



NEW YORK  
STATE OF  
OPPORTUNITY.

Thruway  
Authority

# 2019

# BUDGET

NEW YORK STATE  
THRUWAY AUTHORITY

## TABLE OF CONTENTS

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<b>Board Members</b>	4
<b>Letter from Executive Director and Certification</b>	6
<b>Thruway Organization and Background</b>	
Mission	10
History and Background	10
Organizational Structure and Organizational Chart	11
<b>Budget Overview</b>	
Budget At a Glance	17
Executive Summary	18
<b>2018 Revised Financial Plan</b>	
Comparison of Actual 2017 Expenditures to Revised 2018 Budget	30
Summary of Revised Financial Plan Changes - Revenues & Operating Expenses	31
Summary of Revised Financial Plan Changes - Capital Program	32
2018 Revised Budget - Sources and Uses of Funds	33
<b>2019 Budget</b>	
Comparison of Revised 2018 Budget to 2019 Budget	35
Toll, Concession and Sundry Revenues	36
Departmental Operating Expenses	37
General Charges	38
Debt Service	39
Flow of Funds - General Revenue Bond Resolution	40
Capital Program Funding Uses	41
Capital Program Funding Sources	42
Comparison of Actual 2017, Revised 2018 Budget and 2019 Budget New NY Bridge	43
2019 Budget - Sources and Uses of Funds Schedule	44
2019 Budget at the Item and Department level	45
Personnel- 2019 Budgeted fill levels by department	48
Personnel History- Aggregate Budgeted Fill Levels since 1995	49
<b>2019 Departmental Summary and Budget Information</b>	
Board & Executive	51
Media Relations and Communications	53
Legal	55
Audit and Management Services	57
Administrative Services	59
Information Technology	62
Finance and Accounts	66
Engineering	68
Maintenance and Operations	71
Thruway Maintenance	72
Equipment & Inventory Management	74
Traffic Services	75
Toll Collection	76
<b>Long Range Financial Plan</b>	
Long-Term Financial Plan	79
<b>Multi-Year Capital Plan</b>	
2019 Budget - Capital Program - Sources and Uses	83
Capital Planning Process	84
Multi-Year Capital Program - Letting Schedule	86
<b>Appendix</b>	
Independent Traffic Engineer's Report	96
Fund Structure/Budgeting Assumptions	
Fund Descriptions	113
Flow of Funds Chart	115
Net Revenue Requirement	116
Basis of Budgeting	116
Budget Process	116
Budget Assumptions	117
Assessment of Budgetary Risks	117
Thruway Bond Program	119

# BOARD MEMBERS





New York State Thruway Authority  
Board of Directors

Joanne M. Mahoney, Chair,

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

Vacant, Member

# LETTER FROM EXECUTIVE DIRECTOR AND CERTIFICATION





November 26, 2018

Honorable Catherine M. Young  
Chairwoman  
NYS Senate Finance Committee  
416 State Capitol  
Albany, NY 12247

Honorable Liz Krueger  
Ranking Minority Member  
NYS Senate Finance Committee  
617 Legislative Office Building  
Albany, NY 12247

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

Honorable Robert C. Oaks  
Ranking Minority Member  
NYS Assembly Ways & Means Com.  
448 Legislative Office Building  
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, 2019. The overall 2019 Budget represents a total financial commitment of \$1.65 billion. The 2019 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.

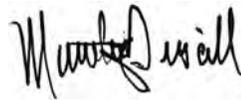
Our comprehensive efforts to improve our operations will continue into 2019, reflecting our long-term commitment to keep the Thruway Authority on a sound fiscal footing. The 2019 budget that has been prepared, continues our efforts to provide a balanced financial plan and makes no toll adjustments in 2019.

The 2019 Budget continues the great progress on the New NY Bridge (NNYB) project that will result in the completion of the Governor Mario M. Cuomo Bridge by providing \$401 million in 2019. In addition, the 2019 Budget would provide a 2019-2023 capital plan of \$2.5 billion. This includes roughly \$2.1 billion for Thruway projects and \$401 million for the NNYB project over the 2019-2023 capital plan.

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". The signature is written in a cursive, slightly slanted style.

Matthew J. Driscoll  
Acting Executive Director



Certification of Assumptions and Method of Estimation for Budget and  
Financial Plan 2019-2022 in accordance with the Comptroller's  
Regulation Section 203.9 Certification

Date: November 2018

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 2019 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
Vacant. ....	Vacant

## 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 2016 Thruway customers traveled approximately 8.3 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 2,822 lane miles of roadway. In addition, the Authority has maintenance responsibility for 809 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. Also, the

Authority's tolling system is extensive, including more than 272 toll booths and 90 dedicated E-ZPass-only lanes.

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. Approximately 266.6 million toll transactions occurred on the Thruway in 2017, generating more than \$731.5 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 2,165 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
<b>Total</b>	<b>570 miles</b>

## Bridges

The Authority has maintenance responsibility for 809 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.

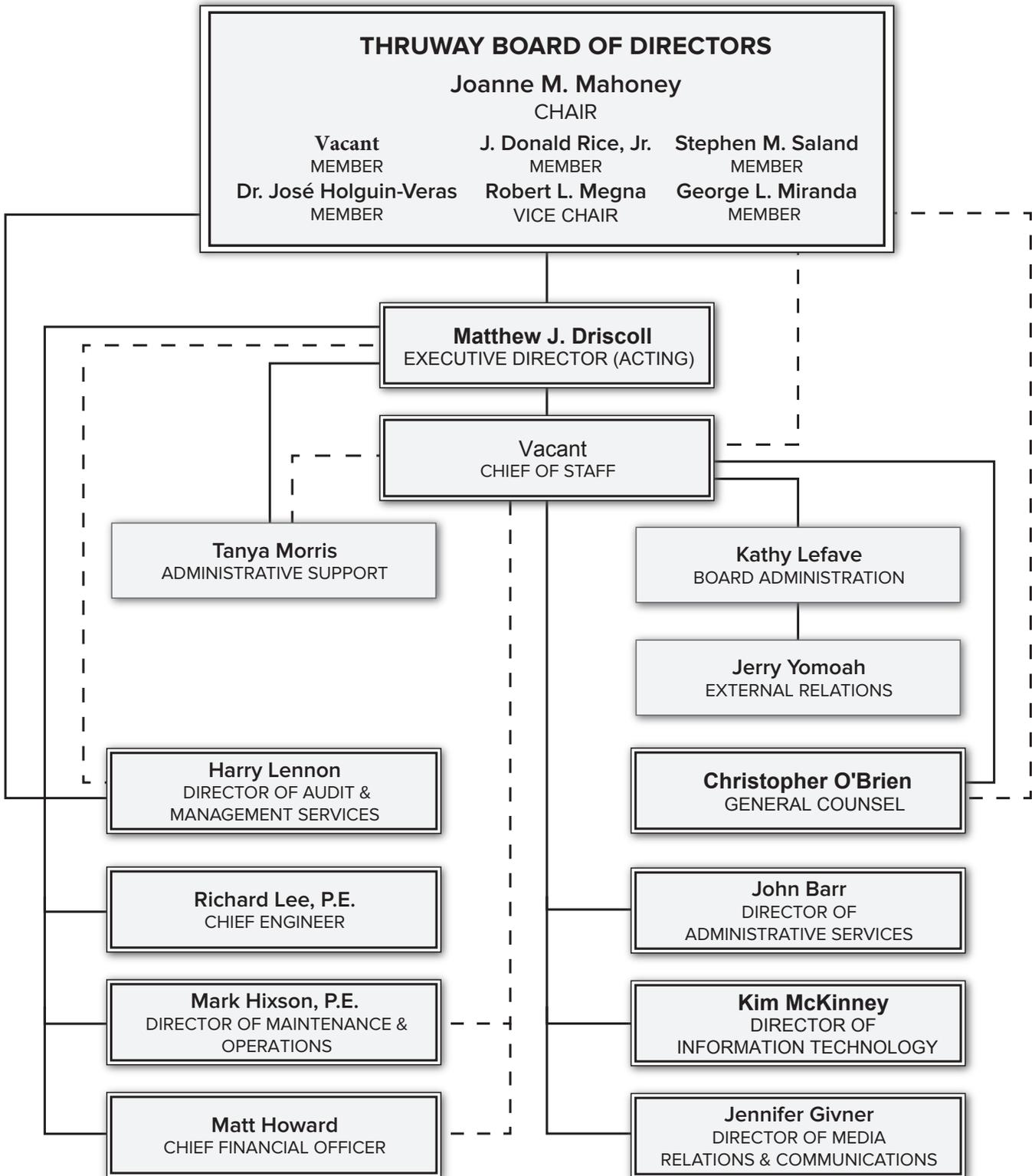
Service Areas are strategically located about every 30 to 40 miles along the Thruway. All gasoline stations at Thruway Service Areas have self-service islands. Upon request, people with disabilities and other travelers who so desire may receive full-service assistance at self-service pumps at self-serve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

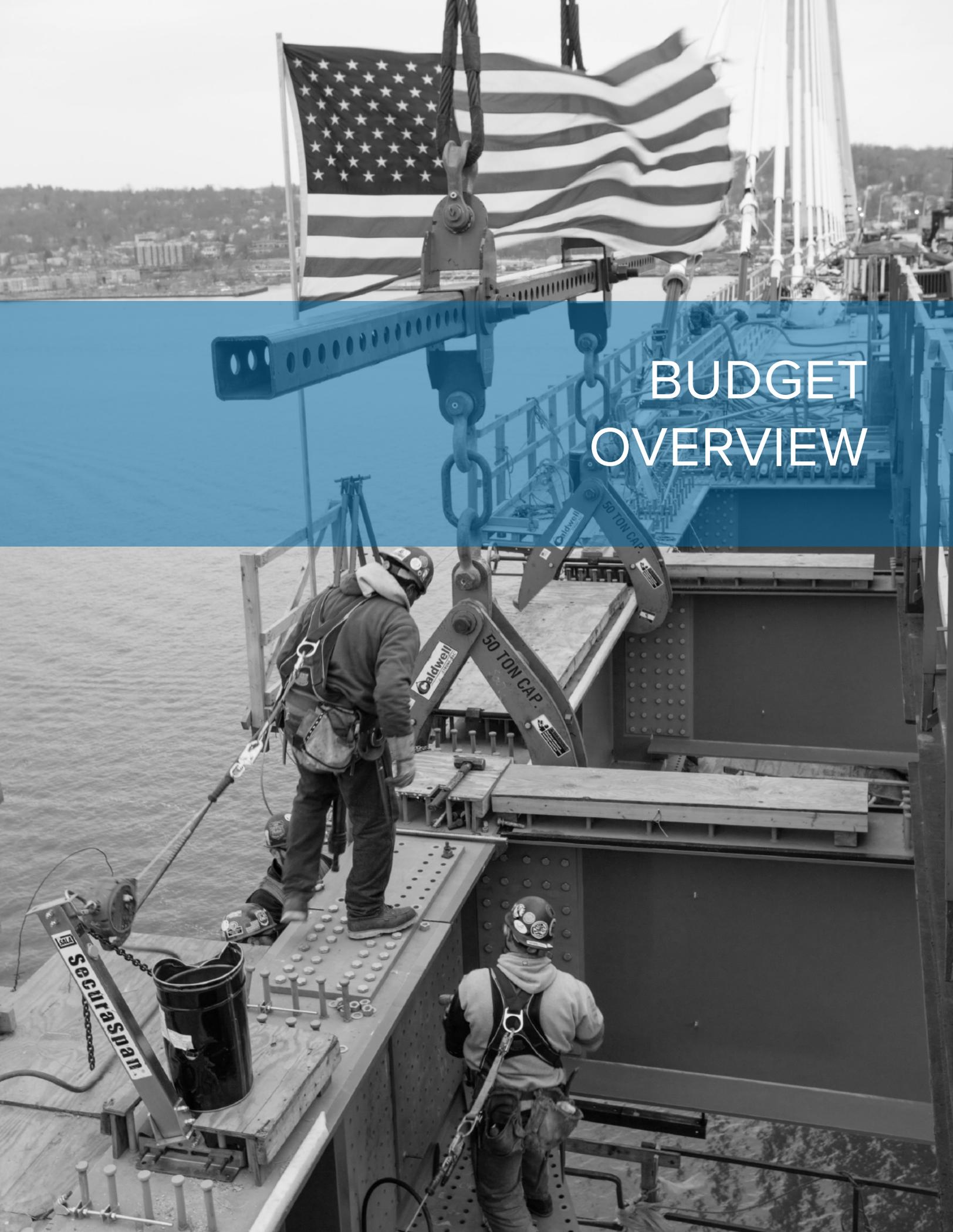
## Rest Areas/Park and Ride Lots

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

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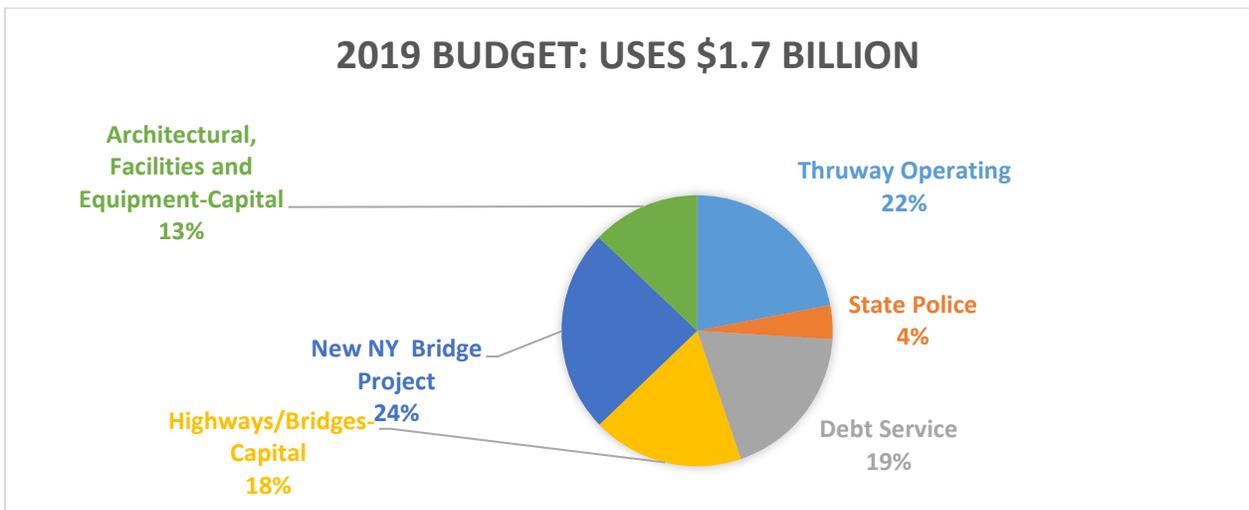
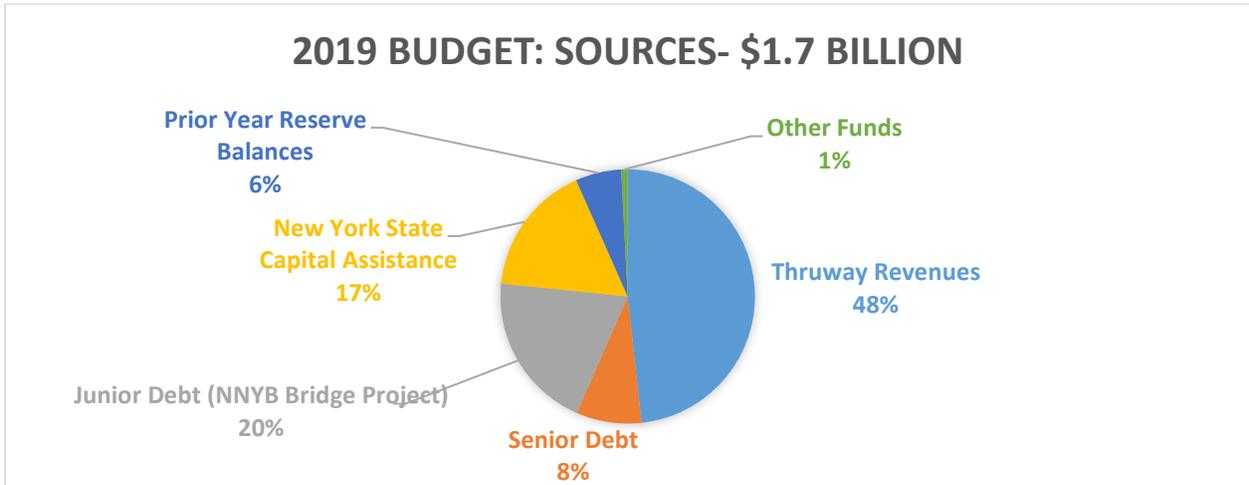


## THRUWAY AUTHORITY 2019 BUDGET AT A GLANCE

- **No Toll Increase:** The 2019 Thruway Authority budget recommends no toll increase for 2019, marking the ninth year since the last increase took effect.
- **Traffic and Toll Revenue Growth:** The 2019 Budget forecast total traffic of 271 million vehicles, reflecting growth of 2.7 million vehicles or 1.0 percent above revised 2018 levels. This corresponds to a toll revenue forecast of \$739 million reflecting an increase of \$2.9 million or 0.4 percent above revised 2018 levels. The 2019-2022 toll revenue forecast includes upward revisions from prior forecast for 2017-2020 and downward revisions to toll revenue projections for 2021-2022 to reflect the impacts of system-wide conversion to All Electronic Toll Collection (AET) by the end of 2020.
- **2019 Overall Budget:** The 2019 Overall budget for the Thruway totals \$1.65 billion, which is \$192 million or 13 percent above revised 2018 levels. This includes \$401 million in spending on the New NY Bridge project leading to the construction of the Governor Mario M. Cuomo Bridge, \$363 million for the operating expenses of the Thruway Authority and \$511 million for capital projects across the Thruway system in 2019.
- **2019-2023 Capital Program:** The 2019-2023 Capital Program would provide \$2.5 billion for Thruway Authority capital projects. This includes \$401 million for New NY Bridge project that will result in the completion of the Governor Mario M. Cuomo Bridge and \$2.1 billion for system-wide projects on the Thruway.
- **Operating Budget:** The 2019 Thruway Authority operating budget totals \$363 million (with operating reserves), which is \$7.08 million or 2.0 percent above revised 2018 levels.

## SUMMARY

2019 Budget Summary (in \$ millions)					
	Actual 2017	Revised 2018	Budget 2019	\$ Change	% Change
Operating Expenses (including Thruway and State Police)	396.01	421.00	430.07	9.07	2.2%
Retained for Working Capital	-	15.00	-	(15.00)	N/A
Debt Service	357.76	302.20	309.96	7.76	2.6%
Capital Program	708.64	722.11	913.18	191.07	26.5%
<b>Total</b>	<b>1,462.41</b>	<b>1,460.31</b>	<b>1,653.20</b>	<b>192.89</b>	<b>13.2%</b>



- The 2019 Budget provides for an overall budget of \$1.65 billion, representing a \$192.89 million or 13.2 percent increase from revised 2018 levels.
- The 2019 Budget forecasts total traffic of 271 million vehicles, reflecting growth of 2.7 million vehicles or 1.0 percent above 2018. This corresponds to a toll revenue forecast of \$739.06 million, reflecting an increase of \$2.97 million or 0.4 percent above 2018 levels.
- The 2019 Budget provides a total of \$362.9 million for operating expenses of the Thruway Authority (including provisions). This represents an increase of \$7.08 million or 2.0 percent above revised 2017 levels. The 2019 Budget also provides \$67.13 million for reimbursement to the State Police for the cost of the Troop T patrolling of the system.
- The 2019 Budget provides a total of \$913.18 million to support the capital program of the Thruway Authority. This represents an increase of \$191.07 million or 26.5 percent above revised 2018 levels.
- The 2019 Budget provides a 2019-2023 Capital Program that would provide \$2.5 billion for Thruway Authority capital projects. This includes \$401 million for New NY Bridge project that will result in the completion of the Governor Mario M. Cuomo Bridge and \$2.1 billion for system-wide projects on the Thruway.

## THRUWAY AUTHORITY REVENUE SUMMARY

Thruway Authority Revenues (in \$ millions)					
	2017 Actual	2018 Revised	2019 Budget	\$ Change	% Change
Tolls	731.51	736.08	739.06	2.97	0.4%
Concessions	14.88	14.96	14.96	-	0.0%
Interest	3.10	3.50	3.50	-	0.0%
Sundry	42.64	36.54	41.00	4.46	12.2%
<b>Total</b>	<b>792.12</b>	<b>791.08</b>	<b>798.51</b>	<b>7.43</b>	<b>0.9%</b>

- The 2019 Budget forecasts total Thruway Authority revenues of \$798.5 million, an increase of \$7.43 million or 0.9 percent above revised 2018 levels. This corresponds to a toll revenue forecast of \$739.06 million reflecting an increase of \$2.97 million or 0.4 percent above revised 2018 levels; concessions revenues of \$14.96 million, sundry revenues of \$41.0 million and interest income of \$3.5 million.
- The Thruway toll forecast as produced by the independent traffic engineer and submitted with the 2019 budget includes upward revisions from the previous forecast submitted with the approved 2018 Budget for the years 2017-2020. However, the toll revenue forecast for 2021 and 2022 are revised downward to take into account the implementation of All Electronic Toll Collection across

the system by the conclusion of 2020. A summary of these upward revisions in the toll revenue forecast is provided below.

<b>Toll Revenue Forecast (in \$ millions)</b>			
<b>Year</b>	<b>2018</b>	<b>2019</b>	<b>\$</b>
	<b>Original Budget</b>	<b>Budget</b>	<b>Change</b>
2010 actual	641.2	641.2	-
2011 actual	634.1	634.1	-
2012 actual	637.7	637.7	-
2013 actual	648.9	648.9	-
2014 actual	664.1	664.1	-
2015 actual	691.7	691.7	-
2016	708.3	708.3	-
2017	725.6	731.5	5.9
2018	730.1	736.1	6.0
2019	735.7	739.1	3.4
2020	743.7	743.9	0.2
2021	751.3	709.4	(41.9)
2022	758.7	716.7	(42.0)

## Thruway Authority Operations Summary

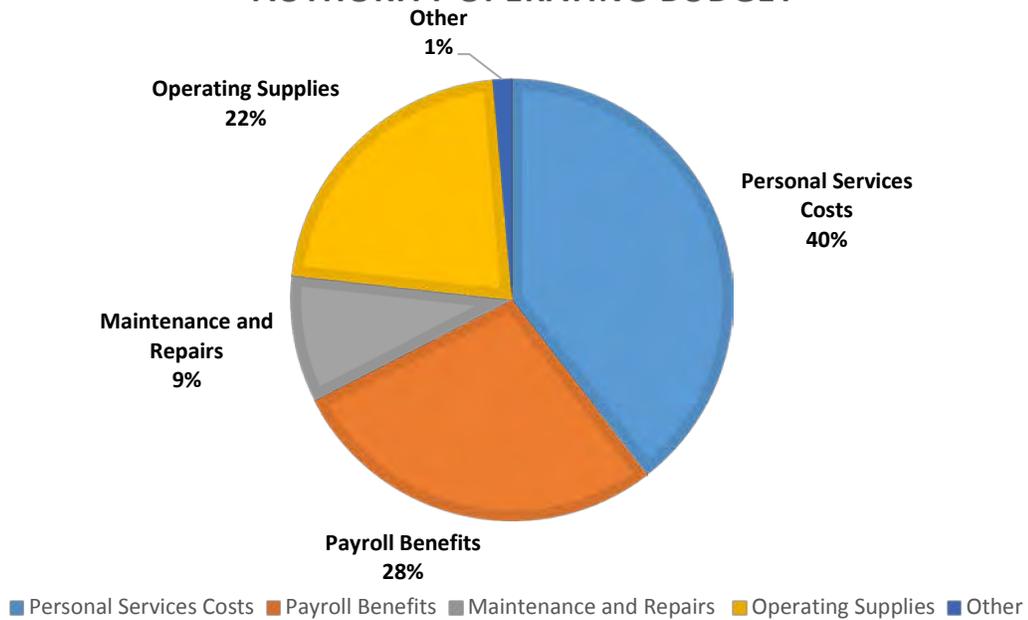
2019 Thruway Authority Operating Budget Summary (in \$ millions)						
	Actual 2017	Original Budget 2018	Revised Budget 2018	2019 Budget	\$ Change	% Change
Departmental Operating Expenses	187.54	199.01	202.81	200.37	(2.44)	-1.2%
General Charges	142.19	142.63	149.55	161.56	12.02	8.0%
Operating Reserves (Environmental and Legal)	2.70	1.00	3.50	1.00	(2.50)	-71.4%
<b>Total</b>	<b>332.43</b>	<b>342.64</b>	<b>355.86</b>	<b>362.94</b>	<b>7.08</b>	<b>2.0%</b>

- The 2019 Budget provides a total of \$362.94 million (with provisions for legal claims and environmental remediation) to support the operating expenses of the Thruway Authority. This represents an increase of \$7.08 million or 2.0 percent above revised 2018 levels. This includes \$200 million for departmental operations (a \$2.44 million or 1.2 percent reduction from revised 2018 levels), \$161.56 million for general charges, an increase of \$12.02 million or 8.0 percent from revised 2018 levels and \$1 million for operating reserves which reflects a \$2.5 million reduction from revised 2018 levels.

### Thruway Authority 2019 Operating Budget Major Components of Annual Change

	Amount (\$ millions)
<b>Revised 2018 Operating Budget (excluding State Police)</b>	<b>355.86</b>
Personal Services	(4.15)
Payroll Benefits (Workers' Comp, HI and Pensions)	4.47
Operating Supplies	9.05
Maintenance and Repairs (snow and ice, fuel, bridge & highway)	0.59
Allocations to Other Funds	(2.04)
Studies and equipment projects not capitalized	1.66
Provisions for Environmental Remediation and Legal Claims	(2.50)
<b>2019 Operating Budget (excluding State Police)</b>	<b>362.94</b>
Year to Year Change	7.08
% Change	2.0%

## 2019 BUDGET: COMPONENTS OF THE THRUWAY AUTHORITY OPERATING BUDGET



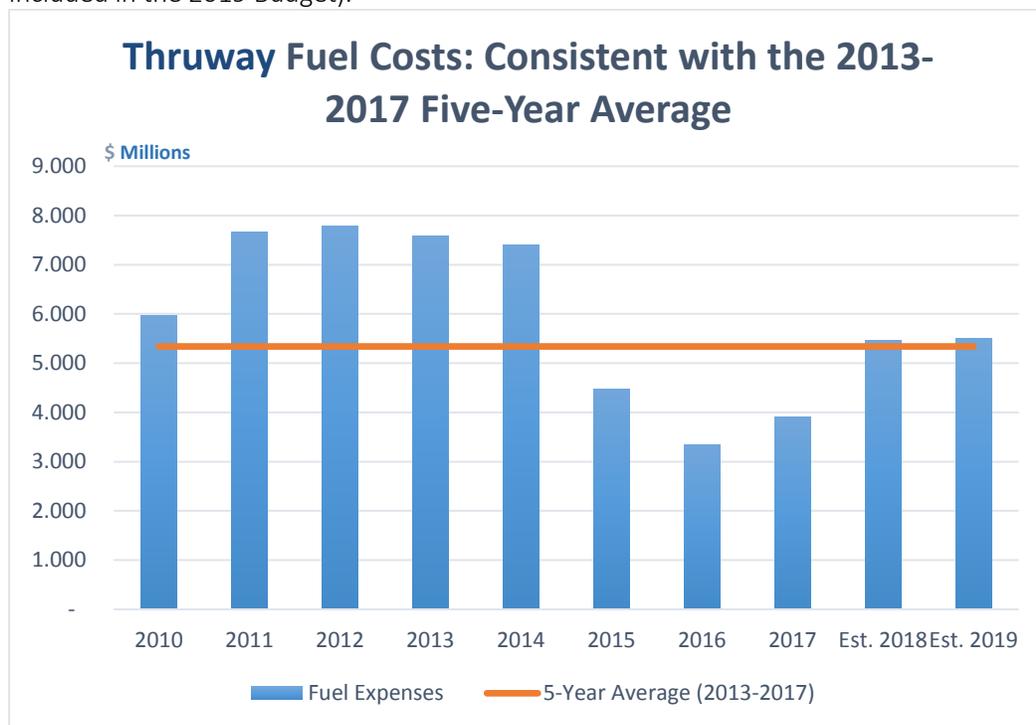
### 2019 Operating Budget- Major Components of Annual Change

Description	2019 Budget
Annualized Increased Costs for 2018 Conversions: AET/E-Zpass	
Account Management Costs (Conduent)	8,400,000
Malden Waterline Moved from 2018 to 2019	1,000,000
Welcome Center Operating Costs	530,936
AET- System data monitoring expenses (Kapsch)	500,000
GMMC Bridge- Additional Security and Operations/Maintenance Costs	400,894
Service Area RFP	800,000
All Other	(4,555,118)
<b>TOTAL- 2019 Operating Expense Growth</b>	<b>7,076,712</b>

- Major components of the \$7.08 million annual change in the Thruway Authority Operating Budget include the following:
  - A reduction in Personal Services costs of \$4.15 million or 2.5 percent from 2018 levels. This reduction is the result on non-recurring costs included in the revised 2018 Budget and supports baseline personal services and overtime costs. Further, the budgeted personal services costs incorporate \$7.5 million in salary savings resulting from continued efforts to maintain base level headcount at prior year levels.
  - A net increase of \$4.4 million for employee benefits or 4.1 percent from 2018 levels. This includes an increase of \$3.7 million for health insurance costs; an increase of \$854,000 in pension costs associated with employer contribution rate requirements recently

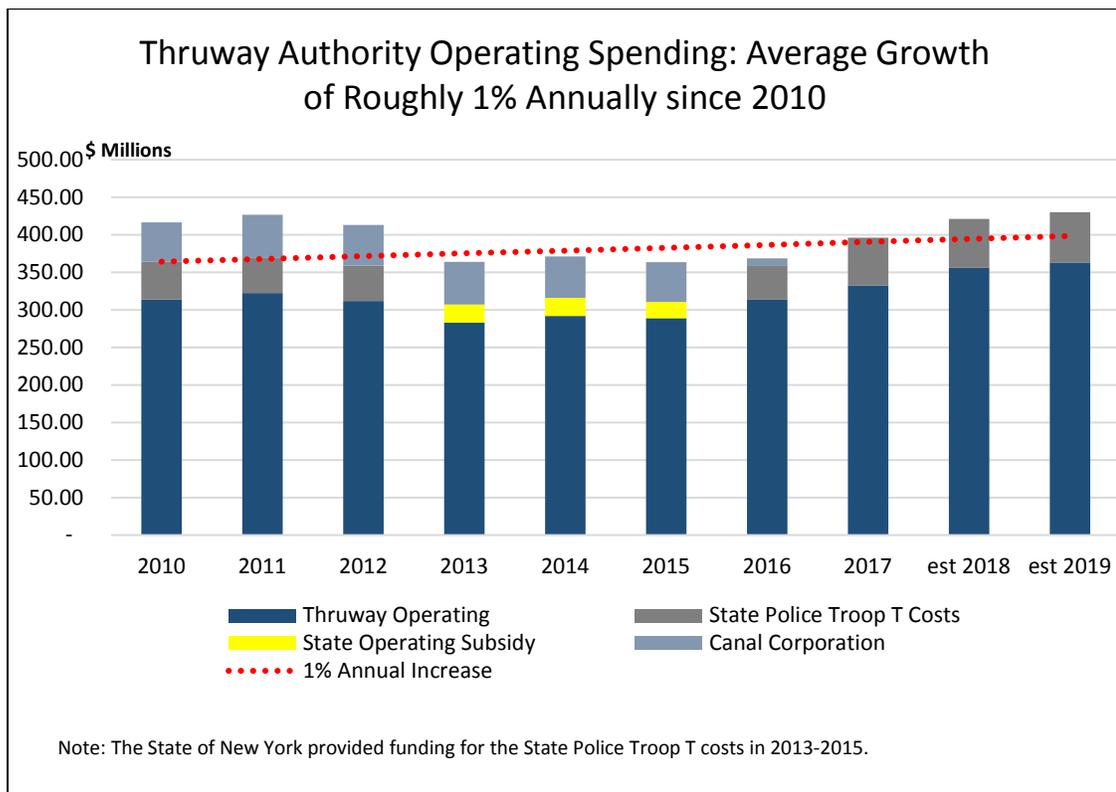
announced by the New York State and Local Retirement System; a \$140,000 increase associated with contribution costs for the Employee Benefit Fund and, a \$25,000 increase in Workers' Compensation Insurance costs based on recent projections for determining premium costs.

- o An increase of \$9.05 million in operating supplies. This reflects an increase of 13 percent from 2018 levels. This includes an additional \$8.4 million associated with E-ZPass account management costs associated with the conversion to All Electronic Toll Collection at the toll barrier plazas (Governor Mario M. Cuomo Bridge, Grand Island Bridges, Harriman, Yonkers, Spring Valley and New Rochelle).
- o A \$589,057 or 1.8 percent increase in maintenance and repair costs. This includes \$4.5 million to support fuel expenses which are budgeted at a level consistent with the five-year average (the graph below includes the combined Thruway and State Police fuel expenses included in the 2019 Budget).



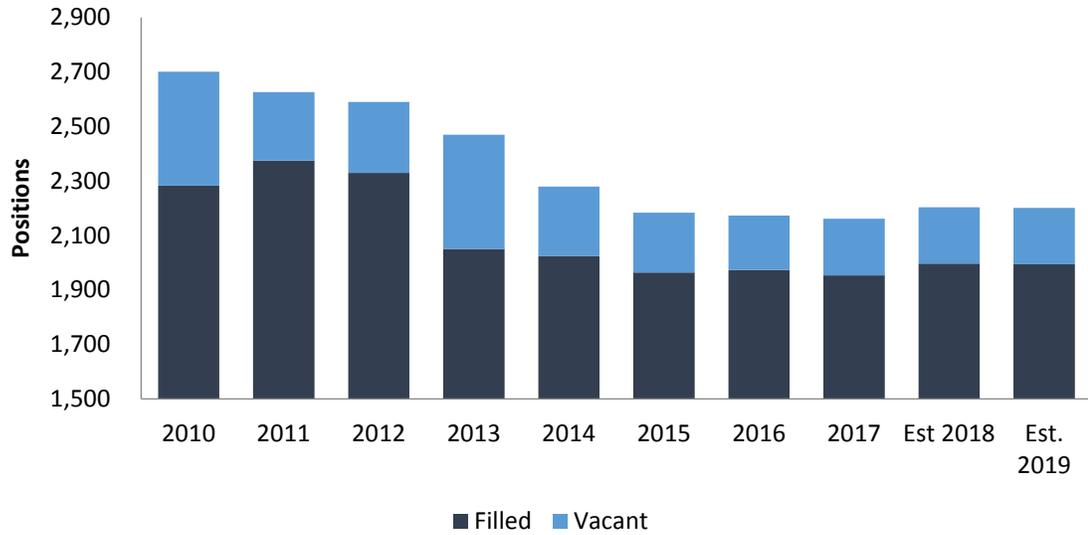
- o The 2019 Budget also includes a year-to-year increase of \$1.65 million in non-capitalized equipment and project costs as a result of additional operating expenses related to the installation of a municipal water service connection to the Malden Service Area and additional equipment expenses associated with the opening of the Governor Mario M. Cuomo Bridge in 2018.
- o Savings of \$2 million resulting from increased allocations to capital and other funds based on the level of work included in the 2019 capital plan and is consistent with levels set for such allocations in prior years.

- The 2019 Budget provides \$1 million for provisions for Environmental Remediation and Legal Claims reflecting a \$2.5 million reduction from revised 2018 levels. This reduction is the result of the establishment of a employee retention incentive reserve fund established in the revised 2018 budget to support the conversion to All Electronic Toll Collection for the period of 2018-21.
- Since 2010, the Thruway Authority has operated at reduced levels and limited operating spending growth. In fact, for the period 2010-2017 annual growth of Thruway Authority operating expenses averaged one percent annually (see figure below). Incorporating the significant operational investments made in 2018 and 2019 still results in a 2010-2019 Compound Annual Growth Rate of 1.83% over this period.

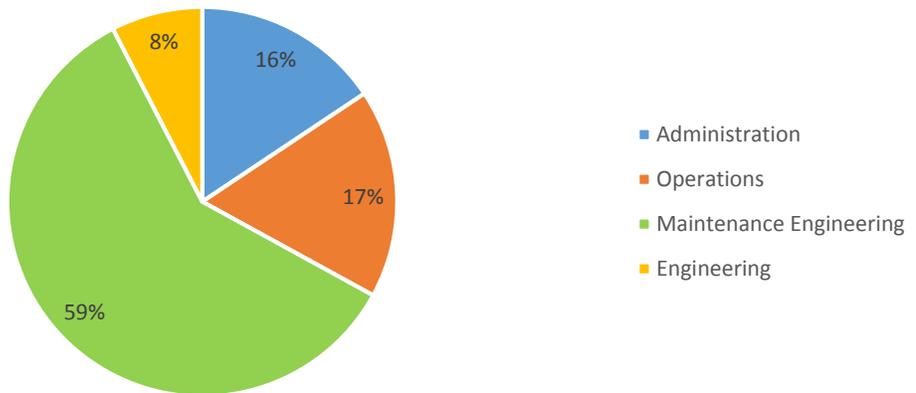


- The 2019 budget provides for 2,201 budgeted positions. This level is roughly 500 positions or 19 percent lower than the budgeted positions in 2010.

### Thruway Authority Budgeted Positions 2010-2019: 500 budgeted positions or 19 percent below 2010 levels



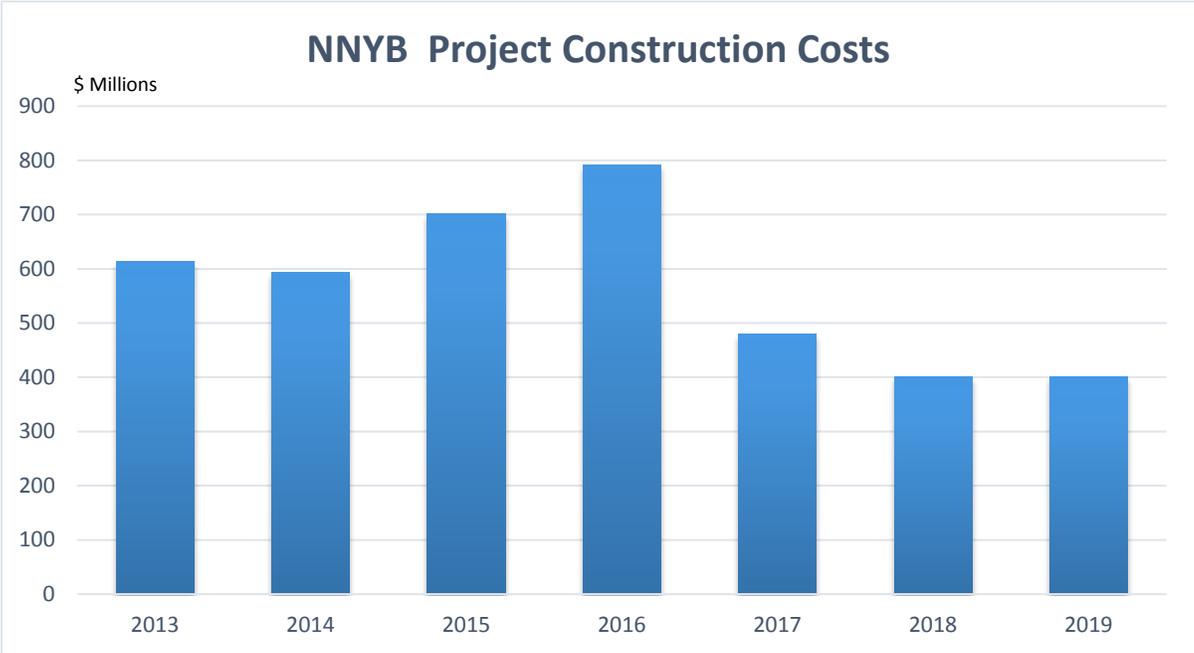
### 2019 Thruway Authority- Percentage of Budgeted Staffing by Function



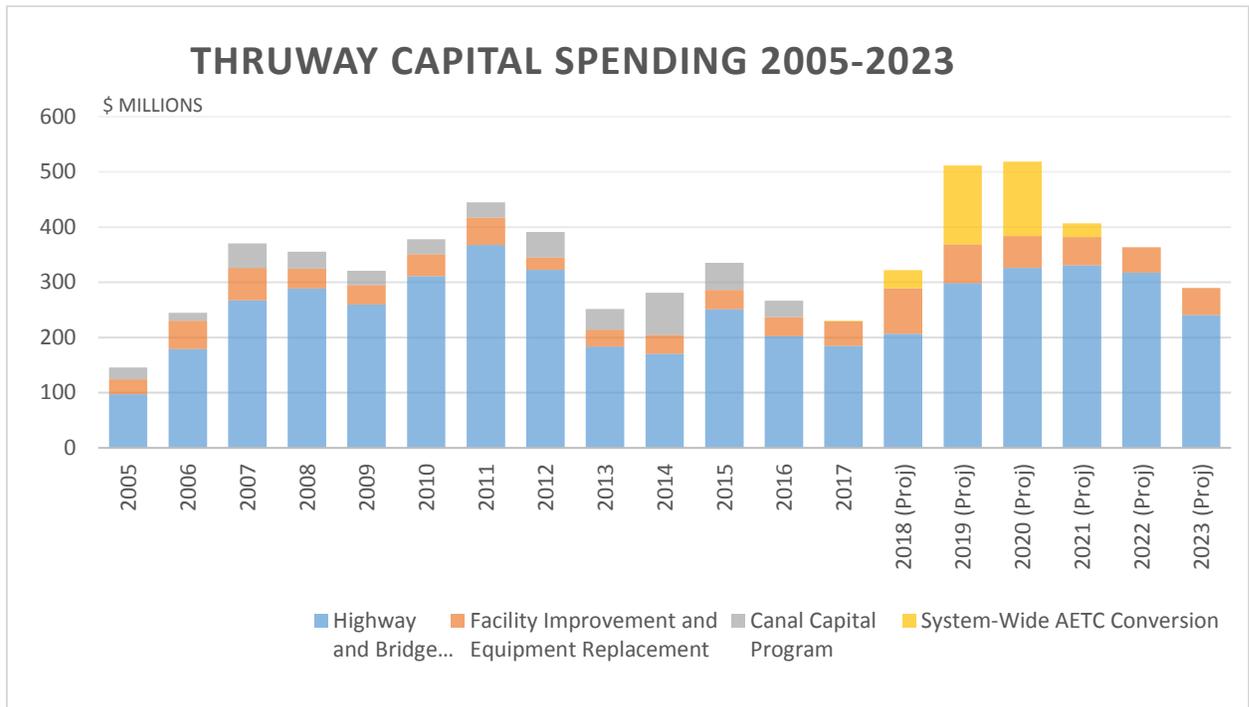
# CAPITAL PROGRAM

2019 Budget Capital Program Funding Uses (in \$ millions)					
	2017 Actual	2018 Revised	2019 Budget	\$ Change	% Change
Highway & Bridge	184.70	206.77	298.33	91.56	44.3%
Architectural (Facilities)	14.43	44.32	35.15	(9.17)	-20.7%
Equipment & Systems and ITS	30.37	70.98	178.14	107.16	151.0%
NYSP Equipment and Facilities	0.02	0.04	0.03	(0.01)	-19.8%
<b>Sub Total - Thruway</b>	<b>229.51</b>	<b>322.11</b>	<b>511.65</b>	<b>189.54</b>	<b>58.8%</b>
<b>New NY Bridge Project</b>	<b>479.13</b>	<b>400.00</b>	<b>401.53</b>	<b>1.53</b>	<b>0.4%</b>
<b>TOTAL</b>	<b>708.64</b>	<b>722.11</b>	<b>913.18</b>	<b>191.07</b>	<b>26.5%</b>

- The 2019 Budget provides a total of \$913.2 million to support the capital program of the Thruway Authority. This represents an increase of \$191.07 million or 26.5 percent above Revised 2018 levels.
- The 2019 Budget estimates spending of \$401.5 million in capital program funding for the NNYB project in 2019, an increase of \$1.5 million or 0.4 percent above Revised 2018 levels.
- The 2019 Budget would provide a 2019-2023 capital plan of \$2.5 billion. Over the course of the multi-year plan this includes \$2.1 billion for Thruway projects and roughly \$401 million for NNYB project in the 2019-2023 capital plan.



- The 2019 Budget has incorporated the roughly \$2 billion provided for the Thruway Stabilization Program in 2015 and 2016. This includes \$1.285 billion appropriated in 2015 and \$700 million appropriated in the enacted 2016 State Budget.
- From 2015 to 2017 the Thruway Authority disbursed \$1.08 billion in Thruway Stabilization Funding. This includes \$775 million in support of the NNYB project and a projected \$303 million for system-wide maintenance and repair projects.
- The revised 2018 budget projects that \$546.6 million in 2018 capital spending will be supported by Thruway Stabilization Program funds. This includes \$361.3 million for the NNYB project and \$185.3 million for system-wide maintenance and repair projects.
- The 2019-2023 capital plan projects that \$213.1 million in system-wide projects will be supported by Thruway Stabilization Program funds and \$63.7 million in support of the NNYB project for the 2018-22 capital plan. In addition, the plan forecasts that \$79.4 million in Thruway Stabilization Program funds will be allocated to support the defeasance of currently outstanding Senior debt.



# Debt Service

2019 Budget					
Debt Service Expenses (in \$ millions)					
	2017 Actual	2018 Revised	2019 Budget	\$ Change	% Change
Senior Debt Service	234.56	222.94	242.27	19.33	8.7%
Junior Debt Service	123.20	79.26	67.68	(11.57)	-14.6%
<b>TOTAL</b>	<b>357.76</b>	<b>302.20</b>	<b>309.96</b>	<b>7.76</b>	<b>2.6%</b>

- The 2019 Budget provides a total of \$309.96 million to support debt service expenses of the Thruway Authority. This represents an increase of \$7.76 million or 2.6 percent above Revised 2018 levels.



# 2018 REVISED FINANCIAL PLAN

## Actual 2017 vs. Revised 2018 Budget

	Actual 2017	Revised 2018	Amount of Change
<b><u>SOURCES:</u></b>			
Thruway Revenues	792,124,471	788,635,742	(3,488,729)
Prior Year Reserve Balances	(55,107,477)	82,866,318	137,973,795
Senior Debt	20,855,526	0	(20,855,526)
Junior Debt	522,822,099	2,567,761	(520,254,338)
Federal Funds	141,158	0	(141,158)
Other Funds	369,986	39,618,152	39,248,166
Thruway Stabilization Program Funds	181,202,983	546,621,733	365,418,750
<b>Total Sources</b>	<b>1,462,408,746</b>	<b>1,460,309,706</b>	<b>(2,099,040)</b>
<b>Total Sources - New NY Bridge Project</b>	<b>479,274,556</b>	<b>400,184,089</b>	<b>(79,090,467)</b>
<b>Total Sources - Net of New NY Bridge Project</b>	<b>983,134,190</b>	<b>1,060,125,617</b>	<b>76,991,427</b>
<b><u>USES:</u></b>			
<b>Operating Expenses:</b>			
Thruway Operating	329,729,766	352,358,708	22,628,942
State Police Operating	63,583,738	65,141,560	1,557,822
Sub Total	393,313,504	417,500,268	24,186,764
Provisions for Claims, Env Remediation & AET Transition	2,700,200	3,500,000	799,800
Total	396,013,704	421,000,268	24,986,564
<b>Retained for Working Capital</b>	<b>0</b>	<b>15,000,000</b>	<b>15,000,000</b>
<b>Debt Service:</b>			
Senior Debt	234,557,769	222,941,557	(11,616,212)
Junior Debt	123,197,701	79,257,000	(43,940,701)
Total	357,755,470	302,198,557	(55,556,913)
<b>Capital Program:</b>			
Thruway Capital - Highways and Bridges	184,695,462	206,769,204	22,073,742
Thruway Capital - New NY Bridge	479,132,055	400,000,000	(79,132,055)
Thruway Capital - Architectural & Facilities	14,428,413	44,324,124	29,895,711
Thruway Capital - Equipment & Systems/ITS	30,366,279	70,980,167	40,613,888
Thruway Capital - SP Equipment/Facilities	17,363	37,386	20,023
Total	708,639,572	722,110,881	13,471,309
<b>Total Uses</b>	<b>1,462,408,746</b>	<b>1,460,309,706</b>	<b>(2,099,040)</b>
<b>Total Uses - New NY Bridge Project</b>	<b>479,274,556</b>	<b>400,184,089</b>	<b>(79,090,467)</b>
<b>Total Uses - Net of New NY Bridge Project</b>	<b>983,134,190</b>	<b>1,060,125,617</b>	<b>76,991,427</b>

**2018 Revised Financial Plan**  
**New York State Thruway Authority**  
(in millions)

<b>2018 Budget - Revenues</b>	787.6
<b>Revised Financial Plan Adjustments:</b>	
Toll Revenues	6.0 Actual traffic growth greater than projected
Interest Earnings	2.5 Higher balances and rates
Sundry Revenues	Decrease in AET violations and fees due to Amnesty and reduction of violation from (5.0) \$100 to \$50 in May, offset by increase in E-ZPass violations and fees
<b>2018 Revised Budget - Revenues</b>	<u>791.1</u>
<b>2018 Budget - Thruway Operating Expenses</b>	341.6
<b>Revised Financial Plan Adjustments:</b>	
Personal Services	2.8 Increases in wages due to costs for negotiated payments, offset by salary savings due to vacancies
Allocations (Salaries and Benefits)	4.5 Decrease in personal service and fringe benefit allocations due to fewer capital and technology projects
Special Contracts	6.3 Increase in E-ZPass/TBM account management contract due to cash-less tolling for more locations: G.I. Bridges and NY Barriers
Snow and Ice Control	2.0 Increase based on YTD spending and more storms early in 2018
Professional Services	0.9 Increase relative to adding Service Area Contract RFP
Automotive Repairs/Parts	0.6 Higher than projected expenditures due to aging fleet
Workers' Compensation	0.6 Based on increased premium costs
Social Security	0.6 Increased costs due to higher personal service costs
Fuel	(0.6) Lower than projected fuel prices
Highway and Bridge Operating Contracts	(0.6) Based on bids received and timing of payments
Pensions	(1.1) Based on estimated billing received from Retirement system
Health Insurance	(1.2) Based on actual premiums and enrollment
Projects/Equipment not Capitalized	(1.4) Decrease in spending on studies combined with a delay in spending on a connection to a municipal water service in Malden
Reimbursement by Claim	(2.0) Based on reimbursements received to date
Miscellaneous	(0.6) Miscellaneous adjustments to various accounts
<b>2018 Revised Thruway Operating Budget</b>	<u>352.4</u>

**2018 Revised Financial Plan**  
**New York State Thruway Authority**  
**(in millions)**

<b>2018 Budget - Capital Program</b>	<b>863.4</b>
<b>Revised Financial Plan Adjustments:</b>	
New NY Bridge Project	(58.7)
Thruway Capital	(82.6)
<b>2018 Revised Budget - Capital Program</b>	<u><u><b>722.1</b></u></u>

<b>2018 Budget - Capital Program Explanations</b>	<b>863.4</b>
<b>Revised Financial Plan Adjustments:</b>	

**New NY Bridge Project**

Allocations (Salaries and Benefits)	(0.2)	Decrease in personal service and fringe benefit allocations
Timing Differences	(58.5)	Based on updated spending and project schedule
		(58.7)

**Thruway Capital**

Allocations (Salaries and Benefits)/Materials	(5.0)	Decrease in personal service and fringe benefit allocations, and materials for in-house capital projects
Contract Bids and Projects completed under Contract value	(8.1)	Bid savings and projects closed out lower than contract value
Revised Letting Estimates	(32.2)	Some schedules were adjusted for condition and other reasons.
Design Funding not spent	(7.9)	
Syracuse Design-Build Litigation	(13.8)	Reduction from Syracuse Design-Build Contract that was not awarded due to litigation
Timing Differences	(15.6)	Contractors spent more in 2017 than expected, thus reducing 2018 cash flow. Also, some contractors spending less in 2018 than originally projected.
		(82.6)

<b>2018 Revised Capital Program Budget</b>	<u><u><b>722.1</b></u></u>
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**2018 Revised Budget - Consolidated Budget Schedule**

Use of Funds		Source of Funds							
Category	Amount	2018 Thruway Revenues	Prior Year Reserve Balances	Senior Debt	Junior Debt	Federal Funds	Thruway Stabilization Program Funds (1)	Other Funds	Total
<b>Thruway and Canal</b>									
Thruway Operating	352,358,708	352,358,708	0	0	0	0	0	0	352,358,708
Provision for Claims	750,000	750,000	0	0	0	0	0	0	750,000
Provision for Environ. Rem.	250,000	250,000	0	0	0	0	0	0	250,000
Provision for AET Transition	2,500,000	2,500,000	0	0	0	0	0	0	2,500,000
Senior Debt Service	222,941,557	222,941,557	0	0	0	0	0	0	222,941,557
Junior Debt Service	79,257,000	79,257,000	0	0	0	0	0	0	79,257,000
<b>Capital Program</b>	<b>722,110,881</b>	<b>67,404,917</b>	<b>65,898,318</b>	<b>0</b>	<b>2,567,761</b>	<b>0</b>	<b>546,621,733</b>	<b>39,618,152</b>	<b>722,110,881</b>
Highways/Bridges	206,769,204	0	20,172,506	0	0	0	185,274,589	1,322,109	206,769,204
Architectural (Facilities)	44,324,124	6,228,081	0	0	0	0	0	38,096,043	44,324,124
Equipment & Systems/ITS	70,980,167	55,176,836	15,603,331	0	0	0	0	200,000	70,980,167
State Police Equipment/Facilities	37,386	0	37,386	0	0	0	0	0	37,386
New NY Bridge	400,000,000	6,000,000	30,085,095	0	2,567,761	0	361,347,144	0	400,000,000
<b>State Police - Troop T</b>	<b>65,141,560</b>	<b>48,173,560</b>	<b>16,968,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>65,141,560</b>
<b>Working Capital</b>	<b>15,000,000</b>	<b>15,000,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>15,000,000</b>
<b>Grand Total</b>	<b>1,460,309,706</b>	<b>788,635,742</b>	<b>82,866,318</b>	<b>0</b>	<b>2,567,761</b>	<b>0</b>	<b>546,621,733</b>	<b>39,618,152</b>	<b>1,460,309,706</b>

(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 

2019  
BUDGET

EXIT  
4 

## Revised 2018 Budget vs. 2019 Budget

	2018 Revised	2019 Budget	Change from Revised
<b>SOURCES:</b>			
Thruway Revenues	788,635,742	797,882,052	9,246,310
Prior Year Reserve Balances	82,866,318	96,220,460	13,354,142
Senior Debt	0	137,103,084	137,103,084
Junior Debt	2,567,761	331,657,167	329,089,406
Federal Funds	0	0	0
Other Funds	39,618,152	13,578,014	(26,040,138)
Thruway Stabilization Program Funds	546,621,733	276,762,667	(269,859,066)
<b>Total Sources</b>	<b>1,460,309,706</b>	<b>1,653,203,444</b>	<b>192,893,738</b>
<b>Total Sources - New NY Bridge Project</b>	<b>400,184,089</b>	<b>401,687,979</b>	<b>1,503,890</b>
<b>Total Sources - Net of New NY Bridge Project</b>	<b>1,060,125,617</b>	<b>1,251,515,465</b>	<b>191,389,848</b>
<b>USES:</b>			
<b>Operating Expenses:</b>			
Thruway Operating	352,358,708	361,935,420	9,576,712
State Police Operating	65,141,560	67,132,977	1,991,417
Sub Total	417,500,268	429,068,397	11,568,129
Provisions for Claims, Env. Remediation & AET Transition	3,500,000	1,000,000	(2,500,000)
Total	421,000,268	430,068,397	9,068,129
<b>Retained for Working Capital</b>	15,000,000	0	(15,000,000)
<b>Debt Service:</b>			
Senior Debt	222,941,557	242,273,538	19,331,981
Junior Debt	79,257,000	67,684,000	(11,573,000)
Total	302,198,557	309,957,538	7,758,981
<b>Capital Program:</b>			
Thruway Capital - Highways and Bridges	206,769,204	298,325,335	91,556,131
Thruway Capital - New NY Bridge	400,000,000	401,530,484	1,530,484
Thruway Capital - Architectural & Facilities	44,324,124	35,153,703	(9,170,421)
Thruway Capital - Equipment & Systems/ITS	70,980,167	178,137,987	107,157,820
Thruway Capital - SP Equipment/Facilities	37,386	30,000	(7,386)
Total	722,110,881	913,177,509	191,066,628
<b>Total Uses</b>	<b>1,460,309,706</b>	<b>1,653,203,444</b>	<b>192,893,738</b>
<b>Total Uses - New NY Bridge Project</b>	<b>400,184,089</b>	<b>401,687,979</b>	<b>1,503,890</b>
<b>Total Uses - Net of New NY Bridge Project</b>	<b>1,060,125,617</b>	<b>1,251,515,465</b>	<b>191,389,848</b>

## Toll, Concession & Sundry Revenues

	2017 Actual	2018 Revised	2019 Budget	Change from Revised
<b>Toll Revenue</b>				
Passenger	439,092,168	441,262,651	442,182,305	919,654
Commercial	292,413,447	294,821,032	296,873,768	2,052,736
Sub Total	<u>731,505,615</u>	<u>736,083,683</u>	<u>739,056,073</u>	<u>2,972,390</u>
<b>Concession Revenue</b>				
Gas Stations	2,876,924	2,855,000	2,855,000	-
Restaurants	12,006,048	12,100,000	12,100,000	-
Sub Total	<u>14,882,972</u>	<u>14,955,000</u>	<u>14,955,000</u>	<u>-</u>
<b>Interest Revenue</b>				
Interest	3,097,027	3,500,000	3,500,000	-
Sub Total	<u>3,097,027</u>	<u>3,500,000</u>	<u>3,500,000</u>	<u>-</u>
<b>Sundry Revenue</b>				
Special Hauling Permits Permits & Other	2,397,407	2,000,000	2,000,000	-
Rental Income	5,191,958	3,300,000	3,300,000	-
Logo Signs	126,319	150,000	150,000	-
Scrap Material Sales	247,717	300,000	300,000	-
Unpaid Tolls	603,041	500,000	475,000	(25,000)
Emerg.Service Permits	116,615	80,000	80,000	-
Canadian Exch.	(31,657)	(50,000)	(50,000)	-
Real Property	1,221,241	500,000	500,000	-
E-ZPass Violations	7,694,839	8,700,000	8,100,000	(600,000)
E-ZPass Airport Fees	335,957	350,000	350,000	-
E-ZPass Admin Fees	1,930,417	1,800,000	1,800,000	-
AET Violations and Fees	15,576,436	11,800,000	16,800,000	5,000,000
Fiber Network Fees	373,656	370,000	370,000	-
Tag Lease Fees	6,316,460	6,200,000	6,200,000	-
Miscellaneous Revenue	538,451	540,000	620,000	80,000
Total Permits & Other	<u>40,241,450</u>	<u>34,540,000</u>	<u>38,995,000</u>	<u>4,455,000</u>
Sub Total	<u>42,638,857</u>	<u>36,540,000</u>	<u>40,995,000</u>	<u>4,455,000</u>
<b>Grand Total</b>	<u><b>792,124,471</b></u>	<u><b>791,078,683</b></u>	<u><b>798,506,073</b></u>	<u><b>7,427,390</b></u>

## Departmental Operating Expenses

	2017 Actual	2018 Revised	2019 Budget	Change from Revised
<b>Operating Expenses</b>				
Board & Executive	747,133	731,249	800,292	69,043
Media and Government Relations	563,486	556,172	536,223	(19,949)
Legal	2,194,702	2,113,682	2,418,947	305,265
Audit and Management Services	645,762	741,411	836,947	95,536
Administrative Services	4,874,758	5,205,280	5,786,765	581,485
Information Technology	9,990,391	10,911,867	11,998,113	1,086,246
Engineering	5,968,010	7,086,715	7,845,880	759,165
Maintenance and Engineering				
Thruway Maintenance	82,537,383	86,965,030	86,948,612	(16,418)
Equipment & Inventory Management	26,996,561	30,089,832	30,601,462	511,630
Finance and Accounts	9,050,992	9,261,849	9,352,546	90,697
Operations				
Traffic Services	8,313,726	8,557,636	9,295,801	738,165
Toll Collection	35,655,737	40,591,744	33,949,289	(6,642,455)
Sub Total	187,538,641	202,812,467	200,370,877	(2,441,590)
General Charges	141,767,700	149,546,241	161,564,543	12,018,302
Special Expense	423,425	0	0	0
Sub Total	329,729,766	352,358,708	361,935,420	9,576,712
<b>Operating Reserves</b>				
Reserve for Claims & Indemnities	2,200,200	750,000	750,000	0
Reserve for Environmental Remediation	500,000	250,000	250,000	0
Reserve for AET Transition	0	2,500,000	0	(2,500,000)
Sub Total	2,700,200	3,500,000	1,000,000	(2,500,000)
<b>Total Thruway</b>	332,429,966	355,858,708	362,935,420	7,076,712
<b><u>Other Authority Projects</u></b>				
<b>State Police</b>				
Operations	62,200,670	62,521,560	64,819,977	2,298,417
Equipment	1,383,068	2,620,000	2,313,000	(307,000)
Sub Total	63,583,738	65,141,560	67,132,977	1,991,417
<b>Total Other Authority Projects</b>	63,583,738	65,141,560	67,132,977	1,991,417
<b>Total Thruway and OAP</b>	396,013,704	421,000,268	430,068,397	9,068,129

## General Charges

	2017 Actual	2018 Revised Budget	2019 Budget	Change from Revised
<b>Payroll Benefits</b>				
Health Insurance	54,585,054	56,679,664	60,406,000	3,726,336
Pension Contributions	22,464,685	22,575,000	23,429,000	854,000
Social Security Contributions	11,632,009	12,500,000	12,228,528	(271,472)
Employee Benefits Fund	4,635,995	6,000,000	6,140,000	140,000
Workers' Compensation Insurance	9,358,513	10,075,000	10,100,000	25,000
Unemployment Insurance	48,673	100,000	100,000	0
Survivor's Benefits	293,000	175,000	175,000	0
Metropolitan Commuter Transportation Mobility Tax	110,828	120,000	118,000	(2,000)
Anticipated Salary Savings	0	0	(500,000)	(500,000)
Sub Total	103,128,757	108,224,664	112,196,528	3,971,864
<b>Other</b>				
E-ZPass/Tolls by Mail Account Management	37,684,581	45,650,000	54,072,000	8,422,000
Administrative Cost Recovery (due to New York State)	6,500,000	0	0	0
Insurance Premiums and Surety Bonds	2,757,473	2,946,000	3,424,000	478,000
Professional Services	1,012,964	1,948,500	1,681,000	(267,500)
Special Events	134,578	0	0	0
Environmental Expense	432,390	400,000	400,000	0
Reimbursement to Civil Service	304,509	436,000	445,000	9,000
Provision for Doubtful Accounts	380,000	0	0	0
Employee Vacation Leave Expense	715,500	150,000	150,000	0
Tuition Assistance Program	85,028	186,500	280,000	93,500
Cash Discount Earned	(160,755)	(120,000)	(120,000)	0
Employee Safety Equipment	95,384	120,000	106,500	(13,500)
Inventory Obsolescence Expense	240,001	100,000	150,000	50,000
All Others	50,116	75,375	60,375	(15,000)
Sub Total	50,231,769	51,892,375	60,648,875	8,756,500
<b>Allocations</b>				
Allocations to Other Funds	(11,596,493)	(10,640,798)	(11,355,860)	(715,062)
<b>Equipment and Projects Not Capitalized</b>				
Transportation Studies	3,667	70,000	75,000	5,000
<b>Total General Charges</b>	<b>141,767,700</b>	<b>149,546,241</b>	<b>161,564,543</b>	<b>12,018,302</b>

## Debt Service

	Year of Issuance	2017 Actual	2018 Revised Budget	2019 Budget
<b>Debt Service</b>				
<b>Senior Debt</b>				
Series H Bonds	2007	82,454,263	13,742,510	0
Series I Bonds	2012	72,619,613	72,623,363	72,623,463
Series J Bonds	2014	44,803,450	44,804,000	44,804,500
Series K Bonds	2014	36,494,137	41,319,138	61,819,388
Series L (Refunding)	2017	0	52,479,775	63,414,012
Series M (Proposed)	2019	0		3,345,857
Escrowed principal and Interest				(326,486)
Subtotal Current Senior Debt Service		<u>236,371,463</u>	<u>224,968,786</u>	<u>245,680,734</u>
Less: Interest Earnings		<u>1,813,694</u>	<u>2,027,229</u>	<u>3,407,196</u>
Net Senior Debt Service - Twy Bonds		<u>234,557,769</u>	<u>222,941,557</u>	<u>242,273,538</u>
<b>Junior Debt</b>				
Series 2013A Bonds	2013 (1)	79,516,900	79,516,900	26,505,633
Series 2016A Bonds	2016	43,680,801	0	27,299,833
Series 2019A Bonds (Proposed)	2019	0	0	4,255,534
Subtotal Junior Debt		<u>123,197,701</u>	<u>79,516,900</u>	<u>58,061,000</u>
Less: Interest Earnings		<u>0</u>	<u>259,900</u>	<u>371,000</u>
Net Junior Debt Service		<u>123,197,701</u>	<u>79,257,000</u>	<u>57,690,000</u>
Debt Service Reserve Fund Deposit - TIFIA		<u>0</u>	<u>0</u>	<u>9,994,000</u>

(1) The interest expense on the General Revenue Junior Indebtedness Obligation, Series 2013A Bonds is funded from proceeds on deposit in the Junior Indebtedness Fund in 2017.

**Flow of Funds**  
**General Revenue Bond Resolution**

	2017 Actual	2018 Revised	2019 Budget	Change from Revised
<b>Revenues</b>				
Tolls	731,505,615	736,083,683	739,056,073	2,972,390
Concessions	14,882,972	14,955,000	14,955,000	0
Interest	3,097,027	3,500,000	3,500,000	0
Sundry	42,638,857	36,540,000	40,995,000	4,455,000
Sub Total	<u>792,124,471</u>	<u>791,078,683</u>	<u>798,506,073</u>	<u>7,427,390</u>
<b>Operating Expenses</b>				
Departmental Operating Expenses	187,538,641	202,812,467	200,370,877	(2,441,590)
Undistributed Charges	141,767,700	149,546,241	161,564,543	12,018,302
Special Expense	423,425	0	0	(423,425)
Reserve for Claims & Indemnities	2,200,200	750,000	750,000	0
Reserve for Environmental Remediation	500,000	250,000	250,000	0
Reserve for AET Transition	0	2,500,000	0	(2,500,000)
Sub Total	<u>332,429,966</u>	<u>355,858,708</u>	<u>362,935,420</u>	<u>6,653,287</u>
<b>Net Revenues (A)</b>	<u>459,694,505</u>	<u>435,219,975</u>	<u>435,570,653</u>	<u>350,678</u>
<b>Senior Debt Service (B)</b>				
Senior Debt	234,557,769	222,941,557	242,273,538	19,331,981
<b>Adjust to Cash basis/Retain for Working Capital</b>	(19,255,033)	(17,442,941)	(624,021)	16,818,920
<b>Net Revenue After Debt Service and Retentions</b>	<u>205,881,703</u>	<u>194,835,477</u>	<u>192,673,094</u>	<u>(2,162,383)</u>
<b>Reserve Maintenance Provisions</b>				
Equipment and Facilities	57,042,353	61,404,917	82,826,117	21,421,200
Highway and Bridge	46,148,583	0	0	0
Sub Total	<u>103,190,936</u>	<u>61,404,917</u>	<u>82,826,117</u>	<u>21,421,200</u>
<b>Junior Debt Service (C)</b>				
Junior Debt	43,680,801	79,257,000	57,690,000	(21,567,000)
Debt Service Reserve Fund Deposit - TIFIA	0	0	9,994,000	9,994,000
<b>Facilities Capital Improvement Provision</b>				
New NY Bridge Project	5,000,000	6,000,000	0	(6,000,000)
<b>General Reserve Fund</b>				
State Police	54,009,966	48,173,560	42,162,977	(6,010,583)
Sub Total	<u>54,009,966</u>	<u>48,173,560</u>	<u>42,162,977</u>	<u>(6,010,583)</u>
<b>Balance</b>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
<b>Senior Debt Service Coverage Ratio (A/B)</b>	1.96	1.95	1.8	
<b>Senior &amp; Junior Debt Service Coverage Ratio (A/(B+C))</b>	1.65	1.44	1.45	

## Capital Program Funding Uses

	2017 Actual	2018 Revised	2019 Budget
<b>Thruway</b>			
<u><b>Highway &amp; Bridge</b></u>			
Contracts	172,186,850	185,274,589	274,344,048
Thruway Forces & Materials	12,508,612	21,494,615	23,981,287
Sub Total	184,695,462	206,769,204	298,325,335
<u><b>Architectural (Facilities)</b></u>			
Facilities Contracts	14,428,413	44,324,124	35,153,703
Sub Total	14,428,413	44,324,124	35,153,703
<u><b>Equipment &amp; Systems and ITS</b></u>			
Equipment & Systems	29,651,184	37,825,311	31,743,053
Intelligent Transportation Systems Contracts	715,095	33,154,856	146,394,934
Sub Total	30,366,279	70,980,167	178,137,987
<u><b>State Police Equipment/Facilities</b></u>			
Equipment & Systems	17,363	37,386	30,000
Sub Total	17,363	37,386	30,000
<b>Sub Total - Thruway and Canal</b>	<b>229,507,517</b>	<b>322,110,881</b>	<b>511,647,025</b>
<b>New NY Bridge Project</b>			
<u><b>New NY Bridge</b></u>			
Contracts	472,091,207	394,389,006	397,287,951
Thruway Forces & Materials	7,040,848	5,610,994	4,242,533
<b>Sub Total - New NY Bridge</b>	<b>479,132,055</b>	<b>400,000,000</b>	<b>401,530,484</b>
<b>GRAND TOTAL</b>	<b>708,639,572</b>	<b>722,110,881</b>	<b>913,177,509</b>

## Capital Program Funding Sources

	2017 Actual	2018 Revised	2019 Budget
<b>Thruway</b>			
<u>Federal Funds</u>			
Highway & Bridge	141,158	0	0
Sub Total	141,158	0	0
<u>Note/Bond Proceeds</u>			
Senior Debt - Thruway and Canal	20,855,526	0	137,103,084
Sub Total	20,855,526	0	137,103,084
<u>Prior Years Balances/Thruway Revenues</u>			
Reserve Maintenance Fund: Highway & Bridge	0	20,172,506	34,000,000
Reserve Maintenance Fund: Equipment	0	15,603,331	31,000,000
General Reserve Fund	17,363	37,386	30,000
Thruway Revenues	51,920,501	61,404,917	82,826,117
Sub Total	51,937,864	97,218,140	147,856,117
<u>Other Funds</u>			
State & Miscellaneous - TWY & Canal	69,275	39,418,152	13,478,014
Equipment Auction Proceeds	300,711	200,000	100,000
Thruway Stabilization Program Funds	156,202,983	185,274,589	213,109,810
Sub Total	156,572,969	224,892,741	226,687,824
<b>Sub Total - Thruway and Canal</b>	<b>229,507,517</b>	<b>322,110,881</b>	<b>511,647,025</b>
<b>New NY Bridge Project</b>			
<u>Federal Funds</u>			
Loan and Grant Proceeds	\$0	\$0	\$0
<u>Note/Bond Proceeds</u>			
Junior Debt	443,305,199	2,567,761	331,657,167
Sub Total	443,305,199	2,567,761	331,657,167
<u>Prior Years Balances/Thruway Revenues</u>			
Thruway Revenues	10,826,856	36,085,095	6,220,460
Sub Total	10,826,856	36,085,095	6,220,460
<u>Other Funds</u>			
Thruway Stabilization Program Funds	25,000,000	361,347,144	63,652,857
<b>Sub Total - New NY Bridge</b>	<b>479,132,055</b>	<b>400,000,000</b>	<b>401,530,484</b>
<b>GRAND TOTAL</b>	<b>708,639,572</b>	<b>722,110,881</b>	<b>913,177,509</b>

**Actual 2017, Revised 2018 Budget vs. 2019 Budget  
New NY Bridge**

	<b>2017 Actual</b>	<b>2018 Revised</b>	<b>2019 Budget</b>
<b><u>SOURCES:</u></b>			
Thruway Revenues	5,142,501	6,184,089	157,495
Prior Year Reserve Balances	5,826,856	30,085,095	6,220,460
Junior Debt	443,305,199	2,567,761	331,657,167
Federal Funds	0	0	0
Thruway Stabilization Program Funds	25,000,000	361,347,144	63,652,857
<b>Total Sources</b>	<b>479,274,556</b>	<b>400,184,089</b>	<b>401,687,979</b>
<b><u>USES:</u></b>			
<b>Operating Expenses:</b>			
Thruway Operating	142,501	184,089	157,495
<b>Thruway Capital - Equipment &amp; Systems/ITS:</b>			
Equipment	0	0	0
<b>Thruway Capital - New NY Bridge:</b>			
Thruway Forces & Materials	6,030,300	5,610,994	4,242,533
Contracts	471,032,253	387,889,006	395,387,951
Community Benefits Fund	1,013,719	5,000,000	1,900,000
Right of Way	1,055,783	1,500,000	0
Sub Total	479,132,055	400,000,000	401,530,484
<b>Total Uses</b>	<b>479,274,556</b>	<b>400,184,089</b>	<b>401,687,979</b>

**2019 Budget - Sources and Uses of Funds**

Use of Funds		Source of Funds							
Category	Amount	2019 Thruway Revenues	Prior Year Reserve Balances	Senior Debt	Junior Debt	Federal Funds	Thruway Stabilization Program Funds (1)	Other Funds	Total
<b>Thruway and Canal</b>									
Thruway Operating	361,935,420	361,935,420	0	0	0	0	0	0	361,935,420
Provision for Claims	750,000	750,000	0	0	0	0	0	0	750,000
Provision for Environ. Rem.	250,000	250,000	0	0	0	0	0	0	250,000
Senior Debt Service	242,273,538	242,273,538	0	0	0	0	0	0	242,273,538
Junior Debt Service	67,684,000	67,684,000	0	0	0	0	0	0	67,684,000
<b>Capital Program</b>	<b>913,177,509</b>	<b>82,826,117</b>	<b>71,250,460</b>	<b>137,103,084</b>	<b>331,657,167</b>	<b>0</b>	<b>276,762,667</b>	<b>13,578,014</b>	<b>913,177,509</b>
Highways/Bridges	298,325,335	0	34,000,000	49,770,616	0	0	213,109,810	1,444,909	298,325,335
Architectural (Facilities)	35,153,703	16,266,204	0	6,854,394	0	0	0	12,033,105	35,153,703
Equipment & Systems/ITS	178,137,987	66,559,913	31,000,000	80,478,074	0	0	0	100,000	178,137,987
State Police Equipment/Facilities	30,000	0	30,000	0	0	0	0	0	30,000
New NY Bridge	401,530,484	0	6,220,460	0	331,657,167	0	63,652,857	0	401,530,484
State Police- Troop T	67,132,977	42,162,977	24,970,000	0	0	0	0	0	67,132,977
<b>Grand Total</b>	<b>1,653,203,444</b>	<b>797,882,052</b>	<b>96,220,460</b>	<b>137,103,084</b>	<b>331,657,167</b>	<b>0</b>	<b>276,762,667</b>	<b>13,578,014</b>	<b>1,653,203,444</b>

(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.

## 2019 Operating Budget Summary by Account

Acct Description	2017 Actual	2018 Revised Budget	2019 Budget	Diff between 2018 Revised & 2019 Budget
SALARIES REGULAR	122,619,366	139,089,235	139,252,075	162,840
SALARIES TEMPORARY	18,930,128	18,905,124	16,302,004	(2,603,120)
SALARIES REIMBURSED FEDERAL	(231,195)	(7,500)	(2,500)	5,000
SHIFT DIFFERENTIAL	768,024	1,526,044	1,398,362	(127,682)
SALARY SAVINGS	0	(10,211,432)	(7,556,904)	2,654,528
SALARY REDISTRIBUTED	(145,812)	(155,800)	(169,700)	(13,900)
OT PAY REGULAR	9,717,035	7,108,067	7,187,855	79,788
OT PAY TEMPORARY	654,687	597,297	570,122	(27,175)
TOLL INCENTIVE PAYMENTS		4,654,039	0	(4,654,039)
SALARIES REIMBURSED NONFEDERAL	(1,246,684)	(76,524)	(112,524)	(36,000)
EXCESS/BONUS SICK & VAC	1,458,195	1,551,619	2,067,819	516,200
CHECK OUT PAYMENT	287,664	801,652	693,354	(108,298)
<b>Total Personal Services</b>	<b>152,811,408</b>	<b>163,781,821</b>	<b>159,629,963</b>	<b>(4,151,858)</b>
ALLOC TO RESERVE MTCE - EQPT	(10,741,811)	(11,149,771)	(9,722,230)	1,427,541
ALLOC TO FAC CAP IMPR FUND	(3,528,903)	(3,321,794)	(2,511,712)	810,082
ALLOC TO SP	(591,082)	(552,105)	(601,577)	(49,472)
ALLOC TO TWY CAPITAL PROJ	21,555	0	(3,359,019)	(3,359,019)
BENE/M&O ALLOC RES MTCE	(7,350,700)	(7,683,498)	(6,699,589)	983,909
SIGN SHOP LABOR	(96,912)	(60,000)	(90,000)	(30,000)
BENEFITS REDISTRIBUTED	(136,618)	(107,298)	(116,940)	(9,642)
BENEFITS REIMBURSED FEDERAL	(141,484)	(5,132)	(1,723)	3,409
BENEFITS REIMBURSED-NON FEDERA	(212,002)	(52,365)	(77,540)	(25,175)
BEN ALLOC TO SP	(404,435)	(377,805)	(414,547)	(36,742)
BEN ALLOC TO TWY CAPITAL PROJ	8,111	0	(2,314,700)	(2,314,700)
BEN ALLOC TO FAC CAP IMPR FUND	(2,414,826)	(2,289,200)	(1,730,821)	558,379
<b>Total Allocations</b>	<b>(25,589,107)</b>	<b>(25,598,968)</b>	<b>(27,640,398)</b>	<b>(2,041,430)</b>
AUTO - GAS, OIL	2,976,457	4,432,200	4,532,200	100,000
AUTO - SUPPLIES	6,020,296	6,189,000	6,119,675	(69,325)
AUTO - INSURANCE	0	64,000	64,000	0
AUTO - GENERAL EXP	446,683	423,253	423,253	0
REPAIRS DUE TO ACCIDENTS	325,728	0	0	0
R&D PARTS NON INVENTORY	2,294	5,000	35,100	30,100
REPAIRS DUE TO ACCIDENTS	1,232,954	1,221,150	720,350	(500,800)
MFG SIGNS - NON INVENTORY	214,492	140,000	110,000	(30,000)
SNOW & ICE CONTROL	12,273,243	13,000,000	11,500,000	(1,500,000)
THRUWAY ROADWAY	1,703,890	1,689,000	1,599,757	(89,243)
SIGNS - INVENTORY	224,531	167,343	166,143	(1,200)
BRIDGES	428,966	486,030	523,030	37,000
BRIDGE CONTRACTS OPERATING	4,352,920	5,207,816	5,376,212	168,396
HIGHWAY CONTRACTS OPERATING	681,486	1,388,281	2,223,324	835,043
BUILDINGS - CONTRACTS	362	0	0	0
BUILDINGS	2,446,456	2,305,046	2,024,546	(280,500)
BLDG ADMIN HQ	1,086	3,200	1,200	(2,000)
REIMB FROM NYPA	(817,603)	(125,500)	0	125,500
TOLL AND ITS EQPT THRUWAYWIDE	664,998	950,000	950,000	0
SCRAP & OBSOLETE	0	0	0	0
PARTS REPAIRED FOR RET	0	0	0	0
RETURNABLE CONTAINER	20,785	20,000	23,800	3,800
REIMB OF MTCE EXP	(143,799)	(50,000)	(50,000)	0
PERISHABLE TOOLS	622,665	643,702	707,253	63,551
MISC MTCE SUPPLIES	460,675	531,645	430,380	(101,265)
REIMB BY CLAIM	(7,719,744)	(5,550,000)	(3,750,000)	1,800,000
<b>Total Mtce &amp; Repairs</b>	<b>26,419,821</b>	<b>33,141,166</b>	<b>33,730,223</b>	<b>589,057</b>
COMPUTER SUPPLIES	47,628	87,550	86,750	(800)
MTCE & REPAIR TO EQPT	2,524,670	2,690,794	2,880,640	189,846
STATIONARY FORMS	226,195	199,262	206,695	7,433
POSTAGE	113,636	135,800	115,800	(20,000)
NATURAL GAS	776,252	870,500	892,000	21,500
TELEPHONE	1,561,112	1,867,083	1,733,751	(133,332)

## 2019 Operating Budget Summary by Account

Acct Description	2017 Actual	2018 Revised Budget	2019 Budget	Diff between 2018 Revised & 2019 Budget
HEATING FUEL	251,743	347,000	267,000	(80,000)
WATER	199,693	211,386	216,951	5,565
PROPANE	54,546	75,500	68,500	(7,000)
ELECTRIC	2,728,985	3,041,467	3,451,707	410,240
ADVERTISING	1,937	3,000	3,000	0
PRINTING & DUPLICATING	21,725	46,000	52,000	6,000
PRINTING OUTSIDE	307,283	341,518	331,518	(10,000)
FIRST AID & PERSON SAFETY SUPP	358,676	309,916	247,241	(62,675)
JANITORIAL SUPPLIES	404,144	396,075	369,402	(26,673)
EMPLOYEE SAFETY EQPT	97,827	122,600	107,100	(15,500)
DUES, BOOKS, SUBSCRIPTIONS	507,568	534,932	855,426	320,494
TUITION ASSISTANCE	85,028	186,500	280,000	93,500
TRAINING EXP	138,111	134,456	403,113	268,657
MEDICAL SERVICES	70,806	159,000	530,200	371,200
OVERTIME MEAL EXPENSE	262,134	276,406	200,995	(75,411)
CLOTHES CLEANING	189,344	205,035	188,655	(16,380)
CLOTHING SUPPLIES	649,672	717,174	764,281	47,107
ENGINEERING SUPPLIES	19,727	17,471	17,583	112
TRAFFIC CONTROL SAFETY SUPP	419,423	353,300	262,800	(90,500)
RENTALS	1,503,959	1,561,835	1,683,179	121,344
SPECIAL EVENTS	134,578	0	0	0
INSURANCE PREM & SURETY BONDS	2,757,473	2,946,000	3,424,000	478,000
PHOTO SUPPLIES	6	625	625	0
PROMOTION EXPENSE	12,044	20,800	29,150	8,350
PROFESSIONAL SERVICES	1,493,929	2,399,800	2,047,900	(351,900)
EMPLOYEE DEVELOPMENT	35,801	43,300	43,100	(200)
FREIGHT PARCEL POST	64,508	74,364	76,364	2,000
CREDIT CARD FEES	49,443	65,000	50,000	(15,000)
SPECIAL CONTRACTS	42,414,571	50,382,211	58,807,671	8,425,460
DEMURRAGE	27,418	23,800	21,800	(2,000)
ADMIN COST RECOVERY	6,500,000	0	0	0
CASH DISCOUNT EARNED	(160,755)	(120,000)	(120,000)	0
ENVIRONMENTAL EXPENSE	432,390	400,000	400,000	0
SERVICE CHARGE EXP	105,190	100,000	100,000	0
PROVISION FOR DOUBTFUL A/R	380,000	0	0	0
EMPLOYEE CLAIM EXP	1,270	2,000	2,000	0
CONCESSION UTILITY	(71,789)	25,000	20,000	(5,000)
STANDARD PURCHASE PRICE	0	(2,000)	(2,000)	0
PURCHASE VARIANCE	(5,003)	(4,000)	(4,000)	0
INVENTORY VARIANCE	6,204	2,000	2,000	0
INVENTORY ITEMS REPAIRED	(12,127)	(19,000)	(39,000)	(20,000)
STORES CLEARING ACCT	(499)	200	200	0
PROJECTS FROM SAVINGS	0	0	(83,934)	(83,934)
PROMPT PAYMENT INTEREST EXP	30	5,000	5,000	0
M&O REIMB FED AID	(1,133,229)	(1,801,615)	(2,570,179)	(768,564)
TRAVEL EXP REGULAR	180,478	192,949	194,833	1,884
TRAVEL EXP CARS	3,554	2,612	3,612	1,000
REIMB VOLUNTEER FIRE CO	104,130	105,000	105,000	0
REIMB TO NYS LAW DEPARTMENT	0	0	0	0
REIMBURSEMENT TO CIVIL SERVICE	304,509	436,000	445,000	9,000
FIDUCIARY FEES	131,512	90,000	90,000	0
PROV RES FOR INVENTORY OBSOL	240,001	100,000	150,000	50,000
<b>Total Operating Supplies</b>	<b>67,517,461</b>	<b>70,361,606</b>	<b>79,415,429</b>	<b>9,053,823</b>
PENSIONS NYS EMPLOYEES	22,410,000	22,500,000	23,429,000	929,000
PENSIONS VDCP EMPLOYEES	54,685	75,000	0	(75,000)
EMPLOYEE BENEFIT FUND	4,635,995	6,000,000	6,140,000	140,000
SOCIAL SECURITY	11,632,009	12,500,000	12,228,528	(271,472)
WORKERS COMPENSATION	9,358,513	10,075,000	10,100,000	25,000
UNEMPLOYMENT INSURANCE	48,673	100,000	100,000	0
HEALTH INSURANCE	24,032,054	25,591,664	27,067,000	1,475,336
HEALTH INSURANCE RETIREES	30,553,000	31,088,000	33,339,000	2,251,000
SURVIVORS BENEFITS	293,000	175,000	175,000	0

## 2019 Operating Budget Summary by Account

Acct Description	2017 Actual	2018 Revised Budget	2019 Budget	Diff between 2018 Revised & 2019 Budget
MTA TAX	110,828	120,000	118,000	(2,000)
EE VACATION LEAVE	715,500	150,000	150,000	0
<b>Total Payroll Benefits</b>	<b>103,844,257</b>	<b>108,374,664</b>	<b>112,846,528</b>	<b>4,471,864</b>
FACILITIES IMPROV EXP	593,150	890,992	2,391,720	1,500,728
REPL OF OFFICE EQPT	136,569	82,860	82,360	(500)
REPL OF COMPUTER EQPT	281,943	135,489	229,054	93,565
REPL OF HWY & MARINE EQPT	39,612	135,502	134,000	(1,502)
TOLL & ITS SYS IMPROV	0	0	0	0
TECHNOLOGY PROJECTS	57,925	165,000	215,000	50,000
SHOP EQPT REPL	30,616	0	0	0
HWY & BRIDGE EXP	2,706,285	485,000	373,233	(111,767)
STUDIES	3,667	70,000	75,000	5,000
COMMUNICATION EQPT REPL	239,116	34,451	162,500	128,049
EQUIPMENT ADDITIONAL	145,293	25,200	0	(25,200)
COMPUTER HARDWARE NEW	41,666	95,825	33,500	(62,325)
COMPUTER SOFTWARE NEW	37,248	57,202	127,308	70,106
MOTORIZED EQPT NEW	6,198	78,167	5,000	(73,167)
SHOP EQPT NEW	17,975	39,781	25,000	(14,781)
NON LABOR REIMB NON FED PROJ REL	(75,967)	0	0	0
OFFICE EQPT NEW	41,205	2,950	100,000	97,050
<b>Total Eqpt &amp; Proj not capitalized</b>	<b>4,302,501</b>	<b>2,298,419</b>	<b>3,953,675</b>	<b>1,655,256</b>
PROVISION FOR ENV REMEDIATION	500,000	250,000	250,000	0
CLAIMS & INDEMNITY EXPENSE	2,200,200	750,000	750,000	0
PROVISION FOR AET TRANSITION	0	2,500,000	0	(2,500,000)
SPECIAL EXPENSE	423,425	0	0	0
GRAND TOTAL	332,429,966	355,858,708	362,935,420	7,076,712
<b>Total Operating Budget by Account</b>	<b>332,429,966</b>	<b>355,858,708</b>	<b>362,935,420</b>	<b>7,076,712</b>

## 2019 Budgeted Full-Time Employees

Department	2017	2018*	Net Change 2017- 2018	2019	Net Change 2018-2019
Board & Executive	12	12	-	12	-
Media and Government Relations	5	6	1	5	(1)
Legal	23	24	1	24	-
Audit and Management Services	10	9	(1)	9	-
Administrative Services	71	71	-	72	1
Information Technology	88	89	1	86	(3)
Engineering	166	166	-	167	1
Maintenance and Engineering	1,272	1,272	-	1,308	36
Thruway Maintenance	975	975	-	1,002	27
Equipment & Inventory Management	297	297	-	306	9
Finance and Accounts	139	136	(3)	136	-
Operations	376	380	4	382	2
Traffic Services	78	83	5	104	21
Toll Collection	298	297	(1)	278	(19)
<b>Total</b>	<b>2,162</b>	<b>2165</b>	<b>3</b>	<b>2201</b>	<b>36</b>

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

## 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)

(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



# 2019 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.

## Department Organization



## Department Budget Summary

BOARD & EXECUTIVE DEPARTMENT BUDGET						
Account Description	2017 Actual	2018 Revised	2019 Budget	\$ Change	% Change	
Personal Services	718,992	708,982	778,050	69,068	9.7%	
Allocations	-	-	-	-	0.0%	
Maintenance & Repair	-	-	-	-	0.0%	
Operating & Supplies	25,399	22,267	22,242	(25)	-0.1%	
Equipment/Projects not Capitalized	2,742	-	-	-	0.0%	
<b>Department Total</b>	<b>747,133</b>	<b>731,249</b>	<b>800,292</b>	<b>69,043</b>	<b>9.4%</b>	

The 2019 Budget request is \$0.8 million, an increase of \$69,043 or 9.4 percent above the 2018 Revised Budget amount. Total wages and salaries are \$778,050 and this includes 12 positions, including 7 unsalaried Board members.

## **Department Budget Highlights**

- Personal Services increased by \$69,068, or 9.7 percent, and reflects projected wages based on current salary actions.

## **2018 Accomplishments**

- The second span of the Governor Mario M. Cuomo Bridge will be opened in 2018. This project is one of the biggest active bridge projects in the nation, and the largest in the history of the New York State Thruway Authority.
- The conversion to cashless tolling at the Grand Island Bridges was completed in March of 2018. The New York barriers at Yonkers, Harriman, New Rochelle and Spring Valley Barriers will also be converted to cashless tolling in 2018.

## **2019 Goals**

- The Shared Use Path at the Governor Mario M. Cuomo Bridge is scheduled to open in 2019.
- Continue planning for the conversion to Cashless Tolling on the ticketed system.

# 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 numerous 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	2017 Actual	2018 Revised	2019 Budget	\$ Change	% Change
Personal Services	531,448	519,428	498,822	(20,606)	-4.0%
Allocations	-	-	-	-	0.0%
Maintenance & Repair	-	-	-	-	0.0%
Operating & Supplies	31,788	36,744	37,401	657	1.8%
Equipment/Projects not Capitalized	250	-	-	-	0.0%
<b>Department Total</b>	<b>563,486</b>	<b>556,172</b>	<b>536,223</b>	<b>(19,949)</b>	<b>-3.6%</b>

The 2019 Budget request is \$0.5 million, a decrease of \$19,949 or 3.6 percent below the fiscal year 2018 Revised Budget amount. Total wages and salaries are \$498,822 and this includes 5 positions.

### Department Budget Highlights

- Personal Services decreased by \$20,606, or 4.0 percent and includes the elimination of 1 position.

### 2018 Accomplishments

- Successfully issued dozens of press releases and advisories to the media and general public
- Organized and implemented a campaign raising awareness about Cashless Tolling and the Tolls By Mail billing process
- Effectively communicated with approximately 30,000 social media followers
- Successfully managed approximately 200 public inquiries a month
- Staff has continuously updated content on the Thruway's website as to keep the site fresh and relevant
- Actively participated in numerous committees
- Utilized a graphic designer to improve the aesthetics of Thruway materials
- Successfully executed a grand opening event for the second span of the Gov. Mario M. Cuomo Bridge.
- Successfully communicated the transition to cashless tolling at the Grand Island Bridges and NY Division's tolls barriers

### 2019 Goals

- Successfully communicate the opening of the Governor Mario M. Cuomo Bridge's Shared Use Path in the lower Hudson Valley
- Continue to effectively communicate an effective and uniform message to all outlets
- Prepare and begin messaging for the system-wide roll out of cashless tolling across the ticketed system by the end of 2020.

## 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	2017 Actual	2018 Revised	2019 Budget	\$ Change	% Change
Personal Services	1,904,670	1,975,854	2,331,546	355,692	18.0%
Allocations	(138,998)	(120,000)	(154,801)	(34,801)	29.0%
Maintenance & Repair	-	-	-	-	0.0%
Operating & Supplies	427,419	256,828	241,202	(15,626)	-6.1%
Equipment/Projects not Capitalized	1,611	1,000	1,000	-	-
<b>Department Total</b>	<b>2,194,702</b>	<b>2,113,682</b>	<b>2,418,947</b>	<b>305,265</b>	<b>14.4%</b>

The 2019 Budget request is \$2.4 million, an increase of \$305,265 or 14.4 percent above the fiscal year 2018 Revised Budget amount. Total wages and salaries are \$2.3 million and this includes 24 positions.

## **Department Budget Highlights**

- Personal Services increased by \$355,692, or 18.0 percent, and includes funding for 24 permanent positions, temporary law interns, and 1 excelsior fellow.
- Personal Service Allocations increased \$34,801, or 29.0 percent, relative to work on the New NY Bridge Project.

## **2018 Accomplishments**

- In 2018, the Legal Department asserted property and equipment damage claims totaling \$4,435,702.00 and collected \$2,691,538.65 as of June 22, 2018. The applicable limitation period allows up to three years from the date of the accident to pursue recovery, so the amount collected above includes amounts attributable to accidents that occurred prior to 2018.
- Closed 205 of the 256 FOIL requests received as of June 21, 2018.
- Successfully defended the lawsuit commenced on behalf of the American Trucking Association and American Bus Association
- Continued to implement the use of DMS to archive legal files electronically
- Assisted in the completion of obtaining environmental permits for the demolition of the Tappan Zee Bridge
- Assisted in the successful defense of lawsuits related to All Electronic Toll Collection
- Assisted in the Series L refunding of bonds saving the Thruway Authority over \$83 million
- Assisted in the provision of former Tappan Zee Bridge deck panels to governmental entities across New York State and the disposal of Tappan Zee Bridge deck panels at reefs off Long Island

## **2019 Goals**

- Continue to explore technology opportunities and solutions that apply to legal services to reduce workload and increase productivity
- Close the remaining Statement of Services (SOSs) related to the New York Canal Corporation transfer
- Continue to convert hard copy books to a digital library, reducing expenditures for books
- Continue to prioritize and deliver on collecting revenue from claims
- Analyze administrative processes and streamline tasks to improve efficiency
- Assist in the disbursement of the TIFIA loan
- Assist in the completion of the New NY Bridge Project
- Defend remaining lawsuits related to All Electronic Toll Collection

# 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	2017 Actual	2018 Revised	2019 Budget	\$ Change	% Change
Personal Services	636,551	729,293	821,443	92,150	12.6%
Allocations	-	-	-	-	0.0%
Maintenance & Repair	-	-	150	150	-
Operating & Supplies	8,422	11,258	15,354	4,096	36.4%
Equipment/Projects not Capitalized	789	860	-	(860)	-100.0%
<b>Department Total</b>	<b>645,762</b>	<b>741,411</b>	<b>836,947</b>	<b>95,536</b>	<b>12.9%</b>

The 2019 Budget request is \$0.8 Million, an increase of \$95,536 or 12.9 percent above the fiscal year 2018 Revised Budget amount. Total wages and salaries are \$821,443 and this includes 9 positions.

## **Department Budget Highlights**

- Personal Services increased by \$92,150, or 12.6 percent and includes funding for 9 permanent positions.

## **2018 Accomplishments**

- Conducted Thruway Authority investigations related to fraud, waste and abuse
- Implemented and oversaw security operations for the Governor Mario M. Cuomo Bridge project, including the hiring and training of eighteen 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 the new Mohawk Valley and Grand Island Welcome Centers
- Followed up on issues noted in the Headquarters Threat Assessment Program

## **2019 Goals**

- Hire additional security operators for the Governor Mario M. Cuomo Bridge to carry out safety and security functions
- Hire audit staff to conduct audits and internal control reviews
- Implement the security operations for the Governor Mario M. Cuomo Bridge as required by oversight entities
- 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 operation, 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

# 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 Opportunity, 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	2017 Actual	2018 Revised	2019 Budget	\$ Change	% Change
Personal Services	4,150,403	4,310,288	4,550,929	240,641	5.6%
Allocations	-	-	-	-	0.0%
Maintenance & Repair	3,927	6,400	3,900	(2,500)	-39.1%
Operating & Supplies	697,948	884,692	1,228,936	344,244	38.9%
Equipment/Projects not Capitalized	22,480	3,900	3,000	(900)	-23.1%
<b>Department Total</b>	<b>4,874,758</b>	<b>5,205,280</b>	<b>5,786,765</b>	<b>581,485</b>	<b>11.2%</b>

The 2019 Budget request is \$5.8 million, an increase of \$581,485 or 11.2 percent above the fiscal year 2018 Revised Budget amount. Total wages and salaries are \$4.6 million and this includes 72 positions.

### Department Budget Highlights

- Personal Services increased by \$240,641, or 5.6 percent. The 2019 budget reflects increased wage rates that are part of negotiated union contracts.
- Operating and Supplies increased \$344,244, or 38.9 percent, due to an increase in funding for medical serves related to silica exposure testing and Hepatitis B vaccinations.

### 2018 Accomplishments

- Negotiated an incentive agreement with Unit 1 (Teamsters) and Unit 2 (Civil Service Employees Association – CSEA) for impacted toll staff
- Expanded Tuition Assistance Program to Part-time Toll Collection staff
- Established a CDL training program for current staff
- Worked with Civil Service to identify and expand transfer opportunities for Full-time Toll Collectors and other toll titles impacted by the cashless tolling initiative
- Coordinated the reimbursement of Civil Service Examination fees for employees impacted by the cashless tolling initiative
- Presented more than 40 cashless tolling outreach sessions Thruway-wide through June 2018 with more planned for 2019
- Conducted 19 non-technical training courses, as June 1, 2018
- Coordinated development, delivery and monitoring of nine GOER mandatory online training courses
- Performed more than 100 safety related site visits as of June 1, 2018
- Conducted Wellness Fairs at the Administrative Headquarters and Syracuse Division Headquarters
- Vigorously and successfully recruited for critical winter maintenance positions

- Introduced the updated Thruway Maintenance Worker Trainee Program
- Completed a comprehensive review of all Authority policies and procedures

### **2019 Goals**

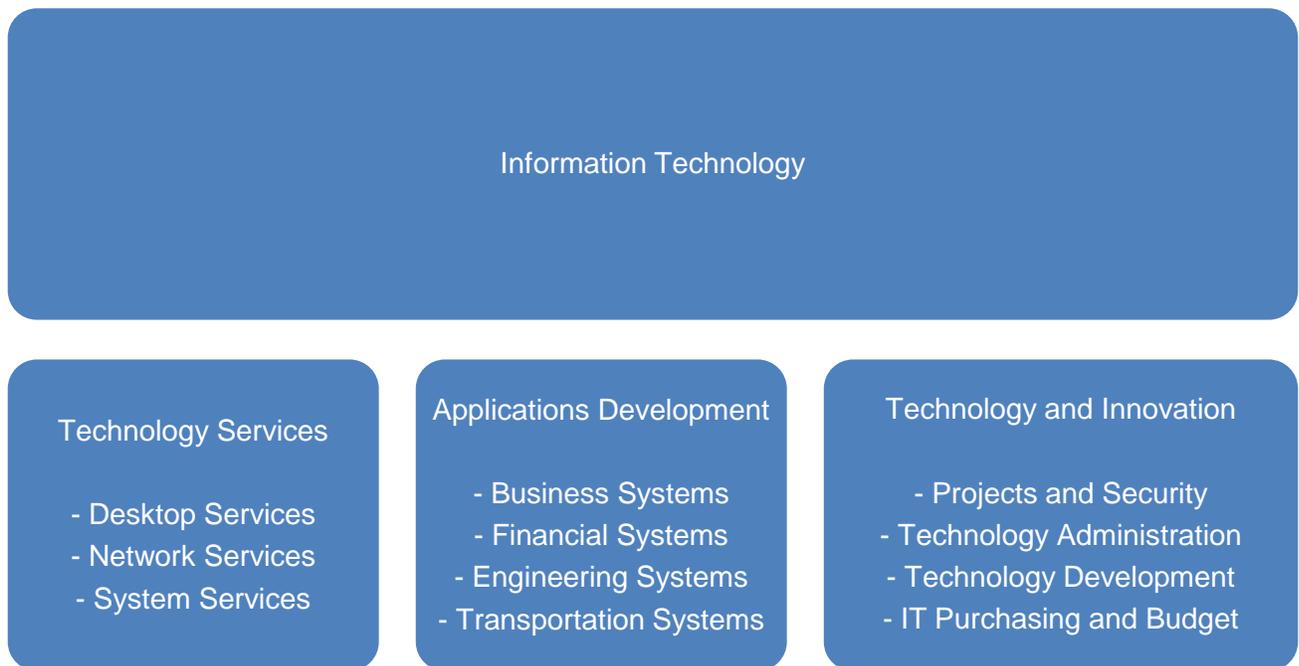
- Support staffing needs for the Governor Mario M. Cuomo Bridge by establishing/filling appropriate items necessary for its operation and maintenance and transition staff back to Authority positions, where necessary
- Support staffing needs for cashless tolling transition
- Assist departments in succession planning
- Reach 100 percent participation for mandatory GOER training
- Revise Salary Administration Manual
- Continue to promote the wellness initiative
- Equal Opportunity Unit and Personnel will continue to enhance recruitment efforts with an emphasis on critical winter maintenance positions
- Update Authority policies and procedures, as necessary

# 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, and supports Thru-Stat, Federal Communications Commission licensing, and the Governor Mario M. Cuomo Bridge systems. 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	2017 Actual	2018 Revised	2019 Budget	\$ Change	% Change
Personal Services	7,170,290	7,488,053	7,870,192	382,139	5.1%
Allocations	(1,118,987)	(560,000)	(558,354)	1,646	-0.3%
Maintenance & Repair	4,186	3,000	3,100	100	3.3%
Operating & Supplies	3,384,983	3,718,542	4,138,113	419,571	11.3%
Equipment/Projects not Capitalized	<u>549,919</u>	<u>262,272</u>	<u>545,062</u>	<u>282,790</u>	<u>107.8%</u>
<b>Department Total</b>	<b>9,990,391</b>	<b>10,911,867</b>	<b>11,998,113</b>	<b>1,086,246</b>	<b>10.0%</b>

The 2019 Budget request is \$12.0 million, an increase of \$1,086,246 or 10.0 percent above the fiscal year 2018 Revised Budget amount. Total wages and salaries are \$7.9 million and this includes 86 positions.

### Department Budget Highlights

- Personal Services increased by \$382,139, or 5.1 percent, and includes the elimination of 5 positions, offset by the addition of 2 positions related to new computer systems maintenance associated with the operation of the Governor Mario M. Cuomo Bridge.
- Operating and Supplies increased by \$419,571, or 11.3 percent, mainly related to increases in hardware and software subscriptions and maintenance agreements.
- Equipment/Projects not Capitalized increased by \$282,790, or 107.8 percent. 2018 was significantly less than normal because purchases of replacement computer equipment was accelerated in 2017 utilizing savings. This increase is also attributed to the replacement of servers and core switches.

### 2018 Accomplishments

- Installed TVs in all emergency centers for use with the IBM Weather App; purchase secure cases, stands, locks, adapters, cables and TVs. Coordinate running the cabling to attach the iPad to the TV; work with Division IT support to implement and secure the iPad
- Enabled the phone system Area Code Change for 10 digit dialing and the new 838 exchange
- Developed and/or supported training opportunities such as Office 365, the GOER training initiatives, video tutorials for the new GISWeb interface, and Online Orientation
- Supported the Internet and Authority Website
- Maintained 117 FCC licenses for the Authority's Radio System, HAR, and E-ZPass
- Supported ongoing design, implementation and testing for all technological systems for the Governor Mario M. Cuomo Bridge as well as continued to provide overall IT Desktop support for the Bridge project staff

- Worked with the contractor to create and incorporate proper data layers and develop final interface for Webtech Automatic Vehicle Location application used for monitoring snow plow activities
- Assisted with mapping for the Operations/Maintenance dashboard focused on winter storm management
- Continued management and support for over 1,200 wireless devices such as phones, iPads, modems, and associated services
- Supported the implementation of the Data Integration and Visualization for Incident Response Team (DIVIRT) to improve situational awareness with improved availability and display of pertinent data for incident response
- Developed a LOOMIS financial tracking application
- Acquired the services of a consultant to assist in the upgrade of TFP to Release 12 of the e-business suite; released the RFP, evaluated proposals, selected a winning bidder, and negotiated a contract
- Supported the efforts to build out an All Electronic Toll Collection System in the next two years
- Rolled out enhancements to the Thruway Mobile App such as Urgent and Information Message Notifications and real-time service area hours
- Developed a new WEB version of the Time and Attendance Inquiry Module moving off the legacy client platform
- Completed development and supported the installation of a “People Counter” system to automate the tallying of patrons that visit the Authority’s Service Areas; the information is provided to Operations on an hourly basis
- Completed the build-out of two of the three radio tower sites that are to replace the leased site in Mahwah, NJ

## **2019 Goals**

- Complete the HRMS PeopleSoft upgrade to a supported version 9.2, PeopleTools 8.56, and Oracle 12C
- Complete the final Mahwah, NJ radio tower site; this final site will secure both emergency main and maintenance radio systems operation in the Harriman through Spring Valley corridor
- Complete the TFP upgrade to a supported version, Release 12
- Upgrade all facets of the HQ Security System and assist with access control wiring and implementations
- Upgrade 450+ 3G devices (phones and modems) to 4G before Verizon disables its 3G network at the end of 2019
- Participate in the First Net/AT&T emergency management priority exemption capability to upgrade to priority service access for emergency communications in mission critical events; upgrade devices and change carriers to AT&T as needed for emergency responders
- Continue to design, configure, and install the Statewide Video System
- Design, configure, and implement required network connections for the Capital Region Welcome Center and select AETC sites
- Fabricate a Treadle Testing Device in Support of the Toll System including AETC; support AETC across all IT Teams
- Map Road Closure Points & Truck Parking Locations in GIS; use mobile GIS technology to build an inventory and inspection application for the Authority's light poles

- Assemble mapping application data layers and interfaces and assist in compilation of reports and recommendations to allow for improved analysis of use of NYSTA land and facilities
- Assist with the development, deployment and maintenance of virtual desktops
- Support the effort for the Building modifications of the Disaster Recovery Site
- Work with vendor to implement interfaces into the NYS Contract System for purchasing vendors, purchasing contracts, and purchasing payments
- Develop functionality for Capital Planning and Contract Management in Unifier
- Create a weather and road closure layout for travel plazas TVs
- Replace the current paper forms and manual processes used for Property Transfer reports and Missing Property reports with electronic functionality in SPARS to create, approve, and manage those reports
- Test disaster recovery plans for our web servers
- Update IT's Disaster Recovery Plan
- Participate in Phase 1 of the Connected Vehicle/Autonomous Vehicle Project with other State Agencies and the Center for Technology in Government University at Albany

## 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	2017 Actual	2018 Revised	2019 Budget	\$ Change	% Change	
Personal Services	7,901,718	8,282,505	8,585,446	302,941	3.7%	
Allocations	(57,753)	(44,806)	(61,900)	(17,094)	38.2%	
Maintenance & Repair	-	-	-	-	0.0%	
Operating & Supplies	1,204,818	1,021,650	825,500	(196,150)	-19.2%	
Equipment/Projects not Capitalized	2,209	2,500	3,500	1,000	40.0%	
<b>Department Total</b>	<b>9,050,992</b>	<b>9,261,849</b>	<b>9,352,546</b>	<b>90,697</b>	<b>1.0%</b>	

The 2019 Budget request is \$9.4 million, an increase of \$90,697 or 1.0 percent above The 2018 Revised Budget amount. Total wages and salaries are \$8.6 million and this includes 136 positions.

## **Department Budget Highlights**

- Personal Services increased by \$302,941, or 3.7 percent, and includes funding for 136 permanent positions. The 2019 budget reflects increased wage rates that are part of negotiated union contracts.
- Allocations increased by \$17,094, or 38.2 percent, mainly due to projected increased wage rates which will result in higher allocations.
- Operating & Supplies decreased by \$196,150, or 19.2 percent, mainly due to a reduction in toll deposit counting services associated with the anticipated transition to cashless tolling at all bridges and barriers.

## **2018 Accomplishments**

- Successfully completed the issuance of \$596.2 million in New York State Thruway Authority General Revenue Refunding Bonds, Series L to refund certain of the Authority's outstanding bonds, producing debt service savings of \$83.14 million.
- Managed the drawdown of an estimated \$546.6 million in State Thruway Stabilization funds supporting capital expenditures on the NNYB project (\$361.3 million) and system-wide maintenance and repair projects (\$185.3 million)
- Managed approximately 2,300 occupancy permits in 2017
- Developed and published the monthly financial reports, which can be found on the Thruway Authority's website

## **2019 Goals**

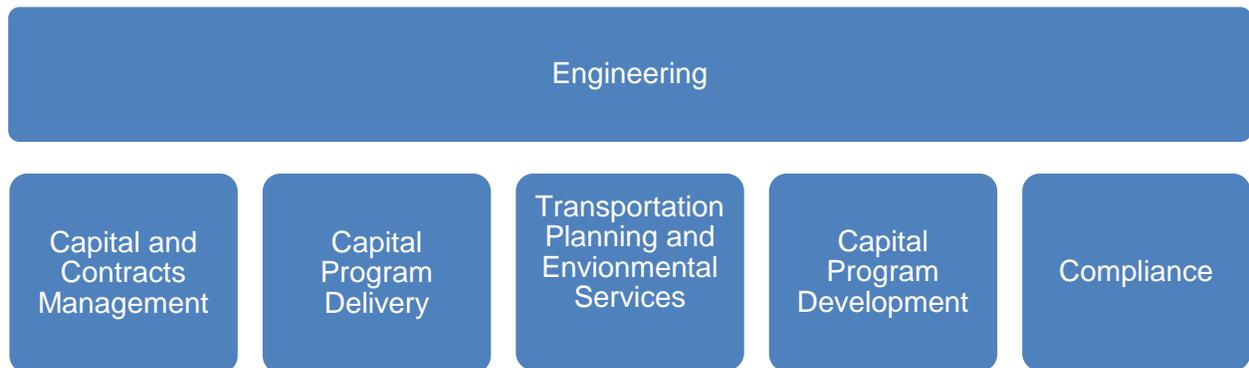
- Successfully drawdown on \$1.6 billion Federal TIFIA loan executed in 2013 supporting the construction of the Governor Mario M. Cuomo Bridge.
- Successfully execute the issuance of 2019A Junior Indebtedness Obligation to support the remaining costs associated with the Governor Mario M. Cuomo Bridge project.
- 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 procedure
- Evaluate and implement electronic banking technology in the area of accounts payable and payment processing

# 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	2017 Actual	2018 Revised	2019 Budget	\$ Change	% Change
Personal Services	12,723,955	14,498,741	15,742,770	1,244,029	8.6%
Allocations	(7,348,040)	(8,124,961)	(8,835,263)	(710,302)	8.7%
Maintenance & Repair	3,651	3,519	3,015	(504)	-14.3%
Operating & Supplies	507,757	638,891	888,758	249,867	39.1%
Equipment/Projects not Capitalized	80,687	70,525	46,600	(23,925)	-33.9%
<b>Department Total</b>	<b>5,968,010</b>	<b>7,086,715</b>	<b>7,845,880</b>	<b>759,165</b>	<b>10.7%</b>

The 2019 Budget request is \$7.8 million, an increase of \$759,165 or 10.7 percent above

the 2018 Revised Budget amount. Total wages and salaries are \$15.7 million and this includes 167 positions.

### **Department Budget Highlights**

- Personal Services increased by \$1,244,029, or 8.6 percent, and includes funding for 167 permanent positions. The 2019 budget reflects increased wage rates that are part of negotiated union contracts.
- Allocations increased by \$710,302, or 8.7 percent, mainly due to projected increased wage rates which will result in higher allocations.
- Operating & Supplies increased \$249,867 or 39.1 percent, attributable to an increase in training expense associated with the implementation of a new contracts management system. Increased rental rates for an under bridge inspection unit and increased engineering software maintenance costs also contributed to the increase.

### **2018 Accomplishments**

- Over 40 contracts with a value of over \$460 million were let in 2018. For the previous five years, the average annual letting total was \$237 million.
- Designed and constructed the Western New York and Capital District Welcome Centers.
- Continued efforts to ensure environmental compliance for Thruway activities and projects and promote sustainable practices.
- Let and awarded the I-95 (New England Thruway) “Last Mile” construction contract using a Design-Bid-Build Best Value procurement process.
- Reviewed and updated Spill Prevention Control plans for 44 Thruway maintenance facilities across the system. Initiate and support sustainable projects and activities to foster the reduction of greenhouse gas emissions and promote renewable energy technology. For example, completed the system site design and initiated construction of solar arrays along the Thruway system.
- Shortlisted qualified Design-Build Teams and released a Request for Proposals (RFP) for conversion of the ticketed system to Cashless Tolling.
- Designed and let Cashless Tolling Conversion contracts for the Grand Island, Harriman, Yonkers, New Rochelle and Spring Valley toll barriers.
- Implemented a comprehensive QA/QC system that better produces and tracks contract estimates.
- Issued plans and signed orders to install and enhance DO NOT ENTER and WRONG WAY signing along entire Thruway system

### **2019 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.
- Issue a “Notice to Proceed” to a Design-Build team for conversion of the ticketed system to Cashless Tolling.
- Institute a system that implements and tracks “Engineering Acceleration Strategies and Process Improvement Opportunities”

- Continue developing the Thruway Authority's Bridge Asset Management System along with the Pavement Management System, which is presently in its eighth year and undergoes periodic upgrades.
- Complete installation of solar arrays on the Thruway system.
- 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.

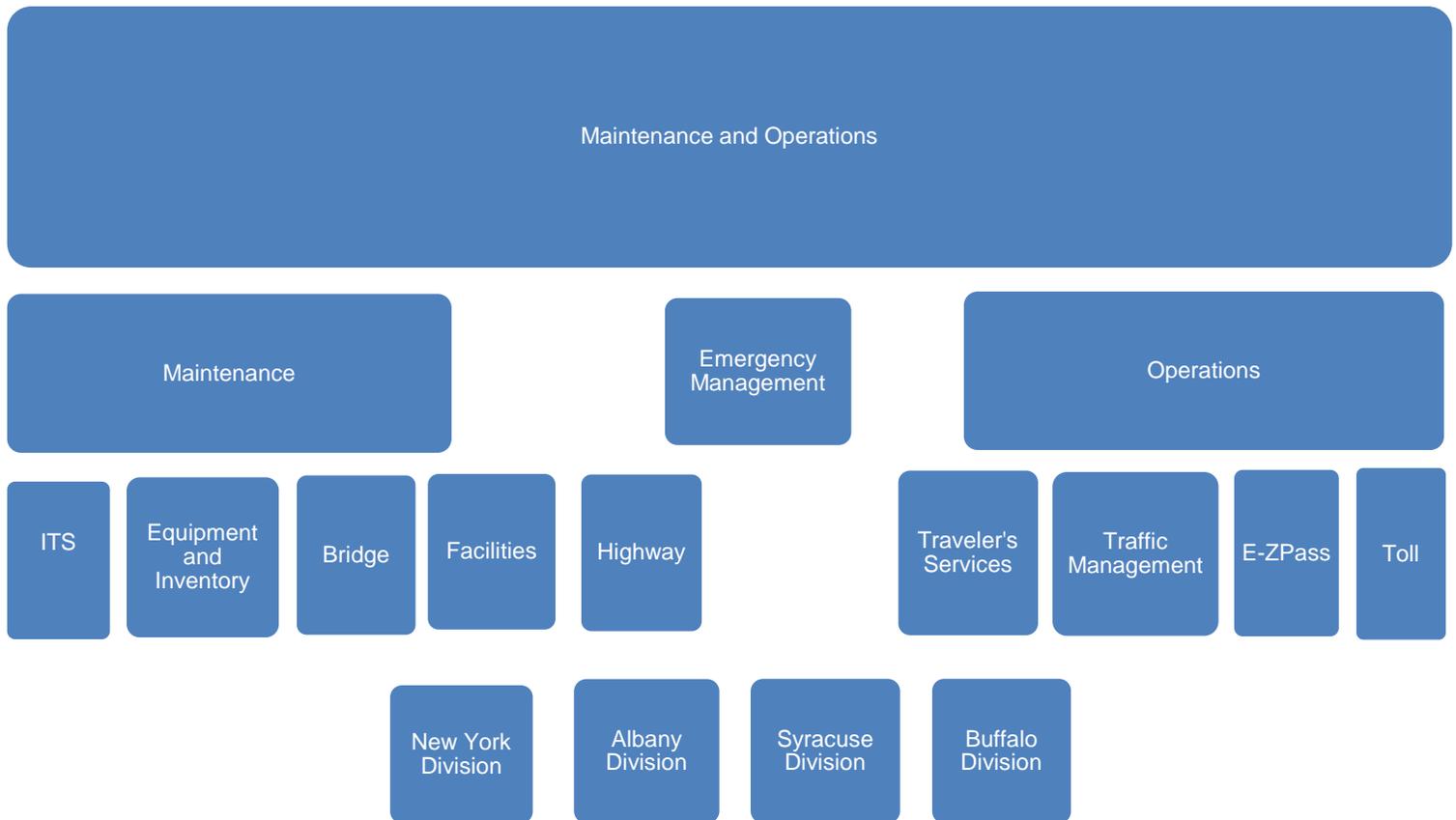
# Maintenance and Operations

## 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. From repairing bridge and highway infrastructure, to 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 collaboratively 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 management of the authorized towing program and the tandem truck permit program. The E-ZPass office manages electronic toll collection contracts which includes E-ZPass, cashless tolling and violation enforcement. In addition, Maintenance and Operations includes the Thruway Statewide Operations Center (TSOC). TSOC is a 24-hour-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 Organization



## Department Budget Summary

THRUWAY MAINTENANCE DEPARTMENT BUDGET					
Account Description	2017 Actual	2018 Revised	2019 Budget	\$ Change	% Change
Personal Services	61,159,968	63,676,518	62,460,339	(1,216,179)	-1.9%
Allocations	(5,072,847)	(5,177,632)	(5,764,372)	(586,740)	11.3%
Maintenance & Repair	17,048,348	20,836,316	21,220,812	384,496	1.8%
Operating & Supplies	6,092,336	6,085,586	5,969,630	(115,956)	-1.9%
Equipment/Projects not Capitalized	<u>3,309,578</u>	<u>1,544,242</u>	<u>3,062,203</u>	<u>1,517,961</u>	<u>98.3%</u>
<b>Department Total</b>	<b>82,537,383</b>	<b>86,965,030</b>	<b>86,948,612</b>	<b>(16,418)</b>	<b>-0.02%</b>

The 2019 Budget request is \$86.9 million, a decrease of \$16,418 or 0.02 percent below the fiscal year 2018 Revised Budget amount. Total wages and salaries are \$62.5 million and this includes 1,002 positions.

## **Department Budget Highlights**

- Personal Services decreased by \$1,216,179, or 1.9 percent, and includes funding for 1,002 positions. Overtime costs associated with snow and ice control in 2018 were significantly higher than budget due to the severity and duration of the winter season.
- Personal Service Allocations increased \$586,740, or 11.3 percent, based on planned capital projects.
- Maintenance and Repair increased \$384,496 or 1.8 percent, mainly due to anticipated increases in bridge inspection and pavement striping contract costs.
- Equipment & Projects Not Capitalized increased \$1,517,961, or 98.3 percent, mainly attributable to costs associated with the connection of Malden & Weedsport sewer lines to local municipalities.

## **2018 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
- Installed a new GPS system in our large plow trucks to monitor salt usage and plow loop completion
- Constructed additional salt sheds to enhance snow and ice effectiveness
- Completed utility agreements providing municipal utilities to selected facilities. We no longer maintain private utilities to these sites

## **2019 Goals**

- Complete all programmed maintenance projects and preventive maintenance
- Implement transition plan for the Governor Mario M. Cuomo Bridge to successfully operate and maintain the bridges and Shared Use Path. Acquire budgeted equipment and hire and train staff in critical areas.
- Implement training and resources for new required safety standards
- Contract additional salt storage facilities to enhance our winter operations
- Upgrade our facilities to meet current standards and operational needs
- Expand alternative energy initiatives, through continued LED lighting retrofits
- Further refine right-of-way management practices to advance sustainability and environmental stewardship goals

## EQUIPMENT & INVENTORY MANAGEMENT DEPARTMENT BUDGET

Account Description	2017 Actual	2018 Revised	2019 Budget	\$ Change	% Change
Personal Services	16,999,412	17,395,088	18,028,348	633,260	3.6%
Allocations	(1,103,615)	(996,271)	(819,848)	176,423	-17.7%
Maintenance & Repair	10,298,059	12,430,896	12,481,825	50,929	0.4%
Operating & Supplies	703,127	1,006,669	737,637	(269,032)	-26.7%
Equipment/Projects not Capitalized	99,578	253,450	173,500	(79,950)	-31.5%
<b>Department Total</b>	<b>26,996,561</b>	<b>30,089,832</b>	<b>30,601,462</b>	<b>511,630</b>	<b>1.7%</b>

The 2019 Budget request is \$30.6 million, an increase of \$511,630 or 1.7 percent above the fiscal year 2018 Revised Budget amount. Total wages and salaries are \$18.0 million and this includes 306 positions.

### Department Budget Highlights

- Personal Services increased by \$633,260, or 3.6 percent, and includes funding for 306 positions. The 2019 budget reflects increased wage rates that are part of negotiated union contracts.
- Operating & Supplies decreased \$269,032 or 26.7 percent. 2018 included added costs related to the implementation of the Web-Tech vehicle GPS system and barge repairs in New York Division.

### 2018 Accomplishments

- Completed all preventive maintenance on snow and ice fleet prior to November 1<sup>st</sup>
- Installed new Multi-Protocol Readers, cables and antennas in 50 percent of the plazas.
- Installed the new lane controller in a conventional toll plaza
- Successfully maintained a high level of reliability for over 400 toll lanes, 800 ITS elements and associated peripheral equipment
- Installed fixed Variable Message Signs to replace current use of portable Signs.
- Installation of higher standard equipment wash seems to better maintain our fleet and enhance environmental compliance.
- Added 8 new fueling sites to enhance operational efficiency
- Placed in service 30 replacement plow trucks, added 55 plow trucks and 10 tow plows to bolster operations and deployment capabilities.

### 2019 Goals

#### Equipment and Inventory/ITSM

- Maintain high reliability of toll and ITS systems while training and adapting personnel to advance technologies in these areas

- Begin implementation of the Toll Electronic Systems Technician Trainee program
- Install new Multi-Protocol Readers in all remaining plazas
- Replace obsolete lane controllers and fiber optic cabling with new, network based communication equipment and lane control computers at multiple plazas
- Installed additional permanent Variable Message Signs to enhance incident management and communication
- Investigate the potential use of alternative fuel equipment including solar to further reduce our carbon foot print.
- Upgrade entire fueling infrastructure to allow for greater security and system reliability
- Adding Electric Vehicles to fleet and expanding charging stations across Thruway facilities
- Further refine equipment specifications to better serve end-users while achieving fleet efficiencies.

TRAFFIC SERVICES DEPARTMENT BUDGET					
Account Description	2017 Actual	2018 Revised	2019 Budget	\$ Change	% Change
Personal Services	5,958,619	6,342,384	7,096,185	753,801	11.9%
Allocations	-	-	-	-	0.0%
Maintenance & Repair	858	3,930	33,930	30,000	763.4%
Operating & Supplies	2,068,545	2,139,152	2,136,026	(3,126)	-0.1%
Equipment/Projects not Capitalized	285,704	72,170	29,660	(42,510)	-58.9%
<b>Department Total</b>	<b>8,313,726</b>	<b>8,557,636</b>	<b>9,295,801</b>	<b>738,165</b>	<b>8.6%</b>

The 2019 Budget request is \$9.3 million, an increase of \$738,165 or 8.6 percent above the fiscal year 2018 Revised Budget amount. Total wages and salaries are \$7.0 million and this includes 104 positions.

### Department Budget Highlights

- Personal Services increased by \$753,801, or 11.9 percent and includes the addition of 18 positions related security at the Governor Mario M. Cuomo Bridge.
- Maintenance & Repair increased by \$30,000 for parts related to Radio System Upgrades.
- Equipment & Projects Not Capitalized decreased \$42,510, or 58.9 percent. 2018 included added costs for rugged laptops, adaptors and docking stations for Traffic Supervisors.

### 2018 Accomplishments

- Implemented a new Computer Aided Dispatch in conjunction with State Police and NYSDOT
- Implemented a statewide Special Hauling Permitting system in conjunction with NYSDOT

- Issued FREI in anticipation of an RFP for 16 service areas along the Thruway
- Installed Level 2 Electric Vehicle charging stations at commuter lots and Level 3 at select service areas.
- Began operation of the Western NY and Capital District Welcome Centers
- Signed a 5-year agreement for the operation of the Port Byron Heritage Park
- Continued to train and drill the Road Closure Framework
- Transition security operations from TSOC to the Governor Mario M. Cuomo Bridge Security Team

## 2019 Goals

- Sign a long-term agreement(s) for the operation of 15 food service facilities
- Integrate laptops into Traffic Supervisor vehicles to access the CAD (Computer Aided Dispatch), Tandem and Special Hauling Permitting Systems
- Replace the CARS System used for Traffic Management in TSOC with DYNAC, latest 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.

TOLL COLLECTION DEPARTMENT BUDGET					
Account Description	2017 Actual	2018 Revised	2019 Budget	\$ Change	% Change
Personal Services	33,006,354	37,854,687	31,365,893	(6,488,794)	-17.1%
Allocations	-	-	-	-	0.0%
Maintenance & Repair	22,005	32,605	33,491	886	2.7%
Operating & Supplies	2,608,128	2,686,952	2,535,755	(151,197)	-5.6%
Equipment/Projects not Capitalized	19,250	17,500	14,150	(3,350)	-19.1%
<b>Department Total</b>	<b>35,655,737</b>	<b>40,591,744</b>	<b>33,949,289</b>	<b>(6,642,455)</b>	<b>-16.4%</b>

The 2019 Budget request is \$33.9 million, a decrease of \$6,642,455 or 16.4 percent below the fiscal year 2018 Revised Budget amount. Total wages and salaries are \$31.4 million and this includes 278 positions.

## Department Budget Highlights

- Personal Services decreased by \$6,488,794, or 17.1 percent, and includes funding for 278 positions, an overall reduction of 19 positions from 2018. This reduction is relative to the transition to cashless tolling.
- Operating & Supplies decreased \$151,197, or 5.6 percent, attributable to utility saving related to the transition to cashless tolling and the reduction in the number of toll facilities.

## **2018 Accomplishments**

- Successfully completed a toll violation amnesty program that resulted in the resolution of 281,850 violations.
- Revised the DMV Registration Suspension Program
- Improved the website to allow customers to pay Tolls By Mail bills
- Created a new Toll By Mail bill
- Reduced the violation fee from \$100 to \$50 for the Governor Mario M. Cuomo Bridge
- Developed a marketing plan to support the Cashless Tolling Project
- Converted Grand Island, New Rochelle, Yonkers, Spring Valley and Harriman Toll Plazas to cashless tolling
- Awarded the systems and operations contracts for the E-ZPass/Toll By Mail Customer Service Center services
- Implemented E-ZPass retail sales at all (26) service areas and all Thruway toll plazas
- In conjunction with Human Resources developed a strategy to incentivize affected toll positions to remain working while also assisting employees in obtaining other employment.

## **2019 Goals**

- Continue planning the conversion to cashless tolling on the ticketed system
- Expand E-ZPass marketing statewide
- 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
- Maintain staffing levels to ensure cash toll collection
- Adjust E-ZPass office staffing levels to allow for the growth in cashless tolling.



# LONG RANGE FINANCIAL PLAN

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

	ACTUAL 2017	Revised Budget 2018	Proposed 2019	Estimated 2020	Estimated 2021	Estimated 2022
Toll Revenue	731.5	736.1	739.1	743.9	709.4	716.7
Other Revenues	60.6	55.0	59.5	60.6	77.5	99.5
<b>Total Revenue</b>	<b>792.1</b>	<b>791.1</b>	<b>798.5</b>	<b>804.5</b>	<b>786.9</b>	<b>816.2</b>
Thruway Operating Expenses	329.7	352.4	361.9	372.5	377.4	385.0
Reserve for Claims and Indemnities, Environmental Remediation & AET Transition	2.7	3.5	1.0	1.5	1.5	1.5
<b>Net Revenue (A)</b>	<b>459.7</b>	<b>435.2</b>	<b>435.6</b>	<b>430.5</b>	<b>408.0</b>	<b>429.7</b>
Current Senior Debt Service Outstanding	236.4	225.0	242.7	242.7	235.8	258.4
Proposed Senior Bonds	0.0	0.0	3.0	(6.5)	(18.2)	73.7
Less Interest Earnings on Sr. Debt Srvc Res Funds	(1.8)	(2.0)	(3.4)	(0.7)	(0.7)	(0.8)
<b>Net Senior Debt Service (B)</b>	<b>234.6</b>	<b>222.9</b>	<b>242.3</b>	<b>235.5</b>	<b>216.9</b>	<b>331.3</b>
<b>Net Revenue after Senior Debt Service</b>	<b>225.1</b>	<b>212.3</b>	<b>193.3</b>	<b>195.0</b>	<b>191.1</b>	<b>98.4</b>
Adjust to Cash basis/Retain for Working Capital	(19.3)	(17.4)	(0.6)	(4.5)	(9.0)	0.0
Reserve Maintenance Deposit	103.2	61.4	82.8	53.7	43.9	30.0
Total Junior Debt Service	43.7	79.5	58.1	58.7	58.6	79.9
Less Interest Earnings on Jr. Debt Srvc Res Funds	0.0	(0.3)	(0.4)	(0.4)	(0.4)	(0.3)
<b>Net Junior Debt Service (C)</b>	<b>43.7</b>	<b>79.3</b>	<b>57.7</b>	<b>58.3</b>	<b>58.3</b>	<b>79.6</b>
TIFIA Debt Service Reserve Fund Deposit	0.0	0.0	10.0	10.0	10.0	10.0
Facilities Capital Improvement Deposit	5.0	6.0	0.0	0.0	0.0	0.0
General Reserve Fund Provision - State Police	54.0	48.2	42.2	68.5	69.9	71.3
<b>Balance</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>(92.5)</b>
Senior Debt Service Coverage Ratio (A/B) (1)	1.96	1.95	1.80	1.83	1.88	1.30
Senior & Junior Debt Service Coverage Ratio (A/(B+C))	1.65	1.44	1.45	1.47	1.48	1.05

**Schedule of Senior Debt Service for The Thruway Capital Program  
(millions)**

Series	Principal Balance 1/1/19 or when issued	Year of Issuance	2019	2020	2021	2022
Series I	1,041.8	2012	72.6	72.6	72.6	72.6
Series J	650.6	2014	44.8	44.7	44.8	44.7
Series K	743.9	2014	61.8	61.9	61.9	61.9
Series L (Refunding)		2019	63.4	63.4	56.5	79.1
<b>Subtotal : Current Debt Service</b>			<b>242.7</b>	<b>242.7</b>	<b>235.8</b>	<b>258.4</b>
Escrowed Principal & Interest			(0.3)	(25.0)	(57.9)	0.0
Series M (Proposed)	134.1	2019	3.3	8.7	8.7	8.7
Series N (Proposed)	474.3	2020	0.0	9.8	23.0	30.9
Series O (Proposed)	378.2	2021	0.0	0.0	7.9	24.6
Series P (Proposed)	314.8	2022	0.0	0.0	0.0	9.6
<b>Summary</b>			<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
Total Annual Senior Debt Service			245.7	236.2	217.6	332.1
Annual Change in Senior Debt Service as a % of Revenues			4.3%	-1.4%	-1.7%	13.0%
Cumulative Senior Debt Service as a % of Revenues			30.8%	29.4%	27.6%	40.7%
Outstanding Senior Debt at End of Year			3,051.0	3,018.7	3,252.2	3,380.0

*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. 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 1/1/19 or when issued	Year of Issuance	2019	2020	2021	2022
Series 2013 A	1,600.0	2013	26.5	0.0	0.0	17.8
Series 2016 A	850.0	2016	27.3	41.2	41.2	41.2
Series 2019 A (Proposed)	386.1	2018	4.3	17.5	17.5	20.9

Summary	2019	2020	2021	2022
Total Annual Junior Debt Service	58.1	58.7	58.6	79.9
Annual Change in Junior Debt Service as a % of Revenues	-2.7%	0.0%	0.2%	2.3%
Cumulative Junior Debt Service as a % of Revenues	7.3%	7.3%	7.5%	9.8%
Outstanding Junior Debt at End of Year	2,836.1	2,836.1	2,836.1	2,836.1

**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 assumes the Series 2013 A JIOs would be converted to the TIFIA loan in 2019. During 2016 and thereafter JIOs would be issued during the year at an interest rate between 4.9 percent and 5.2 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

**2019 Budget - Capital Program Sources and Uses**

(millions)

	2017 (Actual)	2018 Revised	2019 - 2023 Capital Program					2019-23 Total
			2019	2020	2021	2022	2023	
Thruway:								
Highways	118.1	122.0	172.1	144.8	158.2	209.2	153.2	837.6
Bridges	66.5	84.8	126.2	181.4	172.5	108.2	87.5	675.8
Facilities	14.4	44.3	35.2	21.2	10.7	7.4	13.8	88.2
Equipment	29.7	37.9	31.8	32.0	33.0	33.0	33.0	162.8
All Electronic Toll Collection	0.0	32.9	142.9	135.0	25.0	0.0	0.0	302.9
Intelligent Transportation Systems	0.7	0.2	3.5	4.4	7.4	5.5	2.3	23.2
<b>Sub Total - Thruway</b>	<b>229.5</b>	<b>322.1</b>	<b>511.6</b>	<b>518.8</b>	<b>406.8</b>	<b>363.4</b>	<b>289.8</b>	<b>2,090.4</b>
New NY Bridge Project:								
New NY Bridge	479.1	400.0	401.5	0.0	0.0	0.0	0.0	401.5
<b>Sub Total - New NY Bridge Project</b>	<b>479.1</b>	<b>400.0</b>	<b>401.5</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>401.5</b>
<b>Grand Total</b>	<b>708.6</b>	<b>722.1</b>	<b>913.2</b>	<b>518.8</b>	<b>406.8</b>	<b>363.4</b>	<b>289.8</b>	<b>2,492.0</b>

	2017 (Actual)	2018 Revised	2019 - 2023 Capital Program					2019-23 Total
			2019	2020	2021	2022	2023	
Thruway:								
Senior Debt	20.9	0.0	136.9	462.7	362.0	332.8	259.3	1,553.8
Reserve Maintenance Fund	51.9	97.2	147.8	53.7	43.9	30.0	30.0	305.5
General Reserve Funds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Federal, State and Other Funds	0.5	39.6	13.6	1.8	0.4	0.1	0.1	16.0
Interest on Bond Proceeds	0.0	0.0	0.2	0.6	0.5	0.4	0.3	2.0
Thruway Stabilization Program Funds	156.2	185.3	213.1	0.0	0.0	0.0	0.0	213.1
<b>Sub Total - Thruway and Canal</b>	<b>229.5</b>	<b>322.1</b>	<b>511.6</b>	<b>518.8</b>	<b>406.8</b>	<b>363.4</b>	<b>289.8</b>	<b>2,090.4</b>
New NY Bridge Project:								
Junior Debt	443.3	2.6	331.7	0.0	0.0	0.0	0.0	331.7
Facilities Capital Improvement Fund	10.8	36.1	6.2	0.0	0.0	0.0	0.0	6.2
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	25.0	361.3	63.7	0.0	0.0	0.0	0.0	63.7
<b>Sub Total - New NY Bridge Project</b>	<b>479.1</b>	<b>400.0</b>	<b>401.5</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>401.5</b>
<b>Grand Total</b>	<b>708.6</b>	<b>722.1</b>	<b>913.2</b>	<b>518.8</b>	<b>406.8</b>	<b>363.4</b>	<b>289.8</b>	<b>2,492.0</b>

## 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 1<sup>st</sup> 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 3<sup>rd</sup> 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 4<sup>th</sup> and 5<sup>th</sup> 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 4<sup>th</sup> week in January** - Maintenance & Operations sends the draft lists to the Divisions for review and input.
- **By 2<sup>nd</sup> 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 3<sup>rd</sup> 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 2<sup>nd</sup> 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 2<sup>nd</sup> 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 3<sup>rd</sup> 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 1<sup>st</sup> 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 2019-2023 Capital Program Letting List as of 9/17/18**

**New York Division Projects**

LETTING YEAR	QTR.	ITEM NO.	MILEPOST	PROJECT DESCRIPTION	ESTIMATED CONSTRUCTION CONTRACT VALUE
2019	1	B729.1	MP: 0.83	New York Division Joint Replacements on Various Bridges - 2018	\$5,600,000
	2	H9.1	MP: 12.85	Improvements to I-87 Interchange 9 Ramp Intersection with Route 9 and Construct Route 9/I-87 Pedestrian Bridge	\$12,000,000
	4	BO539.1	MP: 14.67	Construction of the Permanent All Electronic Toll Collection Facility at the Governor Mario M. Cuomo Bridge	\$12,000,000
	1	B635.1	MP: 16.56	New York Division: Paint 5 Bridges with Poor Paint Condition Ratings	\$5,250,000
	1	A361.1	MP: 18.80	Nyack Maintenance - Construct Vehicle Wash Bay and Storage	\$2,313,000
	3	B2192.1	MP: 23.62	Scotland Hill Road Bridge over NYS Thruway - Replacement	\$11,000,000
	3	B2213.1	MP: 24.62	Hungry Hollow Road Bridge over Thruway - Replacement	\$5,000,000
	3	B49.1	MP: 26.37	College Road (Almshouse Road) Bridge over Thruway - Replacement	\$8,000,000
	1	A811.1	MP: 33.00	Ramapo and Sloatsburg Service Areas - Demolition of Aging Wastewater Facility and Construct Connection to Municipal System	\$1,450,000
	1	A877.1	MP: 45.20	Harriman Maintenance Section - Equipment Storage Building Wash Bay	\$950,000
	3	B583.1	MP: 58.43	Thruway Bridge over Newburgh-Cambell Hall Road (Route 207) - Replacement	\$10,300,000
	1	B720.1	MP: 600.17	I-95 (New England Thruway) Bridge Maintenance Cleaning for Steel Preservation - 2019	\$700,000
	1	H351.1	MP: 600.00	I-95 (New England Thruway) Highway Improvements	\$10,000,000
	4	B728.1	MP: 600.23	Rehabilitation of Four I-95 (New England Thruway) Bridges	\$1,000,000
	4	B630.1	MP: 601.56	222nd Street and Dyre Avenue Pedestrian Bridges and Baychester Road Bridge - Substructure Rehabilitations	\$2,500,000
	1	B284.4	MP: 605.76	North Avenue Bridge over I-95 (New England Thruway) - Relocate Utilities for Replacement	\$3,500,000
	3	B284.1	MP: 605.76	North Avenue Bridge over I-95 (New England Thruway) - Replacement	\$16,500,000
	4	A362.1	MP: 607.70	Larchmont Maintenance - Replace Existing Metal Building	\$2,500,000
	3	B783.1	NY Div.	New York Division: On-Demand Repair Contract - 2020-2021	\$3,000,000
	4	A299.1	NY Div.	Construct Sandblast Booth in New York Division	\$750,000
<b>2019 Total:</b>					<b>\$114,313,000</b>

### New York Division Projects

LETTING YEAR	QTR.	ITEM NO.	MILEPOST	PROJECT DESCRIPTION	ESTIMATED CONSTRUCTION CONTRACT VALUE
2020	3	B884.1	MP: 47.58	Pine Hill Road Bridge over Thruway - Replacement	\$6,500,000
	1	H343.1	MP: 600.00	I-95 (New England Thruway) Highway Improvements	\$40,000,000
	1	B746.1	MP: 600.17	I-95 (New England Thruway) Bridge Maintenance Cleaning for Steel Preservation - 2020	\$700,000
	1	B661.1	MP: 605.09	MP NE5.09: I-95 (New England Thruway) Viaduct, Railroad Span (New Rochelle) - Rehabilitation	\$4,000,000
	1	A2016.1	MP: 607.00	Larchmont Maintenance Section - Building Additions, Renovations and Roof Replacement	\$2,200,000
	1	B2223.1	MP: 607.64	Chatsworth Avenue Bridge over I-95 (New England Thruway) - Rehabilitation	\$2,500,000
	1	B700.1	MP: 607.72	Larchmont Station Plaza - Substructure Repairs	\$2,000,000
<b>2020 Total:</b>					<b>\$57,900,000</b>
2021	1	H1045.1	MP: 0.00	Major Deegan Expressway (MP 0.00) to Cross Westchester Expressway (Exit 8, MP 11.3) - Pavement Resurfacing	\$25,000,000
	1	H342.1	MP: 16.20	South of Nyack (MP 16.2) to south of Spring Valley Toll Barrier - Pavement Resurfacing	\$15,000,000
	1	H165.1	MP: 29.40	I-287/Route 17S (Exit 15, MP 29.4) to north of Suffern (MP 38.7) - Pavement Resurfacing	\$28,000,000
	4	A370.1	MP: 45.20	Harriman Maintenance Section - Renovations	\$1,000,000
	1	B763.1	MP: 600.17	I-95 (New England Thruway) Bridge Maintenance Cleaning for Steel Preservation - 2021	\$700,000
	1	I112.1	NY Div.	Replacement of ITS Equipment in New York Division	\$4,000,000
<b>2021 Total:</b>					<b>\$73,700,000</b>
2022	1	A169.1	MP: 18.80	New York Maintenance Facility - Replace Metal Buildings	\$2,500,000
	1	B885.1	MP: 49.78	Thruway Bridge over Route 32 - Rehabilitation	\$2,500,000
	1	H345.1	MP: 600.00	I-95 (New England Thruway) Highway Improvements	\$40,000,000
	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
	4	B778.1	NY Div.	New York Division: On-Demand Repair Contract - 2023-2024	\$3,000,000
<b>2022 Total:</b>					<b>\$52,200,000</b>
2023	1	A371.1	MP: 18.80	Nyack Maintenance - Construct Equipment Maintenance / Inventory Building	\$4,500,000
	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

### New York Division Projects

LETTING YEAR	QTR.	ITEM NO.	MILEPOST	PROJECT DESCRIPTION	ESTIMATED CONSTRUCTION CONTRACT VALUE
2023	1	H161.1	MP: 46.00	North of Harriman Toll Barrier (MP 46.0) to Newburgh (MP 60.1) - Pavement Resurfacing	\$28,200,000
	1	B782.1	MP: 600.17	I-95 (New England Thruway) Bridge Maintenance Cleaning for Steel Preservation - 2023	\$700,000
<b>2023 Total:</b>					<b>\$45,600,000</b>
<b>2019-2023 New York Division Total:</b>					<b>\$343,713,000</b>

### Albany Division Projects

2019	3	B975.1	MP: 81.72	Thruway Bridge over Wallkill River - Rehabilitation	\$11,000,000
	1	B686.1	MP: 84.14	Albany Division: Bridge Scour Repairs at Various Locations	\$1,200,000
	1	A828.2	MP: 91.40	Kingston Maintenance Section - Replace Salt Shed	\$600,000
	1	B725.1	MP: 113.22	Catskill Creek Slope Stabilization	\$1,000,000
	1	H331.2	MP: 121.20	North of Coxsackie (MP 121.2) to Selkirk (MP 134.9) - Pavement Resurfacing, including Coxsackie Int. 21B	\$23,000,000
	4	B687.1	MP: 141.36	Albany Division: Bridge Steel Repairs/Pin and Hanger Work for Major Truss Bridges	\$3,000,000
	1	A360.1	MP: 141.90	Albany Maintenance Facility - Replace Metal Building	\$3,000,000
	1	A829.1	MP: 141.90	Albany Maintenance Section - Replace Salt Shed	\$1,000,000
	4	B109.1	MP: 150.81	Old State Road Bridge over Thruway - Replacement	\$4,200,000
	1	H338.2	MP: 170.00	East of Amsterdam (MP 170.0) to east of Little Falls (MP 197.9) - Safety Upgrades	\$5,000,000
	4	B584.1	MP: 815.09	Taconic Parkway (Exit B2) Ramp Bridge over Berkshire Thruway - Replacement	\$8,900,000
	2	H21.2	ALB Div.	Empire State Trail Program in Rensselaer County along Berkshire Spur	\$1,500,000
	3	B783.2	ALB Div.	Albany Division: On-Demand Repair Contract - 2020-2021	\$3,000,000
	4	A299.2	ALB Div.	Construct Sandblast Booth in Albany Division	\$750,000
<b>2019 Total:</b>					<b>\$67,150,000</b>
2020	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	B629.1	MP: 128.08	Thruway Bridge over Hannacroix Creek - Rehabilitation	\$1,900,000
	4	B735.1	MP: 801.08	Castleton Bridge - Rehabilitation	\$30,000,000

### Albany Division Projects

LETTING YEAR	QTR.	ITEM NO.	MILEPOST	PROJECT DESCRIPTION	ESTIMATED CONSTRUCTION CONTRACT VALUE
2020	1	I113.1	ALB Div.	Replacement of ITS Equipment in Albany Division	\$2,500,000
<b>2020 Total:</b>					<b>\$39,400,000</b>
2021	3	B346.1	MP: 112.57	Leeds-Old Kings Highway Bridge over Thruway - Replacement	\$4,200,000
	4	B778.2	ALB Div.	Albany Division: On-Demand Repair Contract - 2022-2023	\$3,000,000
<b>2021 Total:</b>					<b>\$7,200,000</b>
2022	1	H1138.1	MP: 93.80	North of Kingston (MP 93.8) to south of Saugerties (MP 100.8) - Pavement Resurfacing	\$6,000,000
	1	A171.1	MP: 103.00	Malden Service Area - Rehabilitate/Replace Wastewater Treatment Plant	\$1,000,000
	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	B681.1	MP: 131.90	Thruway Bridge over Coeymans Creek - Rehabilitation	\$6,000,000
<b>2022 Total:</b>					<b>\$23,000,000</b>
2023	1	A372.1	MP: 141.90	Albany Section Maintenance - Construct Maintenance Building	\$4,500,000
<b>2023 Total:</b>					<b>\$4,500,000</b>
<b>2019-2023 Albany Division Total:</b>					<b>\$141,250,000</b>

### Syracuse Division Projects

2019	1	H15.3	MP: 205.83	Syracuse Division: Various Culvert Rehabilitations/Replacements - 2019	\$3,500,000
	1	I102.13	MP: 210.60	In Place Cashless Tolling in Syracuse Division	\$15,200,000
	4	A348.1	MP: 278.90	Tarbell Road Maintenance Building (M3341) - Reconfigure/Refurbish	\$8,500,000
	1	H164.1	MP: 289.30	East of Fulton (MP 289.3) to west of Weedsport (MP 304.5) - Concrete Pavement Restoration	\$7,000,000
	3	B914.1	MP: 292.06	Warners-Baldwinsville Road Bridge over Thruway - Replacement	\$5,000,000
	3	B439.1	MP: 292.49	Warners-Ionia Road Bridge over Thruway - Replacement	\$5,500,000
	4	H1147.2	MP: 304.50	Weedsport (Exit 40, MP 304.5) to east of Waterloo (MP 313.8) - Safety Upgrades	\$2,500,000
	1	B380.1	MP: 306.72	Thruway Bridge over NYCRR - Rehabilitation	\$2,000,000
	2	A865.4	MP: 310.00	Port Byron Service Area - Replace Waterline	\$500,000

### Syracuse Division Projects

LETTING YEAR	QTR.	ITEM NO.	MILEPOST	PROJECT DESCRIPTION	ESTIMATED CONSTRUCTION CONTRACT VALUE
2019	3	B498.1	MP: 310.98	Thruway Bridge over Crane Brook - Replacement	\$5,000,000
	1	B613.1	MP: 326.74	Thruway Bridge over NYCRR - Rehabilitation	\$2,000,000
	3	A864.1	SYR Div.	Renovation of Two Syracuse Division Section Maintenance Buildings	\$1,750,000
	3	B783.3	SYR Div.	Syracuse Division: On-Demand Repair Contract - 2020-2021	\$3,000,000
	4	A299.3	SYR Div.	Construct Sandblast Booth in Syracuse Division	\$750,000
<b>2019 Total:</b>					<b>\$62,200,000</b>
2020	1	A354.1	MP: 252.71	Verona Maintenance - Construct Municipal Sewer / Water Connections	\$750,000
	1	B694.1	MP: 283.79	Electronics Parkway Interchange (Exit 37) Ramp Bridge over Thruway - Replacement	\$5,200,000
	1	B695.1	MP: 287.11	Thruway Bridge over Onondaga Parkway - Rehabilitation	\$3,000,000
	1	B696.1	MP: 287.25	Thruway Bridge over Onondaga Lake Outlet - Rehabilitation	\$9,000,000
	3	B697.1	MP: 327.54	Thruway Bridge over Canandigua Outlet - Replacement	\$13,400,000
	1	B730.1	SYR Div.	Syracuse Division: Bridge Preservation for Various Bridges - 2020	\$7,000,000
	3	I114.1	SYR Div.	Replacement of ITS Equipment in Syracuse Division	\$2,500,000
	4	B745.3	SYR Div.	Syracuse Division: On-Demand Repair Contract - 2021-2022	\$3,000,000
<b>2020 Total:</b>					<b>\$43,850,000</b>
2021	1	H337.1	MP: 284.10	Electronics Parkway (Exit 37, MP 284.1) to I-690 (Exit 39, MP 289.3) - Pavement Replacement	\$65,000,000
	1	B193.1	MP: 288.13	Thruway Bridge over CSX Railroad (Geddes) - Replacement	\$8,000,000
<b>2021 Total:</b>					<b>\$73,000,000</b>
2022	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	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	A173.1	MP: 252.70	Verona Maintenance Section - Equipment Storage Building Wash Bay	\$750,000
	1	H141.1	MP: 262.00	Canastota (Exit 34, MP 262.0) to west of Canastota (MP 268.0) - Pavement Resurfacing	\$5,000,000
	1	A172.1	MP: 304.20	Weedsport Maintenance Section - Renovations to Section Maintenance Building and Roof Replacement	\$1,250,000
	4	B778.3	SYR Div.	Syracuse Division: On-Demand Repair Contract - 2023-2024	\$3,000,000
<b>2022 Total:</b>					<b>\$31,200,000</b>

**Syracuse Division Projects**

LETTING YEAR	QTR.	ITEM NO.	MILEPOST	PROJECT DESCRIPTION	ESTIMATED CONSTRUCTION CONTRACT VALUE
2023	1	A357.1	MP: 210.00	Iroquois Service Area - Roof Replacement	\$500,000
	2	A865.1	MP: 210.00	Iroquois and Chittenango Service Areas - Rehabilitate/Replace Wastewater Treatment Plants	\$1,450,000
	1	A373.1	MP: 219.70	Herkimer Section Maintenance - Building Renovations	\$750,000
	1	H163.1	MP: 253.00	West of Verona (MP 253.0) to west of Canastota (MP 262.0) - Pavement Resurfacing	\$18,000,000
	4	A865.2	MP: 310.00	Port Byron and Clifton Springs Service Areas - Rehabilitate/Replace Wastewater Treatment Plants	\$1,900,000
	1	H350.1	MP: 320.70	Waterloo (Exit 41) to Geneva (Exit 42) - Pavement Resurfacing	\$13,600,000
	1	A356.1	SYR Div.	Syracuse Division: Upgrade Waste Water Treatment Plants Division-Wide	\$2,000,000
<b>2023 Total:</b>					<b>\$38,200,000</b>
<b>2019-2023 Syracuse Division Total:</b>					<b>\$248,450,000</b>

**Buffalo Division Projects**

2019	1	I108.1	MP: 349.50	Buffalo Division: Variable Message Sign Replacements and Modifications at Various Locations	\$4,000,000
	1	I102.14	MP: 390.10	In Place Cashless Tolling in Buffalo Division	\$9,500,000
	1	A352.1	MP: 423.19	Walden Avenue Maintenance Facility - Replace Metal Buildings and Construct Vehicle Wash Bay	\$5,000,000
	4	H341.1	MP: 483.00	East of Westfield (MP 483.0) to Pennsylvania State Line (MP 496.0) Eastbound - Pavement Resurfacing	\$19,500,000
	1	B719.1	MP: 914.35	South Grand Island Bridges: Maintenance Cleaning for Steel Preservation - 2019	\$400,000
	3	B745.4	BUF Div.	Buffalo Division: On-Demand Repair Contract - 2020-2021	\$3,000,000
	4	A299.4	BUF Div.	Construct Sandblast Booth in Buffalo Division	\$750,000
<b>2019 Total:</b>					<b>\$42,150,000</b>
2020	3	B724.1	MP: 362.44	West Henrietta Interchange Bridge over Thruway - Replacement	\$5,000,000
	1	B699.1	MP: 434.48	Thruway Bridges over Erie RR - Rehabilitations	\$2,000,000
	4	H874.2	MP: 451.50	East of Silver Creek (MP 451.5) to Silver Creek (Exit 58, MP 455.2) - Pavement Rehabilitation	\$43,000,000

**Buffalo Division Projects**

LETTING YEAR	QTR.	ITEM NO.	MILEPOST	PROJECT DESCRIPTION	ESTIMATED CONSTRUCTION CONTRACT VALUE
2020	4	B986.1	MP: 454.47	Thruway over Cattaraugus Creek Bridge - Rehabilitation	\$10,000,000
	1	B668.1	MP: 485.59	Chautauqua Creek (Eastbound & Westbound) and Hawley Street Bridges - Rehabilitations	\$1,000,000
	1	B747.1	MP: 914.35	South Grand Island Bridges: Maintenance Cleaning for Steel Preservation - 2020	\$400,000
	3	B469.1	MP: 914.35	North and South Grand Island Bridges - Retrofit / Repair Roller Bearings, Pins and Hangers	\$20,000,000
	3	B715.1	MP: 914.99	South Grand Island Bridge Southbound - Replace Sidewalk	\$2,000,000
	3	B645.1	MP: 920.35	North Grand Island Bridges - Steel Repairs	\$15,000,000
	1	B777.1	BUF Div.	Buffalo Division: Bridge Preservation for Various Bridges - 2019	\$4,000,000
<b>2020 Total:</b>					<b>\$102,400,000</b>
2021	3	B230.1	MP: 411.60	Ransom Road Bridge over Thruway - Replacement	\$7,800,000
	3	B2174.1	MP: 420.34	Interchange 50 Northbound Ramp to I-290 - Replacement	\$15,000,000
	3	B2176.1	MP: 420.36	Thruway Southbound Ramp Bridge over Wherle Drive (I-290) - Replacement	\$10,000,000
	1	B989.1	MP: 475.25	I-90 Bridges over CSX & Norfolk Southern RR - Rehabilitations	\$10,000,000
	1	B784.1	MP: 908.75	Thruway Bridge over Scajaquada Creek - Retaining Wall Stabilization	\$5,500,000
	1	B772.1	MP: 914.35	South Grand Island Bridges: Maintenance Cleaning for Steel Preservation - 2021	\$400,000
	3	B558.1	MP: 915.46	Beaver Island State Parkway Bridge over I-190 Thruway - Replacement	\$9,000,000
	3	B778.4	BUF Div.	Buffalo Division: On-Demand Repair Contract - 2022-2023	\$3,000,000
<b>2021 Total:</b>					<b>\$60,700,000</b>
2022	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
	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
	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	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

**Buffalo Division Projects**

LETTING YEAR	QTR.	ITEM NO.	MILEPOST	PROJECT DESCRIPTION	ESTIMATED CONSTRUCTION CONTRACT VALUE
2022	1	B779.1	MP: 914.35	South and North Grand Island Bridges: Maintenance Cleaning for Steel Preservation - 2022	\$800,000
<b>2022 Total:</b>					<b>\$74,400,000</b>
2023	2	A870.2	MP: 366.00	Scottsville, Ontario and Pembroke Service Areas - Replace Flat Roofs	\$1,000,000
	3	B904.1	MP: 366.42	Thruway Bridge over Scottsville Road - Replacement	\$10,000,000
	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	B781.1	MP: 914.35	South and North Grand Island Bridges: Maintenance Cleaning for Steel Preservation - 2023	\$800,000
	1	A374.1	BUF Div.	Buffalo Division: Rehabilitations of Various Maintenance Facilities	\$750,000
<b>2023 Total:</b>					<b>\$33,150,000</b>
<b>2019-2023 Buffalo Division Total:</b>					<b>\$312,800,000</b>

**Statewide Projects**

2019	2	I102.10	MP: 45.03	New Facilities for Cashless Tolling for Ticketed System	\$225,000,000
	4	H1161.1	TWY wide	Statewide: Pavement Safety Striping - 2020	\$2,000,000
<b>2019 Total:</b>					<b>\$227,000,000</b>
2020	1	B679.1	TWY wide	Statewide: Bridge Painting at Various Locations	\$8,000,000
	1	H15.4	TWY wide	Statewide: Various Culvert Rehabilitations/Replacements - 2020	\$3,500,000
	4	H748.1	TWY wide	Statewide: Pavement Safety Striping - 2021	\$2,000,000
<b>2020 Total:</b>					<b>\$13,500,000</b>
2021	1	B754.1	TWY wide	Statewide: Bridge Preservation for Various Bridges Statewide - 2021	\$7,000,000
	4	H752.1	TWY wide	Statewide: Pavement Safety Striping - 2022	\$2,000,000
	4	I116.1	TWY wide	Replacement of ITS Equipment Statewide	\$3,000,000
<b>2021 Total:</b>					<b>\$12,000,000</b>
2022	1	B773.1	TWY wide	Statewide: Bridge Preservation for Various Bridges - 2022	\$7,000,000
	1	H20.2	TWY wide	Statewide: Various Culvert Rehabilitations/Replacements - 2022	\$3,500,000

**Statewide Projects**

<b>LETTING YEAR</b>	<b>QTR.</b>	<b>ITEM NO.</b>	<b>MILEPOST</b>	<b>PROJECT DESCRIPTION</b>	<b>ESTIMATED CONSTRUCTION CONTRACT VALUE</b>
2022	4	H749.1	TWY wide	Statewide: Pavement Safety Striping - 2023	\$2,000,000
<b>2022 Total:</b>					<b>\$12,500,000</b>
2023	1	B776.1	TWY wide	Statewide: Bridge Preservation for Various Bridges Statewide - 2023	\$10,000,000
	1	B785.1	TWY wide	Statewide: Bridge Rehabilitations - 2023	\$45,000,000
	4	H750.5	TWY wide	Statewide: Pavement Safety Striping - 2024	\$2,000,000
<b>2023 Total:</b>					<b>\$57,000,000</b>
<b>2019-2023 Statewide Total:</b>					<b>\$322,000,000</b>

**Thruway Project Totals by Division**

<b>2019-2023 New York Division Total:</b>	<b>\$343,713,000</b>
<b>2019-2023 Albany Division Total:</b>	<b>\$141,250,000</b>
<b>2019-2023 Syracuse Division Total:</b>	<b>\$248,450,000</b>
<b>2019-2023 Buffalo Division Total:</b>	<b>\$312,800,000</b>
<b>2019-2023 Statewide Total:</b>	<b>\$322,000,000</b>
<b>2019-2023 Thruway Authority Total:</b>	<b>\$1,368,213,000</b>

**Thruway Project Totals by Year**

<b>2019 Total:</b>	<b>\$512,813,000</b>
<b>2020 Total:</b>	<b>\$257,050,000</b>
<b>2021 Total:</b>	<b>\$226,600,000</b>
<b>2022 Total:</b>	<b>\$193,300,000</b>
<b>2023 Total:</b>	<b>\$178,450,000</b>
<b>2019-2023 Thruway Authority Total:</b>	<b>\$1,368,213,000</b>



# APPENDIX

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*Date*            June 21, 2018

*To*                Matt Howard and Dorraine Steele; NYSTA

*From*            Richard Gobeille and Suzanne Seegmuller

*Subject*        NYSTA Budget Forecast Update

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The New York State Thruway Authority (“the Authority”) has requested that Jacobs Civil Consultants, Inc. to provide updated forecasts of traffic and revenue for budgeting purposes. It is important to note that the forecasts contained herein represent our baseline view of projected traffic and toll revenue trends without any changes to toll rates. In addition to the transition to all-electronic toll collection (AETC) at the Gov. Mario M. Cuomo Bridge (formerly the Tappan Zee Bridge), which occurred on April 23, 2016, and at the Grand Island Bridges, which occurred on March 30, 2018, it is assumed that other facilities will convert to AETC within the timeframe of the forecast. The current schedule for AETC conversion for the remainder of the system is as follows:

- Harriman Barrier in the 3<sup>rd</sup> week of September 2018
- Yonkers Barrier in mid-October 2018
- New Rochelle Barrier in mid-November 2018
- Spring Valley Barrier in early December 2018
- Rest of the system (ticket controlled) in December 2020

Note that the timing of AETC has changed since Jacobs last produced a Budget Forecast on August 30, 2017. That previous forecast assumed that in addition to the the Gov. Mario M. Cuomo Bridge, only the Grand Island Bridges and Harriman Barrier would be converted to AETC.

In order to provide a better understanding of the process that went into the development of the current forecast, this memorandum includes a discussion of recent economic trends.

## **Economic Backdrop and Outlook for the Future**

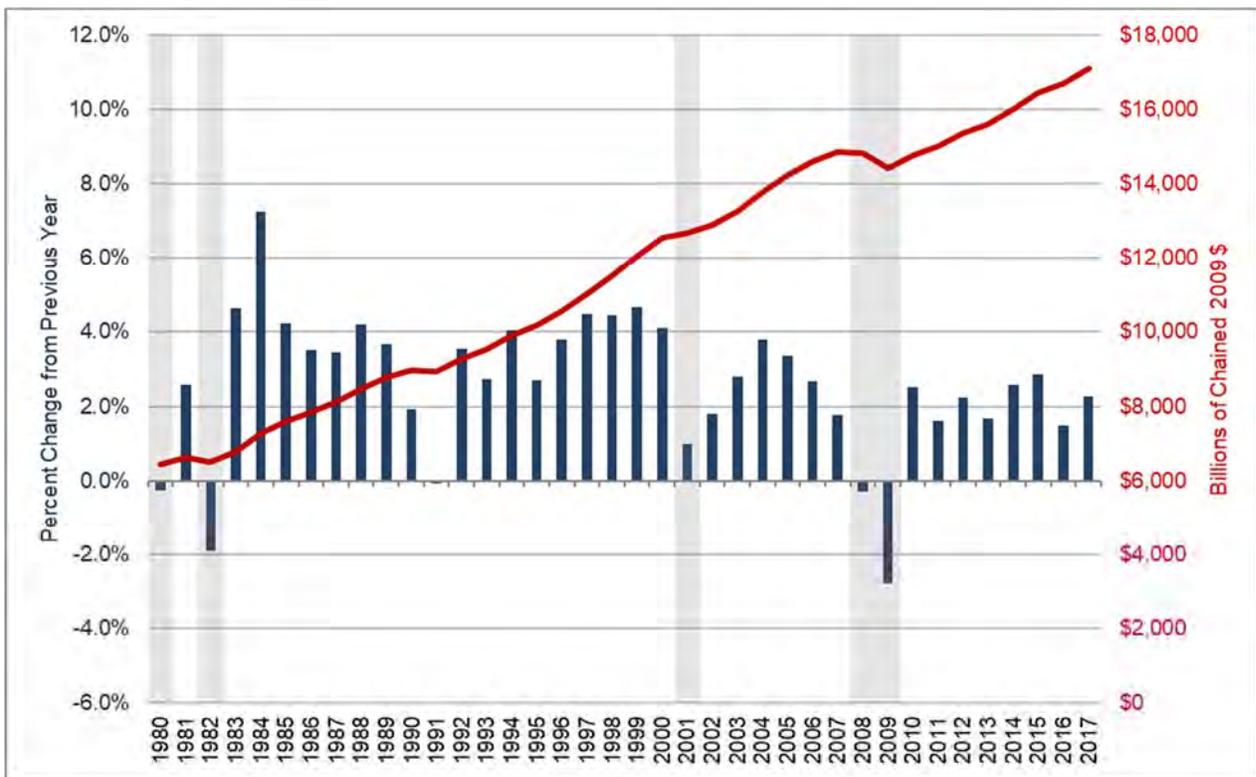
In the preparation of Thruway traffic and toll revenue forecasts, we considered a number of important national and regional economic trends that influence traffic and motorist behavior. Historically, passenger vehicle traffic has generally correlated to Gross Domestic Product (GDP), while truck traffic growth has shown some correlation to the Industrial Production Index (IPI). Factors such as unemployment and gas prices have also affected vehicle-miles traveled (VMT) by passenger vehicles.

### ***Gross Domestic Product***

Figure 1 shows the real GDP from 1980 through the end of 2017. From 2000 through 2017, real GDP in the United States increased at an average annual rate of 1.8 percent. This period included the 2001 recession

and the recession that began in late 2007 and ended in June 2009. This most recent 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 apex, with real GDP decreasing by 2.8 percent. Since 2009, the U.S. economy has recovered and shown consistent growth. Real GDP increased on an annual basis by between 1.5 and 2.9 percent in the years 2010 to 2016, then increased at an annual rate of 2.3 percent in 2017 according to the most recently available data.<sup>1</sup> The first quarter 2018 real GDP was estimated at \$ 17.4 trillion.<sup>2</sup> 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 1: Real Gross Domestic Product**



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

Financial and economic analysts expect the U.S. economy to continue to grow in the near-term future. The most recent consensus forecast, derived from projections from more than 50 financial institutions and professional forecasting firms, is that real GDP will grow by 2.8 percent in 2018 and 2.6 percent in 2019.<sup>3</sup>

<sup>1</sup> Bureau of Economic Analysis, News Release: [Gross Domestic Product](#), April 27, 2018.

<sup>2</sup> Ibid.

<sup>3</sup> “Blue Chip Economic Indicators: Top Analysts’ Forecasts of the U.S. Economic Outlook for the Year Ahead”, Wolters and Kluwer Law & Business, May 10, 2018.

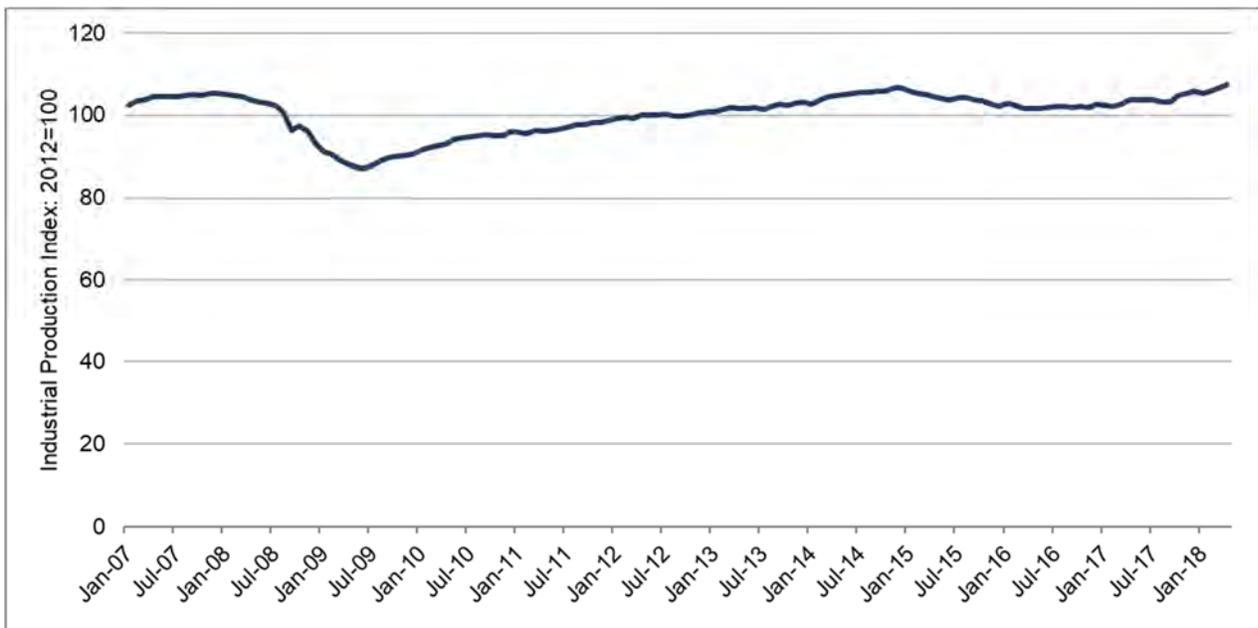
Longer term, in the 2020-2024 timeframe, the consensus forecast is for real GDP to continue to grow by 2 percent annually.<sup>4</sup>

**Industrial Production**

The Industrial Production Index (IPI) is a measure of real output 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. Jacobs has been tracking traffic volumes on the Thruway and other toll facilities throughout the northeast for over a decade, and has found that growth in commercial traffic generally correlates to growth in IPI.

As shown in Figure 2, the IPI hit its most recent trough in June 2009, the last month of the 2007 to 2009 recession. Since that time, it has generally been on an upward trajectory, increasing by 23.2 percent from June 2009 to April 2018.

**Figure 2: Industrial Production Index**



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

Based on consensus forecasts developed by financial institutions and industry analysts, the IPI is forecasted to increase by 3.6 percent in 2018 and by 2.6 percent in 2019.<sup>5</sup> Longer term, in the 2020-2024 timeframe, the consensus forecast is for the index to continue to grow by 2.1 percent annually.<sup>6</sup>

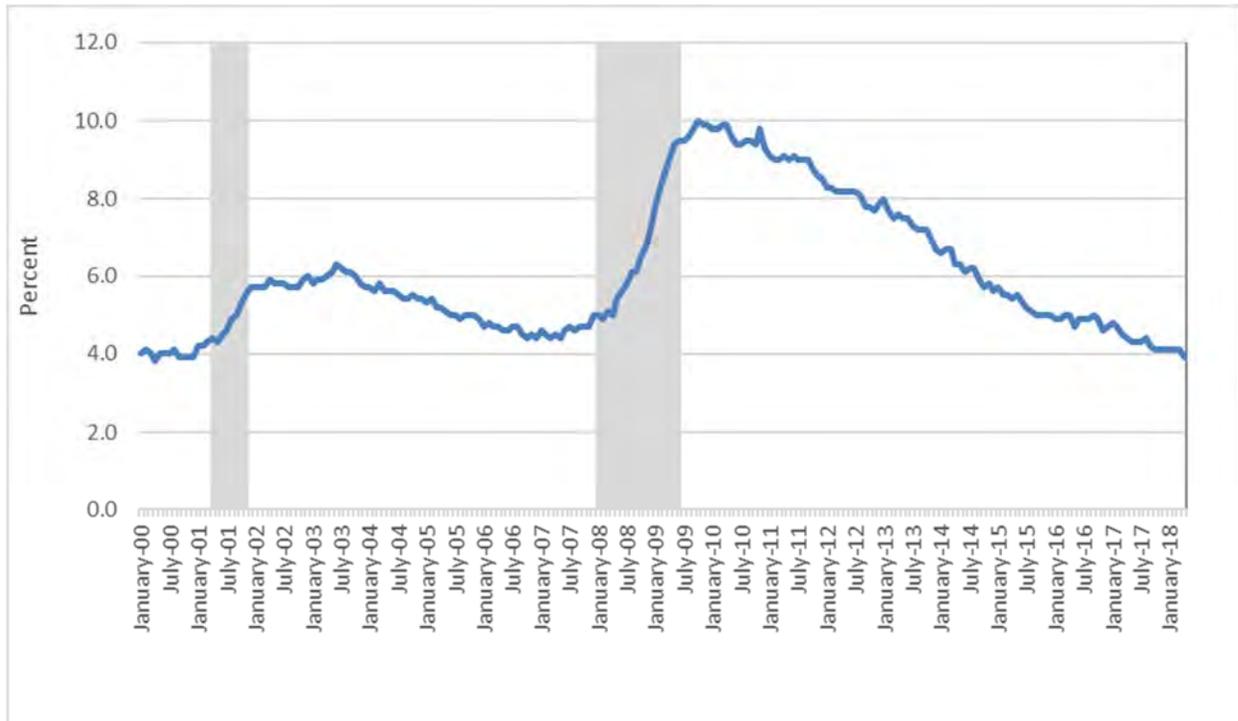
<sup>4</sup> Blue Chip Economic Indicators: Top Analysts’ Forecasts of the U.S. Economic Outlook for the Year Ahead”, Wolters and Kluwer Law & Business, March 10, 2018.

<sup>5</sup> Blue Chip Economic Indicators: Top Analysts’ Forecasts of the U.S. Economic Outlook for the Year Ahead”, Wolters and Kluwer Law & Business, May 10, 2018.

*Employment*

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 has since recovered and finally eclipsed its pre-recession peak, reaching 155.2 million persons in April 2018.<sup>7</sup> Consequently, as shown in Figure 3, the national unemployment rate has fallen to 3.9 percent as of April 2018.

**Figure 3: Civilian Unemployment Rate, Seasonally Adjusted**



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

Long-term forecasts of employment 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. The U.S. Congressional Budget Office (CBO) has forecasted that the unemployment rate will remain under 5.0 percent through 2028 with a forecast of 4.6 percent unemployment for the 2021-2022 timeframe, increasing to 4.8 percent for the 2023-2028 time period.<sup>8</sup>

<sup>6</sup> Blue Chip Economic Indicators: Top Analysts’ Forecasts of the U.S. Economic Outlook for the Year Ahead”, Wolters and Kluwer Law & Business, March 10, 2018.

<sup>7</sup> “Labor Force Statistics from the Current Population Survey”, Series LNS12000000 Data seasonally adjusted employment, Bureau of Labor Statistics, data extracted May 21, 2018.

<sup>8</sup> “The Budget and Economic Outlook: 2018 to 2028”, Congressional Budget Office Report, April 9, 2018. It should be noted that the report includes the following caveat: “Even if federal laws did generally remain in place, budgetary and economic outcomes would be difficult to predict and thus uncertain. CBO’s projections, especially its economic projections, are even more uncertain than usual

*National Trends in Vehicle Miles Traveled (VMT)*

The United States experienced a 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, VMT experienced a growth trend, increasing at an even more rapid rate than in the 1990s until a very recent plateau occurred in early 2018. It remains to be seen if this flattening of VMT is a temporary or longer-lived phenomenon.

Figure 4 depicts the 12-month moving total of national travel mileage on all U.S. highways, from 1971 through February 2018. As seen in this figure, there were temporary reductions in VMT during military combat, oil crises and previous economic recessions. Despite these temporary “dips”, the VMT continued to grow rapidly over the years. The figure shows that, in recent years, with the exception of short, flat periods during the 1991 and 2001 recessions (each less than one year), VMT grew at a steady pace through about 2005, then grew at a much slower pace through 2008. The increase in gas prices and the downturn in economic activity that took hold in late 2008 resulted in a significant reduction in total national travel mileage after the December 2007 peak. VMT declined throughout 2008 and early 2009. From the official end of the recession in mid-2009 through 2013, VMT generally remained flat. Then, in 2014 through 2017, VMT increased at a strong rate not seen since the late 1990s. 2016 experienced the largest annual increase in VMT since tracking began in 1971.<sup>9</sup> This upward trend in VMT is likely due to an improved economy, employment and population growth, and a reduction in fuel prices. In addition, recent data has shown that the Millennials, many of whom delayed purchasing a car, are now buying cars and driving more because they are now employed. On the other hand, there are factors that may decrease vehicle miles traveled over time, including baby boomers retiring and driving less, the ability of workers to work remotely in the Internet era, and communication technologies that can substitute for in-person interaction.<sup>10</sup> It is important to note that even with the recent overall growth in VMT, per capita VMT fell for nine straight years between 2005 and 2013. The State Smart Transport Initiative (SSTI) concluded in a 2014 report that this decline reflected “changing demographics, saturated highways, and a rising preference for compact, mixed-use neighborhoods, which reduce the need for driving.”<sup>11</sup>

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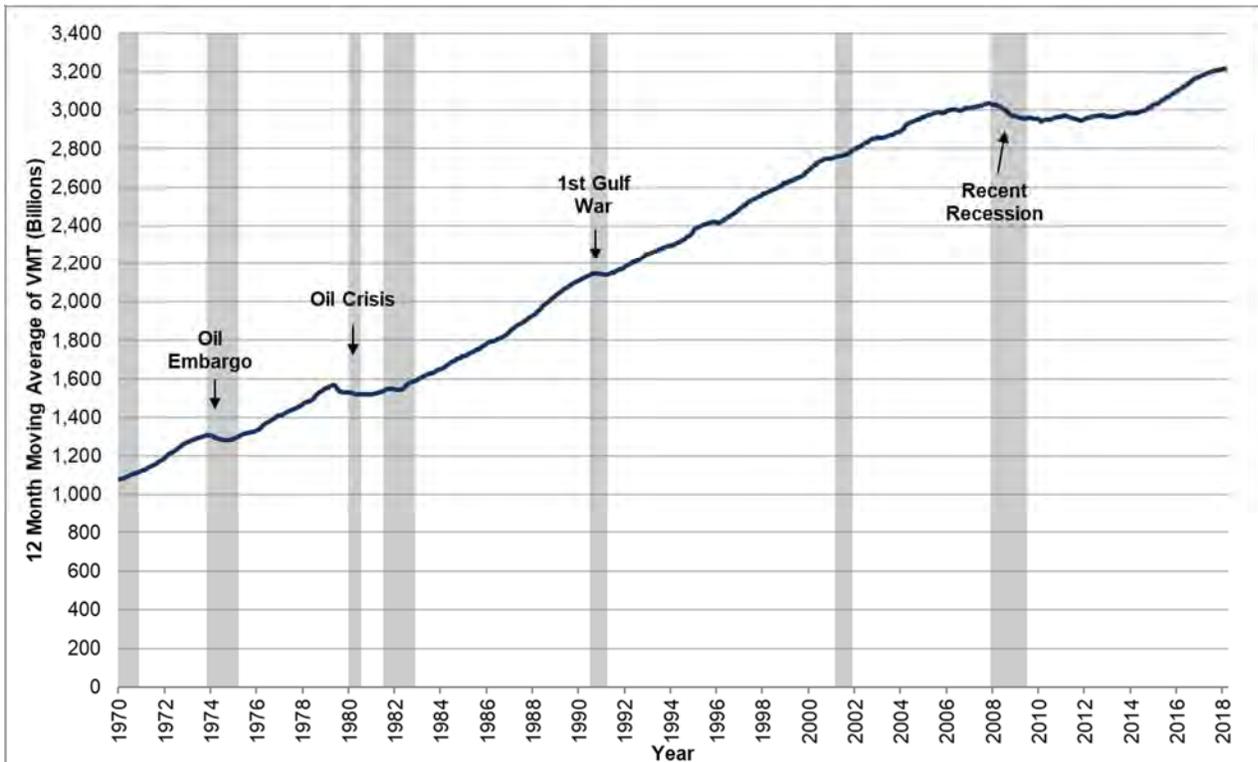
this year, because they incorporate estimates of the economic effects of the recent changes in fiscal policy—and those estimates are themselves uncertain.”

<sup>9</sup> U.S. Department of Energy, Alternative Fuels Data Center, Maps and Data - Annual Vehicle Miles Traveled in the U.S.

<sup>10</sup> “Vehicle Miles Traveled: Another Look at Our Evolving Behavior”, Jill Misliniski, March 17, 2017.

<sup>11</sup> State Smart Transportation Initiative News, “Per capita VMT drops for ninth straight year; DOTs taking notice,” Chris Cahill, February 24, 2014.

**Figure 4: Vehicle Miles Traveled**



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

The Federal Highway Administration prepares long term (20- and 30-year) forecasts of VMT each year for three different economic outlooks- baseline, low economic growth, and high economic growth. Results from the most recent forecast, dated May 4, 2017, are shown in Table 1.<sup>12</sup> Interestingly, growth in vehicle mileage for single unit and combination trucks is forecast to be at a higher rate than light duty vehicles.

<sup>12</sup> "FHWA Forecasts of Vehicle Miles Traveled (VMT): Spring 2017," Office of Highway Policy Information, May 4, 2017.

**Table 1: FHWA Projected Growth in Vehicle Miles Traveled (VMT)**

Vehicle Class	Compound Annual Growth Rates					
	Low Economic Growth Outlook		Baseline Economic Growth Outlook		High Economic Growth Outlook	
	2015 – 2035	2015 - 2045	2015 – 2035	2015 – 2045	2015 - 2035	2015 - 2045
	(20-Year)	(30-Year)	(20-Year)	(30-Year)	(20-Year)	(30-Year)
<b>Light-Duty Vehicles</b>	0.89%	0.61%	1.01%	0.71%	1.12%	0.78%
<b>Single-Unit Trucks</b>	1.43%	1.24%	1.72%	1.50%	1.98%	1.77%
<b>Combination Trucks</b>	1.04%	1.05%	1.46%	1.45%	1.74%	1.79%
<b>TOTAL</b>	0.92%	0.66%	1.07%	0.78%	1.19%	0.89%

Source: Office of Highway Policy Information U.S. Department of Transportation, Federal Highway Administration, May 4, 2017

A similar differential between light duty vehicles and trucks is projected by the Energy Information Administration for the 2017-2050 timeframe, but the projected rates of growth are lower than in the FHWA forecasts for all three vehicle categories:<sup>13</sup>

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

**Fuel Cost Impacts on Travel**

A number of factors may have caused the recent growth in VMT, however, gas prices are often cited as one of the primary factors that have a significant impact on travel trends. Figure 5 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<sup>14</sup>. Between the spring of 2016 and third quarter of 2017, gas prices generally remained in the \$2.20 to \$2.40 range. Since then (September 2017 through May 2018), prices have averaged \$2.63 per gallon, and the most recent EIA report

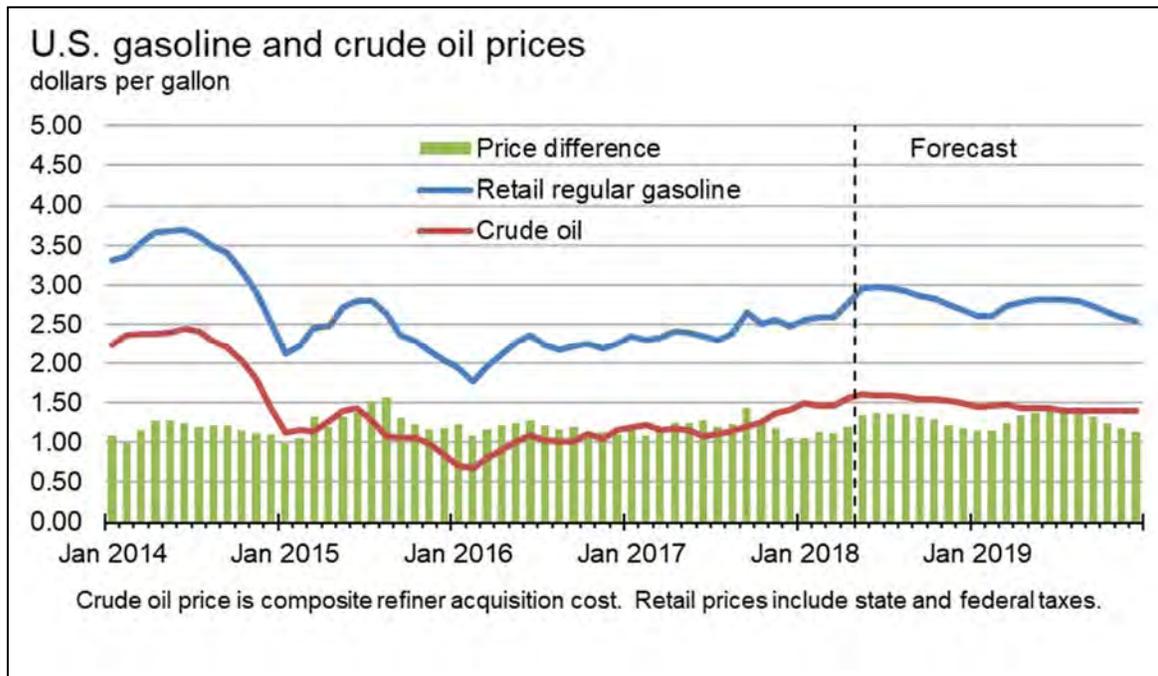
<sup>13</sup> Accessed on May 22, 2018 at <https://www.eia.gov/outlooks/aeo/data/browser/#/?id=7-AEO2018&cases=ref2018&sourcekey=0>.

<sup>14</sup> “Short-Term Energy Outlook,” U.S. Energy Information Administration, May 2018.

indicates that U.S. monthly average regular gasoline retail prices are expected to remain near the \$2.95 per gallon price in May through August 2018, then fall through the fall and winter, as gas prices typically do, to \$2.60 in January 2019.<sup>15</sup> U.S. regular gasoline retail prices are forecast to average \$2.78 per gallon in 2018 and fall slightly to an average of \$2.71 in 2019.<sup>16</sup>

As shown in the graph, the retail price for gasoline is expected to remain under \$3.00 per gallon in the near-term future. In addition to the reduced gas prices, it is important to note that average fuel economy increased by 28 percent<sup>17</sup> between 2004 and 2017, the latest year for which final fuel economy data is available.

**Figure 5: Historical and Projected U.S. Gasoline and Crude Oil Prices**



Source: U.S. Department of Energy, U.S Energy Information Administration, Short-Term Energy Outlook, May 2018

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 6 presents the EIA’s projections for West Texas Intermediate (WTI) Crude Oil Price. The base projection is similar to that illustrated in Figure 5, 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 75 percent more to 44 percent less

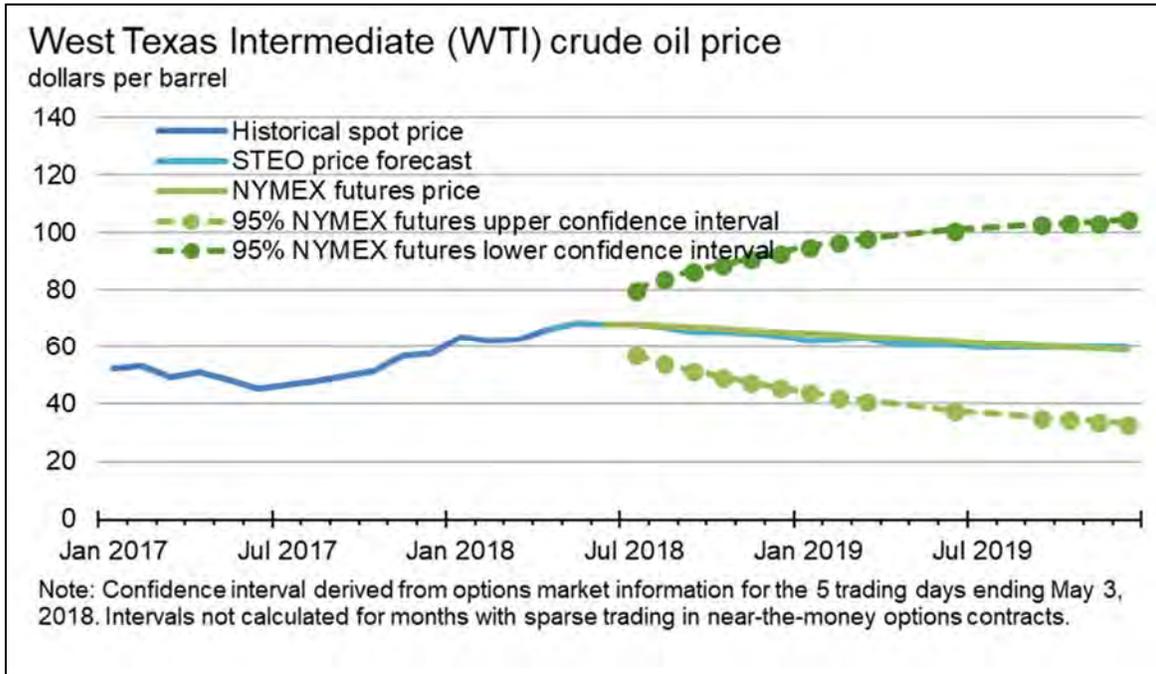
<sup>15</sup> Ibid

<sup>16</sup> Ibid

<sup>17</sup>Light-Duty Automotive Technology, Carbon Dioxide Emissions, and Fuel Economy Trends: 1975 Through 2017, U.S. Environmental Protection Agency, January 2018.

than current forecasts for December 2019.<sup>18</sup> Recognizing the impact fuel prices have on motorist behavior, with a wide range of possible future prices of oil and gasoline, accurately projecting traffic volumes has become an increasingly difficult task.

Figure 6: Historical and Projected Crude Oil Prices with Confidence Ranges



Source: U.S. Department of Energy, Energy Information Administration, Short-Term Energy Outlook and CME Group, May 2018

To understand the potential impact of future gas prices on traffic, we can look at their historical correlations. Figure 7 presents VMT across the United States as compared to real retail gasoline prices from 1990 through the beginning of 2018. The VMT and real gas prices represent a 12-month moving total and average, respectively, to remove any seasonality factors; all data are indexed to the 12 months ending January 1990. While the Great Recession began at the end of 2007, there was still a flattening, then decline, in vehicle miles traveled that started several years before, which is partially attributed to rising gas prices. The continuation of the decline, post-fall 2008, would be more attributable to the economic meltdown, as gas prices dropped significantly by early 2009. Gas prices then increased throughout the rest of 2009 and through the spring of 2011 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.

This data shows 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.

<sup>18</sup> Short-Term Energy Outlook U.S. Energy Information Administration, May 2018.

**Figure 7: National VMT vs. Real Gas Prices**



Source: U.S. Department of Energy, Energy Information Administration and U.S. Department of Transportation, Federal Highway Administration, May 2018

**Baseline Traffic Forecasts**

As stated previously, AETC began on the Gov. Mario M. Cuomo Bridge (formerly Tappan Zee Bridge) on April 23, 2016 and at the Grand Island Bridges Barriers on March 30, 2018; the baseline traffic forecasts assume that AETC will begin at the Harriman Barrier in the 3rd week of September 2018, Yonkers Barrier in mid-October 2018, New Rochelle Barrier in mid-November 2018, and Spring Valley Barrier in early December 2018. The rest of the system (ticket controlled) is assumed to have AETC starting in December 2020. No future toll increases are included in these forecasts.

Table 2 presents actual traffic for the Thruway System from 2010 through 2017 and baseline forecasts for 2018 through 2022. As shown in the table, most years between 2010 and 2013 saw little passenger car growth; however, 2015 and 2016 had passenger car traffic growth greater than what had typically been seen over the past decade, following a period of economic recovery and significant reduction in gas prices. Over this same timeframe, truck traffic growth was generally strong, especially at the Gov. Mario M. Cuomo Bridge. 2017 and early 2018 data show that traffic is continuing to grow but at a slower, more moderate

rate, as predicted in previous forecasts. We anticipate this modest growth rate to continue throughout the forecast period.

**Table 2: Baseline Annual Tolled Traffic, Actual and 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		
2010 <sup>1</sup>	129.0	23.1	70.7	15.7	1.4	7.7	247.6	
2011 <sup>1</sup>	126.6	22.6	70.9	15.8	1.4	7.9	245.2	-1.0%
2012 <sup>1</sup>	127.3	22.9	71.1	15.9	1.5	7.9	246.5	0.5%
2013 <sup>1</sup>	128.2	23.3	71.1	16.0	1.7	8.1	248.4	0.7%
2014 <sup>1</sup>	129.5	23.4	71.4	16.5	1.9	8.3	250.8	1.0%
2015 <sup>1</sup>	134.2	23.6	72.7	17.0	2.0	8.8	258.2	3.0%
2016 <sup>1,2</sup>	137.8	24.4	73.5	17.4	2.2	9.0	264.2	2.3%
2017 <sup>1</sup>	139.6	24.6	73.3	17.6	2.4	9.1	266.6	0.9%
2018 <sup>3</sup>	141.1	24.8	73.4	17.9	2.4	9.1	268.7	0.8%
2019	142.5	25.2	74.0	18.1	2.4	9.3	271.4	1.0%
2020 <sup>4</sup>	143.9	25.6	74.5	18.2	2.4	9.4	274.0	1.0%
2021	145.3	26.0	75.1	18.4	2.5	9.4	276.7	1.0%
2022	146.8	26.3	75.7	18.5	2.5	9.5	279.3	0.9%

<sup>1</sup> Actual 2010-2017

<sup>2</sup> All-Electronic Toll Collection (AETC) began on the Gov. Mario M. Cuomo Bridge (formerly Tappan Zee Bridge) on 4/23/16

<sup>3</sup> AETC began at the Grand Island Bridges Barriers on 3/30/18, and is assumed to begin at Harriman Barrier in the 3rd week of September 2018, Yonkers Barrier in mid-October 2018, New Rochelle Barrier in mid-November 2018, and Spring Valley Barrier in early December 2018

<sup>4</sup> The rest of the system (ticket controlled) is assumed to have AETC starting in December 2020

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

Details on how the current traffic forecast compares to the previous forecast (the 2018 Budget Forecast, completed in August 2017) are presented in Table 3. Note that the previous forecast assumed AETC *only* at the Gov. Mario M. Cuomo Bridge, Grand Island Bridges and Harriman Barrier, however, AETC is expected to have a negligible effect on traffic volumes. Data through the end of March 2018 indicates that so far this year passenger car traffic is lower than previously expected, while truck traffic is slightly higher. Overall, traffic is expected to be minimally (0.4%) below the previous forecast.

As in our previous Budget Forecast, we expect continuation of modest traffic growth throughout the forecast period due to estimated economic conditions and travel trends.

**Table 3: Baseline Annual Tolloed Traffic, Comparison of Current to Previous Forecast**  
(in millions)

Year	Current Forecast				Previous Forecast (2018 Budget)				Difference Between Current & Previous Forecast
	Car Traffic	Truck Traffic	Total Traffic	Annual Growth	Car Traffic	Truck Traffic	Total Traffic	Annual Growth	
2017	237.5	29.0	266.6		237.9	29.0	266.9		-0.4
2018	239.3	29.4	268.7	0.8%	240.5	29.2	269.7	1.1%	-1.0
2019	241.7	29.7	271.4	1.0%	242.9	29.5	272.4	1.0%	-1.0
2020	244.0	30.0	274.0	1.0%	245.3	29.8	275.1	1.0%	-1.0
2021	246.4	30.3	276.7	1.0%	247.6	30.1	277.7	1.0%	-1.1
2022	248.7	30.5	279.3	0.9%	250.0	30.4	280.4	0.9%	-1.1

*Note: Numbers may not add due to rounding.*

*Note: The previous forecast, completed in August 2017, only assumed that the Grand Island Bridges and Harriman Barrier would be converted to AETC during the forecast period.*

As stated previously, AETC began on the Gov. Mario M. Cuomo Bridge on April 23, 2016 and at the Grand Island Bridges on March 30, 2018; the baseline toll revenue forecasts assume that AETC will begin at the Harriman Barrier in the 3rd week of September 2018, Yonkers Barrier in mid-October 2018, New Rochelle Barrier in mid-November 2018, and Spring Valley Barrier in early December 2018. The rest of the system (ticket controlled) is assumed to have AETC starting in December 2020. No future toll increases are included in these forecasts.

Table 4 presents the baseline toll revenue forecasts for the Thruway System. Forecasts for cars and trucks 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 first full year 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 small losses in toll revenue estimated when AETC begins at each location.

**Table 4: Baseline Annual Toll Revenue, Actual and Forecasts**  
(in millions)

Year	Passenger Cars			Commercial Vehicles				Unadj. Total	Lag in Tolls by Mail Collection	Adjusted 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.				
2010 <sup>1</sup>	\$226.6	\$104.7	\$81.8	\$194.9	\$24.6	\$31.4	\$(22.8)	\$641.2		\$641.2	
2011 <sup>1</sup>	\$220.2	\$102.4	\$81.3	\$196.3	\$24.1	\$32.4	\$(22.7)	\$634.1		\$634.1	-1.1%
2012 <sup>1</sup>	\$220.7	\$103.4	\$81.2	\$196.9	\$26.2	\$32.1	\$(22.8)	\$637.7		\$637.7	0.6%
2013 <sup>1</sup>	\$225.6	\$105.1	\$81.3	\$199.1	\$28.8	\$32.8	\$(23.8)	\$648.9		\$648.9	1.8%
2014 <sup>1</sup>	\$226.5	\$105.1	\$81.6	\$209.6	\$32.2	\$33.6	\$(24.6)	\$664.1		\$664.1	2.3%
2015 <sup>1</sup>	\$237.8	\$106.5	\$83.5	\$219.3	\$34.4	\$35.6	\$(25.5)	\$691.7		\$691.7	4.2%
2016 <sup>1,2</sup>	\$245.2	\$103.4	\$84.0	\$227.6	\$38.2	\$36.4	\$(26.6)	\$708.3	\$(6.2)	\$702.1	1.5%
2017 <sup>1,3</sup>	\$251.6	\$103.4	\$84.1	\$233.3	\$47.8	\$38.7	\$(27.4)	\$731.5		\$731.5	4.2%
2018 <sup>4</sup>	\$254.4	\$106.1	\$80.6	\$236.4	\$47.9	\$38.7	\$(28.1)	\$736.1	\$(2.4)	\$733.6	0.3%
2019	\$257.1	\$108.8	\$76.2	\$239.2	\$48.4	\$38.0	\$(28.6)	\$739.1	\$(0.6)	\$738.4	0.7%
2020 <sup>5</sup>	\$256.7	\$111.1	\$77.0	\$240.4	\$49.1	\$38.4	\$(29.0)	\$743.9	\$(4.5)	\$739.3	0.1%
2021	\$226.6	\$113.0	\$77.6	\$232.8	\$49.8	\$38.9	\$(29.3)	\$709.4	\$(9.0)	\$700.4	-5.3%
2022	\$229.0	\$114.7	\$78.2	\$234.8	\$50.4	\$39.2	\$(29.6)	\$716.7		\$716.7	2.3%

<sup>1</sup> Actual 2010-2017

<sup>2</sup> All-Electronic Toll Collection (AETC) began on the Gov. Mario M. Cuomo Bridge (formerly Tappan Zee Bridge) on 4/23/16

<sup>3</sup> Removal of discounts for vehicles with out-of-state E-ZPass began on 1/1/17

<sup>4</sup> AETC began at the Grand Island Bridges Barriers on 3/30/18, and is assumed to begin at Harriman Barrier in the 3rd week of September 2018, Yonkers Barrier in mid-October 2018, New Rochelle Barrier in mid-November 2018, and Spring Valley Barrier in early December 2018

<sup>5</sup> The rest of the system (ticket controlled) is assumed to have AETC starting in December 2020

Note: Numbers may not add due to rounding.

Table 5 compares the baseline toll revenue forecast to Jacobs' previous (2018) Budget Forecast completed in August 2017. The \$5.9 (0.8 percent) increase in toll revenue in 2017 was primarily due to a higher E-ZPass market share at the Gov. Mario M. Cuomo Bridge than previously expected, resulting in more collectable revenue than if there were a lower market share. Revenue collectability from Tolls by Mail customers was also slightly higher than expected in 2017.

In the later years of the forecast, however, toll revenue is significantly lower than what Jacobs had estimated for the 2018 Budget Forecast. This is because the previous forecast only assumed that the Grand Island Bridges and Harriman Barrier were converting to AETC (both in 2018), while the new forecast assumes the entire Thruway System will convert to AETC by December 2020. With AETC, there is a level of uncollectability from Tolls by Mail customers, as discussed on page 12, that results in lower toll revenues than a toll system that accepts cash. However, much of the revenue loss associated with uncollectable Tolls by Mail revenue is counteracted by revenues from late fees and violations.

**Table 5: Toll Revenue Forecast Comparison, Current Baseline Forecast Compared to Previous Budget Forecast (in millions)**

Year	Current Forecast					Previous Forecast (2018 Budget)					Difference Between Current & Previous Forecast
	Control System	Gov. Mario M. Cuomo Br.	Other Barriers	Total	Annual Growth	Control System	Gov. Mario M. Cuomo Br.	Other Barriers	Total	Annual Growth	
2017	\$463.0	\$149.2	\$119.3	\$731.5		\$462.5	\$144.5	\$118.7	\$725.6		\$5.9
2018 <sup>1</sup>	\$468.4	\$151.9	\$113.3	\$733.6	0.3%	\$467.7	\$146.8	\$113.9	\$728.4	0.4%	\$5.3
2019	\$473.4	\$155.1	\$109.9	\$738.4	0.7%	\$471.9	\$149.4	\$114.3	\$735.7	1.0%	\$2.8
2020 <sup>2</sup>	\$469.5	\$158.1	\$111.7	\$739.3	0.1%	\$476.3	\$152.2	\$115.3	\$743.7	1.1%	(\$4.4)
2021	\$427.0	\$160.6	\$112.7	\$700.4	-5.3%	\$480.6	\$154.5	\$116.2	\$751.3	1.0%	(\$50.9)
2022	\$440.2	\$162.8	\$113.6	\$716.7	2.3%	\$484.9	\$156.7	\$117.1	\$758.7	1.0%	(\$42.0)

<sup>1</sup> With the current forecast, AETC began at the Grand Island Bridges Barriers on 3/30/18, and is assumed to begin at Harriman Barrier in the 3rd week of September 2018, Yonkers Barrier in mid-October 2018, New Rochelle Barrier in mid-November 2018, and Spring Valley Barrier in early December 2018

<sup>2</sup> With the current forecast, the rest of the system (ticket controlled) is assumed to have AETC starting in December 2020

*Notes: Adjustments for three months of lag in collection of Tolls by Mail revenue have been included in both forecasts.*

*Numbers may not add due to rounding.*

*The previous forecast, completed in August 2017, only assumed that the Grand Island Bridges and Harriman Barrier would be converted to AETC during the forecast period.*

## Violation and Late 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. Some changes made in recent years to violation fees charged on the New York State Thruway System:

- 1) 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.
- 2) 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.
- 3) Starting January 17, 2017, this Tolls by Mail violation fee increased again to \$100 at the Gov. Mario M. Cuomo Bridge.
- 4) On January 9<sup>th</sup>, 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 waved. This program ran from January 22<sup>nd</sup> through February 26<sup>th</sup>, and resulted in \$1.1M in additional toll revenue for the Governor Mario M. Cuomo Bridge.
- 5) Starting May 15, 2018, the Tolls by Mail violation fee was reduced to \$50 at the Gov. Mario M. Cuomo Bridge.

In 2016, the first year with AETC, \$5.3M was collected in E-ZPass violation fees, which was about \$1.5M more than the amount collected in 2015. This grew to \$7.7M in 2017. 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 2016, \$0.3M was collected in \$5 per bill late fee charges which appear on the second bill sent to Tolls by Mail customers, and \$2.2M was collected in Tolls by Mail violation fees which are charged per transaction on the third bill sent to Tolls by Mail customers. These collected revenues grew significantly to \$1.0M and \$14.6M in Tolls by Mail late fees and violations, respectively, in 2017. This growth is because 2017 was the first full year with Tolls by Mail at the Gov. Mario M. Cuomo Bridge, and because the Tolls by Mail violation fee increased from \$25 to \$50 to \$100.

Table 6 provides baseline forecasts of late and violation fee revenues, where AETC is being phased in at the barriers throughout 2018, and on the controlled system in December 2020. 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. The current Tolls by Mail violation fee of \$50 has been assumed at all facilities throughout the forecast period, starting May 15, 2018. Recent data shows a reduction in monthly violation fees collected, due to the amnesty program. We have assumed this reduction will continue for several months, as some violators that would have paid their fines anyway chose to take advantage of the amnesty program.

With these assumptions, a total of \$22.4M in annual violation and late fee revenues is estimated for 2018, growing to nearly \$27 to \$28M annually for the next two years. By 2022, after there has been more than a full year with AETC on the controlled system, nearly \$67M in annual fee revenue is expected.

**Table 6: Baseline Violation/Late Fee Revenue Forecast**  
(in millions)

Year	Systemwide E-ZPass Violation Revs <sup>1</sup>	Gov. Mario M Cuomo Br. Only		Remainder of System		TOTAL
		TBM Violation Revs <sup>2</sup>	TBM \$5 Per Bill Late Fee Revs	TBM Violation Revs <sup>3</sup>	TBM \$5 Per Bill Late Fee Revs	
2016 <sup>4</sup>	\$5.3	\$2.2	\$0.3			\$7.8
2017 <sup>4</sup>	\$7.7	\$14.6	\$1.0			\$23.3
2018 <sup>5</sup>	\$10.5	\$9.4	\$1.0	\$1.3	\$0.3	\$22.4
2019	\$9.9	\$6.8	\$0.7	\$8.3	\$0.9	\$26.6
2020 <sup>6</sup>	\$9.8	\$6.6	\$0.7	\$9.9	\$0.9	\$27.9
2021	\$6.2	\$6.5	\$0.7	\$27.6	\$3.8	\$44.8
2022	\$1.9	\$6.6	\$0.7	\$52.9	\$4.7	\$66.8

<sup>1</sup> Includes both E-ZPass and “non-E-ZPass customer” (i.e., cash customer) violations. The E-ZPass violation fee increased from \$25 in 2016 to \$50 on 1/1/17

<sup>2</sup> 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.

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

<sup>4</sup> Actual

<sup>5</sup> An amnesty program ran from 1/22/18 through 2/26/18 waiving violations for customers who paid outstanding tolls. AETC began at the Grand Island Bridges Barriers on 3/30/18, and is assumed to begin at Harriman Barrier in the 3rd week of September 2018, Yonkers Barrier in mid-October 2018, New Rochelle Barrier in mid-November 2018, and Spring Valley Barrier in early December 2018.

<sup>6</sup> The rest of the system (ticket controlled) is assumed to have AETC starting in December 2020.

It is important to note that additional revenues may be needed for the Authority’s Long Range Financial Plan to be able to successfully complete the Gov. Mario M. Cuomo Bridge project and fulfill its system-wide operating, debt service, and capital needs through the forecast period. Future funding needs will be established by the Authority at amounts necessary to continue high levels of safety and service, maintain good infrastructure conditions, support Thruway operations, and maintain debt service coverage levels appropriate for its current “A” credit rating. Any additional revenues needed and the impact of any rate changes will be studied independently from these forecasts.

## Limits and Disclaimers

In Jacobs' opinion, the assumptions underlying the forecasts provide a reasonable basis for the alternative analyzed. However, any financial projection is subject to uncertainties. Inevitably, some assumptions used to develop the projections will not be realized, and unanticipated events and circumstances may occur. There are likely to be differences between the projections and actual results, and those differences may be material. Because of these uncertainties, Jacobs makes no guaranty or warranty with respect to the projections in this Study.

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## 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

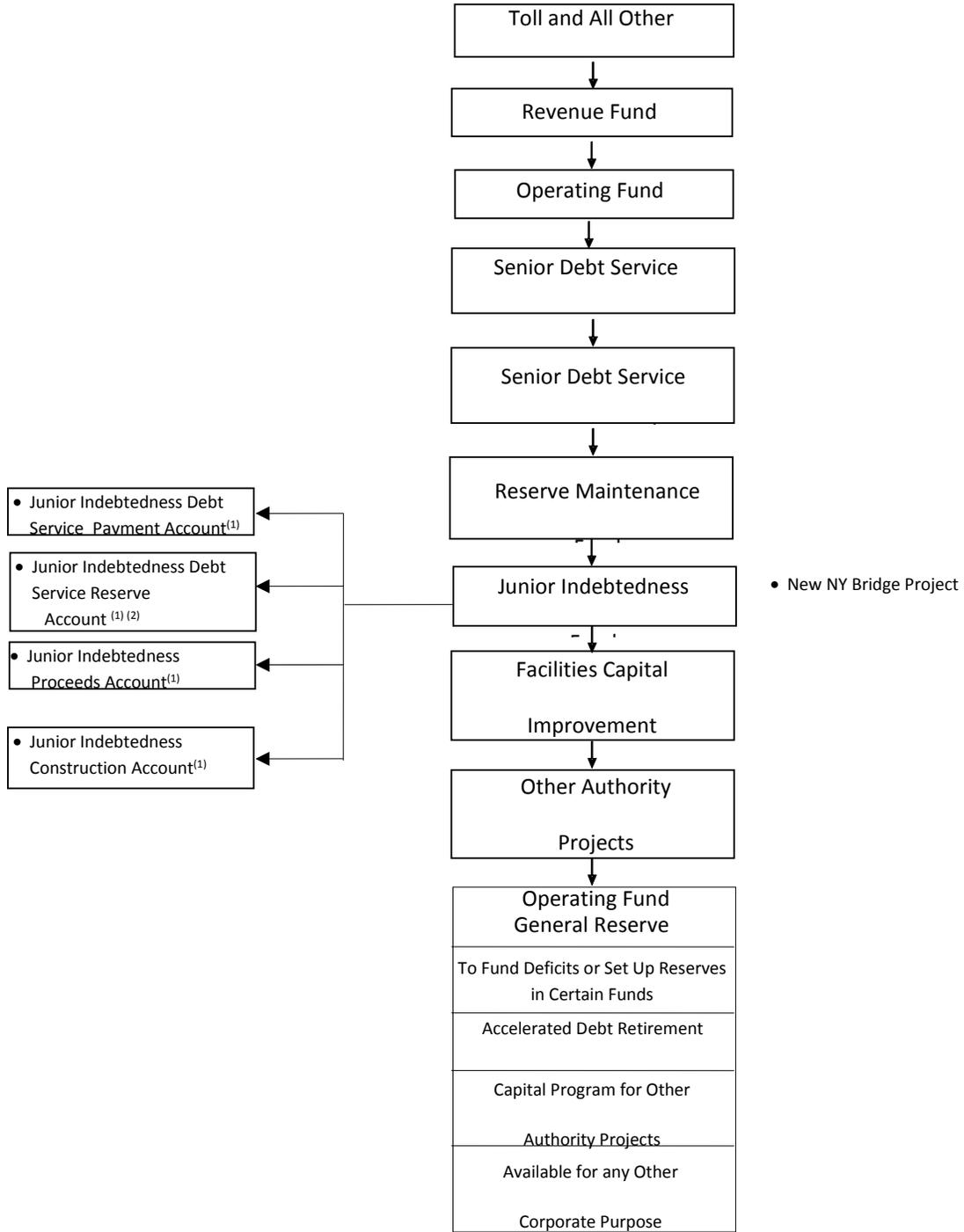
projects not financed through bond proceeds. The Supplemental Capital Fund is not a legal fund, is not recognized under the Bond Resolution, and its activity is reported as General Reserve Fund activity in the Authority's financial statements.

**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](http://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 indicators, 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 Union's that represent the employees (Teamster's, 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, worker's 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 New York Bridge project to construct 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. Currently, CHIPs bonds are issued only for purposes of refunding previously issued CHIPs bonds, and are no longer issued for new money purposes.

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 5<sup>th</sup> 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, 2020, the Thruway has four scheduled Senior General Revenue Bond principal payments totaling \$100,945,000. After making those principal payments the Thruway will have \$2,824,130,000 par amount of Senior General Revenue Bonds outstanding and \$2,450,000,000 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 are used solely to fund the New New York Bridge project to construct 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 four series, were issued as serial bonds, and include term bonds for two 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 outstanding Junior Indebtedness Obligations include \$1,600,000,000 in Series 2013A that mature on May 1, 2019. The Series 2013A Junior Indebtedness Obligations do not contain an early redemption provision. Interest payments for the Series 2013A Junior Indebtedness Obligations are paid January 1 and July 1, and at final maturity. The Series 2013A Junior Indebtedness Obligations are expected to be paid with funds from a draw on a TIFIA loan, with such draw occurring on or before May 1, 2019. The TIFIA loan is secured by a Series 2013B Junior Indebtedness Obligation issued December 19, 2013 and will represent the amount of the TIFIA loan when drawn, up to the authorized TIFIA loan amount of \$1,600,000,000. The Series 2016A Junior Indebtedness Obligations were issued in serial and term bonds, for a total par amount of \$850,000,000 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 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, 2019. 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 2013A Junior Indebtedness Obligations, in which the full principal amount matures on May 1, 2019.

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

## Summary of Authority Bond Issues

As of September 1, 2018

<b>General Revenue Senior Bonds</b>		
<b>Series</b>	<b>Par Amount Outstanding</b>	<b>Longest Outstanding Maturity</b>
<b>Series I</b>	1,019,500,000	January 1, 2042
<b>Series J</b>	637,250,000	January 1, 2044
<b>Series K</b>	743,865,000	January 1, 2032
<b>Series L</b>	596,220,000	January 1, 2037
<b>Total</b>	\$ 2,996,835,000	

<b>General Revenue Junior Indebtedness Obligations</b>		
<b>Series</b>	<b>Par Amount Outstanding</b>	<b>Longest Outstanding Maturity</b>
<b>Series 2013A</b>	\$ 1,600,000,000	May 1, 2019
<b>Series 2016A</b>	\$ 850,000,000	January 1, 2056
<b>Total</b>	\$ 2,450,000,000	

### Planned 2019 Debt Issuance

**Senior Debt Issuance:** The 2019 Budget includes a planned 2019 issuance of General Revenue Bonds of \$134.1 million.

**Junior Debt Issuance:** The 2019 Budget includes a planned 2019 issuance of Junior Indebtedness Obligations of \$386.1 million. This issuance will support costs associated with the construction of the Governor Mario M. Cuomo Bridge.

## MUNICIPAL BOND RATINGS

The Thruway applies for municipal bond ratings from Moody’s Investor Services and Standard & Poor’s. 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
A2 (Positive) 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
A3 (Positive) uninsured	A- (Stable) uninsured
A2 insured (Assured Guaranty Municipal – formerly FSA)	AA insured (Assured Guaranty Municipal – formerly FSA)