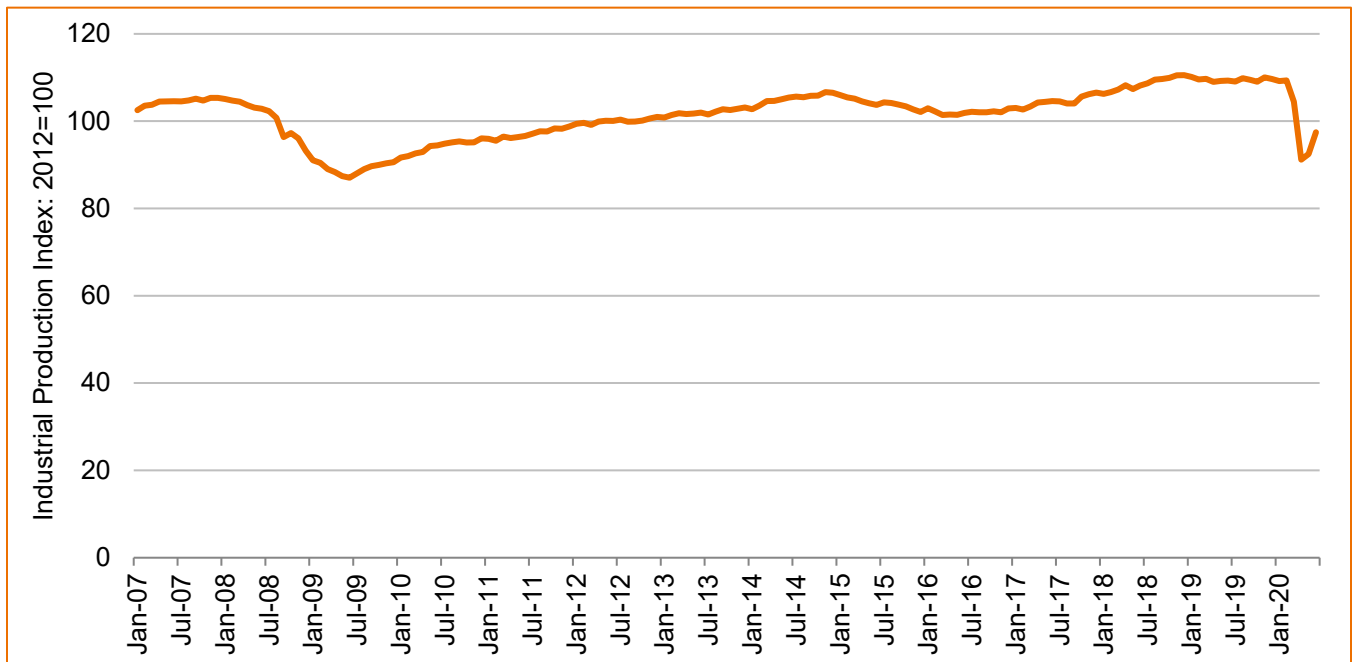


A.1.2 Industrial Production Index

Stantec has tracked the traffic volumes on the Thruway and other toll facilities throughout the Northeastern US for over a decade and has found that growth in commercial vehicle traffic generally correlates to growth in Industrial Production Index (IPI) growth. The IPI is a measure of real output in the manufacturing, mining, electric and gas industries published by the Board of Governors of the Federal Reserve System. The Index is measured as a percentage of real output of a given base year, in this case 2012.

As shown in Figure A-3, the IPI hit a trough in June 2009, the last month of the 2007 to 2009 recession. Since that time, with the exception of a slow but small decline throughout 2015 and 2016, it had generally been on an upward trajectory, increasing by more than 25 percent from June 2009 through the end of 2019. The IPI then fell by 11 percent in the first five months of 2020 as a result of COVID-19.

Figure A-3: Industrial Production Index (IPI), Historical Monthly, January 2007 to June 2020



Source: Board of Governors of the Federal Reserve System, National Bureau of Economic Research

A.1.3 Trends in Vehicle Miles Traveled (VMT)

The United States experienced an historic flattening and drop in vehicle-miles traveled (VMT) on its highways, starting in 2008 and lasting until approximately 2014. A reduction in VMT means less revenue – in the form of gasoline taxes or tolls - for funding transportation operation, maintenance and capital expenses. However, beginning in mid-2014, national VMT experienced a growth trend, increasing at an even more rapid rate than in the 1990s until a recent period of low growth began in late 2017, a pattern recently disrupted by COVID-19.

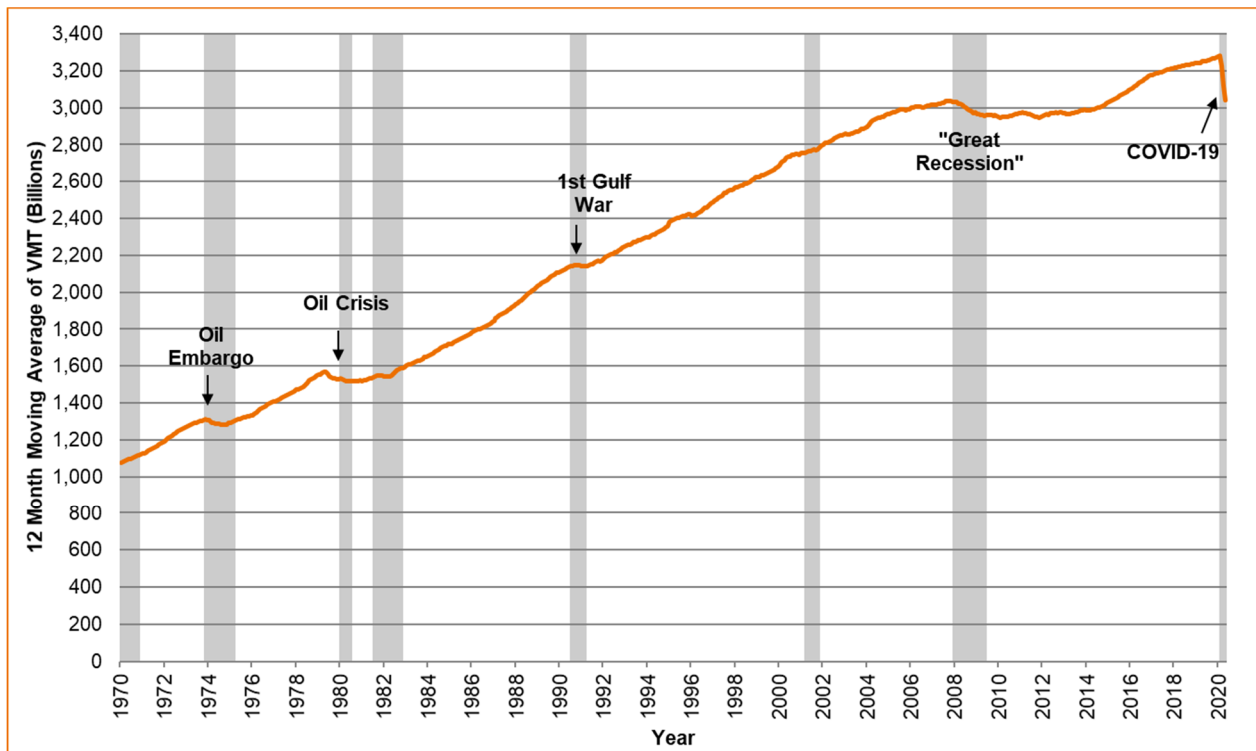
Figure A-4 depicts the 12-month moving total of national VMT on all U.S. highways, from 1970 through May 2020. Even before COVID-19, a number of demographic factors were cited as having a downward influence on VMT, including baby boomers retiring and driving less, the ability of workers to work remotely in the internet era, communication technologies that can substitute for in-person interaction,⁷ and a rising preference for compact, mixed-use neighborhoods which reduce the need for driving.⁸ More immediately, COVID-19 and the pace of economic recovery will significantly affect trends in VMT- among the factors at play are the extent

⁷ “Vehicle Miles Traveled: Another Look at Our Evolving Behavior”, [Jill Mislinski](#), March 17, 2017.

⁸ State Smart Transportation Initiative News, [“Per capita VMT drops for ninth straight year; DOTs taking notice,”](#) Chris Cahill, February 24, 2014.

of a long-term or permanent shift to more work from home and preference for private auto travel over mass transit (which a recent IBTTA presentation described as a social distancing gap⁹).

Figure A-4: Vehicle Miles Traveled (VMT) – National, Historical 12-month Moving Average, 1970 – 2020



Source: U.S. Department of Transportation, Federal Highway Administration, National Bureau of Economic Research

As shown in Table A-1, with the advent of COVID-19, VMT fell beginning in March 2020; national traffic data show that the impact was greatest in the Northeastern U.S. which was the early epicenter of the pandemic, although traffic began to rebound in May.

⁹ Keeping Pace: The Financial Effects of a New Travel & Commuting Landscape on Toll Agencies, IBTTA Webinar, July 9, 2020

Table A-1: COVID-19 Traffic Impact on Vehicle Miles Traveled

Location	March 2020 vs. March 2019	April 2020 vs. April 2019	May 2020 vs. May 2019
Northeast states	-21.0%	-46.7%	-33.4%
U.S. overall, seasonally adjusted	-18.5%	-41.2%	-26.1%

Source: *Traffic Volume Trends, FHWA Office of Highway Policy Information, March- May 2020*

Toll roads experienced even greater declines in traffic, although truck traffic generally declined by less than passenger traffic. Fitch Ratings issued a special report on July 6, 2020 which reported that truck traffic on U.S. toll roads declined roughly ten to fifteen (10 to 15) percent as compared with passenger traffic declines of fifty to sixty (50 to 60) percent.¹⁰

In comparison, the Thruway System’s monthly traffic losses were as follows, faring worse than general VMT in the northeast states and the U.S., as shown in Table A-2.

Table A-2: COVID-19 Traffic Impact on Thruway System Traffic

March 2020 vs. March 2019	April 2020 vs. April 2019	May 2020 vs. May 2019	June 2020 vs. June 2019	July 2020 vs. July 2019
-27%	-58%	-47%	-30%	-22% to -23% (preliminary)

Source: *NYS Thruway Authority*

Information from the International Bridge, Tunnel and Turnpike Association (IBTTA) indicates that like the Thruway, toll facilities experienced the lowest traffic volumes in the month of April, with traffic growing since then as stay-at-home orders have expired and people are feeling more comfortable in personal vehicles than taking mass transit. The long-term impacts of social distancing and potential permanent increase in work-from-home on VMT are difficult to predict. Other factors like preferences for short distance trips for vacations over flying to more distant destinations will also affect traffic for at least the short term. At least one other regional toll operator, the New Jersey Turnpike, does not expect to see a return to 2019 traffic levels until 2024.¹¹

Table A-3 shows three toll road traffic scenarios with differential rates of traffic decline and growth developed by Fitch Ratings.¹²

¹⁰ Fitch Ratings Special Report, Coronavirus Stress Test: U.S. Large Network Toll Roads, July 6, 2020

¹¹ Keeping Pace: The Financial Effects of a New Travel & Commuting Landscape on Toll Agencies, IBTTA Webinar, July 9, 2020

¹² Ibid.

Table A-3: Coronavirus Sensitivity Scenarios – Fitch Ratings

Case	Q1	Q2	Q3	Q4	2020	2021	2022	2023	2024	2025
Revised Rating Case: <i>2021 revenues revert to 95% of 2019 levels</i>	-6.0%	-60%	-30%	-15%	-27.8%	Prior FRC growth rate	Prior FRC growth rate	Prior FRC growth rate	Prior FRC growth rate	Prior FRC growth rate
Coronavirus Sensitivity Case: <i>2021 revenues revert to 90% of 2019 levels</i>	-7.5%	-75%	-35%	-20%	-34.4%	Prior FRC growth rate	Prior FRC growth rate	Prior FRC growth rate	Prior FRC growth rate	Prior FRC growth rate
Coronavirus Severe Sensitivity Case: <i>Revenues do not revert to 2019 levels until 2024</i>	-6.0%	-60%	-30%	-15%	-27.8%	9.6%	8.8%	8.1%	7.5%	Prior FRC growth rate
FRC: Fitch Rating Case, with prior FRC representing the last review prior to the COVID-19 pandemic										

Fitch Ratings also presented these scenarios separately for passenger and commercial traffic as noted in Table A-4 and Table A-5.¹³

Table A-4: Fitch Toll Road Revenue Assumptions Relative to 2019- Passenger Traffic Volume

(2019=100)	2020					2021					2022	2023	2024	2025	
Case	1Q	2Q	3Q	4Q	CY20	1Q	2Q	3Q	4Q	21					
Coronavirus Rating Case <i>Peak traffic losses in 2Q 2020</i>	94	40	70	85	72	95	95	95	95	95	100	Prior rating case growth from lower baseline			
Coronavirus Downside Case <i>Peak traffic losses sustained in 3Q 2020</i>	94	40	40	70	61	85	95	95	95	93	99	Prior rating case growth from lower baseline			
Coronavirus Severe Downside Case <i>Prolonged limited growth rates through 2024</i>	94	40	40	70	61	Straight-line growth to 2019 levels in 2024									

¹³ Fitch Ratings Special Report, Coronavirus Stress Test: U.S. Large Network Toll Roads, July 6, 2020

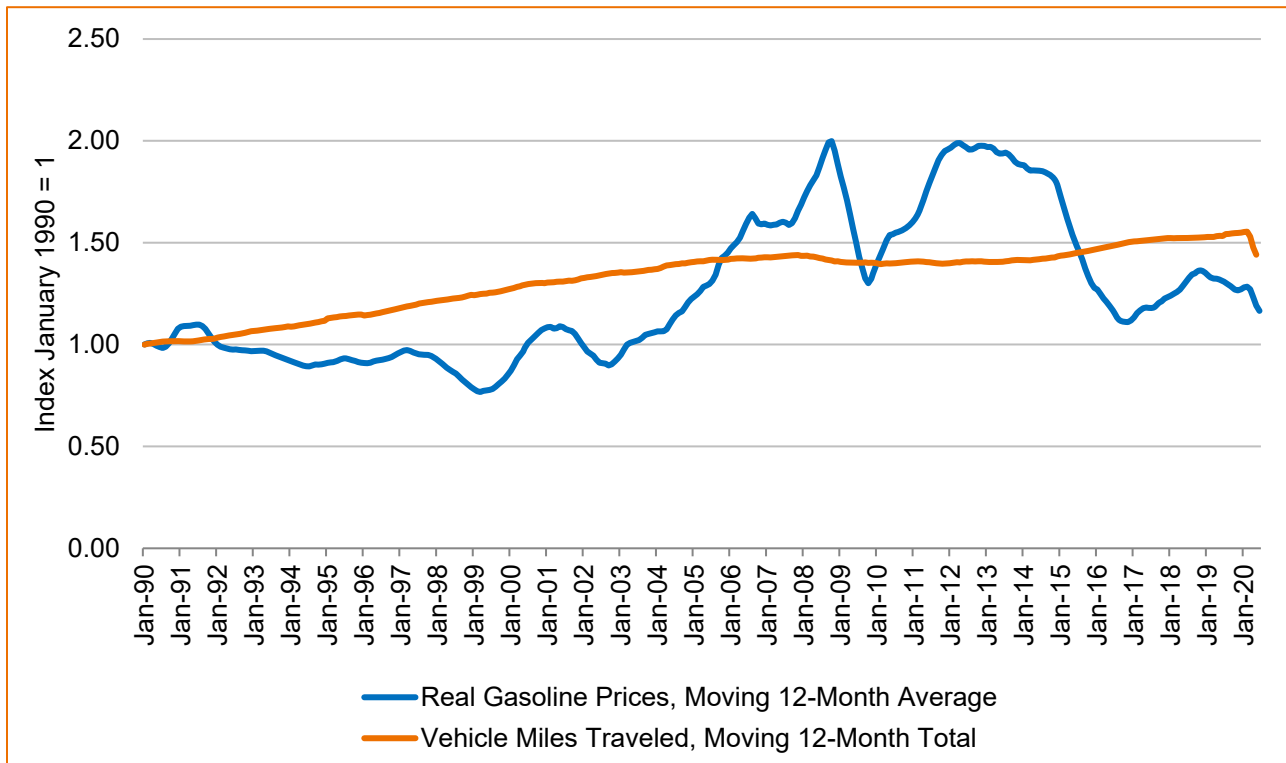
Table A-5: Fitch Toll Road Revenue Assumptions Relative to 2019- Commercial Traffic Volume

(2019=100)	2020					2021					2022	2023	2024	2025
Case	1Q	2Q	3Q	4Q	CY20	1Q	2Q	3Q	4Q	CY21				
Coronavirus Rating Case <i>Peak traffic losses in 2Q 2020</i>	98	70	85	93	86	96	96	96	96	96	100	Prior rating case growth from lower baseline		
Coronavirus Downside Case <i>Peak traffic losses sustained in 3Q 2020</i>	98	70	70	85	81	93	96	96	96	95	99	Prior rating case growth from lower baseline		
Coronavirus Severe Downside Case <i>Prolonged limited growth rates through 2024</i>	98	70	70	85	81	Straight-line growth to 2019 levels in 2024								

A.1.4 National Vehicle Miles Traveled (VMT) vs. Gas Prices (Fuel Costs)

A number of factors may have caused the recent changes in VMT; however, fuel costs (gas prices) are often cited as one of the primary factors that can have a significant impact on travel trends. Figure A-5 shows the historical correlation between VMT and gas prices, presenting VMT across the United States (national) as compared to real retail gasoline prices, from 1990 through summer of 2019. The VMT and real gas prices represent a 12-month moving average to remove any seasonality factors; all data are indexed to the 12 months ending January 1990. The decline in VMT seen after the fall of 2008 is likely more attributable to the economic meltdown than gas price changes, as prices dropped significantly by early 2009. Throughout the rest of 2009 and through the spring of 2011 gas prices increased with no noticeable change to VMT. However, between 2014 and 2016 there was a precipitous drop in gas prices which coincided with a steep increase in VMT at the national level. Between late 2016 and early 2019, real gas prices were climbing and VMT growth was nearly flat. These data show that it is difficult to pinpoint the elasticity of travel as it relates to gas prices; however, very large gas price changes do generally result in a change in driving behavior. However, more recent declines in both real VMT and real gas prices are likely both related to COVID-19 and associated declines in economic activity.

Figure A-5: National Vehicle Miles Traveled (VMT) vs. Real Gas Prices, Historical 12-month Moving Average, Indexed to January 1990, 1990 – June 2020



Source: U.S. Department of Energy, Energy Information Administration and U.S. Department of Transportation, Federal Highway Administration, July 2020

A.1.5 Unemployment Rate

At the beginning of 2008, the national unemployment rate was 5.0 percent, as it had been similarly for years. By October 2009 during the depth of the recent recession, unemployment peaked at approximately 10.0 percent. Total employment had since recovered and finally eclipsed its pre-recession peak, reaching 156.9 million persons in February 2019.¹⁴ Consequently, as shown in Figure A-6, the national unemployment rate had fallen to 4.0 percent as of January 2019 and stayed below 4 percent until March 2020. Figure A-6 also shows that the New York State unemployment rate has closely tracked national trends, except for immediately after the recession when the state recovered more quickly than the U.S and very recently with state unemployment higher than the national rate in the COVID-19 era.

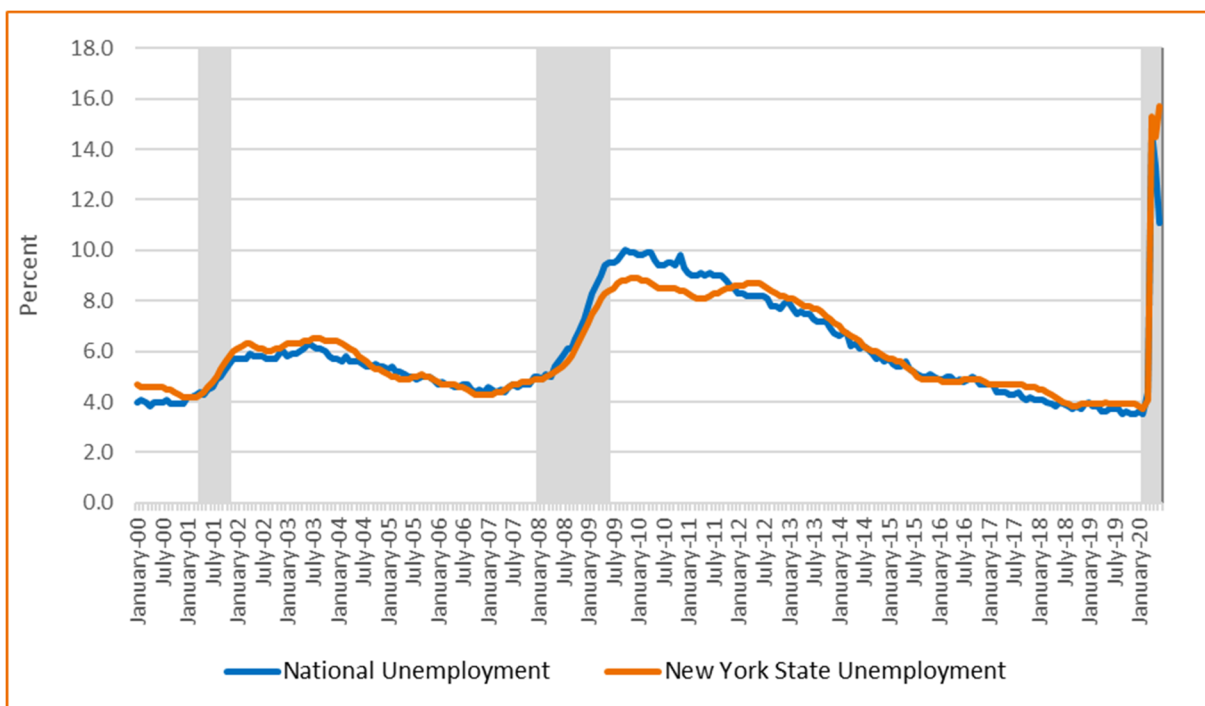
While the 2008-2009 recession caused a spike in unemployment and a notable reduction in VMT, there otherwise was no distinct correlation between the two. For example, U.S. post-recession VMT was nearly flat

¹⁴ Bureau of Labor Statistics, “The Employment Situation- February 2019,” as accessed on March 14, 2019 at <https://www.bls.gov/news.release/pdf/empsit.pdf>. Employment figure is based on Household Data Summary Table A.

for about four years after the recession, while unemployment dropped by around 40 percent, and unemployment continued to decline in 2018 and 2019 while VMT saw almost no growth.

With the impact of COVID-19, national unemployment has increased dramatically from a near-historic low of 3.5 percent in February 2020 to a peak of 14.7 percent in April 2020. New York City and New York State unemployment rates in recent months are compared to national data in Table A-6.

Figure A-6: Civilian Unemployment Rate, National vs. New York State, Historical Monthly, Seasonally Adjusted, January 2000 – June 2020



Source: U.S. Department of Labor, Bureau of Labor Statistics, National Bureau of Economic Research

Table A-6: National and New York Unemployment Rates (%)

Location	May 2020	April 2020	May 2019
United States	13.3	14.7	3.6
New York State (NYS)	14.5	15.3	4.0
New York City (NYC)	18.3	15.0	4.1
NYS, outside NYC	11.9	15.6	3.9

Source: Traffic Volume Trends, FHWA Office of Highway Policy Information, March-May 2020.
 Data are preliminary and subject to change, based on standard procedures outlined by the U.S Bureau of Labor Statistics.

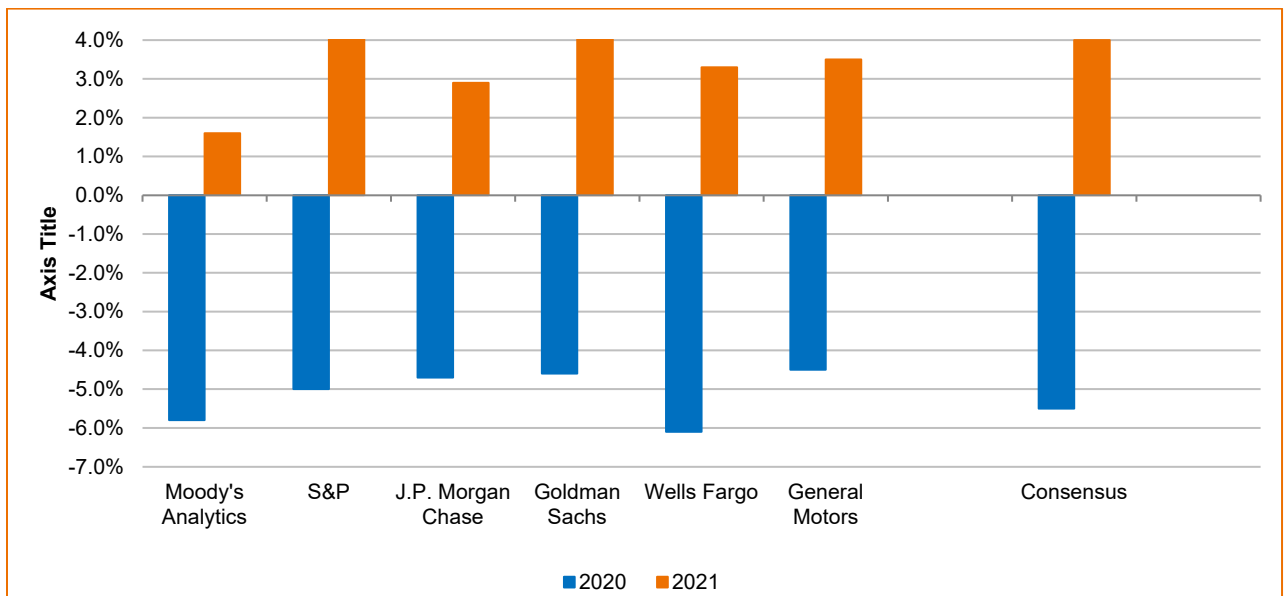
A.2 SHORT-TERM ECONOMIC FORECASTS

Financial and economic analysts expect the U.S. economy to be in decline or a recovery mode in the near-term future.

A.2.1 Gross Domestic Product

The most recent (July 2020) consensus forecast, derived from projections from more than 50 financial institutions and professional forecasting firms, is that real GDP will fall by 5.5 percent in 2020 but rebound to 4 percent in 2021.¹⁵ Forecasts in earlier months ranged from 1.9 percent growth (January and February 2020) to a 6.1 percent decline (June 2020) for the year 2020 and between 1.9 percent (January 2020) and 4.0 percent (May, June, and July 2020) for the year 2021.¹⁶ Figure A-7 presents Real GDP Forecasts by six different forecasting groups for the short-term timeframe through 2021. In the 2022-2026 timeframe, the consensus forecast is for real GDP to continue to grow by an average of 2 percent annually.¹⁷ Note that these forecasts were completed before declaration of a national emergency due to the COVID-19 pandemic on March 13, 2020; the next update is October 2020.

Figure A-7: Real Gross Domestic Product (GDP), Short-term Forecasts for 2020 and 2021



Source: *Blue Chip Economic Indicators: Top Analysts' Forecasts of the U.S. Economic Outlook for the Year Ahead*, Wolters and Kluwer Law & Business, July 10, 2020.

¹⁵ "Blue Chip Economic Indicators: Top Analysts' Forecasts of the U.S. Economic Outlook for the Year Ahead", Wolters and Kluwer Law & Business, July 10, 2020.

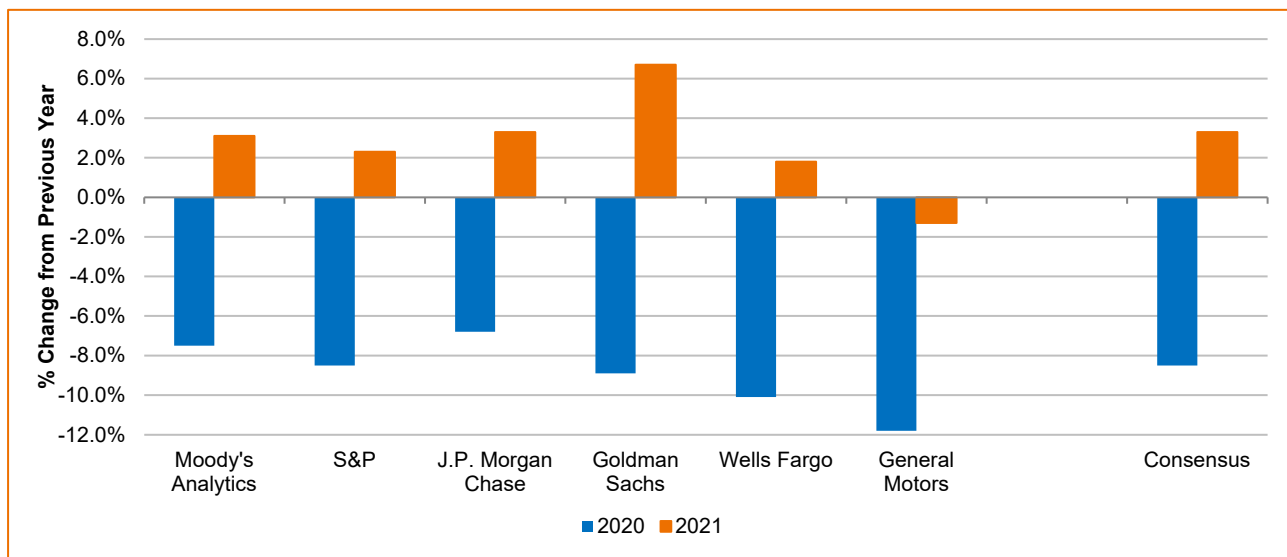
¹⁶ Ibid.

¹⁷ *Blue Chip Economic Indicators: Top Analysts' Forecasts of the U.S. Economic Outlook for the Year Ahead*, Wolters and Kluwer Law & Business, March 10, 2020.

A.2.2 Industrial Production Index

Based on consensus forecasts developed by financial institutions and industry analysts, the Industrial Production Index (IPI) is forecasted to fall by 8.5 percent in 2020 and grow by 3.3 percent in 2021.¹⁸ Figure A-8 presents Industrial Production Forecasts by six different forecasting groups for this year and next. *Blue Chip* consensus forecasts for the 2022-2026 timeframe have not been completed since March 2020; the March consensus forecast is for the IPI to grow by 2.0 percent annually in this timeframe¹⁹, however, since 2020 and 2021 IPI forecasts have been reduced in recent months (the 2020 forecast was reduced from 0.1 percent growth in March to a decline of 8.5 percent in July) it is likely that the 2022-2026 growth forecasts will also be reduced when new forecasts are produced in October.

Figure A-8: Industrial Production Index (IPI), Short-term Forecasts for 2020 and 2021



Source: *Blue Chip Economic Indicators: Top Analysts' Forecasts of the U.S. Economic Outlook for the Year Ahead*, Wolters and Kluwer Law & Business, July 10, 2020.

A.2.3 Fuel Cost Trends

Figure A-9 presents historical and projected gasoline and crude prices from the U.S. Energy Information Administration (EIA). Between the depths of the recession in December 2008 and mid-2011, gas prices jumped by more than 130 percent to \$4.13 in today's dollars. After three years of high gas prices, the prices plunged from \$3.69 in June 2014 to under \$2 per gallon in the first quarter of 2016. Between the spring of

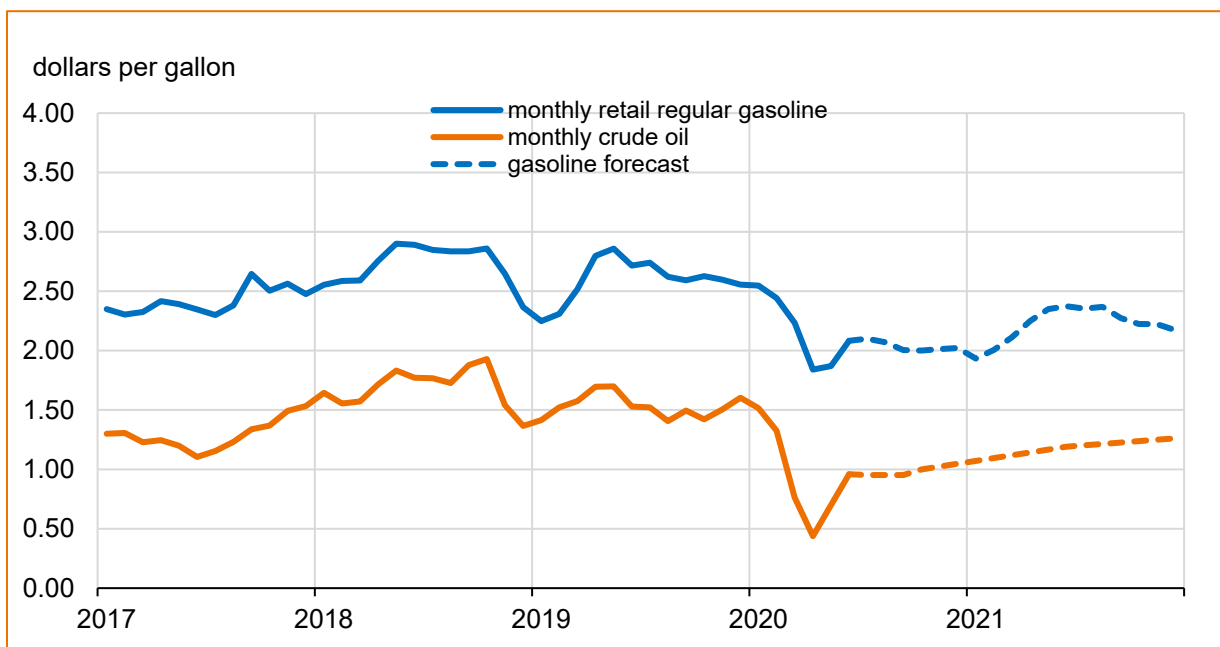
¹⁸ *Blue Chip Economic Indicators: Top Analysts' Forecasts of the U.S. Economic Outlook for the Year Ahead*, Wolters and Kluwer Law & Business, August 10, 2019.

¹⁹ *Blue Chip Economic Indicators: Top Analysts' Forecasts of the U.S. Economic Outlook for the Year Ahead*, Wolters and Kluwer Law & Business, March 10, 2020.

2016 and third quarter of 2017, gas prices generally remained in the \$2.20 to \$2.40 range.²⁰ Since then (September 2017 through February 2020), prices averaged \$2.63 per gallon, before plunging under \$2.00 a gallon with the advent of COVID-19. U.S. regular gasoline retail prices are forecast to average just over \$2.00 per gallon over the second half of 2020 and increase slightly to an average of \$2.22 per gallon in 2021.²¹

As shown in the figure, the retail price for gasoline is expected to remain well under \$2.50 per gallon in the near term. In addition to the reduced gas prices, it is important to note that average fuel economy increased by 30 percent²² between 2004 and 2018, the latest year for which final fuel economy data is available.

Figure A-9: U.S. Gasoline and Crude Oil Prices, Historical and Short-term Forecasts, 2017 – 2021



Source: U.S. Department of Energy, U.S. Energy Information Administration, Short-Term Energy Outlook, July 2020

This relatively low, static forecast of future oil and gas prices may be reassuring; however, this figure does not show the level of uncertainty in these projections. Figure A-10 presents the EIA’s projections for West Texas Intermediate (WTI) Crude Oil Price. The base projection is similar to that illustrated in Figure A-9, but it is the possible range of this price that represents a downside risk to the U.S. economy and VMT. Based on options markets, the 95 percent confidence interval for WTI is between 90 percent more to 63 percent less than current forecasts for December 2021.²³ Recognizing the impact fuel prices have on motorist behavior, with a

²⁰ “Short-Term Energy Outlook,” U.S. Energy Information Administration, March 2019.

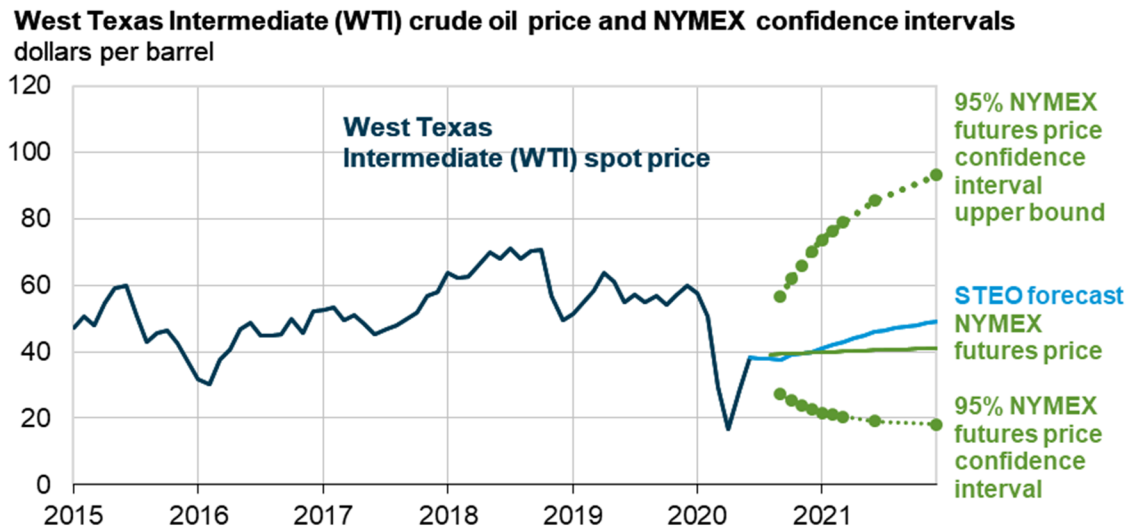
²¹ “Short-Term Energy Outlook,” U.S. Energy Information Administration, July 2020

²² Executive Summary, EPA Automotive Trends Report: Greenhouse Gas Emissions, Fuel Economy, and Technology since 1975, U.S. Environmental Protection Agency, March 2020 as accessed at <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100YVK3.pdf>

²³ Short-Term Energy Outlook U.S. Energy Information Administration, July 2020

wide range of likely future prices of oil and gasoline, accurately projecting traffic volumes has become an increasingly challenging task.

Figure A-10: Crude Oil Prices, Historical and Short-term Forecasts, with Confidence Intervals, 2015 – 2021



Note: Confidence interval derived from options market information for the five trading days ending Jul 1, 2020. Intervals not calculated for months with sparse trading in near-the-money options contracts.

Sources: Short-Term Energy Outlook, July 2020, CME Group, and Bloomberg, L.P.



Source: U.S. Department of Energy, U.S Energy Information Administration, Short-Term Energy Outlook, July 2020

A.2.4 Unemployment Rate

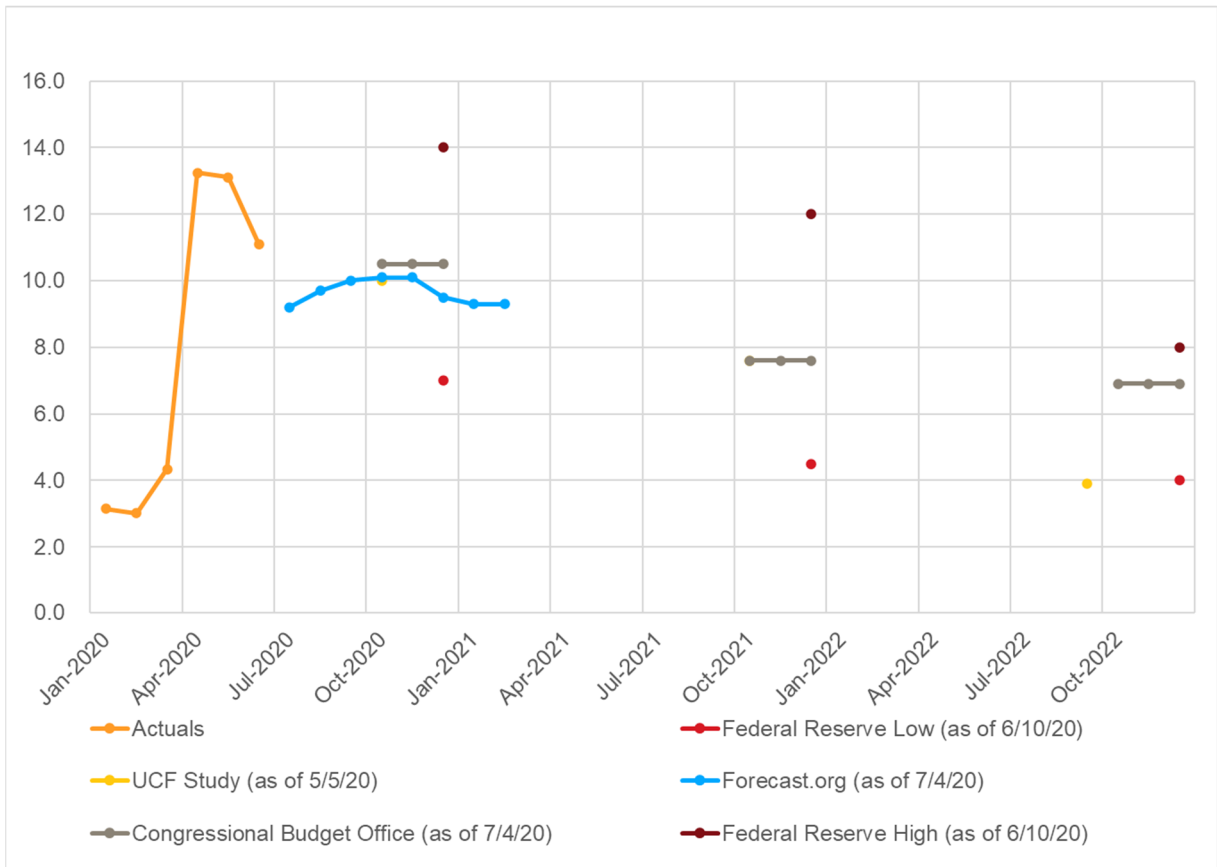
Based on consensus forecasts developed by financial institutions and industry analysts, the unemployment rate is projected to average 4.1 percent over the 2022-2026 time period.²⁴ In the shorter term, CBO forecasts that unemployment will increase from 3.8 percent in the first quarter to 14 percent in the second quarter, then increase again to 16 percent in the third quarter before falling to 11.7 percent in the fourth quarter, resulting in an annual average of 11.4 percent for 2020. CBO forecasts unemployment will improve slightly in 2021 to an

²⁴ Blue Chip Economic Indicators: Top Analysts' Forecasts of the U.S. Economic Outlook for the Year Ahead", Wolters and Kluwer Law & Business, March 10, 2020.

average of 10.1 percent²⁵ The annual unemployment rate, as projected by CBO, is now projected to average 6.1 percent.²⁶

Between now and 2022, it is important to note that there is a wide range of forecasts for unemployment among different groups as shown in Figure A-11. The most optimistic outlook in this figure appears to be the Federal Reserve forecast for unemployment to fall to near pre-COVID-19 levels by the end of 2022.

Figure A-11: National Unemployment Forecasts- 2020-2022



²⁵ CBO's Current Projections of Output, Employment, and Interest Rates and a Preliminary Look at Federal Deficits for 2020 and 2021, posted April 24, 2020 as accessed on July 15, 2020 at <https://www.cbo.gov/publication/56335>

²⁶ An Update to the Economic Outlook: 2020 to 2030, posted July 2, 2020 as accessed on July 29, 2020 at <https://www.cbo.gov/publication/56335>

A.3 LONG-TERM ECONOMIC FORECASTS

A.3.1 Gross Domestic Product and Industrial Production Index

In the 2027-2031 timeframe, the consensus forecast developed by financial institutions and industry analysts on March 10, 2020 was for both real GDP and the Industrial Production index to continue to grow by 2.0 percent annually.²⁷ Note that these forecasts were completed before declaration of a national emergency due to the COVID-19 pandemic on March 13, 2020; the next update is October 2020.

A.3.2 Vehicle Miles Traveled (VMT)

The Federal Highway Administration prepares long term (20- and 30-year) forecasts of VMT each year. In its May 2019 report (the most recent report available which should be noted as significantly pre-dating COVID-19), FHWA highlights “prospects for future economic growth, alternative interpretations of the causes of recent declines in vehicle ownership and use, particularly among younger Americans, and the potential effects on vehicle use of dramatic innovations in technology such as the advent of autonomous vehicles” as sources of uncertainty in its forecasts. While not attempting to capture the impacts of all these uncertainties in its forecasts, FHWA projects VMT growth under three different economic outlooks- baseline, low economic growth, and high economic growth, with the most recent forecasts shown in Table A-7.²⁸ Interestingly, growth in vehicle mileage for single unit and combination trucks is forecast to be at a higher rate than light duty vehicles.

Table A-7: FHWA Long-Term Growth Forecasts of National Vehicle Miles Traveled (VMT)

Vehicle Class	Compound Annual Growth Rates					
	Low Economic Growth Outlook		Baseline Economic Growth Outlook		High Economic Growth Outlook	
	2017-2037 (20-Year)	2017-2047 (30-Year)	2017-2037 (20-Year)	2017-2047 (30-Year)	2017-2037 (20-Year)	2017-2047 (30-Year)
Light-Duty Vehicles	0.9%	0.6%	1.1%	0.7%	1.2%	0.9%
Single-Unit Trucks	1.1%	1.4%	1.6%	1.9%	2.0%	2.3%
Combination Trucks	1.1%	1.2%	1.5%	1.5%	1.5%	1.5%
TOTAL	0.9%	0.7%	1.1%	0.8%	1.3%	1.0%

Source: Office of Highway Policy Information U.S. DOT, Federal Highway Administration, May 2019. Most recent report available.

²⁷ Blue Chip Economic Indicators: Top Analysts’ Forecasts of the U.S. Economic Outlook for the Year Ahead”, Wolters and Kluwer Law & Business, March 10, 2020. The next Long-Term Economic Forecasts will be included in the October 10, 2020 issue.

²⁸ “FHWA Forecasts of Vehicle Miles Traveled (VMT): Spring 2019,” Office of Highway Policy Information, May 2019, as accessed on August 28, 2019 at https://www.fhwa.dot.gov/policyinformation/tables/vmt/vmt_forecast_sum.pdf

A more recent forecast from the Energy Information Administration (EIA) projects a similar differential between light duty vehicles and trucks for the 2019-2050 timeframe with lower projected rates of growth than in the FHWA forecasts over a slightly different horizon for all three vehicle categories:²⁹

- 0.6 percent annually for light duty vehicles less than 8,501 pounds
- 1.2 percent annually for light duty trucks (commercial trucks 8,501 to 10,000 pounds gross vehicle weight rating)
- 1.1 percent annually for freight trucks greater than 10,000 pounds

A.3.3 Unemployment Rate

Long-term forecasts of the unemployment rate tend to differ, depending on varying assumptions of the impact of long-term structural trends such as advances in information technology, outsourcing, and an aging population. In its latest 10-year economic projections, the U.S. Congressional Budget Office (CBO) has forecasted that the unemployment rate will average 10.6 percent in 2020, steadily fall from 8.4 percent in 2021 to 5.2 percent by the end of 2026, and then remain below 5 percent between 2027 and 2030.³⁰ CBO projects that unemployment will average 6.1 percent in the 2020-2030 time period.³¹

Based on consensus forecasts developed by financial institutions and industry analysts, the unemployment rate is projected to average 4.2 percent over the 2027-31 timeframe³², slightly lower than the 4.5 percent rate forecasted by CBO for the 2027-2030 timeframe.

A.3.4 Conclusion

Quoting from the July 10, 2020 Blue Chip Economic Indicators report, “We live in a world of unprecedented uncertainty. [sic] Reopening of the economy has indeed begun, but renewed and increasing incidence of COVID-19 is heightening uncertainty about whether the openings can be sustained and how vigorously growth can continue.” Stantec will monitor developments in the underlying data and overall socioeconomic picture in the coming months to assess any change in future budget estimates.

²⁹ Annual Energy Outlook, 2020, Transportation Sector Key Indicators accessed on July 15, 2020 at <https://www.eia.gov/outlooks/aeo/data/browser/#/?id=7-AEO2020&cases=ref2020&sourcekey=0>

³⁰10-Year Economic Projections in Budget and Economic Data, Congressional Budget Office Report, as accessed July 15, 2020 at <https://www.cbo.gov/data/budget-economic-data#4>

³¹ An Update to the Economic Outlook: 2020-2030, Congressional Budget Office, July 2, 2020 as accessed on July 15, 2020 at <https://www.cbo.gov/publication/56442>

³² Blue Chip Economic Indicators: Top Analysts' Forecasts of the U.S. Economic Outlook for the Year Ahead”, Wolters and Kluwer Law & Business, March 10, 2020

Funds Description

The Authority's Bond Resolution established the following funds, and the activities of the funds are reported in schedules included in the Authority's financial statements.

Revenue Fund –The fund is used to account for all pledged revenues. Pledged Revenue includes, among other things, all tolls, revenues, fees, rents, charges and other income and receipts derived from the operation of the Thruway System.

Operating Fund- The fund is used to account for all operating expenses. Operating expenses are for operation, maintenance, repairs, ordinary replacement and ordinary reconstruction of the Thruway System and ordinary acquisition of equipment for the Thruway System.

Senior Debt Service Fund - accumulates the amounts required for payment of interest, maturing principal amounts and sinking fund installments on all outstanding.

Senior Debt Reserve Fund – Established to retain funds equal to the maximum amount of aggregate debt service for any twelve-month period on all outstanding General Revenue Bonds secured by the Senior Debt Service Reserve Fund, Series F, Series G, Series H, Series I, Series J, and Series K General Reserve Bonds.

Reserve Maintenance Fund – Established to hold funds required to be deposited each year into the Reserve Maintenance Fund. Funds held in the Reserve Maintenance Fund can be disbursed for specific costs relating to the "Facilities," as defined in the bond resolution and certain highway and railroad grade crossings.

Junior Indebtedness Fund- Established to hold moneys paid into it from the sale of Junior Indebtedness Obligations (bonds and notes) which are to be used to fund the Facilities Capital Improvement Fund for a portion of the cost of the Authority's New NY Bridge Project as defined in the Junior Indebtedness Bond Resolution and to pay debt service including capitalized interest on the Series 2013A Junior Indebtedness Obligations through December 31, 2017

Facilities Capital Improvement Fund- Established to hold funds determined to be necessary or appropriate by the Authority Board to fund project costs of facilities or to set up reserves to fund such costs. The Authority has elected to use this fund to hold certain revenues, debt proceeds, and other monies dedicated to the New NY Bridge.

Other Authority Projects Operating Fund- Established pursuant to the General Revenue Bond Resolution, the Authority may, from time to time, disburse or transfer amounts in the Other Authority Projects Operating Fund, free and clear of the lien and pledge created by the Resolution, for the purpose of providing for operating costs of Other Authority Projects, or, upon the determination of the Authority Board, transfer such amounts to the General Reserve Fund. Investment income on amounts in the Other Authority Projects Operating Fund shall be deposited into the Revenue Fund.

General Reserve Fund – used to make payments under any agreements with the State of New Jersey or for any other corporate purpose. For budgeting purposes only, the Authority has established a "Supplemental Capital Fund" within the General Reserve Fund that is used to fund short to medium term projects not financed through bond proceeds. The Supplemental Capital Fund is not a legal fund, is not recognized under

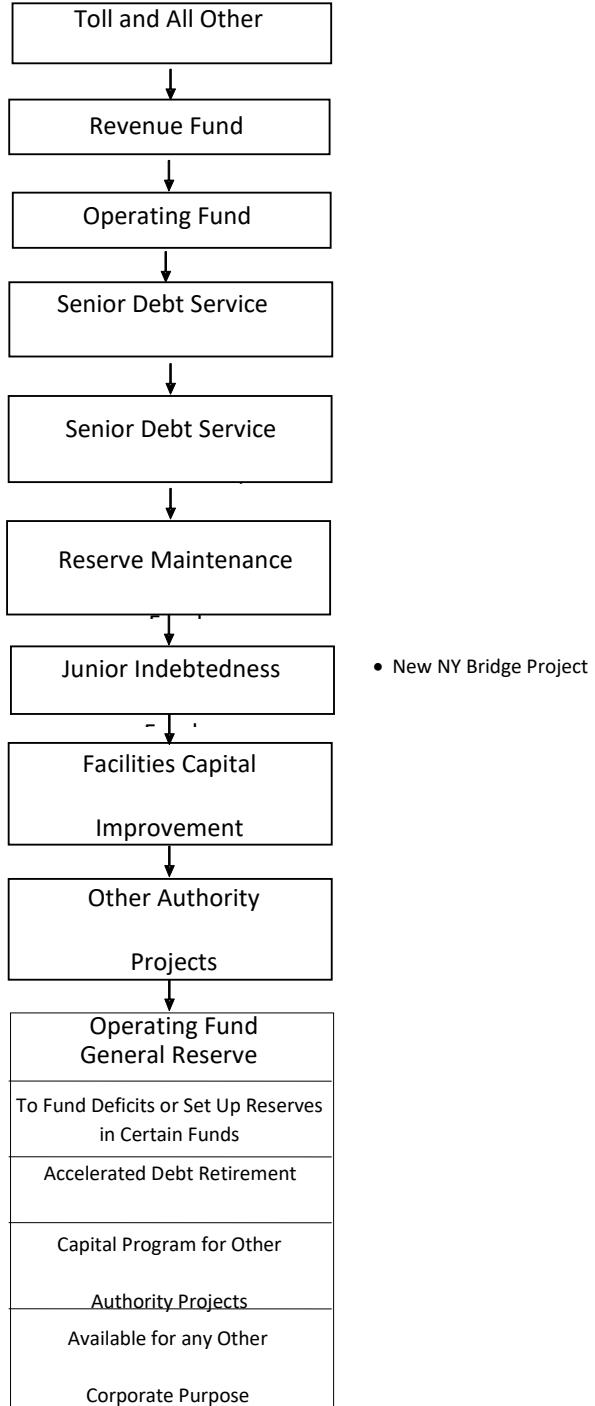
the Bond Resolution, and its activity is reported as General Reserve Fund activity in the Authority's financial statements.

Rebate Fund- Moneys on deposit in the Rebate Fund may be applied by the Authority to make payments to the Department of the Treasury of the United States of America at such times and in such amounts as the Authority shall determine to be required by the Code to be rebated to the Department of the Treasury of the United States of America in accordance with the provisions of the Arbitrage and Use of Proceeds Certificate, if any, delivered in connection with each Series of Bonds. Moneys which the Authority determines to be in excess of the amount required to be so rebated shall be deposited to the Revenue Fund.

Construction Fund- Established to hold moneys paid into it from the sale of bonds and notes to pay for costs of the "Facilities" and "Other Authority Projects" as defined in the bond resolutions. Any remaining money upon completion or abandonment of such projects shall be transferred to other funds in accordance with the terms outlined in the bond resolutions.

Flow of Funds Chart

Senior Resolution and Junior Indebtedness Resolution Flow of Funds



Net Revenue Requirements

Pursuant to the General Revenue Bond Resolution, the Thruway is empowered at all times, to fix, charge and collect such tolls, fees and charges for the use of the Facilities as are required in order to meet the Net Revenue Requirement for such year. "Net Revenue Requirement" means, with respect to any period of time, an amount equal to the greater of (i) the sum of (A) Aggregate Debt Service, (B) amounts required to make deposits to the Senior Debt Service Reserve Fund, if any, (C) amounts required to make Reserve Maintenance Payments, and (D) amounts required to be deposited in the Junior Indebtedness Fund pursuant to the Supplemental Resolution or other resolution or agreement authorizing outstanding Junior Indebtedness or (ii) 1.20 times the sum of the Aggregate Debt Service for such period; provided, however, that "Aggregate Debt Service" for purposes of calculating the Net Revenue Requirement may be reduced by an amount equal to investment income on the Senior Debt Service Fund and on the Senior Debt Service Reserve Fund to the extent such investment income is required to be retained in or transferred to the Senior Debt Service Fund, as appropriate, pursuant to a Supplemental Resolution, such amount to be calculated at the rate per annum equal to the lesser of (A) the then current yield on five year obligations of the United States Treasury and (B) the actual income to be earned as estimated by an Authorized Officer.

Basis of Budgeting

Pursuant to the General Revenue Bond Resolution, the Authority shall prepare an Authority Budget on an annual basis, or on such other periodic basis as the Authority Board shall determine, but in no event on a less frequent basis than biennially, which shall include amounts for all anticipated Operating Expenses and reserves therefor, Reserve Maintenance Payments and provision for anticipated deposits into each Fund under this Resolution for the period of such budget. Such Authority Budget may set forth such additional material as the Authority may determine. On or before the first day of each fiscal year or for such applicable period for the Authority Budget as aforesaid, the Authority shall finally adopt the Authority Budget for such period and shall mail such Authority Budget to the Trustee. The Authority may at any time adopt an amended Authority Budget for the remainder of the then current fiscal year or other applicable period. Copies of the Authority Budget and of any amended Authority Budget shall at all times be on file with the Secretary of the Authority, and be available for inspection by the Trustee and by Bondholders. If for any reason the Authority shall not have adopted the Authority Budget before the first day of any fiscal year, the budget for the preceding fiscal year or other applicable period shall be deemed to be in effect for such fiscal year or other applicable period until the Authority Budget for such period is adopted.

Budgeting Process

Each year the Authority constructs a budget and financial plan that is consistent with its strategic goals. Our strategic plan has long served as the foundation in which staff and the Authority's Board have planned and made decisions on the allocation of important, and often scarce, resources. This plan identifies three principal goals:

- Maintaining high levels of customer service and safety;
- Maintaining infrastructure and deliver the capital program; and
- Enhancing the efficiency and effectiveness of Authority operations.

The Authority pursues an interaction and dynamic budget process that involves input from all levels of the organization. The budget process begins with a bulletin issued by the Chief Financial Officer in February that provides strategic direction and guidelines on how the ensuing year's budget will be constructed. The bulletin is issued to all Department Heads and Division Directors, providing them with timelines, pricing

assumptions and other guidance that will allow them to begin recommending their budgetary needs for the upcoming year.

Once this information is entered into the Authority's Budget Reporting and Analysis Support System in March or April, discussions begin on these recommended budgets, often involving visits into the field to provide a more hands-on experience to the budget process. These important discussions allow staff to exchange information with employees from all levels of the organization regarding the impacts the budget may have on operational efficiency and effectiveness and the condition of the Authority's extensive infrastructure.

By November, this interactive process results in a balanced, proposed budget for the ensuing year that meets all of the established goals. The proposed budget is then submitted to the public and the Authority Board for their review. Once this review period is completed and all comments have been considered, the budget is updated and presented to the Board for final approval. Upon the Board's approval, the budget becomes official and is placed on the Authority's website (www.thruway.ny.gov) and distributed to New York State's Authority Budget office, State Legislature and Office of the State Comptroller.

Budget Assumptions

As the annual budget is being developed, the Authority determines the principal financial and economic assumptions underlying projections for non-toll revenues, concession revenues, interest earnings on Authority investments and other revenues. Toll revenue projections are provided by the Authority's independent traffic consultant (currently Jacobs Civil Consultants) who takes a conservative approach to its projections. Jacobs' toll forecast is based on anticipated toll revenue changes, an analysis of past, current and projected traffic and transaction trends, E-ZPass penetration rates, economic trends and indicator's, and experiences of other toll roads and interstate systems.

While revenue assumptions are being defined, the Authority also determines a number of underlying assumptions that impact operational expenses, including:

- Staffing levels, which are strictly controlled under a cost-benefit review process;
- Salary changes and employee benefits based on labor contracts with Unions that represent the employees (Teamsters, CSEA and Management confidential employees);
- Contractual services and equipment purchases needed to maintain the Thruway systems in a state of good repair;
- Estimates of future retirement, health insurance, workers compensation, insurance and other administrative costs;
- Projected fuel and utility market conditions, pricing and usage; and
- Allocations for operational savings achieved from streamlining and other planned initiatives.

Assessment of Budgetary Risks

There are several budgetary risks associated with developing a budget several months before the beginning of the fiscal year that are determined by variables that could measurably impact revenues and expenses.

On the revenue side, toll collections account for over 90 percent of Thruway revenues, so accuracy of toll revenue projections is critical. The risks associated with toll revenue and concession revenue forecasts are principally focused on traffic and how it is impacted by weather patterns, fuel prices, general economic conditions, changing traveler behaviors, and construction activity along the highway. Other revenues include a very large number of smaller revenue items that collectively make up a very minor portion of Authority revenues. As a result, little budgetary risk is associated with this revenue category.

On the operational side, the risks associated with the operating budget generally include economic changes, such as changes in the cost of fuel and other inputs (such as utilities, steel, cement, and asphalt), inclement weather, and, while rare, legislative mandates that may increase overall costs.

It is important to note that revenues and expenditures are constantly monitored by the Authority and if any material and negative changes from the financial plan are encountered, the Executive Director and Chief Financial Officer will take immediate action to eliminate or reduce discretionary expenditures to maintain a balanced budget and healthy financial condition.

Projecting needs, remedies and costs into a five-year Capital Plan requires estimates of variables including future impacts of traffic, weather, and deterioration rates on a 570 mile, 60 year old highway system. As the Authority's trailblazing progress in asset management continues to increase our ability to better assess these variables, its application to each successive annual budget and five-year plan should significantly reduce the risks of over or under expenditures.

Thruway Bond Program

The Authority's authorizing legislation provides for the ability to issue, from time to time, negotiable bonds and notes for any corporate purpose secured by tolls, revenues, and other earned income of the Authority. The Authority has issued General Revenue Bonds and Notes for the purpose of funding a portion of the Authority's Capital Program, and Junior Indebtedness Obligations for the purpose of funding a portion of the New NY Bridge project leading to construction of the Governor Mario M. Cuomo Bridge.

The Authority is currently authorized to issue State Personal Income Tax Revenue Bonds (Transportation) (PIT) to fund expenditures under the Consolidated Local Street and Highway Improvement Program (CHIPs), the Municipal Streets and Highways Program (Marchiselli), the Suburban Highway Improvement Program (SHIPs) and the Multi-Modal Program. These programs provide funds to municipalities and other project sponsors throughout the State for qualifying capital expenditures for highway, bridge, and multi-modal projects. These programs were previously funded by Local Highway and Bridge Service Contract Bonds (CHIPs), for which the Authority is authorized to issue. The Authority has no CHIPs bonds outstanding.

The Authority has also been authorized to issue Highway and Bridge Trust Fund Bonds to reimburse the State for expenditures made or to be made by the State Department of Transportation in conjunction with the State's multi-year highway and bridge capital program.

The Authority has also been authorized to issue State Sales Tax Revenue Bonds for certain Authorized Purposes.

The CHIPs, PIT, Trust Fund and State Sales Tax Revenue Bonds are special limited obligations of the Authority secured by a pledge of certain payments by the State, subject to appropriation by the State Legislature. No Authority revenues or assets are pledged to pay debt service on these bonds.

Debt Issuance Requirements

In accordance with the Bond Resolution, the amount of bonds to be issued is limited by the following:

- 1) Additional Bonds Test - New Money Purposes: In accordance with Section 204 of the Bond Resolution, in order for the Authority to issue and sell its bonds for new money purposes, the Authority must, among other things, satisfy the following tests:
 - a) the Net Revenues of the Authority (Pledged Revenues minus Operating Expenses) for any period of twelve (12) consecutive calendar months out of the eighteen (18) calendar months next preceding the issuance of such bonds must equal or exceed the Net Revenue Requirement for such twelve (12) month period without regard to the bonds proposed to be issued; and
 - b) the estimated Net Revenues for the first full five (5) calendar years after the financed asset is estimated to be placed in service must equal or exceed the Net Revenue Requirement for each such year and the estimated Net Revenues in the 5th such calendar year must equal or exceed the future maximum Aggregate Debt Service in any year after the issuance of the additional bonds.

In addition, all other requirements of the Bond Resolution relating to the issuance of bonds for new money purposes must be satisfied.

For purposes of the Bond Resolution, the “Net Revenue Requirement” in any year is the greater of:

- i) the sum of the Aggregate Debt Service on all outstanding Authority bonds, the Maintenance Reserve Payments, the Special Project Reserve Payment and all deposits to the Charges Fund in such year; or
 - ii) 1.20 times the Aggregate Debt Service on all outstanding Authority bonds in such year.
- 2) Additional Bonds Test - Refunding: In accordance with Section 204 of the Bond Resolution, in order for the Authority to issue and sell its bonds for refunding purposes, the Authority must, among other things, either:
- a. Demonstrate that the Aggregate Debt Service on all outstanding Authority bonds is not increased in the then current or any future calendar year as a result of the issuance of such refunding bonds, or
 - b. Satisfy both of the tests described in clauses (a) and (b) of the preceding subsection of this policy entitled “Additional Bonds Test – New Money Purposes”.

Debt Profile

On January 1, 2021, the Thruway has four scheduled Senior General Revenue Bond principal payments totaling \$105,725,000 and two scheduled Junior Indebtedness Obligations principal payments totaling \$830,000. After making those principal payments the Thruway will have \$3,232,170,000 par amount of Senior General Revenue Bonds outstanding and \$2,542,415,000 of Junior Indebtedness Obligations. Proceeds generated from the issuance of Senior General Revenue Bonds were used to fund the Thruway’s capital projects relating to construction, rehabilitation and replacement of the roadways, bridges and facilities that make up the Thruway toll system (including the Tappan Zee Bridge through the year 2012). Proceeds generated from the issuance of Junior Indebtedness Obligations have been used solely to fund the New NY Bridge project leading to construction of the Governor Mario M. Cuomo Bridge, a twin-span replacement of the Tappan Zee Bridge.

The outstanding Senior General Revenue Bonds are made up of five series of tax exempt bonds and one series of taxable bonds. All series were issued as serial bonds, and include term bonds for three of the series issued. Senior General Revenue Bonds may be issued with maturity dates up to 40 years, and typically contain a 10 year early redemption provision to call certain maturities prior to final maturity for refunding purposes to capture savings. The taxable series of bonds also include a “make whole” redemption provision as well as a 10 year early redemption provision for certain maturities.

The outstanding Junior Indebtedness Obligations are made up of two series of tax exempt bonds, and contain a 10 year early redemption provision to call certain maturities prior to final maturity for refunding purposes to capture savings.

Bond par amount typically differs from proceeds provided for capital expenditures due to the bond issue’s discount/premium and the funding of issuance costs, capitalized interest (if applicable), debt service reserve account deposits, and, in the case of refunding bond issues, the extent by which the cost of the cash and investments in the refunding escrow exceeds the principal amount of bonds refunded and defeased. The Authority’s current outstanding bonds were issued with a net premium.

The following table lists each outstanding series and its respective final maturity, and the principal scheduled to be outstanding after any principal payments due January 1, 2021. All outstanding bonds were issued as traditional fixed-rate bonds, with principal paid annually on January 1, and interest paid semi-annually on July 1 and January 1, with the exception of the Series M bonds, which were issued as taxable bonds, and the Series 2019B Junior Indebtedness Obligations, in which principal is paid semi-annually on July 1 and January 1 for certain maturities.

The Thruway currently does not have any variable-rate Senior or Junior debt outstanding.

General Revenue Bonds		
Series	Par Amount Outstanding	Longest Outstanding Maturity
Series I	\$ 152,380,000	January 1, 2042
Series J	593,140,000	January 1, 2044
Series K	686,810,000	January 1, 2032
Series L	492,215,000	January 1, 2037
Series M	857,625,000	January 1, 2042
Series N	450,000,000	January 1, 2050
Total	\$ 3,232,170,000	

General Revenue Junior Indebtedness Obligations		
Series	Par Amount Outstanding	Longest Outstanding Maturity
Series 2016A	\$ 849,750,000	January 1, 2056
Series 2019B	1,629,665,000	January 1, 2053
Total	\$ 2,543,245,000	

Subordinated Indebtedness

The COVID-19 pandemic has dramatically altered the behavior of businesses and people in a manner that has had negative effects on global and local economies. The adverse impacts continue to evolve within the State and the corridor of the New York State Thruway. Substantial declines in Thruway passenger traffic in response to the COVID-19 pandemic had become more severe daily during the latter part of March and the months of April and May in the year 2020. At the time, there remained a high risk for further reductions in traffic including based on certain patron experience during the COVID-19 crisis.

On March 30, 2020, the Authority's Board adopted a financing resolution (the "Resolution") to authorize the Authority to incur short-term indebtedness to maintain financial flexibility during this period of uncertainty surrounding the disaster emergency as declared by Governor Cuomo (the "State of Emergency") on March 7, 2020 and the major disaster as declared by the federal government on March

13, 2020. The Resolution provided for the Authority to procure and secure short-term financing, including bank loans, letters of credit, revolving lines of credit, bond or revenue anticipation notes and direct placements of bonds. It also provided authorization for the Authority to issue bonds on a subordinate basis to take-out any short-term indebtedness.

The Authority entered into a Revolving Credit Agreement with JP Morgan Chase on June 11, 2020. The Revolving Credit Agreement provides the Authority with a revolving line of credit up to \$125 million, expiring on June 10, 2021. The Authority made a draw of \$50 million against the line on June 11, 2020 leaving an available balance of \$75 million. This Revolving Credit Agreement may be drawn upon a tax-exempt or a taxable basis, with variable rate interest calculated based upon a percentage of a Daily Libor index, and a commitment fee on the available balance of 50 basis points.

The Authority also entered into a Noteholder’s Agreement with the Royal Bank of Canada on October 13, 2020. The Noteholder’s Agreement provides the Authority with the ability to issue Drawdown Notes up to \$100 million, expiring on October 12, 2022. The Authority has not issued any Drawdown Notes to date. Drawdown Notes may be issued on a tax-exempt basis, with variable rate interest calculated based upon a weekly SIFMA index, and a commitment fee on the available balance of 75 basis points.

The following table summarizes the two Subordinated Indebtedness agreements outstanding:

Agreement	Amount	Outstanding	Available	Maturity Date
JP Morgan Chase – Line of Credit	\$125,000,000	\$50,000,000	\$ 75,000,000	June 10, 2021
Royal Bank of Canada – Drawdown Notes	\$100,000,000	\$0	\$100,000,000	October 12, 2022

Planned 2021 Debt Issuance

Senior Debt Issuance: The 2021 Budget includes a planned 2021 issuance of General Revenue Bonds of \$68.7 million.

Junior Debt Issuance: The 2021 Budget includes a planned issuance of \$312.3 million in Junior Indebtedness Obligations in the 2021 Budget.

MUNICIPAL BOND RATINGS

The Thruway applies for municipal bond ratings from Moody’s Investors Services, Inc. (Moody’s) and Standard & Poor’s Rating Services (S&P). Each rating agency reviews the Thruway’s current fiscal condition, capital financing plan, debt coverage ratios and various other factors to assess the Thruway’s

ability to repay its debt obligations. The underlying ratings of the Thruway’s Senior General Revenue Bonds and Junior Indebtedness Bonds are outlined in the following table:

General Revenue Bonds and Notes

MOODY'S	S&P
A1 (Stable) uninsured	A (Stable) uninsured
A2 insured (Assured Guaranty Municipal – formerly FSA)	AA insured (Assured Guaranty Municipal – formerly FSA)

General Revenue Junior Indebtedness Obligations

MOODY'S	S&P
A2 (Stable) uninsured	A- (Stable) uninsured
A2 insured (Assured Guaranty Municipal – formerly FSA)	AA insured (Assured Guaranty Municipal – formerly FSA)