Ratings: See "RATINGS" herein.

This Official Statement has been prepared by the North Carolina Turnpike Authority to provide information on the Series 2017 Bonds. Selected information is presented on this cover page for the convenience of the user. Unless indicated, capitalized terms used on this cover page have the meanings given hereafter in the Official Statement. To make an informed decision regarding the Series 2017 Bonds, a prospective investor should read this Official Statement in its entirety.



# \$200,515,000

# NORTH CAROLINA TURNPIKE AUTHORITY



Triangle Expressway System Senior Lien Turnpike Revenue Refunding Bonds, Series 2017

Dated: Date of Delivery

Due: as shown on inside front cover

Tax Treatment

In the opinion of Bond Counsel, under current law and subject to conditions described in the Section herein "TAX TREATMENT," interest on the Series 2017 Bonds (a) is not included in gross income for federal income tax purposes, (b) is neither an item of tax preference nor taken into account in determining adjusted current earnings for purposes of the federal alternative minimum income tax imposed on individuals and corporations, and (c) is exempt from all income taxes in the State of North Carolina. A holder may be subject to other federal tax consequences as described in the Section herein "TAX TREATMENT."

Redemption

The Series 2017 Bonds are subject to optional redemption on or after January 1, 2027. See "THE SERIES 2017 BONDS – Redemption Provisions."

Security

The Series 2017 Bonds will be special obligations of the Authority, secured by and payable from the Receipts (hereinafter defined) of the Triangle Expressway System described in this Official Statement and, under certain circumstances, the proceeds of the Series 2017 Bonds, investment earnings and certain other proceeds. Neither the credit nor the taxing power of the State of North Carolina (the "State") or any of the State's political subdivisions is pledged for the payment of principal of interest on the Series 2017 Bonds, and no Owner of the Series 2017 Bonds has the right to compel the exercise of the taxing power of the State or any of the State's political subdivisions or the forfeiture of any of their respective properties other than Receipts in connection with any default on the Series 2017 Bonds. ACCELERATION IS NOT A REMEDY AVAILABLE TO OWNERS OF THE SERIES 2017 BONDS UPON DEFAULT.

Bond Insurance

The scheduled payment of principal of and interest on the Series 2017 Bonds maturing on January 1 in the years 2024, 2026 through 2029, inclusive, 2031 and 2039 (the "Insured Bonds") when due will be guaranteed under an insurance policy to be issued concurrently with the delivery of the Series 2017 Bonds by **ASSURED GUARANTY MUNICIPAL CORP.** 



Interest Payment Dates Interest on the Series 2017 Bonds will be paid on January 1 and July 1, beginning

July 1, 2017.

Denominations \$5,000 or any whole multiple thereof.

Closing/Settlement On or about March 30, 2017

Bond Counsel Hunton & Williams LLP

Underwriters' Counsel McGuireWoods LLP, Raleigh, North Carolina

Trustee and Bond Registrar Wells Fargo Bank, N.A., Jacksonville, Florida

The Series 2017 Bonds are offered, when, as and if issued and received by the Underwriters, subject to prior sale and the opinion of Bond Counsel as to their validity, the tax treatment of interest thereon and certain other matters.

**BofA Merrill Lynch** 

J.P. Morgan

Wells Fargo Securities

# **MATURITY SCHEDULE**

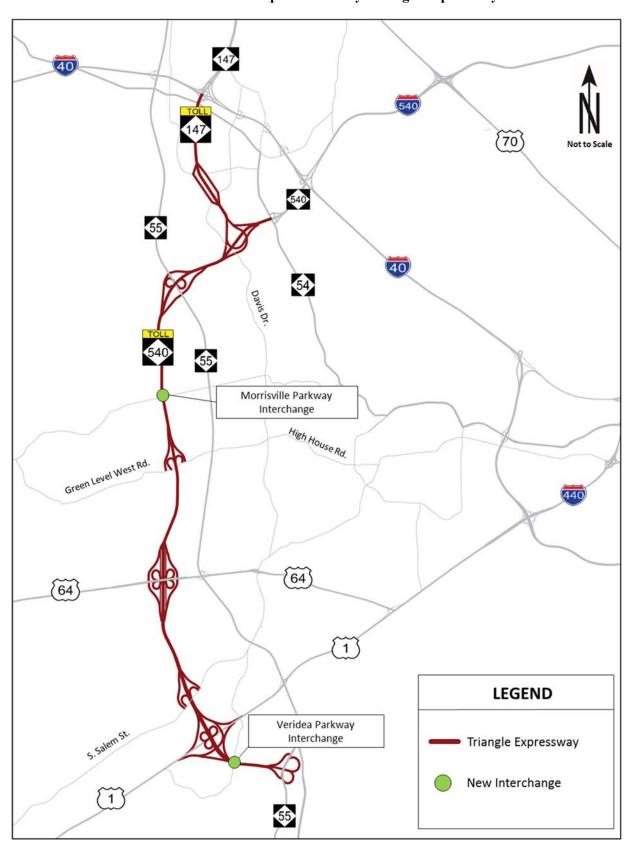
# \$200,515,000 Series 2017 Bonds

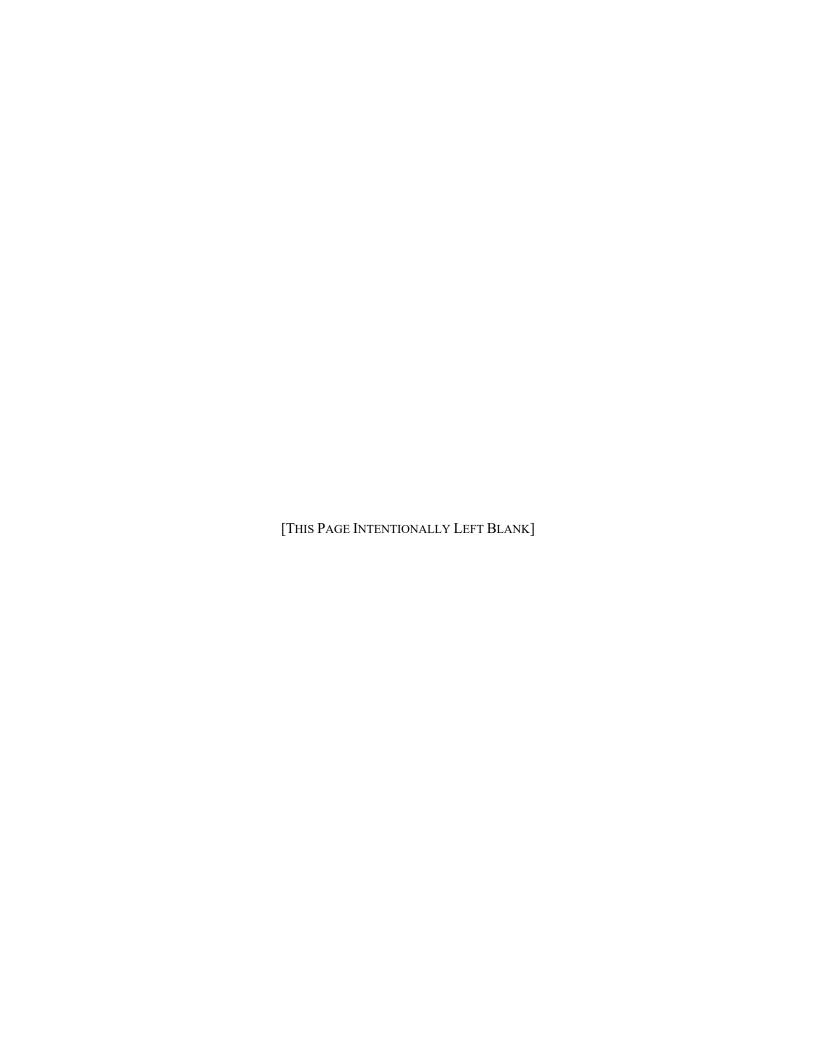
Due <u>January 1</u>	Principal <u>Amount</u>	Interest <u>Rate</u>	<u>Yield</u>	CUSIP**
2018	\$3,160,000	5.000%	1.180%	65830RAV1
2019	3,320,000	5.000	1.420	65830RAW9
2020	5,690,000	5.000	1.750	65830RAX7
2021	7,615,000	5.000	1.940	65830RAY5
2022	9,220,000	5.000	2.170	65830RAZ2
2023	11,490,000	5.000	2.450	65830RBA6
2024	14,100,000	5.000	2.540	65830RBB4
2025	14,035,000	5.000	2.850	65830RBC2
2026	14,755,000	5.000	2.890	65830RBD0
2027	15,510,000	5.000	2.980	65830RBE8
2028	16,310,000	5.000	$3.070^{*}$	65830RBF5
2029	10,000,000	5.000	$3.140^{*}$	65830RBH1
2029	7,075,000	3.125	3.240	65830RBG3
2030	13,350,000	5.000	$3.360^{*}$	65830RBJ7
2031	16,830,000	5.000	$3.230^{*}$	65830RBK4
2032	17,715,000	5.000	$3.470^{*}$	65830RBL2
2039	20,340,000	5.000	3.580 <sup>*</sup>	65830RBM0

<sup>\*</sup>Yield to first optional call date of January 1, 2027.

<sup>\*\*</sup> CUSIP® is a registered trademark of the American Bankers Association. CUSIP Global Services is managed on behalf of the American Bankers Association by S&P Capital IQ. Copyright©2017 CUSIP Global Services. All rights reserved. CUSIP data herein is provided by S&P Capital IQ, a division of McGraw-Hill Financial, Inc. The CUSIP data herein is provided solely for the convenience of reference only. Neither the Authority nor the Underwriters are responsible for selection or use of these CUSIP numbers, and no representation is made as to their correctness on the Series 2017 Bonds or as indicated above. The CUSIP number for a specific maturity is subject to being changed after the issuance of the Series 2017 Bonds as a result of various subsequent actions including, but not limited to, a refunding in whole or in part of the Series 2017 Bonds.

North Carolina Turnpike Authority Triangle Expressway





# NORTH CAROLINA TURNPIKE AUTHORITY

# **STATE OFFICIALS**

Roy Cooper Governor

MG(R) James H. Trogdon, III, P.E. Secretary of NCDOT

Bobby Lewis, P.E. Chief Operating Officer of NCDOT David Tyeryar Chief Financial Officer of NCDOT

# **AUTHORITY MEMBERS**

MG(R) James H. Trogdon, III, P.E. Chairman
Perry R. Safran Vice Chairman
Robert D. Teer, Jr. Secretary/Treasurer

Scott Aman Member
John Collett Member
Jim Crawford Member
Montell W. Irvin Member
Charles L. Travis, III Member
James Walker Member

# **MANAGEMENT STAFF**

Beau Memory Executive Director
Marvin T. Butler Deputy Director

David Roy Director of Finance and Budget Andy Lelewski, PE Director of Toll Road Operations

# **MUNICIPAL ADVISOR**

PFM Financial Advisors, LLC, Orlando, Florida

# TRAFFIC & REVENUE CONSULTANT

CDM Smith Inc., New Haven, Connecticut

# **GENERAL ENGINEERING CONSULTANT**

HNTB Corporation, Raleigh, North Carolina

# **BOND COUNSEL**

Hunton & Williams LLP

IN CONNECTION WITH THIS OFFERING, THE UNDERWRITERS MAY OVERALLOT OR EFFECT TRANSACTIONS THAT STABILIZE OR MAINTAIN THE MARKET PRICE OF THE SERIES 2017 BONDS AT A LEVEL ABOVE THAT WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME.

No dealer, broker, salesman or other person has been authorized to give any information or to make any representation other than those contained in this Official Statement in connection with the offering described herein, and, if given or made, such other information or representation must not be relied upon as having been authorized. This Official Statement does not constitute an offer to sell or the solicitation of an offer to buy any securities other than the Series 2017 Bonds offered hereby, nor shall there be any offer or solicitation of such offer or sale of the Series 2017 Bonds in any jurisdiction in which it is unlawful for such person to make such offer, solicitation or sale. Neither the delivery of this Official Statement nor the sale of any of the Series 2017 Bonds implies that the information herein is correct as of any date subsequent to the date hereof.

Neither the Series 2017 Bonds nor the Trust Agreement have been registered or qualified with the Securities and Exchange Commission by reason of the provisions of Section 3(a)(2) of the Securities Act of 1933, as amended, or Section 304(a)(4) of the Trust Indenture Act of 1939, as amended. The registration or qualification of the 2017 Bonds and the Trust Agreement in accordance with applicable provisions of securities laws of the states, if any, in which the Series 2017 Bonds and the Trust Agreement have been registered or qualified, and the exemption from registration or qualification in other states, shall not be regarded as a recommendation thereof.

In making an investment decision, investors must rely on their own examination of the terms of the offering, including the merits and risks involved. These securities have not been recommended by any federal or state securities commission or regulatory authority. Furthermore, the foregoing authorities have not confirmed the accuracy or determined the adequacy of this document. Any representation to the contrary is a criminal offense.

All quotations from and summaries and explanations of laws and documents herein do not purport to be complete, and reference is made to such laws and documents for full and complete statements of their provisions. Any statements made in this Official Statement involving estimates or matters of opinion, whether or not expressly so stated, are intended merely as estimates or opinions and not as representations of fact. The information set forth herein has been obtained from the Authority and other sources that are deemed to be reliable, but is not guaranteed as to accuracy or completeness by, and is not to be construed as a representation of, the Underwriters. The information contained herein is subject to change after the date of this Official Statement, and this Official Statement speaks only as of the date hereof.

Certain statements contained in this Official Statement reflect forecasts and constitute forward-looking statements rather than historical facts. In this respect, the words "estimate," "project," "anticipate," "expect," "intend," "believe" and similar expressions are intended to identify forward-looking statements. All such forward-looking statements are expressly qualified by the cautionary statements set forth in this Official Statement.

References to web site addresses presented herein are for informational purposes only and may be in the form of a hyperlink solely for the reader's convenience. Unless specified otherwise, such web sites and the information or links contained therein are not incorporated into, and are not part of, this Official Statement for purposes of Rule 15c2-12 under the Securities Exchange Act of 1934, as amended.

The Underwriters have provided the following sentence for inclusion in this Official Statement. The Underwriters have reviewed the information in this Official Statement in accordance with, and as part of, their responsibilities to investors under the federal securities laws as applied to the facts and circumstances of this transaction, but the Underwriters do not guarantee the accuracy or completeness of such information.

Assured Guaranty Municipal Corp. ("AGM") makes no representation regarding the Series 2017 Bonds or the advisability of investing in the Series 2017 Bonds. In addition, AGM has not independently verified, makes no representation regarding, and does not accept any responsibility for the accuracy or completeness of this Official Statement or any information or disclosure contained herein, incorporated herein, or omitted herefrom, other than with respect to the accuracy of the information regarding AGM supplied by AGM and presented under the heading "BOND INSURANCE" and "APPENDIX F – Specimen Municipal Bond Insurance Policy."

The Trustee has not reviewed or participated in the preparation of this Official Statement and assumes no responsibility for the contents, accuracy, fairness or completeness of the information given in this Official Statement or for the recitals contained in the Trust Agreement or for the validity, sufficiency, or legal effect of any of such documents. Furthermore, the Trustee has no oversight responsibility, and is not accountable, for the use or application by the Authority of the proceeds from the sale of the Series 2017 Bonds. The Trustee has no duty to, has not undertaken to evaluate, and has not evaluated, the risks, benefits, or propriety of any investment in the Series 2017 Bonds and makes no representation, and has reached no conclusions, regarding the investment quality of the Series 2017 Bonds, about all of which the Trustee expresses no opinion and expressly disclaims the expertise to evaluate.

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# **OFFICIAL STATEMENT**

### Concerning



# NORTH CAROLINA TURNPIKE AUTHORITY Triangle Expressway System Senior Lien Turnpike Revenue Refunding Bonds, Series 2017

#### INTRODUCTION

The purpose of this Official Statement, which includes the appendices, is to provide certain information in connection with the issuance by the North Carolina Turnpike Authority (the "Authority") of its \$200,515,000 Triangle Expressway System Senior Lien Turnpike Revenue Refunding Bonds, Series 2017 (the "Series 2017 Bonds"). The Series 2017 Bonds will be issued pursuant to applicable provisions of law, a bond order adopted by the Authority on March 3, 2017 (the "Bond Order"), a Trust Agreement dated as of June 1, 2009, as supplemented by a First Supplemental Trust Agreement dated as of July 1, 2009 (the "Original Trust Agreement"), between the Authority and Wells Fargo Bank, N.A., as trustee (the "Trustee"), and a Second Supplemental Trust Agreement dated as of March 1, 2017 (the "Second Supplemental Trust Agreement" and, together with the Original Trust Agreement, the "Trust Agreement"), between the Authority and the Trustee.

This introduction provides certain limited information to serve as a guide to the Official Statement and is expressly qualified by the Official Statement as a whole. Investors should make a full review of the entire Official Statement and the documents summarized or described herein.

For the definition of certain terms used herein and a summary of certain provisions of the Trust Agreement, see APPENDIX A hereto. Capitalized terms used herein and not otherwise defined have the meanings given such terms in the Trust Agreement unless otherwise indicated.

<u>Authorization</u>. The Series 2017 Bonds are being issued pursuant to Article 6H of Chapter 136 of the North Carolina General Statutes (Tolls Roads and Bridges), as amended (the "Authority Act") and The State and Local Government Revenue Bond Act, Article 5 of Chapter 159 of the General Statutes of North Carolina, as amended (the "Revenue Bond Act"), the Bond Order and the Trust Agreement.

Security. The Series 2017 Bonds will be special obligations of the Authority, secured by and payable from the Receipts of the Triangle Expressway System and, under certain circumstances, proceeds of the Series 2017 Bonds, including investment earnings and certain other proceeds. The Series 2017 Bonds will be additionally secured by certain funds, accounts and subaccounts held by the Trustee under the Trust Agreement. See "PLAN OF FINANCE" and "SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2017 BONDS" herein.

<u>Purpose and Plan of Finance</u>. The Series 2017 Bonds are being issued for the purpose of providing funds, together with any other available funds, to (a) refund in advance of their maturity certain maturities of the Authority's \$234,910,000 Triangle Expressway System Senior Lien Turnpike Revenue Bonds, Series 2009A (the "2009A Bonds"), (b) pay the premium for a Bond Insurance Policy issued by AGM with respect to certain maturities of the Series 2017 Bonds, (c) pay the premium for a Reserve Alternative Instrument for the Series 2017 Bonds and the 2009 Bonds (the "Series 2017 Debt Service Reserve Policy"), and (d) pay certain costs incurred in connection with the issuance of the Series 2017 Bonds. The proceeds of the 2009A Bonds were used to pay a portion of the costs of land acquisition, design, construction and equipping of the Triangle Expressway System, an approximately 18.8 mile toll road facility located in Durham and Wake Counties, North Carolina (the "Triangle Expressway System").

The 2009A Bonds were issued under the Original Trust Agreement. Simultaneously with the issuance of the 2009A Bonds, the Authority issued its \$35,173,108.85 Triangle Expressway System Senior Lien Turnpike Revenue Bonds, Series 2009B (the "2009B Bonds" and, together with the 2009A Bonds, the "2009 Bonds") as Capital Appreciation Bonds maturing January 1, 2030 through January 1, 2038, the proceeds of which were also used to finance the Triangle Expressway System. The 2009B Bonds are not callable and will remain outstanding under the Trust Agreement.

A portion of the costs of the Triangle Expressway System were also paid from the proceeds of the State Appropriation Revenue Bonds (see "PLAN OF FINANCE – State Appropriated Revenues; State Appropriation Revenue Bonds"). Further, a loan (the "TIFIA Loan") made to the Authority by the United States Department of Transportation ("USDOT") under the Transportation Infrastructure, Finance and Innovation Act ("TIFIA") pursuant to a Loan Agreement, dated as of July 1, 2009, between the Authority and USDOT (the "TIFIA Loan Agreement"), of which \$430,405,953 is currently outstanding, inclusive of interest accrued to date (see "PLAN OF FINANCE – TIFIA Loan").

The Authority and the Triangle Expressway System. See "THE AUTHORITY" herein for certain information regarding the Authority and "THE TRIANGLE EXPRESSWAY SYSTEM" herein for particular information regarding the Triangle Expressway System. The portion of the Triangle Expressway System originally expected to be financed with the 2009 Bonds has been completed and is operating. See "THE TRIANGLE EXPRESSWAY SYSTEM – General."

Traffic Consultant Analysis. CDM Smith Inc. (the "Traffic Consultant"), prepared the report titled Updated Impact Analysis of Morrisville Parkway Extension and Old Holly Springs – Apex Road Interchanges dated September 9, 2013 (the "2013 Impact Analysis"), attached hereto as APPENDIX B. The 2013 Impact Analysis updated portions of the Triangle Expressway: Comprehensive Traffic and Revenue Study Final Report, dated April 6, 2009 (the "Traffic and Revenue Report") prepared in connection with the issuance of the 2009 Bonds, which forecasts the estimated traffic and toll revenues for the Triangle Expressway System.

<u>Details of Bonds</u>. The Series 2017 Bonds will be dated the date of delivery thereof. Interest on the Series 2017 Bonds will be payable on January 1 and July 1, beginning July 1, 2017, at the rates shown on the inside front cover. Principal of the Series 2017 Bonds will be payable, subject to prior redemption as described herein, on January 1 in the years and amounts shown on the inside front cover.

The Series 2017 Bonds will be issued as fully registered bonds in book-entry-only form, without physical delivery of bond certificates to the beneficial owners of the Series 2017 Bonds. The Bond Registrar will make payment of principal of and interest on the Series 2017 Bonds to The Depository Trust Company, New York, New York ("DTC"), which will in turn remit such payment to its participants for subsequent distribution to the beneficial owners of the Series 2017 Bonds. Individual purchases of the Series 2017 Bonds by the beneficial owners will be made in denominations of \$5,000 or whole multiples thereof. See APPENDIX E hereto for more information regarding DTC and the book-entry-only system.

The scheduled payment of principal of and interest on the Series 2017 Bonds maturing on January 1 in the years 2024, 2026 through 2029, inclusive, 2031 and 2039 (the "Insured Bonds") when due will be guaranteed under an insurance policy to be issued concurrently with the delivery of the Series 2017 Bonds by AGM. See "BOND INSURANCE."

<u>Tax Status</u>. See "TAX TREATMENT" herein.

<u>Professionals.</u> The Underwriters set forth on the cover page of this Official Statement (the "Underwriters"), are underwriting the Series 2017 Bonds. Hunton & Williams LLP is serving as Bond Counsel. McGuireWoods LLP, Raleigh, North Carolina, is serving as counsel to the Underwriters. Ebony Pittman, Esq., an Assistant Attorney

General for the State, is serving as counsel to the Authority. Wells Fargo Bank, N.A., Jacksonville, Florida, is serving as the Trustee and Bond Registrar. PFM Financial Advisors, LLC, Orlando, Florida, is acting as municipal advisor to the Authority in connection with the issuance of the Series 2017 Bonds.

# THE AUTHORITY

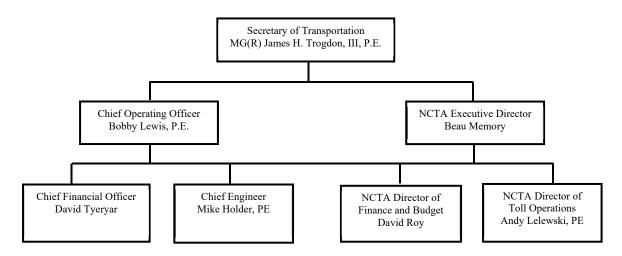
The Authority is a body politic and corporate and a public agency of the State of North Carolina created pursuant to the Authority Act and exists within the North Carolina Department of Transportation ("NCDOT"). The Authority is empowered by the Authority Act to design, establish, purchase, construct, operate and maintain the turnpike projects within the State specifically authorized by the North Carolina General Assembly.

The Authority is governed by a nine member Authority Board, consisting of four members appointed by the General Assembly of North Carolina (two members appointed by the President Pro-Tempore of the Senate and two members appointed by the Speaker of the House of Representatives), four members appointed by the Governor of the State, and the North Carolina Secretary of Transportation. The Chair of the Authority is selected annually by the Authority Board. Currently, MG(R) James H. Trogdon, III, P.E., the North Carolina Secretary of Transportation, serves as the Chairman of the Authority Board. The Authority Board appoints the Executive Director of the Authority, who is the Chief Administrative Officer of the Authority, responsible for the daily administration of the toll projects undertaken by the Authority.

The following is a list of the current members of the Authority Board, their occupations and the expiration of their terms of office.

Name	<u>Occupation</u>	Term Expires
MG(R) James H. Trogdon, III, P.E., Chairman	Secretary, NCDOT	Ex-Officio
Perry R. Safran, Vice Chairman	Attorney, Safran Law Offices	2017
Robert D. Teer, Jr., Secretary/Treasurer	President, Teer Associates	2019
Scott Aman	President, New Dixie Oil Corporation	2017
John Collett	Principal, Collett & Associates	2019
Jim Crawford	Former Member, North Carolina General Assembly	2019
Montell W. Irvin	President and CEO, Ramey Kemp & Associates, Inc.	2019
Charles L. Travis, III	Mayor, Town of Cornelius	2019
James Walker	Attorney/Mediator	2019

The Authority is part of NCDOT, and the executive leadership of both the Authority and NCDOT are involved in all Authority projects. The following organizational chart demonstrates the integration of various functions of NCDOT and the Authority.



The following are the current members of senior management of NCDOT and the Authority and summaries of their professional experience.

MG(R) James H. Trogdon, III, P.E., Secretary, NCDOT. Major General James H. "Jim" Trogdon, III was named as Secretary to NCDOT by Governor Roy Cooper on January 3, 2017. Prior to assuming this role, Mr. Trogdon served as the National Transportation Director for SAS Institute. Mr. Trogdon previously worked at NCDOT spending over 20 years with NCDOT, serving most recently as its Chief Operating Officer from 2009 until his retirement in 2013. Mr. Trogdon holds the rank of Major General (Ret) in the Army National Guard, and retired in 2016 as the Deputy Adjutant General for the North Carolina National Guard. He earned his Masters of Strategic Studies degree from the U.S. Army War College in Carlisle, Pennsylvania, and he earned his bachelor's degree and master's degree in civil engineering from North Carolina State University in Raleigh, North Carolina. He is a licensed professional engineer in North Carolina.

Beau Memory, Executive Director of the Authority. Beau Memory is the executive director of the Authority and is responsible for developing and implementing its strategic vision to address the combined effects of rapid growth, increasing congestion and funding challenges. Prior to his role at the Authority, Mr. Memory served as a senior policy advisor for the Office of the President Pro Tempore in the North Carolina Senate. His previous experience also includes serving as the legislative program manager for NCDOT and as the communications manager for the Authority. Mr. Memory earned a Bachelor of Science in political science from the University of North Carolina at Charlotte.

Bobby Lewis, P.E., Chief Operating Officer, NCDOT. Bobby Lewis oversees the high-level operations of the Information Technology, Division of Highways, Planning and Programming, Fiscal, and Legislative and Government Affairs divisions within the NCDOT. Before returning to NCDOT as its Chief Operating Officer in February 2017, Mr. Lewis served as the office executive for Michal Baker International's operations in Cary, Asheville, Greensboro and Charlotte. Mr. Lewis began his career in the NCDOT Division of Highways and served in a number of roles at the NCDOT, including county maintenance engineer, district engineer, division maintenance engineer, division engineer and Chief of Staff. Mr. Lewis earned a bachelor's degree from North Carolina State University, and is a licensed professional engineer in North Carolina.

David Tyeryar, Chief Financial Officer, NCDOT. David Tyeryar is responsible for planning and oversight of, as well as researching new revenue sources for, the state's growing transportation infrastructure demands. Before joining NCDOT, Mr. Tyeryar served as Deputy Secretary and CFO for the Virginia Department of Transportation, where he helped implement a number of funding reforms to help address that state's challenges. He helped pass Virginia's first comprehensive transportation funding plan in 27 years, which provided more than 13,000 jobs and \$9.5 billion in economic investments. He also established the office of Public Private Partnerships, which resulted

in more than \$5 billion in projects, using less than \$1 billion in state funds. Prior to the Virginia DOT, Mr. Tyeryar served as Budget Director and Accounting Division Manager for Prince William County, Virginia.

Mike Holder, Chief Engineer, NCDOT. Mike Holder has served as the Chief Engineer of the NCDOT since 2014. As such, Mr. Holder oversees all 14 Transportation Divisions. From 2000 until 2014, Mr. Holder was the Division Engineer for Division 12, which includes Gaston, Cleveland, Iredell, Alexander, Catawba and Lincoln counties. In this role, he managed construction projects, maintenance, operations and customer service for the Division. Mr. Holder previously served as a Division Construction Engineer for Division 9 in Winston-Salem and Resident Engineer for Division 7 in Greensboro.

David Roy, Director of Finance and Budget of the Authority. David Roy serves as the Authority's Director of Finance and Budget. Since joining the Authority in 2013, Mr. Roy has been responsible for all aspects of financial analysis, planning, and reporting for turnpike projects. Prior to joining the Authority, Mr. Roy spent seven years in investment banking with Credit Suisse, serving in various fixed income and valuation risk capacities. Mr. Roy is a native of Raleigh, North Carolina and received his undergraduate degree in Business Administration, with a second major in Economics, from The University of North Carolina at Chapel Hill. He later received his MBA from the University of Chicago, Booth School of Business.

Andy Lelewski, Director of Toll Road Operations of the Authority. Andy Lelewski serves as the Authority's Director of Toll Road Operations. He is a registered professional engineer in North Carolina. Prior to his work at Authority, Mr. Lelewski worked for the national consulting firm PBS&J, now a part of the Atkins Group, for 11 years. In 2007, he began working with the Authority as a consultant project manager for toll technology and operations activities and joined the Authority in 2009. He is responsible for the planning, design, implementation, and operation of the toll collection systems and operation services for all Authority projects. Mr. Lelewski is a graduate of the University of Pittsburgh, School of Engineering.

The Authority Act authorizes the Authority to issue bonds pursuant to the Revenue Bond Act to finance the cost of the turnpike projects it undertakes, and to fix, revise, charge and collect tolls and fees for the use of the turnpike projects. The Triangle Expressway System was the first toll project financed by the Authority. In addition to the Triangle Expressway System, the Authority is proceeding with plans for financing and constructing several additional toll road projects in the State. These projects consist of the Monroe Expressway, an approximately 19.7-mile controlled access roadway including 18.1 miles of toll road being built in Mecklenburg and Union Counties, North Carolina (the "Monroe Expressway"), as well as a network of express lanes in the Charlotte area and the Mid-Currituck Bridge to connect the North Carolina Outer Banks to the mainland. None of these other projects will be cross-collateralized with the Triangle Expressway System.

The Authority and NCDOT entered into a Master Agreement, dated July 13, 2006 (the "Master Agreement"). This Master Agreement sets forth the responsibilities each party assumes and procedures that will be observed for the purpose of furthering the financing, constructing, equipping, operating or maintaining turnpike projects in accordance with the Authority Act. The Master Agreement establishes terms and conditions under which NCDOT provides general funding and project assistance to the Authority. The Master Agreement provides for entering into project specific agreements to establish terms and conditions under which NCDOT will provide funding and assistance for each turnpike project.

North Carolina law provides that operation and project development costs of the Authority are eligible administrative expenses to be paid by NCDOT. Any funds allocated to the Authority pursuant to this authorization are to be repaid by the Authority from toll revenues as soon as possible, subject to any restrictions included in the agreements entered into by the Authority in connection with the issuance of the Authority's bonds, including the Trust Agreement.

### THE SERIES 2017 BONDS

### Authorization

The issuance of the Series 2017 Bonds received the required approval of the North Carolina Local Government Commission (the "LGC") on March 13, 2017. The LGC is a division of the State Treasurer's office charged with general oversight of local government finance in North Carolina, as well as certain matters of finance by selected State agencies. Its approval is required for the issuance of the Series 2017 Bonds by the Authority. In determining whether to allow bonds to be issued under the Revenue Bond Act, the LGC has been given wide statutory discretion to consider the need for and feasibility of the projects to be financed, the issuing unit's capability to repay the amount financed from the pledged revenue sources and the issuer's general compliance with State budget and finance laws. Under the Revenue Bond Act, the LGC is also responsible, with the Authority's approval, for selling bonds issued pursuant to the Revenue Bond Act.

### General

The Series 2017 Bonds will be dated the date of delivery thereof and will bear interest from their date, payable on each January 1 and July 1, beginning July 1, 2017, at the rates shown on the inside front cover page hereof. The Series 2017 Bonds will mature, subject to prior redemption as described below, on January 1 in the years and amounts shown on the front cover. The Series 2017 Bonds will be issued as fully registered bonds and will be subject to the provisions of the book-entry-only system described below. Individual purchases of the Series 2017 Bonds by the beneficial owners will be made in denominations of \$5,000 or whole multiples thereof.

# **Redemption Provisions**

Optional Redemption. The Series 2017 Bonds maturing on January 1, 2028, and thereafter are subject to redemption prior to their respective maturities, at the option of the Authority, either in whole or in part on any date on or after January 1, 2027, at a redemption price equal to 100% of the principal amount of Series 2017 Bonds to be redeemed, plus accrued interest to the redemption date.

Redemption Provisions. At least 30 days, but not more than 60 days, prior to the redemption date of any Series 2017 Bonds to be redeemed, whether such redemption be in whole or in part, the Bond Registrar will cause a notice of redemption to be mailed first-class, postage prepaid, to all Owners of Series 2017 Bonds to be redeemed in whole or in part; provided, however, that notices to any Securities Depository will be sent by registered or certified mail or by other electronic means as may be required by the operational procedures of such Securities Depository. Failure to mail any such notice to any Owner or any defect in such notice will not affect the validity of the proceedings for such redemption as to the Series 2017 Bonds of any other Owner to whom such notice is properly given.

The Series 2017 Bonds shall be redeemed only in whole multiples of \$5,000 principal amount. If less than all of the Series 2017 Bonds are called for redemption, the maturities or portions of maturities of Series 2017 Bonds to be redeemed will be as set forth in an Officer's Certificate of the Authority filed with the Trustee. If less than all the Series 2017 Bonds of any one maturity are called for redemption, and the Series 2017 Bonds are not held in book-entry-only form, the Bond Registrar will effect the redemption of the Series 2017 Bonds of such maturity on a pro rata basis among registered owners, subject to \$5,000 minimum denomination requirements, using such method as the Trustee deems fair and appropriate. If the Series 2017 Bonds are held in book-entry-only form, and less than all of the Series 2017 Bonds of any one maturity are to be called for redemption, the particular Series 2017 Bonds or portions thereof to be redeemed will be selected by lot in accordance with the procedures of the Securities Depository. If a portion of a Series 2017 Bond is called for redemption, a new Series 2017 Bond of the same maturity, in principal amount equal to the unredeemed portion thereof, will be issued to the Owner upon surrender thereof.

Upon giving notice and depositing funds or securities with the Trustee or the Bond Registrar as provided in the Trust Agreement, the Series 2017 Bonds or portions thereof so called for redemption shall become due and payable on the redemption date, and interest on such Series 2017 Bonds or portions thereof shall cease to accrue from and after such date.

Any notice of optional redemption may state that the redemption to be effected is conditioned upon the receipt by the Trustee or Bond Registrar on or prior to the redemption date of moneys sufficient to pay the principal of and interest on the Series 2017 Bonds to be redeemed and that if such moneys are not so received such notice shall be of no force or effect and such Series 2017 Bonds shall not be required to be redeemed. In the event that such notice contains such a condition and moneys sufficient to pay the principal of and interest on such Series 2017 Bonds are not received by the Trustee or Bond Registrar on or prior to the redemption date, the redemption will not be made and the Bond Registrar will within a reasonable time thereafter give notice, in the manner in which the notice of redemption was given, that such moneys were not so received.

# **Book-Entry-Only**

The Series 2017 Bonds will be issued as fully registered bonds in book-entry-only form without physical delivery of bonds to the beneficial owners of the Series 2017 Bonds. The Trustee will make payments of principal of and interest on the Series 2017 Bonds to DTC, which will in turn remit such payments to DTC participants for subsequent distribution to the beneficial owners of the Series 2017 Bonds. See APPENDIX E hereto for more information regarding DTC and the book-entry-only system.

# PLAN OF FINANCE

Pursuant to the Trust Agreement and the Second Supplemental Trust Agreement, the proceeds of the Series 2017 Bonds will be applied to (a) refund in advance of their maturity the Authority's 2009A Bonds maturing on and after January 1, 2020 (the "Refunded Bonds"), (b) pay the premium for the Bond Insurance Policy issued by AGM with respect to certain maturities of the Series 2017 Bonds, (c) pay the premium for the Series 2017 Debt Service Reserve Policy, and (d) pay certain costs incurred in connection with the issuance of the Series 2017 Bonds.

# **Refunding of 2009A Bonds**

In order to accomplish the refunding of the Refunded Bonds in advance of their maturities, a portion of the proceeds of the sale of the Series 2017 Bonds, together with other available funds of the Authority, will be deposited into an escrow fund (the "2009 Escrow Fund") established pursuant to an Escrow Agreement dated as of March 1, 2017 (the "Escrow Agreement"), between the Authority and Wells Fargo Bank, N.A., as escrow agent (the "Escrow Agent"). A portion of the amounts deposited in the 2009 Escrow Fund will be invested in defeasance obligations (the "Escrow Securities"), the maturing principal and interest of which will provide funds, together with other amounts on deposit in the 2009 Escrow Fund, to pay when and as due, respectively, (1) interest on the Refunded Bonds until January 1, 2019 (the earliest date of optional redemption of the Refunded Bonds), and (2) the principal amount of the Refunded Bonds on January 1, 2019. See "VERIFICATION" herein. The Escrow Agent will be given irrevocable instructions to redeem the Refunded Bonds on January 1, 2019. The beneficial owners of the Series 2017 Bonds will have no rights, security or interest in and to the 2009 Escrow Fund whatsoever. The 2009A Bonds maturing on January 1, 2019 in the principal amount of \$600,000 are not being refunded.

### 2009B Bonds

Simultaneously with the issuance of the 2009A Bonds, the Authority issued the 2009B Bonds as Capital Appreciation Bonds maturing January 1, 2030 through January 1, 2038, in order to provide a portion of the financing for the Triangle Expressway System. The 2009B Bonds will remain outstanding under the Trust Agreement, and are secured on parity with the Series 2017 Bonds.

### TIFIA Loan

In order to provide a portion of the financing necessary to complete the Triangle Expressway System, the Authority and the USDOT entered into the TIFIA Loan Agreement, pursuant to which the Authority borrowed \$372,876,792 from USDOT to pay or reimburse the Authority for payment of "Eligible Project Costs" of the Triangle Expressway System. The unpaid balance of the TIFIA Loan, including accrued interest to date, bears interest at an interest rate of 4.25%. The Authority's obligations to make the loan repayments required under the TIFIA Loan Agreement are secured by a pledge of the Receipts under the Trust Agreement. The pledge of Receipts to secure the TIFIA loan repayments is subordinate to the payment of Senior Lien Indebtedness, including the Series 2017 Bonds. Upon the occurrence of an Event of Default that is a Bankruptcy-Related Event under the Trust Agreement, any obligations still owed to USDOT under the TIFIA Loan Agreement will become Senior Lien Indebtedness, secured on a parity basis with the Series 2017 Bonds and other Senior Lien Indebtedness, except that USDOT will not be entitled to be paid from amounts on deposit in the Senior Lien Parity Reserve Account. See "SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2017 BONDS – TIFIA Indebtedness Upon Occurrence of Bankruptcy-Related Event."

Debt service is payable on the TIFIA Loan on January 1 and July 1 of each year, and began on January 1, 2016. The stated final maturity date of the TIFIA Loan is July 1, 2047.

# **State Appropriated Revenues; State Appropriation Revenue Bonds**

Pursuant to Section 136-176(b2) of the North Carolina General Statutes, the General Assembly of North Carolina has provided for a continuing annual appropriation of \$25,000,000 to the Authority from the Highway Trust Fund to finance the Triangle Expressway System. Pursuant to the legislation, amounts so appropriated may be used by the Authority to pay debt service or related financing costs and expenses on revenue bonds or notes issued by the Authority to finance the costs of Triangle Expressway System or to fund debt service reserves, operating reserves, and similar reserves in connection therewith. This State appropriation for the Triangle Expressway System is defined in the Trust Agreement and herein as the "State Appropriated Revenues." The annual appropriation does not constitute a pledge of the faith and credit and taxing power of the State of North Carolina, and nothing prohibits the General Assembly from amending the annual appropriation to decrease or eliminate the amount annually appropriated to the Authority.

The Authority previously entered into a separate Trust Agreement, dated as of July 1, 2009 (the "State Appropriation Revenue Bond Trust Agreement"), pursuant to which the Authority issued the State Appropriation Revenue Bonds, which are secured solely by the State Appropriated Revenues and investment earnings thereon and certain funds provided in the State Appropriation Revenue Bond Trust Agreement. The State Appropriation Revenue Bonds are not secured by the tolls or other revenues of the Triangle Expressway System or any funds held under the Trust Agreement. Under the State Appropriation Revenue Bond Trust Agreement, amounts not needed in any fiscal year to make debt service payments on the State Appropriation Revenue Bonds will be withdrawn from the State Appropriation Revenue Bond Trust Agreement, the amounts so transferred shall be transferred free and clear of the lien on and pledge created under the State Appropriation Revenue Bond Trust Agreement. There is no assurance that any such amounts will be available to be transferred to the Trust Agreement.

# **Operations and Maintenance Expense Guaranty**

As described below under "SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2017 BONDS," the payment of Operations and Maintenance Expenses of the Triangle Expressway System is payable from Receipts after the prior payment of debt service on Senior Lien Bonds, Subordinate Lien Bonds, the TIFIA Loan and the funding of certain debt service and related reserves. In order to assure a source of funds for payment

of Operations and Maintenance Expenses of the Triangle Expressway System, the Authority and the NCDOT entered into the Operations and Maintenance Expense Guaranty Agreement.

The Operations and Maintenance Expense Guaranty Agreement provides that in the event that there is a deficiency in the Receipts such that there are not funds available in the Operations and Maintenance Expense Fund to pay Operations and Maintenance Expenses, the Authority will make a request to NCDOT to fund the deficiency in the Operations and Maintenance Expense Fund, and those expenses will be funded by NCDOT. The Authority will be required to repay any amount so advanced, with interest. To assure that funds are available as needed to make payments under the Operations and Maintenance Expense Guaranty Agreement, the Trust Agreement creates an Operating Reserve Fund that the Authority would draw upon to pay required Operations and Maintenance Expenses. See APPENDIX C – "Operations and Maintenance Expense Guaranty and Construction Completion Assurance and Standby Renewal and Replacement Funding Agreement."

All payments from NCDOT to the Authority under the Operations and Maintenance Expense Guaranty Agreement are to be repaid to NCDOT, with interest, from Receipts as described below under "SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2017 BONDS – Application of Receipts."

# Renewal and Replacement Reserve Fund Guaranty

The Trust Agreement creates a Renewal and Replacement Fund as a special fund to which deposits are to be made from Receipts to pay all or a portion of the cost of unusual or extraordinary maintenance, repairs, renewals or replacements or capital improvements related to the Triangle Expressway System. Under the Trust Agreement, deposits to the Renewal and Replacement Fund are to be made from Receipts in amounts designed to assure that funds will be available for the required purpose when needed, as described under the caption "SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2017 BONDS – Application of Receipts." In order to assure that the Renewal and Replacement Fund is funded as required, the NCDOT has undertaken pursuant to the Construction Completion and Renewal and Replacement Guaranty to fund any deficiency in the Renewal and Replacement Fund from the amount that is required at the time to be on deposit in the Renewal and Replacement Fund. See APPENDIX C – "Operations and Maintenance Expense Guaranty and Construction Completion Assurance and Standby Renewal and Replacement Funding Agreement."

Repayment of NCDOT Contributions. The Authority may be required to repay any amounts advanced by NCDOT as described above under "Operations and Maintenance Expense Guaranty" and "Renewal and Replacement Reserve Fund Guaranty", with interest, from Receipts, but only after payment of current debt service on the Series 2017 Bonds and other Senior Lien Indebtedness, Subordinate Lien Indebtedness, and the TIFIA Loan, the funding of any deficiency in all debt service reserve funds held under the Trust Agreement, funding of required deposits to the Operations and Maintenance Expense Fund, the Operating Reserve Fund, and the Renewal and Replacement Fund, required under the Trust Agreement, or from amounts deposited and held in the General Reserve Fund available for such expense. In addition, so long as the TIFIA Loan is outstanding, no such repayments shall be made to NCDOT unless certain conditions set forth in the TIFIA Loan Agreement have been met. See "SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2017 BONDS – Application of Receipts."

# ANNUAL DEBT SERVICE REQUIREMENTS

The following table sets forth for each Fiscal Year ending June 30, the amounts required for the payment of debt service on the Bonds currently Outstanding under the Trust Agreement.

Fiscal Year	Series 20	009A Bonds <sup>1</sup>	Series 200	99B Bonds	Series 2	017 Bonds	<u>Total</u>
Ending				Compounded			
<u>June 30</u> ,	Principal Principal	<u>Interest</u>	Initial Principal	<u>Interest</u>	<u>Principal</u>	<u>Interest</u>	
2017		\$9,713,120.21				\$2,500,754.25	\$12,213,874.46
2018		27,000.00			\$3,160,000	9,814,093.76	13,001,093.76
2019	\$600,000	13,500.00			3,320,000	9,652,093.76	13,585,593.76
2020	=	-			5,690,000	9,426,843.76	15,116,843.76
2021	-	-			7,615,000	9,094,218.76	16,709,218.76
2022	=	-			9,220,000	8,673,343.76	17,893,343.76
2023	=	-			11,490,000	8,155,593.76	19,645,593.76
2024	-	-			14,100,000	7,515,843.76	21,615,843.76
2025	-	-			14,035,000	6,812,468.76	20,847,468.76
2026	-	-			14,755,000	6,092,718.76	20,847,718.76
2027	-	-			15,510,000	5,336,093.76	20,846,093.76
2028	-	-			16,310,000	4,540,593.76	20,850,593.76
2029	-	-			17,075,000	3,772,296.88	20,847,296.88
2030	-	-	\$1,141,509.20	\$3,278,490.80	13,350,000	3,078,000.00	20,848,000.00
2031	-	-	401,274.30	1,293,725.70	16,830,000	2,323,500.00	20,848,500.00
2032	-	-	363,575.50	1,311,424.50	17,715,000	1,459,875.00	20,849,875.00
2033	-	-	6,404,960.60	25,615,039.40	-	1,017,000.00	33,037,000.00
2034	-	-	6,229,520.85	27,365,479.15	-	1,017,000.00	34,612,000.00
2035	-	-	6,053,373.00	29,181,627.00	-	1,017,000.00	36,252,000.00
2036	-	-	5,871,256.20	30,943,743.80	-	1,017,000.00	37,832,000.00
2037	-	-	5,672,456.70	32,657,543.30	-	1,017,000.00	39,347,000.00
2038	-	-	3,035,182.50	19,014,817.50	-	1,017,000.00	23,067,000.00
2039			_	_	20,340,000	508,500.00	20,848,500.00
Total	\$600,000	\$9,753,620.21	\$35,173,108.85	\$170,661,891.15	\$200,515,000	\$104,858,832.49	\$521,562,452.70

<sup>&</sup>lt;sup>1</sup> Excludes the Refunded Bonds.

Note: Amounts may not foot due to rounding.

### ESTIMATED SOURCES AND USES OF FUNDS

#### Sources:

Par Amount of the Series 2017 Bonds	\$200,515,000
Net Original Issue Premium	26,586,729
Transfer from Senior Lien Parity Reserve Account	27,008,311
Transfer from Interest Account for 2009A Bonds	3,573,391
Transfer from Revenue Fund for 2009A Bonds	1,083,742
Total Sources	<u>\$258,767,173</u>

### Uses:

Deposit to Escrow Fund	\$255,044,143
Costs of Issuance <sup>1</sup>	3,723,030
Total Uses	<u>\$258,767,173</u>

Note: Totals may not foot due to rounding.

# SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2017 BONDS

### General

The Series 2017 Bonds will be special obligations of the Authority, secured by and payable from the Receipts of the Triangle Expressway System and, under certain circumstances, proceeds of the Series 2017 Bonds, including investment earnings and certain net insurance and other proceeds.

The principal of and interest on the Series 2017 Bonds shall not be payable from the general funds of the Authority, nor shall they constitute a legal or equitable pledge, charge, lien, or encumbrance upon any of its property or upon any of its income, receipts, or revenues, except the Receipts and other funds which are pledged under the Bond Order and the Trust Agreement. Neither the credit nor the taxing power of the State or any instrumentality thereof are pledged for the payment of the principal or interest of the Series 2017 Bonds, and no Owner of Series 2017 Bonds has the right to compel the exercise of the taxing power by the State or any instrumentality thereof or the forfeiture of any of its property other than Receipts in connection with any default thereon.

As described below under "Application of Receipts," the payment of Operations and Maintenance Expenses of the Triangle Expressway System are payable from Receipts after the payment of debt service on Senior Indebtedness, Subordinated Indebtedness, the TIFIA Loan Agreement and the funding of certain reserves. As such, the Series 2017 Bonds and other Senior Lien Indebtedness are secured by a "gross revenue" pledge of the Receipts of the Triangle Expressway System.

# **Pledge of Receipts**

The Receipts of the Triangle Expressway System are pledged to the payment of, and as security for (a) any Senior Lien Parity Debt, Subordinate Lien Parity Debt and TIFIA Indebtedness and (b) any Senior Lien Derivative Agreement Regularly Scheduled Payments and Subordinate Lien Derivative Agreement Regularly Scheduled Payments incurred pursuant to the Trust Agreement.

The term "Receipts" for any particular period means all receipts, revenues, income, proceeds and money received in any period by or for the Authority in respect of the Triangle Expressway System, including all toll

<sup>&</sup>lt;sup>1</sup> Includes legal fees, underwriters' discount, premium for the Policy, premium for the Series 2017 Debt Service Reserve Policy, rating agency fees, fees and expenses of the Trustee, Escrow Agent and municipal advisor, and miscellaneous fees and expenses.

revenues, payments, proceeds, fees, charges, rents and all other income derived by or for the Authority from the ownership and operation of the Triangle Expressway System, and all other income derived by the Authority from the operation or ownership of the Triangle Expressway System, the proceeds of use and occupancy or business interruption insurance and amounts received as liquidated damages under contracts for construction of the Triangle Expressway System and the portion of the State Appropriated Revenues transferred to the Revenue Fund from the State Appropriation Revenue Bonds Trust Agreement. See APPENDIX A hereto for a complete definition of Receipts.

# **Senior Lien Parity Reserve Account**

The Trust Agreement creates a special account of the Senior Lien Debt Service Fund designated the Senior Lien Parity Reserve Account. Each Senior Lien Resolution providing for the issuance or incurrence of Senior Lien Indebtedness may provide that the Senior Lien Indebtedness authorized thereby will be secured by the Senior Lien Parity Reserve Account. If any Senior Lien Indebtedness is secured by the Senior Lien Parity Reserve Account, the Authority must fund the Senior Lien Parity Reserve Account in an amount equal to the Senior Lien Parity Reserve Account Requirement at the time of delivery and payment for such Senior Lien Indebtedness. If the Senior Lien Resolution authorizing Senior Lien Indebtedness does not provide that such Senior Lien Indebtedness will be secured by the Senior Lien Parity Reserve Account, such Senior Lien Indebtedness will have no claim on the Senior Lien Parity Reserve Account.

The Series 2017 Bonds will be secured by the Senior Lien Parity Reserve Account, which also secures the 2009B Bonds. There is currently approximately \$28,402,228 in the Senior Lien Parity Reserve Account. Following the refunding of a portion of the 2009A Bonds, the amount required to be on deposit in the Senior Lien Parity Reserve Account will be \$27,008,311, which is at least equal to the Maximum Long-Term Debt Service Requirement for the Senior Lien Bonds for the current Fiscal Year and the next succeeding four Fiscal Years (the "Senior Lien Parity Reserve Account Requirement"). The Senior Lien Parity Reserve Account Requirement will be satisfied by the Series 2017 Debt Service Reserve Policy issued by AGM. Upon issuance of the Series 2017 Bonds, funds in the Senior Lien Parity Reserve Account will be transferred to the Escrow Fund held by the Escrow Agent or held by the Trustee and used to pay principal and interest on the 2009A Bonds. Moneys on deposit in the Senior Lien Parity Reserve Account (or provided under a Reserve Alternative Instrument) will be used as necessary to pay the principal of and interest on all Senior Lien Indebtedness secured by the Senior Lien Parity Reserve Account to the extent that moneys on deposit in the Senior Lien Debt Service Fund and Accounts thereof for such payment are insufficient therefor. See APPENDIX A – "Definitions of Certain Terms and Summaries of the Trust Agreement" for a more detailed description of the Senior Lien Parity Reserve Account Requirement.

A Senior Lien Resolution authorizing Senior Lien Indebtedness may also provide for the creation of a Special Reserve Account to be maintained by the Trustee or a Depositary that will secure only the Senior Lien Indebtedness authorized by such Senior Lien Resolution. The Series 2017 Bonds will not be secured by a Special Reserve Account.

### Other Funds and Accounts

Revenue Fund. The Revenue Fund is held by the Trustee. The Authority will deposit all Receipts as received in the Revenue Fund for application as hereinafter described.

Senior Lien Debt Service Fund. The Senior Lien Debt Service Fund is held by the Trustee and is composed of six separate accounts, consisting of the Capitalized Interest Account, the Interest Account, the Principal Account, the Sinking Fund Account, the Redemption Account and the Senior Lien Parity Reserve Account. Each Supplemental Agreement authorizing a Series of Bonds will provide for the creation, to the extent applicable, of separate subaccounts within the Capitalized Interest Account, the Interest Account, the Principal Account, the

Sinking Fund Account and the Redemption Account relating to the Series of Bonds authorized by such Supplemental Agreement.

<u>Subordinate Lien Debt Service Fund</u>. In addition to the Senior Lien Debt Service Fund, the Trust Agreement creates a Subordinate Lien Debt Service Fund, to which deposits will be made from receipts to pay debt service on Subordinate Lien Indebtedness (at present, the Plan of Finance does not contemplate the issuance or incurrence of any subordinated indebtedness other than the TIFIA Loan). The deposit to such Fund from Receipts is subordinate to the deposits required to be made to the Senior Lien Debt Service Fund.

<u>TIFIA Debt Service Fund</u>. In addition to the Senior Lien Debt Service Fund, the Trust Agreement creates a TIFIA Debt Service Fund, to which deposits will be made from receipts to pay debt service on the TIFIA Loan. The deposit to such Fund from Receipts is subordinate to the deposits required to be made to the Senior Lien Debt Service Fund.

Hedging Acquisition Account. The Trust Agreement creates a special account designated the Hedging Acquisition Account, which requires that certain deposits be made to such account in the event the Authority issues variable interest rate bonds and enters into a hedging arrangement in connection therewith. The purpose of the Hedging Acquisition Account is to assure that funds are available to pay the termination payments the Authority might be required to pay if such hedge were terminated. The Authority has no present plans to issue variable interest rate bonds under the Trust Agreement.

Operations and Maintenance Expense Fund. Moneys held for the credit of the Operations and Maintenance Expense Fund are to be used only to pay all or a portion of the cost of any Operating Expenses of the Triangle Expressway System.

Operating Reserve Fund. Moneys held for the credit of the Operating Reserve Fund shall be used to pay all or a portion of the cost of any Operating Expenses or as provided in the Capital Improvements Budget to the extent that funds in the Operating and Maintenance Expense Fund are insufficient for such purpose. Any amounts received from NCDOT under its Operating and Maintenance Guaranty Agreement are deposited to the Operating Reserve Fund.

Renewal and Replacement Fund. Moneys held for the credit of the Renewal and Replacement Fund are to be used to pay all or a portion of the cost of unusual or extraordinary maintenance, repairs, renewals or replacements or capital improvements related to the Triangle Expressway. In the Authority's sole discretion, amounts on deposit in the Renewal and Replacement Fund may be used to make debt service payments with respect to Senior Indebtedness, Subordinate Lien Indebtedness, the TIFIA Loan, any Senior Lien Derivative Agreement or Subordinate Lien Derivative Agreement.

<u>Insurance and Condemnation Award Fund</u>. The Insurance and Condemnation Award Fund is held by the Trustee. Under certain circumstances described in the Trust Agreement, Net Insurance Proceeds and Net Eminent Domain Proceeds are required to be deposited by the Authority in the Insurance and Condemnation Award Fund. Moneys held in the Insurance and Condemnation Award Fund will be disbursed to repair or replace the Triangle Expressway System or to pay or redeem Bonds and Parity Debt, in the manner set forth in the Trust Agreement.

General Reserve Fund. The General Reserve Fund is pledged as security for Senior Lien Parity Debt but amounts therein may be used for any lawful purpose of the Authority, including payment of Operating Expenses, payment for capital improvements, repayment to NCDOT of any amount owed under the Operations and Maintenance Expense Guaranty Agreement or the Construction Completion and Renewal and Replacement Guaranty, and the funding of Non-System Projects. While the Series 2017 Debt Service Reserve Policy is in effect, in certain events the Authority's use of the General Reserve Fund will be limited to repayment of certain amounts owed to AGM and debt service on Senior Lien Indebtedness.

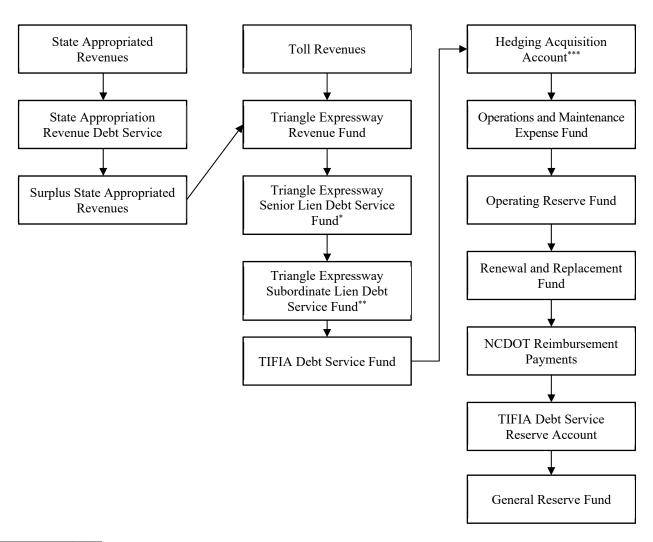
# **Application of Receipts**

The Trust Agreement provides that on the last Business Day of each month, the Trustee shall withdraw all Receipts and other amounts held in the Revenue Fund and apply the same in the following manner and order (see "The Trust Agreement – Application of Receipts" in APPENDIX A hereto for a more detailed description of the application of the Receipts):

- (a) to the Interest Account of the Senior Lien Debt Service Fund and to any other Persons entitled thereto as the holder of Senior Lien Parity Debt the amount (in equal monthly deposits) needed to pay interest payable on Senior Lien Bonds and other Senior Lien Parity Debt on the next Interest Payment Date (if such Interest Payment Date is within seven months of such deposit);
- (b) to the Principal Account and the Sinking Fund Account of the Senior Lien Debt Service Fund and to any other Persons entitled thereto as the holder of Senior Lien Parity Debt the amount (in equal monthly deposits) needed to pay the Principal payable on Senior Lien Bonds and any other Senior Lien Parity Debt on the next Principal Payment Date for each such Senior Lien Bonds or Senior Lien Parity Debt:
- (c) if the amount in the Senior Lien Parity Reserve Account is less than the Senior Lien Parity Reserve Account Requirement or the amount in any Senior Lien Special Reserve Account is less than the applicable Senior Lien Special Reserve Account Requirement, (1) one-twelfth (1/12) of the amount required to make up any deficiency in the Senior Lien Parity Reserve Account and (2) to the Trustee or other Person holding a Senior Lien Special Reserve Account, one-twelfth (1/12) of the amount required to make up any deficiencies in any Senior Lien Special Reserve Account as provided in the Supplemental Agreement or Parity Debt Resolution creating any Senior Lien Special Reserve Accounts for deposit in such Senior Lien Special Reserve Accounts; provided, however, that if there shall not be sufficient Receipts to satisfy all such deposits and payments, such deposits and payments shall be made for deposit to the Senior Lien Parity Reserve Account and each Senior Lien Special Reserve Account ratably according to the amount so required to be deposited or paid;
- (d) to the appropriate subaccounts of the Subordinate Lien Debt Service Fund amounts needed to pay principal of and interest on Subordinate Lien Bonds or Subordinate Lien Parity Debt;
- (e) to the Subordinate Lien Parity Reserve Account, if any, and any Subordinate Lien Special Reserve Account, the amount required to make up any deficiencies therein;
- (f) to the credit of the TIFIA Debt Service Fund an amount equal to the greater of (i) the amount of interest payable on any Outstanding TIFIA Indebtedness on the next Interest Payment Date for such TIFIA Indebtedness (if such Interest Payment Date is within seven months of such deposit) divided by the number of deposits to be made to the TIFIA Debt Service Fund with respect to interest on such TIFIA Indebtedness on or prior to such Interest Payment Date and (ii) forty-five percent (45%) of the remaining Receipts available after making all of the deposits and payments required by subsection (a) to (e), inclusive, above, provided, however, that with the prior written consent of USDOT, the amount to be deposited to the TIFIA Debt Service Fund may be reduced to an amount less than the amount described in (i) and (ii); and provided further that if in connection with the formulation of the Annual Budget, the Authority determines that the percentage specified above is not sufficient to ensure payment in full of all of the principal and interest on the Outstanding TIFIA Indebtedness prior to its final stated maturity date, the Authority shall increase such percentage in a manner determined by the Authority to be necessary to ensure payment in full of all of the principal and interest on the Outstanding TIFIA Indebtedness prior to its final stated maturity date;

- (g) to the Hedging Acquisition Account, the amount of the requirement therefor;
- (h) to the credit of the Operations and Maintenance Expense Fund an amount equal to the next succeeding month's budgeted Operating Expenses as set forth in the Annual Budget;
- (i) to the credit of the Operating Reserve Fund such amount as shall be necessary to make the amount on deposit therein equal to one-fourth (1/4) of the total budgeted Operations and Maintenance Expenses of the Triangle Expressway System for the current Fiscal Year as set forth in the Annual Budget;
- (j) to the credit of the Renewal and Replacement Fund one-twelfth (1/12) of the total amount, if any, required to be deposited therein in such Fiscal Year as set forth in the Annual Budget;
- (k) to NCDOT any amounts necessary to reimburse NCDOT for any Operating Advance made by NCDOT to the Authority pursuant to the Operations and Maintenance Expense Guaranty Agreement or any payments by NCDOT to the Authority pursuant to the Construction Completion and Renewal and Replacement Guaranty, together with interest thereon, at the rates and in the manner provided in the Operations and Maintenance Expense Guaranty Agreement or the Construction Completion and Renewal and Replacement Guaranty;
- (l) to the credit of the TIFIA Debt Service Reserve Account created under the Trust Agreement the amount then needed for the TIFIA Debt Service Reserve Account to equal the requirement therefor, but only to the extent that Receipts for the then current Fiscal Year exceed the projected Receipts for such Fiscal Year; and
- (m) after all deposits are made in accordance with subsections (a) through (1) above, any remaining moneys shall be deposited in the General Reserve Fund.

The following chart depicts the flow of funds under the Trust Agreement, including the flow of funds of the State Appropriation under the State Appropriation Trust Agreement into the Revenue Fund created by the Trust Agreement.



Deposits to the following Accounts in the following order of priority until Account requirement is funded: Interest Account, Principal Account and Sinking Fund Account, Senior Lien Parity Reserve Account.

### TIFIA Indebtedness Upon Occurrence of Bankruptcy-Related Event

In the case of the occurrence of a Bankruptcy-Related Event, all TIFIA Indebtedness shall automatically and without notice be deemed to constitute Senior Lien Parity Debt, and the Holder of such TIFIA Indebtedness shall be entitled to all rights of a Holder of Senior Lien Parity Debt, except that the Holders of TIFIA Indebtedness shall have no rights in, or claim to, any amounts held in the Senior Lien Parity Reserve Account or any Senior Lien Special Reserve Account. A Bankruptcy Related Event with respect to the Authority is defined in the Trust Agreement and the TIFIA Loan Agreement to include voluntary and involuntary proceedings with respect to the Authority under any Insolvency Law, and failure by the Authority generally to pay its debts with respect to the Triangle Expressway as they become due.

<sup>\*\*</sup> The Authority does not have any current plans to issue Subordinate Lien Turnpike Revenue Bonds (excluding the TIFIA Loan).

<sup>\*\*\*</sup> The Hedging Acquisition Account would only be used if the Authority were to issue variable interest rate bonds. At present, the Authority has no plans to issue such Bonds.

### Rate Covenant

Under the Trust Agreement, the Authority has covenanted as follows:

- (i) to fix, charge and collect tolls, fees, rentals and other charges for the use of and for services furnished or to be furnished by the Triangle Expressway System, and that from time to time and as often as it shall appear necessary, to revise such tolls, fees, rentals and other charges as may be necessary or appropriate, in order that for each Fiscal Year, beginning with the first full Fiscal Year in which the Triangle Expressway System is in operation, the Revenues in such Fiscal Year will be not less than 130% of the Long-Term Debt Service Requirement for Senior Lien Indebtedness only for such Fiscal Year; and
- (ii) to fix, charge and collect tolls, fees, rentals and other charges for the use of and for services furnished or to be furnished by the Triangle Expressway System, and that from time to time and as often as it shall appear necessary, to revise such tolls, fees, rentals and other charges as may be necessary or appropriate, in order that for each Fiscal Year, beginning with the first full Fiscal Year in which the Initial Project is in operation, the Revenues in such Fiscal Year will be not less than 110% of (x) the Long-Term Debt Service Requirement for Senior Lien Indebtedness, Subordinate Lien Indebtedness and TIFIA Indebtedness for such Fiscal Year and (y) the deposits to be made to the Senior Lien Parity Reserve Account, the Subordinate Lien Parity Reserve Account and the TIFIA Debt Service Reserve Account for such Fiscal Year.

The Authority also covenants to fix, charge and collect tolls, fees, rentals and other charges so that the Receipts will be sufficient in each fiscal year to make all the deposits to the various funds described above. The Trust Agreement contains certain additional provisions regarding the Authority's covenants as to tolls. See "The Trust Agreement – Rate Covenant" in APPENDIX A hereto for such additional details.

If the rate covenant described in (i) and (ii) above (herein the "Rate Covenant") is not met, the Authority is obligated to request a Traffic Consultant to make its recommendations, if any, as to a revision of the Authority's tolls, fees, rentals and charges, its Operating Expenses or the method of operation of the Triangle Expressway System in order to satisfy the Rate Covenant. The Authority is obligated under the Trust Agreement to revise its tolls, fees, rentals and charges or its Operating Expenses or alter its methods of operation, which revisions or alterations need not comply with the Traffic Consultant's recommendations but which are projected by the Authority to result in compliance with the Rate Covenant. See also "THE TRIANGLE EXPRESSWAY SYSTEM – Toll Rate Policy" herein.

### **Parity and Subordinated Indebtedness**

Under the conditions and limitations set forth in the Trust Agreement and without the approval or consent of the Owners or Holders of Indebtedness, the Authority may issue or incur additional Senior Lien Indebtedness secured by a pledge, charge and lien upon the Trust Estate on a parity with the Series 2017 Bonds.

In general, additional Long-Term Senior Lien Indebtedness may be incurred if prior to incurrence there is delivered to the Trustee:

- (i) an Officer's Certificate certifying that the Authority was in compliance with its rate covenant as described above for the most recent Fiscal Year for which audited financial statements are available:
- (ii) a report of a Traffic Consultant stating that for each Fiscal Year next succeeding the date on which such Senior Lien Indebtedness is incurred through the final maturity date of all Senior Lien Indebtedness, the forecasted Revenues in each such Fiscal Year is at least 140% of the Long-Term Debt

Service Requirement with respect to all Senior Lien Indebtedness (excluding any Long-Term Indebtedness constituting Senior Lien Indebtedness to be refunded by the Long-Term Indebtedness to be incurred) and the Long-Term Indebtedness proposed to be incurred;

- (iii) a report of a Traffic Consultant stating that for each Fiscal Year next succeeding the date on which such Long-Term Indebtedness is incurred through the final maturity date of any Long-Term Indebtedness, the forecasted Revenues in each such Fiscal Year is at least (x) 130% of (1) the Long-Term Debt Service Requirement with respect to all Outstanding Senior Lien Indebtedness, Subordinate Lien Indebtedness and TIFIA Indebtedness (excluding any Long-Term Indebtedness to be refunded by the Long-Term Indebtedness to be incurred) and the Long-Term Indebtedness to be incurred and (2) the amounts to be deposited in such Fiscal Year, the Senior Lien Parity Reserve Account, the Subordinate Lien Parity Reserve Account, and the TIFIA Debt Service Reserve Account, and (y) the Loan Life Coverage Ratio is a least 130%;
- (iv) a report of a Traffic Consultant showing that (1) for each Fiscal Year next succeeding the date on which such Long-Term Indebtedness is incurred through the final maturity date of any Long-Term Indebtedness, the forecasted Revenues in each Fiscal Year will be sufficient to make all of the deposits in each such Fiscal Year required under the Trust Agreement as described in paragraphs (a) through (g) under "--Application of Receipts" above and (2) all Outstanding TIFIA Indebtedness will be fully retired by its final maturity date; and
- (v) evidence that such Senior Lien Indebtedness will be rated at an investment grade rating by Fitch, Moody's or S&P.

In addition, unless AGM agrees otherwise, additional Long-Term Senior Lien Indebtedness may not be incurred unless the Authority files with the Trustee and AGM (a) an Officer's Certificate demonstrating that the Revenues for each of the two most recent Fiscal Years for which audited financial statements are available were, in each Fiscal Year, at least 175% of the Long-Term Debt Service Requirement with respect to all Outstanding Long-Term Indebtedness constituting Senior Lien Indebtedness for such Fiscal Year, (b) a report of the Traffic Consultant described in (ii) above showing that (1) the forecasted Revenues in each Fiscal Year is at least 175% of the Long-Term Debt Service Requirement with respect to all Outstanding Long-Term Indebtedness constituting Senior Lien Indebtedness (excluding any Long-Term Indebtedness constituting Senior Lien Indebtedness to be incurred) and the Long-Term Indebtedness proposed to be incurred, and (2) the forecasted Revenues in each Fiscal Year is also at least 150% of the Long-Term Debt Service Requirement with respect to all Outstanding (and proposed to be incurred) (A) Long-Term Indebtedness constituting Senior Lien Indebtedness (excluding any Long-Term Indebtedness constituting Senior Lien Indebtedness to be refunded by the Long-Term Indebtedness to be incurred) and (B) TIFIA Indebtedness, and (c) evidence that the proposed Senior Lien Indebtedness has been rated at an investment grade rating by at least one nationally recognized municipal bond rating agency.

The Trust Agreement contains certain additional provisions setting forth requirements for the issuance of Senior Lien Indebtedness and certain additional conditions under which Senior Lien Indebtedness may be incurred in order to complete the Initial Project or any Additional Project or to refund Outstanding Long Term Indebtedness or in certain other circumstances. See "The Trust Agreement – Limitation on Senior Lien Indebtedness" in APPENDIX A hereto for such additional details.

Under the conditions and limitations set forth in the Trust Agreement and without the approval or consent of the Owners or Holders of Senior Lien Indebtedness, the Authority may issue or incur Subordinated Indebtedness secured by a pledge, charge and lien upon Trust Estate subordinate to the payment of Senior Lien Indebtedness.

### THE TRIANGLE EXPRESSWAY SYSTEM

# General

The "Triangle Expressway" extends for approximately 18.8 miles from the interchange of I-40 and NC 147 on the north end to the NC 55 Bypass near Holly Springs, North Carolina on the south end, and includes nine interchanges. The Triangle Expressway is a segment of the partially complete "Outer Loop" around the greater Raleigh, North Carolina area. Using the Triangle Expressway, travelers have a limited access, six-lane, high-grade facility from I-40 to the NC 55 Bypass near Holly Springs, reducing congestion on NC 55, a heavily utilized road which runs parallel to the Triangle Expressway. The Triangle Expressway provides access to a rapidly developing area within the Triangle region, which is projected to have substantial increases in both population and employment over the next 25 years, and improves access into the Research Triangle Park and other area employment centers.

The Triangle Expressway was comprised of two major construction projects known as the Triangle Parkway and the Western Wake Freeway. The two projects were financed together, but had two different opening dates based on the volume of work in each project. Phase I of the Triangle Expressway, the Triangle Parkway, broke ground in August 2009 and opened to traffic in December 2011. Phases II and III of the Triangle Expressway, which make up the Western Wake Freeway, opened in August 2012 and December 2012, respectively.

The Triangle Expressway was constructed under two fixed fee, lump sum design-build contracts. All three phases opened ahead of the original scheduled dates, resulting in the payment of significant early completion incentive payments to the design-build teams. The Authority was able to deliver the toll road ahead of schedule by utilizing accelerated project delivery techniques including design-build, accelerated right-of-way acquisition processes, and alternate technical concepts, which allowed maximum innovation by the design-build teams. Opening ahead of schedule allowed for a period of toll-free travel and live system testing prior to the initiation of tolling, which began system-wide on January 3, 2013. The toll system has required minimal system corrections since it began collecting tolls system-wide.

# Maintenance of the Triangle Expressway System

Maintenance is performed to standards defined in the Authority's maintenance rating program guidelines, standard operating procedures for roadway elements, and NCDOT performance standards, and utilizes criteria used to measure compliance. The Authority has an independent consultant who conducts the Maintenance Rating Program ("MRP") for the Triangle Expressway on a quarterly basis. The maintenance rating program assesses various elements of the Triangle Expressway, including road surface, unpaved shoulders and ditches, drainage, roadside and traffic control devices. The Authority's target rating for the MRP is 90; the overall 2016 annual maintenance rating of the Triangle Expressway was 94.2. Maintenance is paid for by the Authority after all other debt payments are made. If the Authority is unable to fund the maintenance costs after satisfying debt payments, the Operations and Maintenance Expense Guaranty Agreement with NCDOT ensures that operating and maintenance costs will be paid by NCDOT.

# **Additional Interchanges and Future Expansion**

The Authority is in the process of adding two additional interchanges to the Triangle Expressway System, one at Veridea Parkway and one at Morrisville Parkway. See the "New Interchanges" on the map set forth on the page following the inside cover page. In addition, the Authority and NCDOT are in the planning stages for the "Complete 540" project which would extend the Triangle Expressway from the NC 55 Bypass in Apex to an interchange with I-40 southeast of Raleigh and then on to the US 64/US 264 Bypass in Knightdale, completing the 540 Outer Loop around the greater Raleigh area.

Veridea Parkway Interchange. The Veridea Parkway interchange is located between the US 1 interchange and the NC 55 Bypass interchange on the southern end of the Triangle Expressway (the "Veridea Interchange"). The Veridea Interchange is expected to improve accessibility and north-south connectivity within southern Apex, North Carolina by providing a direct local link between the Triangle Expressway and Veridea Parkway/Old Holly Springs-Apex Road. The Veridea Interchange will be paid for in part with proceeds of the 2009 Bonds remaining in the Project Fund. The Veridea Interchange is expected to be open to traffic by the end of March 2017. Toll revenues from the Veridea Interchange will be included in Receipts and Revenues.

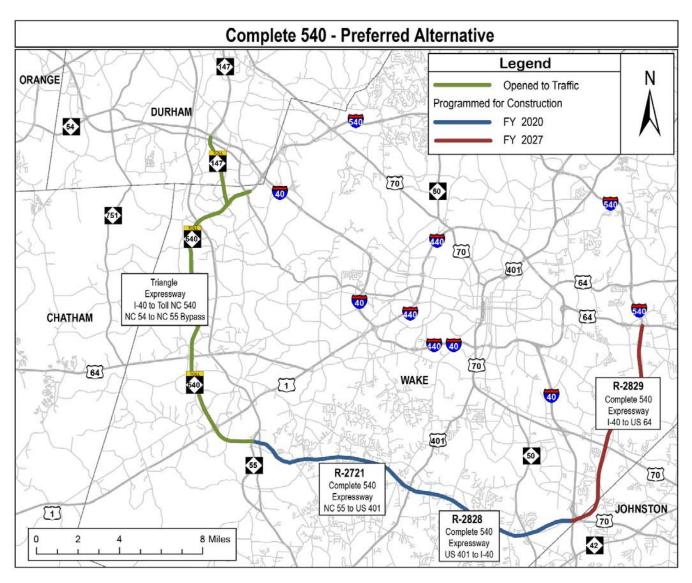
Morrisville Parkway Interchange. The Morrisville Parkway interchange project (the "Morrisville Parkway Interchange") includes an extension of Morrisville Parkway and construction of an interchange with the Triangle Expressway to provide increased connectivity and access. Planning and design of the Morrisville Parkway Interchange were managed by the Town of Cary, North Carolina, in coordination with NCDOT. Funding for the project is included in the NCDOT STIP as project U-5315. A portion of the costs of construction of the Morrisville Parkway Interchange will be funded with proceeds of the 2009 Bonds remaining in the Project Fund. Right-of-way acquisition is in process, and utility relocations are anticipated to begin in May 2017, followed by construction in late 2017, with an anticipated opening by December, 2018. The Morrisville Parkway Interchange project is being developed assuming a design-bid-build delivery method. Toll revenues from the Morrisville Parkway Interchange will be included in Receipts and Revenues.

Proposed Complete 540. The proposed "Complete 540" project would extend the Triangle Expressway from the NC 55 Bypass in Apex to the US 64/US 264 Bypass in Knightdale, completing the 540 Outer Loop around the greater Raleigh area. See the map below entitled "Complete 540 – Preferred Alternative." Complete 540 consists of three separate NCDOT STIP projects (R-2721, R-2828, and R-2829) that are combined for the current planning and environmental study. Two primary objectives have been established for the Complete 540 project, based on general transportation problems in the Raleigh area and specific, more localized needs. The first objective is to improve mobility within or through the study area during peak travel periods. The second objective is to reduce forecast congestion on the existing roadway network within the project study area. A secondary purpose of the project is to improve system linkage in the regional roadway network by completing the 540 Outer Loop around the greater Raleigh area, which has been a goal of area planners for more than 40 years. It is expected that construction of the Complete 540 link would benefit local commuters living south and east of Raleigh as well as motorists making longer trips through the Triangle region to and from points south and east.

The Complete 540 project development process, including the production of design plans and the preparation of various technical reports and environmental documentation to fulfill the requirements of the National Environmental Policy Act ("NEPA") is underway. Engineering and environmental studies evaluated and documented the benefits and impacts associated with the detailed study alternatives and formed the foundation of the Draft Environmental Impact Statement ("Draft EIS") that was published in November 2015 for public review and comment through early January 2016. In December 2015, NCDOT held public meetings and a public hearing regarding the Draft EIS. Following the review of public comments on the Draft EIS and from the public hearing, NCDOT selected "Detailed Study Alternative 2" as the Preferred Alternative for the project in April 2016. Now, work on the Final Environmental Impact Statement (the "Final EIS") is underway to refine the design and technical studies for the Preferred Alternative. It is expected that the Final EIS will be followed by the Record of Decision in mid-2019 to complete the NEPA process.

NCDOT's Draft 2017-2027 STIP includes funding for right of way acquisition and construction beginning in fiscal year 2020 for STIP Project Nos. R-2721 and R-2828, the portion of Complete 540 from NC 55 in Apex to I-40, approximately 16.5 miles of the total 27 mile facility. A construction schedule has not yet been established; however based on a project award in fiscal year 2020, it is estimated that this project would take at least 5 years to construct. The remaining R-2829 portion of the Complete 540 project is funded to begin construction in fiscal year 2027.

The following map shows the expected route of Complete 540, including the STIP project references and expected dates of construction:



No decision has been made as to how Complete 540 will be financed. Such financing could include bonds issued as Additional Bonds under the Trust Agreement (if the requirements for the issuance of Additional Bonds are met), or bonds secured by other revenues or payable from other sources.

# Project Specific Agreement for Triangle Expressway and Executory Contract For Lease of Right-of-Way for Triangle Expressway and Lease Agreement.

The Authority and NCDOT entered into a Project Specific Agreement for Triangle Expressway and Executory Contract for Lease of Right-of-Way for Triangle Expressway (the "Project Specific Agreement") on March 6, 2008. The Project Specific Agreement establishes the terms and conditions under which NCDOT supports the Authority in its efforts to finance, construct, equip, operate and maintain the Triangle Expressway System in accordance with the Authority Act. The Authority and the NCDOT have entered into a Lease Agreement (the "Lease Agreement") under which the NCDOT leases to the Authority all rights-of-way necessary for the Triangle Expressway System for one dollar per year. The Lease Agreement provides the Authority uninterrupted access to

and full use of the Triangle Expressway System rights-of-way up to and until the Authority ceases to operate the Triangle Expressway System as a toll facility, at which time the Lease Agreement will terminate and the Triangle Expressway will revert to the NCDOT.

# **Open Road Tolling**

The Authority utilizes an all-electronic, non-stop "open road" tolling system for the Triangle Expressway System under which there are no typical toll plazas at which drivers stop and pay cash tolls, but rather free flow "toll zones", where vehicles are detected while traveling at highway speeds. Tolling zones are located across the Triangle Expressway at four mainline locations and several interchange ramp locations to ensure that all users of the Triangle Expressway pay a toll regardless of their entry and exit locations. All drivers are welcome to use the Triangle Expressway. Regular customers may pay their tolls via a pre-paid transponder based account, which results in a 35% discount on rates compared to Bill by Mail customers. Customers using the Triangle Expressway that do not have a transponder are detected at the toll zones and an image of their license plate is captured. These customers are then billed by mail. Cash payment customers are able to make their payments at customer service centers located near the Triangle Expressway.

# **Toll Collection System Technology**

Roadside Toll Collection System. The Roadside Toll Collection System ("RTCS") is the system for detecting use of the roadway, and capturing transactions through license plate images with multiple levels of optical character recognition/automated license plate recognition ("OCR/ALPR") capabilities. The Roadside Toll Collection System is a fully automated, multi-lane, free-flow system, specifically designed for high-speed accurate video tolling with strict video and automatic vehicle license plate reading performance requirements. It includes fully automated toll zone plazas, toll facilities host and database. The RTCS was installed and is operated by Conduent Incorporated ("Conduent") which was spun off from Xerox Corporation in January 2017.

Electronic Toll Collection System. The Electronic Toll Collection ("ETC") system consists of the transponder and reader/antenna technology, which was installed and is operated by TransCore, LP ("ETC Contractor"). The ETC system facilitates All Electronic Tolling ("AET") by processing transponder reads at all speeds, effectively communicating transactions, and assigning reads to the proper vehicles. This system is known as "NC Quick Pass®." The ETC Contractor's responsibilities includes working directly with the Authority to provide maintenance and transponder marketing support for the ETC System. The ETC Contractor coordinates with the Roadside Toll Collection System contractor to ensure seamless and accurate operation with and within the RTCS. The ETC contractor also interfaces with the Back Office System contractor through the transponder reader for automatic input of the transponders into a transponder inventory application and customer accounts.

Back Office System. The Back Office System processes the roadside toll transactions and posts these transactions to the transponder and video based accounts, and is also operated by Conduent. The Back Office System includes the system host, data bases, and the video processing for customers without registered pre-paid accounts. The Back Office System is the interface to the payment systems and commercial establishments.

Operation Services. The Operation Services contractor (the "Operations Contractor") is AECOM, which provides for the operations of the customer service center, and provides customer service, account management, and traffic management center staffing. This includes operational service for the call center, walk-in counters, mail and e-mail processing, transponder inventory control, and all other activities involving Back Office System processes.

All of the vendors for the toll collection system were selected after a procurement process as part of the construction of the Triangle Expressway System.

# **Interoperability**

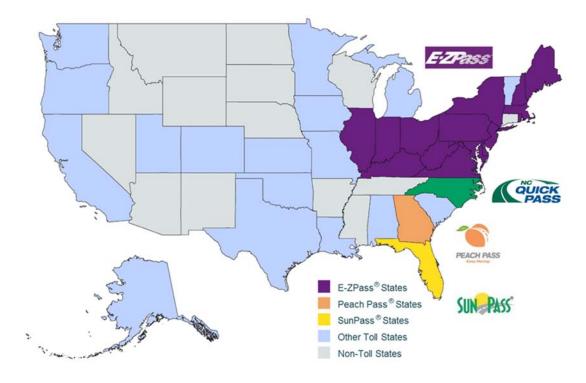
In January of 2013, the Authority and the E-ZPass Group entered into an interoperability agreement that permits the 38 E-ZPass® agencies in 15 states to accept the NC Quick Pass® hard case transponder as a form of payment, and permits the Authority to accept E-ZPass® as a form of payment on the Triangle Expressway. This agreement enables the Authority to do business with the more than 30 million drivers who have E-ZPass® transponders.

A similar agreement was executed at the beginning of fiscal year 2014 between the Authority and Florida's SunPass® Prepaid Toll Program. This agreement allows SunPass® customers to utilize the Triangle Expressway, while also allowing NC Quick Pass® customers to use their hard case or sticker transponder wherever SunPass® is accepted in Florida. NC Quick Pass® customers also have interoperability with Georgia's Peach Pass®, allowing Peach Pass® customers to drive the Triangle Expressway and NC Quick Pass® customers to pay for use of toll facilities in Georgia with their NC Quick Pass® transponder.

The agreements with E-ZPass®, SunPass®, and Peach Pass® have expanded the versatility of the NC Quick Pass® system and allowed NC Quick Pass® to be the premier transponder program along the east coast. In September 2016, the Authority received the President's Award for Excellence from The International Bridge, Tunnel and Turnpike Association (IBTTA) for its Multi-Agency Interoperability Program.

In fiscal year 2016, the total number of transactions for non-NC Quick Pass® customers utilizing the Triangle Expressway System was almost 3.9 million; the number of owners of NC Quick Pass® transponders utilizing other states' facilities was approximately 0.8 million.

The map set forth below shows the states utilizing the E-ZPass®, SunPass®, and Peach Pass® systems in which the NC Quick Pass® system can be used.



# **Intelligent Transportation System**

The Triangle Expressway Intelligent Transportation System ("ITS") consists of roadside devices including closed circuit television ("CCTV") cameras, microwave vehicle detection stations ("MVDS"), full-matrix dynamic message signs ("DMS") and a road weather system ("RWIS"). The Intelligent Transportation System is connected via a 38-mile fiber-optic communications system using Gigabit Ethernet technology for both the toll collection system and the Intelligent Transportation System. The ITS provides video and data sharing with the Authority, NCDOT, and Triangle Expressway users and facilitates data sharing with the toll collection system to allow for congestion pricing and other variable pricing plans.

The Authority has traffic management workstations and office space allocated in the North Carolina Traffic Operations Center located in the National Guard Joint Headquarters Building in Raleigh. This facility also serves as the State's emergency management center. A small size traffic management center ("TMC") is also equipped for the Authority in a Customer Service Center facility. This TMC serves as a location for the Authority to monitor traffic conditions on the Triangle Expressway.

### **Toll Collection Enforcement**

The Authority maintains a Customer Service Center in the vicinity of the Triangle Expressway for customers to pay tolls with cash if they do not have a pre-paid transponder or video based account.

The Authority permits two payment programs on the Triangle Expressway: electronic toll collection using NC Quick Pass® or Bill by Mail using the OCR/ALPR system described under "Toll Collection System Technology -Roadside Toll Collection System" above. Under the Authority's Toll Rate Policy, Bill by Mail toll rates are the base rates and NC Quick Pass® customers receive a 35% discount off of the Bill by Mail toll rate. The NC Quick Pass® program involves setting up a pre-paid account with the Authority and installing a transponder in the vehicle that automatically deducts tolls from a pre-paid account. Drivers not in the NC Quick Pass® program are automatically charged through the Bill by Mail program.

If a customer uses the Triangle Expressway system and a toll is not paid within 15 days after the travel occurs, the Authority will send a bill within 90 days after the travel occurs to the registered owner of the motor vehicle for the amount of the unpaid toll. A person who receives a bill for an unpaid toll must either pay the bill or request a review of the bill by the Authority. If the person billed does not take one of such actions within 30 days after the bill is sent, the Authority will add a \$6.00 processing fee to the toll amount the person owes with a maximum of \$48.00 in processing fees allowed against that person in a calendar year. A person who receives one or more bills for unpaid tolls during the first or second 6-month period in a year and who does not pay the amount on these bills within 30-days after the end of such 6-month period is subject to a civil penalty of \$25.00. Only one civil penalty may be assessed for a six-month period. The failure of a person to pay a toll billed to the person, including any processing fee and any civil penalty, is grounds to withhold the registration renewal of a motor vehicle registered in that person's name. When the Authority notifies the North Carolina Commissioner of Motor Vehicles of a person who owes a toll, processing fee or civil penalty, the North Carolina Commissioner of Motor Vehicles must withhold the registration renewal of any motor vehicle registered in that person's name until the required payment is made. If necessary, the Authority uses collection agencies to collect unpaid tolls and fees from out-ofstate users of the Triangle Expressway. As of the end of fiscal year 2015, the Authority was billing approximately 93% of the transactions and collecting approximately 94% of the tolls billed, resulting in a combined toll collection rate of approximately 88%. Although this rate is less than the collection rate projected in the 2013 Impact Analysis, it is balanced with significantly higher usage and toll revenue collection compared to the 2013 Impact Analysis. See "2013 IMPACT ANALYSIS - Performance of Triangle Expressway Compared to 2013 Impact Analysis."

A person whose motor vehicle registration renewal is blocked may pay to the Division of Motor Vehicles of NCDOT the amount owed for unpaid tolls, processing fees, and civil penalties due when renewing the vehicle

registration. The Division must remit to the Authority the amount of tolls, fees, and civil penalties collected. The Division's costs of collecting tolls, fees, and civil penalties are considered a necessary expense of the operation of the Authority, and the Authority must reimburse the Division for these costs.

If a person receiving a bill asks for a review of the bill for use of the Triangle Expressway, then the Authority is to conduct an informal review and determine whether the person is liable for the toll. If the Authority determines that the person is liable for the toll, the person may contest this determination by filing a petition for a contested case hearing at the North Carolina Office of Administrative Hearings.

Under the North Carolina constitution, amounts collected in the form of civil penalties in excess of the cost of collection are required to be paid to the school administrative unit to provide additional support for the public school system. As such, a large portion of the civil penalties the Authority collects from the Triangle Expressway System will not be treated as Receipts under the Trust Agreement and will not be paid to the Authority. The Authority will be entitled to collect the full amount of all tolls and the processing fees, as well as recover its costs of collections.

# **Toll Rate Policy**

Pursuant to Section 136-89.183 of the North Carolina General Statutes, the Authority has the power to fix, revise, charge, retain, enforce, and collect tolls and fees for the use of turnpike projects, including the Triangle Expressway.

On September 17, 2008, the Authority adopted a toll rate policy (the "Toll Rate Policy") which provides guidelines pursuant to which the Authority shall establish and adjust toll rate schedules for its turnpike projects. Pursuant to the Toll Rate Policy, the Authority was required to hire the Traffic Consultant to prepare a Traffic and Revenue Report for the Triangle Expressway and forecast the projected traffic for and the toll revenues to be generated from the Triangle Expressway. After receipt of such Traffic and Revenue Study, the Toll Rate Policy directs the Authority to adopt a toll rate schedule for the use of the turnpike project based upon factors it determines appropriate, including but not limited to, the location of the turnpike project for which the toll is collected, the type of vehicles anticipated to use the turnpike project, the method of collection of the toll (electronic, video, cash or other method) and other factors, including the rate increase assumptions in the Traffic and Revenue Study. The Traffic Consultant prepared the Comprehensive Traffic and Revenue Study Final Report for the Triangle Expressway System dated April 6, 2009 (the "Traffic and Revenue Report"), which contains a proposed toll rate schedule with the assumption that the tolls would be increased each year. A copy of the Traffic and Revenue Report is available on the Authority's web page at <a href="https://www.ncdot.gov/projects/triangleexpressway">https://www.ncdot.gov/projects/triangleexpressway</a> under the heading "Client Proposed Triangle Expressway Comprehensive Traffic and Revenue Study (April 2009)."

Under the Toll Rate Policy, an increase in the toll rates is required in each year unless the Authority provides to the Trustee (1) a resolution of the Authority's Board directing that the toll rates will not be increased or will be increased in a lesser amount than assumed in the Traffic and Revenue Report; (2) a certificate of an officer of the Authority to the effect that the Authority is in compliance with all applicable rate covenants in the Trust Agreement and all other documents for the Bonds issued to finance the Triangle Expressway; and (3) a report of the Traffic Consultant showing that for each succeeding fiscal year through the final maturity date for all indebtedness issued to finance the Triangle Expressway, the forecasted Revenues in each such fiscal year would be such that one dollar of additional senior lien indebtedness could be issued by the Authority in compliance with the requirements of the additional debt limitations set forth in the documents related to all bonds issued to finance the Triangle Expressway.

In 2012 and 2013, in order to reflect the actual start of toll collections on various phases of the Triangle Expressway and to ensure that toll rates were not increased precipitately, the Authority engaged the Traffic Consultant to provide revised annual gross toll revenue estimates based on delayed implementation dates for programmed toll increases to better reflect the actual dates of operation of the Triangle Expressway. The Traffic

Consultant delivered a 2012 Revised Toll Revenue Letter dated December 13, 2012 (the "2012 T&R Letter") and a 2013 Revised Toll Revenue Letter dated June 3, 2013 (the "2013 T&R Letter"). By resolutions adopted on December 20, 2012, and again on June 20, 2013, the Authority determined to adopt a toll rate schedule that deferred inception of rates or rate increases for certain road segments and changed the date of toll increases from July to January in each year. In March, 2016, the Traffic Consultant delivered a report addressing the impact of the addition of the new Veridea Interchange to the Triangle Expressway System, based on an expected opening date by the end of March, 2017, which included a revised proposed toll rate schedule for that interchange. On August 4, 2016, the Authority adopted the rates included in the March 31, 2016 report as the toll rates for the Veridea Interchange. Each revision of the toll rate schedule included a formal revision to the Traffic and Revenue Report, a determination by the Authority's financial advisor that the new forecasted revenues would be sufficient under the Trust Agreement to meet the Rate Covenant, and an opinion of bond counsel to the Authority that such action would not have an adverse effect on the exclusion of interest on the Bonds issued under the Trust Agreement from gross income for federal income tax purposes or cause the Authority to be in violation of any of its covenants under the Trust Agreement.

# **2013 IMPACT ANALYSIS**

In 2013, the Traffic Consultant prepared an Updated Impact Analysis (the "2013 Impact Analysis") to take into account the impact of the two new interchanges (the Morrisville Parkway Interchange and the Veridea Interchange, which is referred to as the "Apex Interchange" in the 2013 Impact Analysis) on the conclusions in the original Traffic and Revenue Report, as modified by the 2012 T&R Letter and the 2013 T&R Letter. A complete copy of the 2013 Impact Analysis is included as APPENDIX B. The 2013 Impact Analysis used as its "Base Case" the toll rates reflected in the Traffic and Revenue Study, as revised pursuant to the 2012 T&R Letter and its 2013 T&R Letter. See Table 3 in APPENDIX B to see the rates currently used by the Authority for the original nine interchanges of the Triangle Expressway. The 2013 Impact Analysis includes an estimate of annual gross toll revenue using the Base Case as well as a revenue forecast that includes the two new interchanges. See Table 15 in APPENDIX B.

The 2013 Impact Analysis begins from the assumptions in the Traffic and Revenue Report, which was a comprehensive study. The Traffic and Revenue Report made certain assumptions about the tolling process and dates as of which the Triangle Expressway would become operational, as well as other factors that could affect revenues produced by the Triangle Expressway System, including analysis of traffic counts, travel patterns, traffic models, and socioeconomic data, and made certain assumptions relating to available toll free routes, economic growth, motor fuel cost and inflation, among other factors. The 2013 Impact Analysis, 2012 T&R Letter and the 2013 T&R Letter do not update all of the assumptions and analysis used in the Traffic and Revenue Report. In preparing the 2013 Impact Analysis, the Traffic Consultant updated the base case and future year toll rates based on the interim reports, and adjusted traffic estimates based on actual traffic volumes compared to previous traffic forecasts. In the 2013 Impact Analysis, the Traffic Consultant developed updated transaction and toll revenue estimates for the base case and each of the new interchanges from fiscal year 2016 through fiscal year 2051, but did not perform a new comprehensive study.

At the request of the Authority, the Traffic Consultant has updated Table 16 (Comparison of Estimated Adjusted Toll Revenues) of the 2013 Impact Analysis to take into account the expected opening date of the Veridea Interchange on April 1, 2017, and the Morrisville Interchange on January 1, 2019. The Veridea Interchange was previously named the Apex Interchange, and it is labeled as the Apex Interchange in Table 16. The forecasts also assume a ramp-up to full traffic volumes over the first three years of operation of each interchange. The updated table is set forth on the following page.

Table 16 Comparison of Estimated Adjusted Toll Revenues Triangle Expressway

Estimated Annual Adjusted Toll Revenue (\$000s)

Percent Difference in Adjusted Toll Revenue Compared to the Base Case

					_			
Fiscal Year Ending June 30	Base Case	Morrisville Interchange Scenario	Apex Interchange Scenario	Morrisville and Apex Interchange Scenario		Morrisville Interchange Scenario	Apex Interchange Scenario	Morrisville and Apex Interchange Scenario
20131	\$10,218	\$10,218	\$10,218	\$10,218	-	0.0%	0.0%	0.0%
2014	17,012	17,012	17,012	17,012		0.0	0.0	0.0
2015	22,906	22,906	22,906	22,906		0.0	0.0	0.0
2016	28,050	28,050	28,050	28,050		0.0	0.0	0.0
$2017^{2}$	31,421	31,421	31,802	31,802		0.0	1.2	1.2
2018	34,889	34,889	36,888	36,888		0.0	5.7	5.7
$2019^{3}$	38,801	38,915	41,776	42,021		0.3	7.7	8.3
2020	43,325	43,755	47,463	47,896		1.0	9.6	10.6
2021	48,040	48,972	52,600	53,536		1.9	9.5	11.4
2022	52,606	54,467	56,812	58,677		3.5	8.0	11.5
2023	57,869	60,749	61,721	64,602		5.0	6.7	11.6
2024	63,689	67,744	67,173	71,229		6.4	5.5	11.8
2025	70,225	75,709	73,393	78,877		7.8	4.5	12.3
2026	75,611	81,750	78,603	84,741		8.1	4.0	12.1
2027	79,807	85,642	83,015	88,851		7.3	4.0	11.3
2028	84,161	89,584	87,760	93,185		6.4	4.3	10.7
2029	88,769	93,659	92,921	97,811		5.5	4.7	10.2
2030	93,831	98,087	98,735	102,993		4.5	5.2	9.8
2031	98,435	102,404	103,867	107,837		4.0	5.5	9.6
2032	102,369	106,481	108,017	112,127		4.0	5.5	9.5
2033	106,463	110,725	112,336	116,599		4.0	5.5	9.5
2034	110,839	115,263	116,952	121,376		4.0	5.5	9.5
2035	115,281	119,867	121,636	126,221		4.0	5.5	9.5
2036	119,565	124,308	126,157	130,900		4.0	5.5	9.5
2037	123,671	128,570	130,488	135,388		4.0	5.5	9.5
2038	127,917	132,977	134,966	140,026		4.0	5.5	9.5
2039	132,312	137,538	139,601	144,828		4.0	5.5	9.5
2040	136,855	142,252	144,394	149,794		3.9	5.5	9.5
2041	140,556	146,096	148,299	153,841		3.9	5.5	9.5
2042	143,369	149,018	151,266	156,919		3.9	5.5	9.5
2043	146,236	152,002	154,294	160,059		3.9	5.5	9.5
2044	149,160	155,039	157,377	163,258		3.9	5.5	9.5
2045	152,142	158,139	160,524	166,522		3.9	5.5	9.5
2046	155,187	161,303	163,736	169,853		3.9	5.5	9.5
2047	158,289	164,528	167,009	173,249		3.9	5.5	9.5
2048	161,454	167,820	170,351	176,714		3.9	5.5	9.5
2049	164,685	171,178	173,759	180,252		3.9	5.5	9.5
2050	167,978	174,599	177,234	183,855		3.9	5.5	9.5
2051	171,337	178,092	180,778	187,532		3.9	5.5	9.5

<sup>&</sup>lt;sup>1</sup> Full project opened January 1, 2013.

Such revenues are shown under the Toll Revenue column under "PROJECTED CASH FLOW AND DEBT SERVICE COVERAGE – Table of Projected Revenues, Operations and Maintenance Expenses, Cash Flows and Debt Service Coverage Ratios."

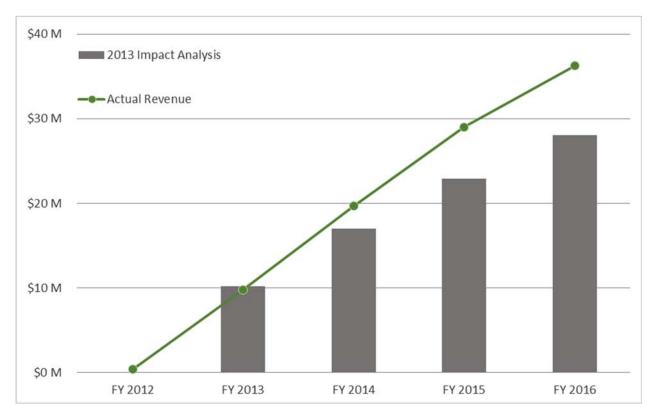
<sup>&</sup>lt;sup>2</sup> Apex Interchange is assumed to open on April 1, 2017.

<sup>&</sup>lt;sup>3</sup> Morrisville Interchange is assumed to open on January 1, 2019.

Note: Forecasts include an assumed ramp-up to full traffic volumes. Ramp-up is assumed to occur over the first three years of operation. The assumed ramp-up is applied by each phase or interchange, reflecting the opening date of each toll zone.

# Performance of Triangle Expressway Compared to 2013 Impact Analysis

The following chart shows the actual performance of the Triangle Expressway as compared to the 2013 Impact Analysis in each year of operation through June 30, 2016:



The following table shows actual and projected toll Revenues, as well as compliance with the Rate Covenant, for the fiscal years ending June 30, 2012 through June 30, 2016:

**Senior Lien Debt Service Coverage** 

Fiscal Year	2013 Impact Analysis Projected Revenues	Actual	Senior Lien Debt Service Coverage	Senior Lien Debt Service Coverage (including TIFIA Loan)
2012	N/A	\$ 412,522	-	-
2013	\$ 10,218,000	\$ 9,817,739	-	-
2014	\$ 17,012,000	\$ 19,675,445	2.72	2.71
2015	\$ 22,906,000	\$ 28,998,493	3.22	1.41
2016	\$ 28,050,000	\$ 36,254,534	3.85	1.54

# PROJECTED CASH FLOW AND DEBT SERVICE COVERAGE

# Table of Projected Revenues, Operations and Maintenance Expenses, Cash Flows and Debt Service Coverage Ratios

The table below has been compiled by the Authority to show the projections for estimated Toll Revenues, the debt service requirements for the Series 2017 Bonds, the remaining 2009A Bonds and the 2009B Bonds, estimated debt service coverage ratios for Senior Lien Bonds and the TIFIA Loan, projected Operation and Maintenance Expenses, projected deposits to and expenditures from the Renewal and Replacement Fund, and projected deposits to and expenditures from the General Reserve for each of the fiscal years ending June 30, 2017 through June 30, 2049.

See also "RISK FACTORS – Forward-Looking Statements."

[See next page for Table]

# Preliminary Projected Cash Flow and Debt Service Coverage

	A	В	C	D	E	F	G	Н	I
			Total	Series 2017	Outstanding	Total Senior	Senior Lien Debt	Senior Lien	Excess Revenues
Fiscal Year	Toll	Net State	Pledged	Bonds	Senior Lien	Lien	Service Reserve	Parity Reserve	after Senior Lien
30-Jun	Revenues	Appropriation	Receipts	Debt Service	Debt Service	Debt Service	Fund Earnings	Account Deposit	Debt Service
2017	31,802,000	6,619,495	38,421,495	(2,500,754)	(9,713,120)	(12,213,874)	452,852	-	26,660,473
2018	36,888,000	3,046,537	39,934,537	(12,974,094)	(27,000)	(13,001,094)		-	26,933,443
2019	42,021,000	826,102	42,847,102	(12,972,094)	(613,500)	(13,585,594)		-	29,261,508
2020	47,896,000	839,779	48,735,779	(15,116,844)	-	(15,116,844)		-	33,618,935
2021	53,536,000	851,506	54,387,506	(16,709,219)	-	(16,709,219)		-	37,678,287
2022	58,677,000	-	58,677,000	(17,893,344)	-	(17,893,344)		-	40,783,656
2023	64,602,000	-	64,602,000	(19,645,594)	-	(19,645,594)		-	44,956,406
2024	71,229,000	-	71,229,000	(21,615,844)	-	(21,615,844)		-	49,613,156
2025	78,877,000	-	78,877,000	(20,847,469)	-	(20,847,469)		-	58,029,531
2026	84,741,000	-	84,741,000	(20,847,719)	-	(20,847,719)		-	63,893,281
2027	88,851,000	-	88,851,000	(20,846,094)	-	(20,846,094)		-	68,004,906
2028	93,185,000	-	93,185,000	(20,850,594)	-	(20,850,594)		-	72,334,406
2029	97,811,000	-	97,811,000	(20,847,297)	-	(20,847,297)		(6,028,689)	70,935,014
2030	102,993,000	-	102,993,000	(16,428,000)	(4,420,000)	(20,848,000)		(1,575,000)	80,570,000
2031	107,837,000	-	107,837,000	(19,153,500)	(1,695,000)	(20,848,500)		(1,640,000)	85,348,500
2032	112,127,000	-	112,127,000	(19,174,875)	(1,675,000)	(20,849,875)		(1,580,000)	89,697,125
2033	116,599,000	-	116,599,000	(1,017,000)	(32,020,000)	(33,037,000)		(1,515,000)	82,047,000
2034	121,376,000	-	121,376,000	(1,017,000)	(33,595,000)	(34,612,000)		-	86,764,000
2035	126,221,000	13,322	126,234,322	(1,017,000)	(35,235,000)	(36,252,000)		-	89,982,322
2036	130,900,000	47,416	130,947,416	(1,017,000)	(36,815,000)	(37,832,000)		-	93,115,416
2037	135,388,000	83,741	135,471,741	(1,017,000)	(38,330,000)	(39,347,000)		-	96,124,741
2038	140,026,000	124,106	140,150,106	(1,017,000)	(22,050,000)	(23,067,000)		-	117,083,106
2039	144,828,000	71,512	144,899,512	(20,848,500)	-	(20,848,500)		-	124,051,012
2040	149,794,000	-	149,794,000	-	-	-		-	149,794,000
2041	153,841,000	-	153,841,000	-	-	-		-	153,841,000
2042	156,919,000	-	156,919,000	-	-	-		-	156,919,000
2043	160,059,000	-	160,059,000	-	-	-		-	160,059,000
2044	163,258,000	-	163,258,000	-	-	-		-	163,258,000
2045	166,522,000	-	166,522,000	-	-	-		-	166,522,000
2046	169,853,000	-	169,853,000	-	-	-	-	-	169,853,000
2047	173,249,000	-	173,249,000	-	-	-	-	-	173,249,000
2048	176,714,000	-	176,714,000	-	-	-	-	-	176,714,000
2049	180,252,000	-	180,252,000	-	-	-	-	-	180,252,000

A Source: CDM Smith Inc.; Toll Revenues shown are based on Table 16 of the 2013 Impact Analysis, adjusted to reflect current construction schedules and anticipated opening dates of the new interchanges. See the table above under "2013 IMPACT ANALYSIS."

B Scheduled annual State Appropriation of \$25,000,000 less debt service on the State Appropriation Bonds. In years that the Appropriation is less than outstanding debt service due to federal sequestration, the remaining debt service is paid from the General Reserve.

C Toll Revenues (A) plus Net State Appropriation (B).

D Debt service on the Series 2017 Bonds.

E Other outstanding Senior Lien Debt Service, which includes the unrefunded Series 2009A Bonds and the Series 2009B Bonds.

F Series 2017 Bonds Debt Service (D) plus Outstanding Senior Lien Debt Service (E).

Estimated interest earnings on the Senior Lien Parity Reserve Account through March 30, 2017. Following the issuance of the Series 2017 Bonds, the Senior Lien Parity Reserve Account Requirement will be satisfied by the Series 2017 Debt Service Reserve Policy and therefore no further earnings are projected over the life of the Series 2017 Bonds.

H Estimated future deposits to the Senior Lien Parity Reserve Account to meet the requirement thereof as annual debt service on the Senior Lien Parity Bonds increases.

Total Pledged Receipts (C) less Total Senior Lien Debt Service (F) plus Senior Lien Debt Service Reserve Fund Earnings (G) less Senior Lien Parity Reserve Account Deposit (H).

# Preliminary Projected Cash Flow and Debt Service Coverage (continued)

	J	K	L	M	N	0	P	Q	R
	TIFIA	Senior Lien	Aggregate	Operations &	Renewal &	TIFIA Reserve	General Reserve	General	Payment on
Fiscal Year	Debt	Debt Service	Debt Service	Maintenance	Replacement	Fund (Deposit)/	Deposit/	Reserve	Appropriation
30-Jun	Service	Coverage	Coverage	Requirement	Requirement	Release	(Withdrawl)	Balance	Debt Service
2017	(18,292,253)	3.27x	1.28x	(16,345,482)	(1,516,124)	-	(9,493,387)	85,996,354	-
2018	(18,292,253)	3.07x	1.28x	(15,450,026)	(1,518,135)	(116,900)	(8,443,871)	77,552,483	-
2019	(18,292,253)	3.15x	1.34x	(14,905,865)	(5,386,500)	(231,600)	(9,554,710)	67,997,773	-
2020	(18,292,253)	3.22x	1.46x	(14,533,253)	(5,359,893)	(360,300)	(4,926,764)	63,071,010	-
2021	(18,292,253)	3.25x	1.55x	(14,983,509)	(5,335,105)	(446,100)	(1,378,679)	61,692,330	-
2022	(18,626,104)	3.28x	1.61x	(15,382,560)	(5,309,333)	(487,400)	978,259	62,670,590	(308,634)
2023	(20,504,413)	3.29x	1.61x	(15,927,391)	(5,333,825)	(554,300)	2,636,477	64,998,433	(289,605)
2024	(22,607,823)	3.30x	1.61x	(16,484,927)	(5,313,523)	(624,100)	4,582,784	69,291,612	(271,161)
2025	(26,410,435)	3.78x	1.67x	(17,065,416)	(8,700,333)	(730,700)	5,122,647	74,143,098	(252,493)
2026	(29,065,854)	4.06x	1.70x	(17,497,522)	(8,661,317)	(757,700)	7,910,888	81,801,493	(229,422)
2027	(30,932,877)	4.26x	1.72x	(17,811,146)	(8,693,645)	(747,900)	9,819,338	91,391,409	(208,262)
2028	(32,895,966)	4.47x	1.73x	(18,167,066)	(7,541,727)	(748,100)	12,981,547	104,164,694	(183,532)
2029	(32,280,187)	4.69x	1.65x	(18,534,049)	(7,505,254)	(740,400)	11,875,124	115,856,286	(158,992)
2030	(36,630,458)	4.94x	1.74x	(18,916,793)	(7,467,545)	(738,300)	16,816,904	132,514,198	(133,286)
2031	(38,795,895)	5.17x	1.76x	(19,284,069)	(7,432,011)	(748,300)	19,088,225	151,469,137	(105,059)
2032	(40,767,913)	5.38x	1.77x	(19,637,956)	(7,394,303)	(773,900)	21,123,053	172,487,131	(77,843)
2033	(37,339,861)	3.53x	1.62x	(20,004,259)	(7,388,639)	(798,200)	16,516,041	188,925,329	(50,057)
2034	(39,469,598)	3.51x	1.64x	(20,379,953)	(7,395,160)	(837,000)	18,682,288	207,557,560	(15,233)
2035	(40,917,843)	3.48x	1.64x	(20,762,636)	(7,446,842)	(864,700)	19,990,301	227,532,628	-
2036	(42,327,735)	3.46x	1.63x	(21,148,459)	(7,414,873)	(121,580)	22,102,768	249,635,396	-
2037	(43,681,932)	3.44x	1.63x	(21,539,528)	(7,512,195)	4,921,952	28,313,039	277,948,436	-
2038	(53,113,196)	6.08x	1.84x	(22,078,840)	(7,474,486)	5,058,416	39,475,001	317,423,436	-
2039	(56,035,854)	6.95x	1.88x	(22,604,852)	(10,347,500)	5,474,445	40,537,250	357,960,687	-
2040	(22,764,487)		6.58x	(23,149,998)	(10,295,763)	2,268,946	95,852,699	453,813,385	-
2041	-			(23,698,872)	(10,247,350)	(1,041,100)	118,853,679	572,667,064	-
2042	-			(24,247,962)	(10,195,613)	1,059,840	123,535,266	696,202,329	-
2043	-			(24,814,550)	(10,309,035)	-	124,935,415	821,137,744	-
2044	-			(25,395,295)	(10,289,983)	-	127,572,722	948,710,467	-
2045	-			(25,998,598)	(10,281,005)	-	130,242,397	1,078,952,864	-
2046	-			(26,622,024)	(10,238,708)	-	132,992,268	1,211,945,132	-
2047	-			(27,260,726)	(10,268,490)	-	135,719,785	1,347,664,916	-
2048	-			(27,916,706)	(10,217,398)	-	138,579,896	1,486,244,813	-
2049	-			(28,590,016)	-	-	151,661,984	1,637,906,797	-

J Estimated TIFIA Mandatory Debt Service and TIFIA Scheduled Debt Service as of the date of this Official Statement.

K Total Pledged Receipts (C) divided by the sum of Total Senior Lien Debt Service (F) plus Senior Lien Debt Service Reserve Fund Earnings (G).

L Total Pledged Receipts (C) divided by the sum of Total Senior Lien Debt Service (F), Senior Lien Debt Service Reserve Fund Earnings (G), Senior Lien Parity Reserve Account Deposit (H) and TIFIA Debt Service (J).

M Estimated deposits to the Operations and Maintenance Expense Fund and the Operating Reserve Fund.

N Estimated deposits to the Renewal and Replacement Fund.

O Estimated future deposits to the TIFIA Reserve Fund to meet the requirement thereof.

P The sum of Excess Revenues after Senior Lien Debt Service (I), TIFIA Debt Service (J), Operations & Maintenance Requirement (M), Renewal & Replacement Requirement (N) and TIFIA Reserve Fund (Deposit)/Release (O).

Q The sum of the Prior Year General Reserve Balance (Q) plus prior year Payment on Appropriation Debt Service (R) and current year General Reserve Deposit/(Withdrawal)

R Receipts needed to pay debt service on the State Appropriation Bonds in excess of the \$25 million annual State Appropriation due to federal sequestration.

# RISK FACTORS

The following is a discussion of certain risk factors that should be considered in evaluating an investment in the Series 2017 Bonds. This discussion does not purport to be either comprehensive or definitive. The order in which risks are presented is not intended to reflect either the likelihood that a particular event will occur or the relative significance of such an event. Moreover, there may well be other risks associated with an investment in the Series 2017 Bonds in addition to those set forth herein.

#### General

The financial forecasts in this Official Statement are based generally upon certain assumptions and upon projections as to estimated Revenues and Operations and Maintenance Expenses. See "APPENDIX B-2013 IMPACT ANALYSIS." Inevitably, some underlying assumptions and projections used to develop the forecasts will not be realized, and unanticipated events and circumstances may occur. Therefore, the actual results achieved during the forecast periods will vary from the forecasts, and such differences may be material.

# **Forward-Looking Statements**

The statements contained in this Official Statement, and in other information provided by the Authority, that are not purely historical, are forward-looking statements, including statements regarding the Authority's expectations, hopes, intentions or strategies regarding the future and the projections in the Traffic and Revenue Report. All forward-looking statements included in this Official Statement are based on information available to the Authority on the date hereof, and the Authority assumes no obligation to update any such forward-looking statements.

The forward-looking statements herein are necessarily based on various assumptions and estimates that are inherently subject to numerous risks and uncertainties, including risks and uncertainties relating to the possible invalidity of the underlying assumptions and estimates and possible changes or developments in social, economic, business, industry, market, legal and regulatory circumstances and conditions and actions taken or omitted to be taken by third parties, including customers, suppliers, business partners and competitors, and legislative, judicial and other governmental authorities and officials. Assumptions related to the foregoing involve judgments with respect to, among other things, future economic, competitive and market conditions and future business decisions, all of which are difficult or impossible to predict accurately and, therefore, there can be no assurance that the forward-looking statements included in this Official Statement will prove to be accurate.

# **Events of Force Majeure**

Operation of the Triangle Expressway System is at risk from events of force majeure, such as earthquakes, tornados, hurricanes or other natural disasters, epidemics, blockades, rebellions, war, riots, acts of sabotage, terrorism or civil commotion, and spills of hazardous materials, among other events. The State self-insures for such risks, and a significant casualty event could affect the availability of funds to repair the Triangle Expressway. Construction or operations may also be stopped or delayed from non-casualty events such as discovery of archaeological artifacts, changes in law, and litigation, among other things.

# **Operating Risks**

The ability of the Triangle Expressway System to generate Receipts in amounts sufficient to pay debt service on the Series 2017 Bonds when due is subject to the risks inherent in toll facilities. The ability

to repay the Series 2017 Bonds will be dependent on the volume of traffic that utilizes the Triangle Expressway System and the ability of the Authority and its vendor's computer systems to accurately process data. Revenues to be generated through such use will be influenced by numerous factors, including, among others, the ability to manage toll evasion; the ability to control expenses; the availability of adequately-trained personnel; population, employment and income trends within the region; the congestion on alternative freeways, highways, and streets; time savings experienced by utilizing the Triangle Expressway System; the toll rates; the availability and price of fuel; and the construction of new or improved competitive roadways or other transit facilities.

# Rate Covenant Not a Guarantee

The Authority's ability to pay the debt service with respect to the Series 2017 Bonds depends on its ability to generate Receipts at the levels required by the Trust Agreement, which in turn depends on the use of the Triangle Expressway System by a sufficient number of toll-paying vehicles. Although the Authority has covenanted in the Trust Agreement to establish toll rates at specified levels as more particularly described herein, and expects that sufficient Receipts will be generated through the imposition and collection of such tolls, the Authority's covenant does not constitute a guarantee that sufficient Receipts will be available to pay debt service with respect to the Series 2017 Bonds.

# **Ability to Maintain or Raise Rates**

The Authority may need to raise toll rates in the future above the anticipated scheduled toll rate increases under the projected toll rate schedule to support its debt service requirements. The effect of any future rate increase is unknown. It is possible that a future increase in rates could result in reduced usage of the Triangle Expressway System, resulting in decreased Receipts.

# **Traffic and Revenue Assumptions**

The revenue forecasts in the 2013 Impact Analysis are based upon certain assumptions described above. See "2013 IMPACT ANALYSIS" herein and "APPENDIX B – 2013 IMPACT ANALYSIS." The revised transaction and toll revenue impacts contained in the 2013 Impact Analysis are still based on the original modeling and socio-economic and land-use assumptions in the Traffic and Revenue Report, updated to reflect the actual phasing of the Triangle Expressway, the revised toll schedule implementation described in the 2013 T&R Letter, and the assumed opening year of the proposed new interchanges. However, the traffic demand in future years is heavily dependent on actual development in the Raleigh-Durham area, and the 2013 Impact Analysis does not update information about such development from 2009. The Traffic and Revenue Report is not a guarantee of any future events or trends and the forecasts therein are subject to future economic and social conditions and demographic developments that cannot be predicted with certainty. Further, any of the estimates and assumptions in the Traffic and Revenue Report and the 2013 Impact Analysis are inherently subject to significant economic and competitive uncertainties and contingencies, many of which are beyond the control of the Authority. Failure to achieve or realize any of the assumptions described above may have a materially adverse effect upon the Receipts actually realized.

# **Free Alternate Route**

The Authority Act requires NCDOT to maintain an existing, alternate, comparable non-toll route corresponding to each turnpike project undertaken by the Authority. Although the alternate route for the Triangle Expressway is a less desirable route, motorists wishing to avoid tolls may choose this alternate route.

# **Motor Fuel Prices and Taxes**

Among other assumptions, the revenue forecasts in the Traffic and Revenue Report incorporated into the 2013 Impact Analysis make certain assumptions about motor fuel supply, prices and taxes. There is no assurance that motor fuel will remain in adequate supply or that motor fuel prices and federal and State motor fuel taxes will not increase by more than the assumed amounts during the forecast period covered by the Traffic and Revenue Report and the 2013 Impact Analysis.

# Dilution of Senior Lien Security Upon Bankruptcy-Related Event

Upon the occurrence of an Event of Default that is a Bankruptcy-Related Event under the Trust Agreement while the TIFIA Loan is outstanding, the Authority's obligations under the TIFIA Loan Agreement will be deemed to be Senior Lien Indebtedness, and the USDOT will be deemed to be the secured owner of such Senior Lien Indebtedness. In such event, the TIFIA Loan Agreement would be secured by and payable from the Trust Estate (except for the Senior Lien Parity Reserve Account) on a basis equal to that of other Outstanding Senior Lien Obligations.

# Limitation and Enforceability of Remedies

The remedies available to Owners of the Series 2017 Bonds upon an Event of Default under the Trust Agreement are limited to the seeking of specific performance or a writ of mandamus or other suit, action or proceeding compelling and requiring the Authority and its officers to observe and perform any covenant, condition or obligation prescribed in the Agreement. ACCELERATION IS NOT A REMEDY AVAILABLE TO OWNERS OF THE SERIES 2017 BONDS. See "APPENDIX A – "Definitions of Certain Terms and Summary of the Trust Agreement – The Trust Agreement – Remedies."

The remedies available under the Trust Agreement are in many respects dependent upon regulatory and judicial actions that are often subject to discretion and delay. Under existing law, such remedies may not be readily available. In addition, enforcement of such remedies (i) may be subject to general principles of equity which may permit the exercise of judicial discretion, (ii) are subject to the exercise in the future by the State and its agencies and political subdivisions of the police power inherent in the sovereignty of the State, (iii) are subject, in part, to the provisions of the United States Bankruptcy Act and other applicable bankruptcy, insolvency, reorganization, moratorium or similar laws relating to or affecting the enforcement of creditors' rights generally, now or hereafter in effect, and (iv) are subject to the exercise by the United States of the powers delegated to it by the federal Constitution. The various legal opinions to be delivered concurrently with the delivery of the Bonds will be qualified to the extent that the enforceability of certain legal rights related to the Bonds is subject to limitations imposed by bankruptcy, reorganization, insolvency or other similar laws affecting the rights of creditors generally and by equitable remedies and proceedings generally.

# CONTINUING DISCLOSURE

In the Second Supplemental Trust Agreement, the Authority will undertake, for the benefit of the beneficial owners of the Series 2017 Bonds, to provide to the Municipal Securities Rulemaking Board (the "MSRB"):

(a) by not later than seven months from the end of each Fiscal Year, beginning with the Fiscal Year ending June 30, 2017, audited financial statements of the Authority for such Fiscal Year, if available, prepared in accordance with Section 159-34 of the General Statutes of North Carolina, as it may be amended from time to time, or any successor statute, or, if such audited financial statements of the Authority are not available by seven months from the end of such Fiscal Year, unaudited financial statements of the Authority

for such Fiscal Year to be replaced subsequently by audited financial statements of the Authority to be delivered within fifteen (15) days after such audited financial statements become available for distribution;

- (b) by not later than seven months from the end of each Fiscal Year, beginning with the Fiscal Year ending June 30, 2017, the financial and statistical data as of a date not earlier than the end of the preceding Fiscal Year evidencing compliance by the Authority with the Rate Covenant described under the heading "SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2017 BONDS Rate Covenant" including the calculation of Revenues and Long-Term Debt Service Requirement, similar to the information contained in the table entitled Senior Lien Debt Service Coverage to the extent that such items are not included in the financial statements referred to in (a) above;
- (c) within ten (10) Business Days following the occurrence of an event, notice of any of the following events with respect to the Series 2017 Bonds:
  - (i) principal and interest payment delinquencies;
  - (ii) unscheduled draws on debt service reserves reflecting financial difficulties;
  - (iii) unscheduled draws on credit enhancements reflecting financial difficulties;
  - (iv) substitution of credit or liquidity providers, or their failure to perform;
  - (v) issuance by the Internal Revenue Service of a proposed or final determination of taxability with respect to the Series 2017 Bonds; a Notice of Proposed Issues on IRS Form 5701-TEB with respect to the Series 2017 Bonds; adverse tax opinions, material notices or determinations with respect to the tax status of the Series 2017 Bonds; or other event affecting the tax status of the Series 2017 Bonds;
    - (vi) defeasances;
    - (vii) rating changes;
    - (viii) tender offers; and
    - (ix) bankruptcy, insolvency, receivership or similar proceeding by the Authority;
- (d) within ten (10) Business Days following the occurrence of an event, notice of any of the following events with respect to the Series 2017 Bonds, if material:
  - (i) non-payment related defaults;
  - (ii) modification to the rights of the beneficial owners of the Series 2017 Bonds;
  - (iii) bond calls, other than bond calls relating to mandatory sinking fund redemption;
  - (iv) release, substitution or sale of any property securing repayment of the Series 2017 Bonds;
  - (v) mergers, consolidations, acquisition and sales of assets (other than in the ordinary course of business);

- (vi) appointment of a successor or additional trustee or a change in the name of the trustee;
- (vii) legislation shall be filed with the North Carolina General Assembly by the Governor of North Carolina or legislation is reported out of a committee in either body of the General Assembly which, if adopted in the form so filed or reported, would result in a reduction or delay in the receipt of \$25 million in State Appropriated Revenues in any Bond Year; and
- (viii) an administrative action is taken by the Governor of North Carolina, NCDOT or any other agency or authority of the State which will result in a reduction or delay in the receipt of \$25 million in State Appropriated Revenues in any Bond Year; and
- (e) in a timely manner, notice of a failure of the Authority to provide required annual financial information described in (a), (b), (c) or (d) above on or before the date specified.

At present, Section 159-34 of the General Statutes of North Carolina requires the Authority's financial statements to be prepared in accordance with generally accepted accounting principles and to be audited in accordance with generally accepted auditing standards.

The Second Supplemental Trust Agreement will also provide that if the Authority fails to comply with the undertaking described above, the Trustee or any beneficial owner of the Series 2017 Bonds may take action to protect and enforce the rights of all beneficial owners with respect to such undertaking, including an action for specific performance; provided, however, that the Authority's failure to comply with the undertaking will not constitute an Event of Default under the Trust Agreement. All actions shall be instituted, had and maintained for the benefit of all beneficial owners of the Series 2017 Bonds.

Pursuant to the Second Supplemental Trust Agreement, the Authority will reserve the right to modify from time to time the information to be provided to the extent necessary or appropriate in the judgment of the Authority, provided that any such modification will be done in a manner consistent with Rule 15c2-12 issued under the Securities Exchange Act of 1934, as it may be amended from time to time ("Rule 15c2-12"), and provided further that:

- (a) any such modification may only be made in connection with a change in circumstances that arises from a change in legal requirements, change in law, or change in the identity, nature, or status of the Authority;
- (b) the information to be provided, as modified, would have complied with the requirements of Rule 15c2-12 as of the date of this Official Statement, after taking into account any amendments or interpretations of Rule 15c2-12, as well as any changes in circumstances; and
- (c) any such modification does not materially impair the interests of the beneficial owners of the Series 2017 Bonds, as determined either by the Trustee or bond counsel, or by the approving vote of the Owners of a majority in principal amount of the Series 2017 Bonds pursuant to the terms of the Trust Agreement, as it may be amended from time to time, at the time of the amendment.

Any annual financial information containing modified operating data or financial information is required to explain, in narrative form, the reasons for the modification and the impact of the change in the type of operating data or financial information being provided.

The undertaking described above will terminate upon payment, or provision having been made for payment in a manner consistent with Rule 15c2-12, in full of the principal of and interest on all of the Series 2017 Bonds.

During the previous five years, the Authority has not failed to comply, in all material respects, with its other undertakings relating to continuing disclosure of information pursuant to Rule 15c2-12 except as described in the following sentences. Although audited financial statements of the State were otherwise publicly available, the Authority did not link the audited financial statements of the State to certain of its issues for the fiscal years ended June 30, 2012 through 2015, as required under certain of its prior undertakings, and did not file a notice of failure to file such audited financial statements of the State. In addition, the Authority was approximately 20 days late in filing such audited financial statements of the State under the requisite CUSIP numbers for the fiscal year ended June 30, 2016. For the fiscal years ended June 30, 2012 through 2015, the Authority failed to file certain required operating data with respect to its outstanding bonds for the Triangle Expressway System, and did not file a notice of failure to file such operating data. The Authority has made a notice filing with EMMA with respect to such failures to file and has filed the missing audited financial statements of the State and the missing operating data for each applicable fiscal year. On March 18, 2014, S&P Global Ratings Services, a business unit of Standard & Poor's Financial Services LLC, upgraded the insured rating on the 2009 Bonds from "AA-" to "AA". The Authority failed to file timely notice of such rating change. The Authority has since filed notice of such rating change as required by Rule 15c2-12. The Authority has procedures in place to ensure timely filings pursuant to Rule 15c2-12.

# LITIGATION

No litigation is now pending or, to the best of the Authority's knowledge, threatened against or affecting the Authority seeking to restrain or enjoin the authorization, execution or delivery of the Series 2017 Bonds, the Trust Agreement or the Second Supplemental Trust Agreement or contesting the validity or the authority or proceedings for the authorization, execution or delivery of the Series 2017 Bonds, the Trust Agreement or the Second Supplemental Trust Agreement or the Authority's creation, organization or corporate existence, or the title of any of the Authority's present officers to their respective offices, or the Authority's authority to carry out its obligations thereunder.

#### LEGAL MATTERS

Legal matters related to the authorization, execution, sale and delivery of the Series 2017 Bonds are subject to the approval of Hunton & Williams LLP, Bond Counsel. See the form of the Bond Counsel opinion (the "Bond Opinion") attached hereto as APPENDIX D. The Bond Opinion will be limited to matters relating to authorization and validity of the Series 2017 Bonds and to the tax status of interest thereon, as described in the section "TAX TREATMENT." Bond Counsel has not been engaged to investigate the financial resources of the Authority or its ability to provide for payment of the Series 2017 Bonds, and the Bond Opinion will make no statement as to such matters or as to the accuracy or completeness of this Official Statement or any other information that may have been relied on by anyone in making the decision to purchase Series 2017 Bonds.

Certain legal matters will be passed upon for the Authority by Ebony Pittman, Esq., an Assistant Attorney General for the State, and for the Underwriters by McGuireWoods LLP, Raleigh, North Carolina, counsel to the Underwriters.

# TAX TREATMENT

# **Opinion of Bond Counsel**

In the opinion of Bond Counsel, interest on the Series 2017 Bonds (a) is not included in gross income for federal income tax purposes, (b) is neither an item of tax preference nor taken into account in determining adjusted current earnings for purposes of the federal alternative minimum income tax imposed on individuals and corporations, and (c) under current law, is exempt from all income taxes in the State of North Carolina. Assuming compliance with the covenants discussed hereafter, the Series 2017 Bonds are eligible for treatment by financial institutions as a part of their "de minimis" 2% under Section 265(b)(7) of the Code relating to deductions for interest allocable to the cost of purchasing or carrying tax-exempt obligations. No other opinion is expressed by Bond Counsel regarding the tax consequences of the ownership of or the receipt or accrual of interest on the Series 2017 Bonds.

Bond Counsel's opinion with respect to the Series 2017 Bonds will be given in reliance upon certifications by representatives of the Authority as to certain facts relevant to both the opinion and requirements of the Internal Revenue Code of 1986, as amended (the "Code"). Bond Counsel's opinion is subject to the condition that there is compliance subsequent to the issuance of the Series 2017 Bonds with all requirements of the Code that must be satisfied in order for interest thereon to remain excludable from gross income for federal income tax purposes. The Authority has covenanted to comply with the current provisions of the Code regarding, among other matters, the use, expenditure and investment of the proceeds of the Series 2017 Bonds and the timely payment to the United States of any arbitrage rebate amounts with respect to the Series 2017 Bonds. Failure by the Authority to comply with such covenants, among other things, could cause interest on the Series 2017 Bonds to be included in gross income for federal income tax purposes retroactively to their date of issue.

Customary practice in the giving of legal opinions includes not detailing in the opinion all the assumptions, limitations and exclusions which are a part of the conclusions therein. See "Statement on the Role of Customary Practice in the Preparation and Understanding of Third-Party Legal Opinions", 63 Bus. Law. 1277 (2008)" and "Legal Opinion Principles", 53 Bus. Law. 831 (May 1998). Purchasers of the Series 2017 Bonds should seek advice or counsel concerning such matters as they deem prudent in connection with their purchase of Series 2017 Bonds.

Bond Counsel's opinion represents its legal judgment based in part upon the representations and covenants referenced therein and its review of current law, but is not a guarantee of result or binding on the Internal Revenue Service (the "Service") or the courts. Bond Counsel assumes no duty to update or supplement its opinion to reflect any facts or circumstances that may come to Bond Counsel's attention after the date of its opinion or to reflect any changes in law or the interpretation thereof that may occur or become effective after such date.

# **Original Issue Discount**

In the opinion of Bond Counsel, for the Series 2017 Bonds maturing in 2029 and bearing interest at 3.125% (the "OID Bonds"), the difference between (i) the stated principal amount of the OID Bonds and (ii) the initial offering price to the public (excluding bond houses and brokers) at which a substantial amount of such maturity is sold, will constitute original issue discount ("OID"); OID will accrue for federal income tax purposes on a constant-yield-to-maturity method based on regular compounding; and a holder's basis in such a Series 2017 Bond will be increased by the amount of OID treated for federal income tax purposes as having accrued on the Series 2017 Bond while the holder holds the Series 2017 Bond. The offering prices set forth on the inside cover of this Official Statement are expected to be the initial offering prices to the public at which a substantial amount of each maturity of Series 2017 Bonds are sold. Under the Code,

the adjusted basis in an OID Bond will be used to determine taxable gain or loss upon the sale or other disposition (including redemption or payment at maturity) of such OID Bond.

Prospective purchasers of OID Bonds should consult their own tax advisors as to the calculation of accrued OID and the state and local tax consequences of owning or disposing of such Series 2017 Bonds.

# **Original Issue Premium**

Series 2017 Bonds purchased, whether upon issuance or otherwise, for an amount (excluding any amount attributable to accrued interest) in excess of their principal amount will be treated for federal income tax purposes as having amortizable bond premium. A holder's basis in such a Series 2017 Bond must be reduced by the amount of premium which accrues while such Series 2017 Bond is held by the holder. No deduction for such amount will be allowed, but it generally will offset interest on the Series 2017 Bonds while so held. Purchasers of such Series 2017 Bonds should consult their own tax advisors as to the calculation, accrual and treatment of amortizable bond premium and the state and local tax consequences of holding such Series 2017 Bonds.

# **Other Tax Consequences**

In addition to the matters addressed above, prospective purchasers of the Series 2017 Bonds should be aware that the ownership of tax-exempt obligations may result in collateral federal income tax consequences to certain taxpayers, including without limitation financial institutions, property and casualty insurance companies, S corporations, foreign corporations subject to the branch profits tax, recipients of Social Security or Railroad Retirement benefits and taxpayers who may be deemed to have incurred or continued indebtedness to purchase or carry tax-exempt obligations. Prospective purchasers of the Series 2017 Bonds should consult their tax advisors as to the applicability and impact of such consequences.

Prospective purchasers of the Series 2017 Bonds should consult their own tax advisors as to the status of interest on the Series 2017 Bonds under the tax laws of any state other than North Carolina.

The Service has a program to audit state and local government obligations to determine, as applicable, whether the interest thereon is includible in gross income for federal income tax purposes. If the Service does audit the Series 2017 Bonds, under current IRS procedures, the Service will treat the Authority as the taxpayer and the owners of the Series 2017 Bonds will have only limited rights, if any, to participate.

There are many events that could affect the value and liquidity or marketability of the Series 2017 Bonds after their issuance, including but not limited to public knowledge of an audit of the Series 2017 Bonds by the Service, a general change in interest rates for comparable securities, a change in federal or state income tax rates, legislative or regulatory proposals affecting state and local government securities and changes in judicial interpretation of existing law. In addition, certain tax considerations relevant to owners of Series 2017 Bonds who purchase Series 2017 Bonds after their issuance may be different from those relevant to purchasers upon issuance. Neither the opinion of Bond Counsel nor this Official Statement purport to address the likelihood or effect of any such potential events or such other tax considerations and purchasers of the Series 2017 Bonds should seek advice concerning such matters as they deem prudent in connection with their purchase of Series 2017 Bonds.

# **BOND INSURANCE**

# **Bond Insurance Policy**

Concurrently with the issuance of the Series 2017 Bonds, Assured Guaranty Municipal Corp. ("AGM") will issue its Municipal Bond Insurance Policy (the "Policy") for the Series 2017 Bonds maturing on January 1 of the years 2024, 2026 through 2029, inclusive, 2031 and 2039 (the "Insured Bonds"). The Policy guarantees the scheduled payment of principal of and interest on the Insured Bonds when due as set forth in the form of the Policy included as Appendix F to this Official Statement.

The Policy is not covered by any insurance security or guaranty fund established under New York, California, Connecticut or Florida insurance law.

# Assured Guaranty Municipal Corp.

AGM is a New York domiciled financial guaranty insurance company and an indirect subsidiary of Assured Guaranty Ltd. ("AGL"), a Bermuda-based holding company whose shares are publicly traded and are listed on the New York Stock Exchange under the symbol "AGO". AGL, through its operating subsidiaries, provides credit enhancement products to the U.S. and global public finance, infrastructure and structured finance markets. Neither AGL nor any of its shareholders or affiliates, other than AGM, is obligated to pay any debts of AGM or any claims under any insurance policy issued by AGM.

AGM's financial strength is rated "AA" (stable outlook) by S&P Global Ratings, a business unit of Standard & Poor's Financial Services LLC ("S&P"), "AA+" (stable outlook) by Kroll Bond Rating Agency, Inc. ("KBRA") and "A2" (stable outlook) by Moody's Investors Service, Inc. ("Moody's"). Each rating of AGM should be evaluated independently. An explanation of the significance of the above ratings may be obtained from the applicable rating agency. The above ratings are not recommendations to buy, sell or hold any security, and such ratings are subject to revision or withdrawal at any time by the rating agencies, including withdrawal initiated at the request of AGM in its sole discretion. In addition, the rating agencies may at any time change AGM's long-term rating outlooks or place such ratings on a watch list for possible downgrade in the near term. Any downward revision or withdrawal of any of the above ratings, the assignment of a negative outlook to such ratings or the placement of such ratings on a negative watch list may have an adverse effect on the market price of any security guaranteed by AGM. AGM only guarantees scheduled principal and scheduled interest payments payable by the issuer of bonds insured by AGM on the date(s) when such amounts were initially scheduled to become due and payable (subject to and in accordance with the terms of the relevant insurance policy), and does not guarantee the market price or liquidity of the securities it insures, nor does it guarantee that the ratings on such securities will not be revised or withdrawn.

<u>Current Financial Strength Ratings</u>. On July 27, 2016, S&P issued a credit rating report in which it affirmed AGM's financial strength rating of "AA" (stable outlook). AGM can give no assurance as to any further ratings action that S&P may take.

On August 8, 2016, Moody's published a credit opinion affirming its existing insurance financial strength rating of "A2" (stable outlook) on AGM. AGM can give no assurance as to any further ratings action that Moody's may take.

On December 14, 2016, KBRA issued a financial guaranty surveillance report in which it affirmed AGM's insurance financial strength rating of "AA+" (stable outlook). AGM can give no assurance as to any further ratings action that KBRA may take.

For more information regarding AGM's financial strength ratings and the risks relating thereto, see AGL's Annual Report on Form 10-K for the fiscal year ended December 31, 2016.

<u>Capitalization of AGM</u>. At December 31, 2016, AGM's policyholders' surplus and contingency reserve were approximately \$3,557 million and its net unearned premium reserve was approximately \$1,328 million. Such amounts represent the combined surplus, contingency reserve and net unearned premium reserve of AGM, AGM's wholly owned subsidiary Assured Guaranty (Europe) Ltd. and 60.7% of AGM's indirect subsidiary Municipal Assurance Corp.; each amount of surplus, contingency reserve and net unearned premium reserve for each company was determined in accordance with statutory accounting principles.

<u>Incorporation of Certain Documents by Reference</u>. Portions of the following document filed by AGL with the Securities and Exchange Commission (the "SEC") that relate to AGM are incorporated by reference into this Official Statement and shall be deemed to be a part hereof: the Annual Report on Form 10-K for the fiscal year ended December 31, 2016 (filed by AGL with the SEC on February 24, 2017).

All consolidated financial statements of AGM and all other information relating to AGM included in, or as exhibits to, documents filed by AGL with the SEC pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, excluding Current Reports or portions thereof "furnished" under Item 2.02 or Item 7.01 of Form 8-K, after the filing of the last document referred to above and before the termination of the offering of the Series 2017 Bonds shall be deemed incorporated by reference into this Official Statement and to be a part hereof from the respective dates of filing such documents. Copies of materials incorporated by reference are available over the internet at the SEC's website at <a href="http://www.sec.gov">http://www.sec.gov</a>, at AGL's website at <a href="http://www.assuredguaranty.com">http://www.assuredguaranty.com</a>, or will be provided upon request to Assured Guaranty Municipal Corp.: 1633 Broadway, New York, New York 10019, Attention: Communications Department (telephone (212) 974-0100). Except for the information referred to above, no information available on or through AGL's website shall be deemed to be part of or incorporated in this Official Statement.

Any information regarding AGM included herein under the caption "BOND INSURANCE – Assured Guaranty Municipal Corp." or included in a document incorporated by reference herein (collectively, the "AGM Information") shall be modified or superseded to the extent that any subsequently included AGM Information (either directly or through incorporation by reference) modifies or supersedes such previously included AGM Information. Any AGM Information so modified or superseded shall not constitute a part of this Official Statement, except as so modified or superseded.

Miscellaneous Matters. AGM makes no representation regarding the Series 2017 Bonds or the advisability of investing in the Series 2017 Bonds. In addition, AGM has not independently verified, makes no representation regarding, and does not accept any responsibility for the accuracy or completeness of this Official Statement or any information or disclosure contained herein, or omitted herefrom, other than with respect to the accuracy of the information regarding AGM supplied by AGM and presented under the heading "BOND INSURANCE".

# LEGALITY FOR INVESTMENT

Section 159-140 of the General Statutes of North Carolina provides that the Series 2017 Bonds are securities in which all public officers and public bodies of the State of North Carolina and its political subdivisions and agencies and all insurance companies, trust companies, investment companies, banks, savings banks, building and loan associations, savings and loan associations, credit unions, pension or retirement funds, other financial institutions engaged in business in the State of North Carolina, executors, administrators, trustees and other fiduciaries may properly and legally invest funds, including capital in

their control or belonging to them, and the Series 2017 Bonds are securities which may properly and legally be deposited with and received by any State of North Carolina or municipal officer or any agency or political subdivision of the State for any purpose for which the deposit of bonds, notes or obligations of the State is now or may hereafter be authorized by law.

#### **VERIFICATION**

The accuracy of (a) the mathematical computations of the adequacy of the maturing principal of and interest on the Escrow Securities to pay interest on the 2009A Bonds being refunded through January 1, 2019, and the principal amount of such 2009A Bonds on January 1, 2019, and (b) the mathematical computations supporting the conclusion that the Series 2017 Bonds are not "arbitrage bonds" under the Code, will be verified by The Arbitrage Group, Inc., Buhl, Alabama. Such verification will be based, among other things, on mathematical computations supplied by the Underwriters. Bond Counsel will rely on such verification in rendering its opinion as to the exclusion of interest on the Series 2017 Bonds from gross income of the recipients thereof for purposes of federal income taxation.

#### **RATINGS**

Moody's Investors Service ("Moody's") and S&P Global Ratings, a business unit of Standard & Poor's Financial Services LLC ("S&P"), are expected to give the Insured Bonds the respective ratings of "A2" and "AA" on the understanding that AGM will issue the Policy simultaneously with the issuance of the Series 2017 Bonds. S&P and Fitch Ratings ("Fitch") have given the Series 2017 Bonds underlying ratings of "BBB" (stable outlook) and "BBB-" (stable outlook), respectively.

Further explanation of the significance of such ratings may be obtained from Moody's, S&P and Fitch. The Authority and AGM have provided to Moody's S&P and Fitch, as applicable, certain information not included in this Official Statement. The ratings are not a recommendation to buy, sell or hold the Series 2017 Bonds and should be evaluated independently. The ratings reflect only the view of the particular rating agency, and neither the Authority nor the Local Government Commission makes any representation as to the appropriateness of the ratings. There is no assurance that such ratings will not be withdrawn or revised downward by Moody's, S&P or Fitch. Such action may have an adverse effect on the market price of the Series 2017 Bonds. Neither the Authority, the Local Government Commission nor the Underwriters have undertaken any responsibility after the issuance of the Series 2017 Bonds to assure maintenance of the ratings or to oppose any such revision or withdrawal.

# **UNDERWRITING**

The Underwriters have entered into a Bond Purchase Agreement to purchase all of the Series 2017 Bonds, if any of the Series 2017 Bonds are to be purchased, at a purchase price equal to 100% of the principal amount thereof, plus net original issue premium of \$26,586,728.50, and less an underwriters' discount of \$587,649.54. The obligation of the Underwriters to pay for the Series 2017 Bonds is subject to certain terms and conditions set forth in the Bond Purchase Agreement.

The Underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, principal investment, hedging, financing and brokerage services. Certain of the Underwriters and their respective affiliates have, from time to time, performed, and may in the future perform, various financial advisory and investment banking services for the Authority, for which they received or will receive customary fees and expenses.

In the ordinary course of their various business activities, the Underwriters and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities, which may include credit default swaps) and financial instruments (including bank loans) for their own account and for the accounts of their customers and may at any time hold long and short positions in such securities and instruments. Such investment and securities activities may involve securities and instruments of the Authority.

The Underwriters and their respective affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such assets, securities or instruments and may at any time hold, or recommend to clients that they should acquire, long and/or short positions in such assets, securities and instruments.

The Underwriters may offer and sell the Series 2017 Bonds to certain dealers (including dealers depositing the Series 2017 Bonds into investment trusts) and others at prices lower than the initial public offering prices stated on the cover page hereof. The public offering prices may be changed from time to time by the Underwriters.

J.P. Morgan Securities LLC ("JPMS"), one of the Underwriters of the Series 2017 Bonds, has entered into negotiated dealer agreements (each, a "Dealer Agreement") with each of Charles Schwab & Co., Inc. ("CS&Co.") and LPL Financial LLC ("LPL") for the retail distribution of certain securities offerings at the original issue prices. Pursuant to each Dealer Agreement, each of CS&Co. and LPL may purchase Bonds from JPMS at the original issue price less a negotiated portion of the selling concession applicable to any Bonds that such firm sells.

Citigroup Global Markets Inc., an underwriter of the Series 2017 Bonds, has entered into a retail distribution agreement with UBS Financial Services Inc. ("UBSFS"). Under this distribution agreement, Citigroup Global Markets Inc. may distribute municipal securities to retail investors through the financial advisor network of UBSFS. As part of this arrangement, Citigroup Global Markets Inc. may compensate UBSFS for their selling efforts with respect to the Series 2017 Bonds.

Wells Fargo Securities is the trade name for certain securities-related capital markets and investment banking services of Wells Fargo & Company and its subsidiaries, including Wells Fargo Bank, National Association, which conducts its municipal securities sales, trading and underwriting operations through the Wells Fargo Bank, NA Municipal Products Group, a separately identifiable department of Wells Fargo Bank, National Association, registered with the Securities and Exchange Commission as a municipal securities dealer pursuant to Section 15B(a) of the Securities Exchange Act of 1934.

Wells Fargo Bank, National Association, acting through its Municipal Products Group ("WFBNA"), one of the underwriters of the Series 2017 Bonds, has entered into an agreement (the "WFA Distribution Agreement") with its affiliate, Wells Fargo Clearing Services, LLC (which uses the trade name "Wells Fargo Advisors") ("WFA"), for the distribution of certain municipal securities offerings, including the Series 2017 Bonds. Pursuant to the WFA Distribution Agreement, WFBNA will share a portion of its underwriting or remarketing agent compensation, as applicable, with respect to the Series 2017 Bonds with WFA. WFBNA has also entered into an agreement (the "WFSLLC Distribution Agreement") with its affiliate Wells Fargo Securities, LLC ("WFSLLC"), for the distribution of municipal securities offerings, including the Series 2017 Bonds. Pursuant to the WFSLLC Distribution Agreement, WFBNA pays a portion of WFSLLC's expenses based on its municipal securities transactions. WFBNA, WFSLLC, and WFA are each wholly-owned subsidiaries of Wells Fargo & Company.

Wells Fargo Bank, National Association is serving as Underwriter, Trustee, Bond Registrar and Escrow Agent for the Series 2017 Bonds, and will be compensated separately for serving in each capacity.

# **MISCELLANEOUS**

Members of the LGC staff have participated in the preparation of this Official Statement and other documents related to the issuance of the Series 2017 Bonds, but the LGC and its staff assume no responsibility for the accuracy or completeness of any representation or statement in this Official Statement.

The LGC and the Authority have each duly authorized the execution and delivery of this Official Statement.

NORTH CAROLINA LOCAL GOVERNMENT
COMMISSION

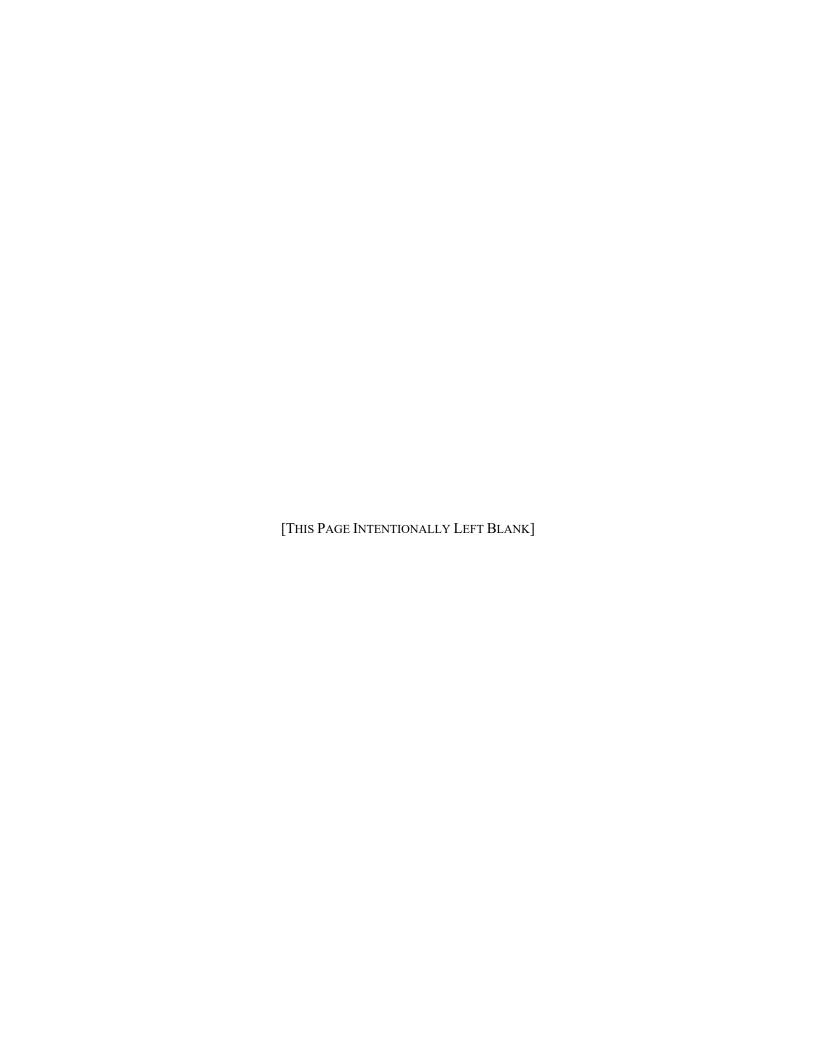
By: /s/ Greg C. Gaskins
Secretary

NORTH CAROLINA TURNPIKE AUTHORITY

By: /s/ MG(R) James H. Trogdon, III, P.E.
Chairman

# APPENDIX A

DEFINITIONS OF CERTAIN TERMS AND SUMMARIES OF THE TRUST AGREEMENT



# DEFINITIONS OF CERTAIN TERMS AND SUMMARIES OF THE TRUST AGREEMENT DEFINITIONS

In addition to the defined terms set forth in the Official Statement to which this Appendix A is attached, the following is a summary of certain definitions set forth in the Trust Agreement and used in this Official Statement. Capitalized terms used herein and not otherwise defined have the meanings given such terms in the Trust Agreement.

"Additional Project" means any addition, acquisition, improvement, betterment, extension or equipping of or relating to the Initial Project as authorized by the Act, or any previous Additional Project that has become part of the Triangle Expressway System and located within the geographic boundaries comprising the Capital Area Metropolitan Planning Organization and the Durham, Chapel Hill, Carrboro Metropolitan Planning Organization; provided, however, that the term "Additional Project" will not include any Non-System Project unless the Authority specifically identifies such Non-System Project as an Additional Project upon compliance with the provisions of the Trust Agreement.

"Additional Projects Account" means an account in the Project Fund created and so designated by the Trust Agreement.

"Annual Budget" means the Authority's budget for the Triangle Expressway System for a Fiscal Year adopted pursuant to the Authority's bylaws, rules and regulations as in effect from time to time.

"Authority" means the North Carolina Turnpike Authority, a body politic and corporate and a public agency of the State within NCDOT.

"Authority Attorney" means the attorney or law firm designated by the Authority from time to time to perform the duties of counsel to the Authority under the Trust Agreement, including the Attorney General of the State or any assistant or deputy Attorney General of the State.

"Authority Board" means the Board of Directors of the Authority, as the governing body thereof.

"Authority Secretary" means the person appointed or employed by the Authority to perform the duties imposed on the Secretary of the Authority by the Trust Agreement, including the Secretary of the Authority Board or any assistant or deputy Secretary of the Authority Board.

"Authorized Officer" means the Executive Director, the Chief Financial Officer and any other person authorized by resolution of the Authority Board to perform the duties imposed on an Authorized Officer by the Trust Agreement whose name and specimen signature is filed pursuant to an Officer's Certificate with the Trustee for such purpose.

"Balloon Long-Term Indebtedness" means fixed or variable rate Long-Term Indebtedness 25% or more of the principal payments of which are due in a single twelve-month period which portion of the principal is not required by the documents pursuant to which such Indebtedness is incurred to be amortized by redemption or prepayment prior to the expiration of such period.

"Bankruptcy Related Event" means (a) an involuntary proceeding will be commenced or an involuntary petition will be filed seeking (i) liquidation, reorganization or other relief in respect of the Authority or any of its debts, or of a substantial part of the assets of the Authority, under any Insolvency

Law, or (ii) the appointment of a receiver, trustee, liquidator, custodian, sequestrator, conservator or similar official for the Authority for a substantial part of the assets of the Authority, and, in any case referred to in the foregoing subclauses (i) and (ii), such proceeding or petition will continue undismissed for 60 days or an order or decree approving or ordering any of the foregoing will be entered; or (b) the Authority will (i) apply for or consent to the appointment of a receiver, trustee, liquidator, custodian, sequestrator, conservator or similar official for the Authority or for a substantial part of the assets of the Authority, or (ii) generally not be paying its debts with respect to the Triangle Expressway System as they become due unless such debts are the subject of a bona fide dispute, or become unable to pay its debts generally as they become due, or (iii) make a general assignment for the benefit of creditors, or (iv) consent to the institution of, or fail to contest in a timely and appropriate manner, any proceeding or petition with respect to it described in clause (a) of this definition, or (v) commence a voluntary proceeding under any Insolvency Law, or file a voluntary petition seeking liquidation, reorganization, an arrangement with creditors or an order for relief under any Insolvency Law, or (vi) file an answer admitting the material allegations of a petition filed against it in any proceeding referred to in the foregoing subclauses (i) through (v), inclusive, of this clause (b), or (vii) take any action for the purpose of effecting any of the foregoing; or (c) (i) all or a substantial part of the Triangle Expressway System or the Trust Estate will be sold or otherwise disposed of in a public or private sale or disposition pursuant to a foreclosure of any liens or security interest thereon securing the Senior Lien Indebtedness, or (ii) all or a substantial part of the Triangle Expressway System or the Trust Estate will be transferred pursuant to a sale or disposition in lieu of foreclosure.

"Base Case Projections" means the projected Receipts of the Project for a Fiscal Year as set forth in the initial financial plan prepared by the Authority and delivered to the USDOT pursuant to Section 21 of the TIFIA Loan Agreement and filed with the Trustee pursuant to the Trust Agreement.

"Bond" or "Bonds" means, collectively, the Senior Lien Bonds and the Subordinate Lien Bonds.

"Bond Insurance Policy" means a municipal bond insurance policy or similar arrangement permitted by the Act and obtained or established in connection with the incurrence of any Bonds or other indebtedness. With respect to the Series 2017 Bonds, "Bond Insurance Policy" means the insurance policy issued by Assured Guaranty Municipal Corp. insuring the scheduled payment of the principal of and interest on the Insured Series 2017 Bonds.

"Bond Insurer" means, with respect to the Trust Agreement, the Person providing a Bond Insurance Policy. With respect to the Series 2017 Bonds, "Bond Insurer" means Assured Guaranty Municipal Corp., a New York stock insurance company, or any successor thereto or assignee thereof.

"Bond Registrar" means, with respect to the Series 2017 Bonds, Wells Fargo Bank, N.A.

"Bond Year" means, with respect to the Series 2017 Bonds, the period commencing on January 1 of any year and ending on December 31 of the same year, provided that the first Bond Year for the Series 2017 Bonds will begin on the date of issuance of the Series 2017 Bonds.

"Business Day" means any day other than a Saturday, a Sunday or a day on which offices of the United States Government or the State are authorized to be closed or on which commercial banks are authorized or required by law, regulation or executive order to be closed in New York, New York, in Raleigh, North Carolina or in the city where the principal or designated office of the Trustee is located.

"Capital Appreciation Bonds" means Bonds the interest on which is compounded at the rates and on the dates set forth in a Supplemental Agreement and is payable upon redemption or on the maturity date of such Bonds; provided, however, that nothing in the Trust Agreement will prohibit the Authority from designating in the appropriate Supplemental Agreement any such Bonds by a name other than Capital Appreciation Bonds.

"Capital Improvements Budget" for any Fiscal Year means the budget for capital improvements adopted by the Authority in accordance with the Trust Agreement.

"Capitalized Interest Account" means the respective accounts in the Senior Lien Debt Service Fund and the Subordinate Lien Debt Service Fund created and so designated by the Trust Agreement.

"Chief Financial Officer" means the person appointed or employed by the Authority to perform the duties imposed on the Chief Financial Officer by the Trust Agreement.

"Completion Date" means the date of acquisition or completion of the Initial Project and any Additional Project, or of any segment of the foregoing, as the case may be, as certified by the Authority pursuant to the Trust Agreement.

"Completion Indebtedness" means any Long-Term Indebtedness incurred for the purpose of financing the completion of the Initial Project or any Additional Project for which Long-Term Indebtedness has theretofore been incurred in accordance with the provisions of the Trust Agreement, to the extent necessary to complete the Initial Project or such Additional Project, in the manner and scope contemplated at the time that such Long-Term Indebtedness theretofore incurred was originally incurred, and, to the extent the same will be applicable, in accordance with the general plans and specifications for the Initial Project or such Additional Project, as originally prepared with only such changes as have been made in conformance with the documents pursuant to which such Long-Term Indebtedness theretofore incurred was originally incurred; provided, however, that such Long-Term Indebtedness will not exceed 5% of the aggregate principal amount of the Long-Term Indebtedness originally incurred by the Authority to finance the costs of the Initial Project or any Additional Project.

"Compounded Amount" means with respect to Capital Appreciation Bonds of any Series, the amount set forth in a Supplemental Agreement as the amount representing the initial public offering price, plus the accumulated and compounded interest on such Capital Appreciation Bonds.

"Construction and Renewal and Replacement Agreement" means the Construction Completion Assurance and Standby Renewal and Replacement Funding Agreement, dated as of April 15, 2009, between the Authority and NCDOT, including any supplement or amendment thereto.

"Credit Facility" means a line of credit, letter of credit, standby bond purchase agreement or similar liquidity or credit facility permitted by the Act (but excluding a Bond Insurance Policy) and established or obtained in connection with the incurrence of any Indebtedness.

"Credit Provider" means the Person providing a Credit Facility. If and to the extent permitted by law, the Authority may be a Credit Provider for the sole purpose of providing liquidity support for Indebtedness.

"Current Interest Bonds" means Bonds the interest on which is payable on the Interest Payment Dates provided therefor in any Supplemental Agreement.

"Default" means any Event of Default and any event that, after notice or lapse of time or both, would become an Event of Default.

"Defaulted Interest" means any interest on any Bond of any Series which is payable, but is not punctually paid or duly provided for, on any Interest Payment Date.

"Defeasance Obligations" means noncallable (a) Government Obligations and (b) Defeased Municipal Obligations.

"Defeased Municipal Obligations" means obligations of state or local government municipal bond issuers which are rated the highest rating category by S&P, Fitch or Moody's, respectively, provision for the payment of the principal of, premium, if any, and interest on which will have been made by deposit with a trustee or escrow agent of Government Obligations, the maturing principal of and interest on which, when due and payable, will provide sufficient money to pay the principal of, premium, if any, and interest on such obligations of state or local government municipal bond issuers. References in this definition to state or local government bond issuers will mean the State of North Carolina and North Carolina local government bond issuers, and, to the extent permitted by law, states other than the State of North Carolina and local government bond issuers other than North Carolina local government bond issuers.

"Depositary" means the State Treasurer of the State and one or more banks or trust companies or other institutions, including the Trustee, duly authorized by law to engage in the banking business and designated by the Authority as a depositary of moneys under the Trust Agreement.

"Derivative Agreement" means an interest rate swap, cap, collar, floor, forward, option, put, call or other agreement, arrangement or security however denominated, entered into in order to hedge interest rate fluctuations on all or a portion of any Indebtedness or to provide debt management by changing payments to be made by the Authority with respect to all or a portion of any Indebtedness.

"Derivative Agreement Additional Payments" means payments required to be paid by the Authority under a Derivative Agreement other than Derivative Agreement Regularly Scheduled Payments, including termination payments required to be paid in connection with the termination of a Derivative Agreement, whether voluntarily or upon the occurrence of an event of default, termination event or similar event thereunder.

"Derivative Agreement Regularly Scheduled Payments" means regularly scheduled payments required to be paid by the Authority under a Derivative Agreement that are based upon a fixed or variable imputed rate on a notional amount set forth in the Derivative Agreement and which are intended by the Authority to correspond to interest payments on the underlying Derivative Indebtedness.

"Derivative Indebtedness" means the portion of any Indebtedness meeting the requirements set forth in clauses (a) and (b) below:

- (a) in connection with such Indebtedness, the Authority will have entered into a Derivative Agreement in respect of all or a portion of such Indebtedness, and
- (b) (i) if such Indebtedness bears interest at a variable rate, such Derivative Agreement provides that during the Derivative Period, the Authority will pay to the provider of the Derivative Agreement a fixed rate (the "Synthetic Fixed Rate") and the provider of the Derivative Agreement will pay to the Authority a variable rate on a notional amount equal to all or a portion of the Outstanding principal amount of such Indebtedness, or (ii) if such Indebtedness bears interest at a fixed rate, such Derivative Agreement provides that during the Derivative Period, the Authority will pay to the provider of the Derivative Agreement a variable rate (the "Synthetic Variable Rate") and the provider of the Derivative Agreement will pay to the Authority a fixed

rate on a notional amount equal to all or a portion of the Outstanding principal amount of such Indebtedness.

"Derivative Period" means the period during which a Derivative Agreement is in effect.

"Eminent Domain" means the eminent domain or condemnation power by which all or any part of the Triangle Expressway System may be taken for another public use or any agreement that is reached in lieu of proceedings to exercise such power.

"Escrow Agreement" means the Escrow Agreement between the Authority and Wells Fargo Bank, N.A., as escrow agent, dated as of March 1, 2017, relating to the refunding and defeasance of the Refunded Bonds.

"Event of Default" means each of those events of default set forth in the Trust Agreement and described in "THE TRUST AGREEMENT – Events of Default" below.

"First Supplemental Trust Agreement" means the First Supplemental Trust Agreement between the Authority and the Trustee dated as of July 1, 2009.

"Fiscal Year" means the period commencing on the first day of July of any year and ending on the last day of June of the following year.

"Fitch" means Fitch Inc., a corporation organized and existing under the laws of the State of Delaware, its successors and assigns, and if such corporation will be dissolved or liquidated or will no longer perform the functions of a securities rating agency, "Fitch" will be deemed to refer to any other nationally recognized securities rating agency designated by the Authority by notice to the Trustee.

"General Engineering Consultant" means any engineer or firm of engineers of favorable reputation for skill and experience in performing the duties for which such consultant is required to be employed pursuant to the provisions of the Trust Agreement.

"General Reserve Fund" means the fund created and designated the North Carolina Turnpike Authority Triangle Expressway General Reserve Fund by the Trust Agreement.

"Government Obligations" means direct obligations of, or obligations the principal of and the interest on which are fully and unconditionally guaranteed by, the United States of America in either certificated or book-entry form, including (a) stripped Government Obligations stripped by the United States Treasury itself and (b) interest only portions of obligations issued by the Resolution Funding Corporation.

"Grant Anticipation Notes" means any grant anticipation notes issued by the Authority in compliance with the provisions of the Trust Agreement.

"Hedging Acquisition Account" means the account in the Senior Lien Debt Service Fund created and so designated by the Trust Agreement.

"Hedging Acquisition Account Requirement" means the amount to be deposited from time to time to the credit of the Hedging Acquisition Account in accordance with the requirements of the TIFIA Loan Agreement. The Hedging Acquisition Account Requirement, if any, will be computed by the Authority at the beginning of each Fiscal Year, subject to the approval of USDOT, and will be funded during that Fiscal Year pursuant to the Trust Agreement.

"Holder" means the holder or owner of Senior Lien Parity Debt, Subordinate Lien Parity Debt or TIFIA Indebtedness.

"Indebtedness" means all obligations incurred or assumed by the Authority in connection with the ownership or operation of the Triangle Expressway System:

- (a) for payments of principal and interest with respect to borrowed money, including any obligation to repay a Credit Provider for moneys drawn to pay and retire or purchase Indebtedness and including the continuing obligation to pay principal and interest with respect to any Bonds pursuant to the subrogation provisions of a Bond Insurance Policy following the payment to the Owner of such Bonds of the insured principal and interest from amounts paid by the Bond Insurer under such Bond Insurance Policy; and
- (b) for payments under leases which are required to be capitalized in accordance with generally accepted accounting principles and under installment or lease purchase or conditional sale contracts:

provided, however, that (i) Indebtedness will include only such obligations as are secured by Receipts, (ii) Indebtedness will not include any State Appropriation Revenue Bonds, and (iii) any obligation to pay a Credit Provider for moneys drawn to purchase, but not pay and retire, Indebtedness will constitute Indebtedness only to the extent such payments are in excess of any scheduled payments of principal and interest required to be made to such Credit Provider as an Owner or Holder of such Indebtedness.

"Initial Project" means the land, easements, rights of way, capital improvements and equipment financed with the proceeds of the Series 2009 Bonds, the State Appropriation Revenue Bonds and the TIFIA Series 2009 Bond, as more particularly described in the Supplemental Agreement for the Series 2009 Bonds and the TIFIA Loan Agreement.

"Initial Project Account" means the account in the Project Fund created and so designated by the Trust Agreement.

"Insolvency Laws" means the United States Bankruptcy Code, 11 U.S.C. §101 et seq., as from time to time amended and in effect, and any state bankruptcy, insolvency, receivership or similar law now or hereafter in effect.

"Insurance and Condemnation Award Fund" means the fund created and designated the North Carolina Turnpike Authority Triangle Expressway Insurance and Condemnation Award Fund by the Trust Agreement.

"Insurance Consultant" means any Person or firm having a favorable reputation in the State for skill and experience in dealing with the insurance requirements of road and highway systems similar to the Triangle Expressway System and in performing the duties to be imposed upon the Insurance Consultant by the Trust Agreement, including, without limitation, the Risk Manager for the State Department of Insurance.

"Insured Series 2017 Bonds" means the Series 2017 Bonds maturing on January 1 in the years 2024, 2026 through 2029, inclusive, 2031 and 2039.

"Interest Account" means the respective accounts in the Senior Lien Debt Service Fund and the Subordinate Lien Debt Service Fund created and so designated by the Trust Agreement.

"Interest Payment Date" means, with respect to any Series of Bonds, each of the interest payment dates provided for in the Supplemental Agreement relating to such Series, and with respect to any Parity Debt or TIFIA Indebtedness, each of the interest payment dates provided for in the Parity Debt Resolution or TIFIA Loan Agreement relating to such Parity Debt or TIFIA Indebtedness. "Interest Payment Date" means, with respect to the Series 2017 Bonds, any January 1 or July 1, commencing July 1, 2017.

"Investment Obligations" means, to the extent permitted by law, any investment authorized by Section 159-30 of the General Statutes of North Carolina, as such statute may be amended from time to time, or any successor statute.

"Loan Life Coverage Ratio" means a ratio where the numerator is equal to the net present value of projected total Receipts, as determined by the Traffic Consultant, after meeting the requirements of the Trust Agreement, for each Fiscal Year from and including the Fiscal Year in which such calculation is made to and including the Fiscal Year in which the final maturity of the TIFIA Indebtedness occurs, plus the sum of the amounts on deposit in the TIFIA Reserve Fund and General Reserve Fund as of the last Business Day of the previous Fiscal Year, and the denominator is equal to the principal amount of TIFIA Indebtedness Outstanding as of the date of such calculation. The discount rate for the net present value calculation will be equal to the interest rate on the TIFIA Indebtedness.

"Local Government Commission" means the Local Government Commission, a division of the Department of the State Treasurer of the State.

"Long-Term Debt Service Requirement" means, for any period of twelve (12) consecutive calendar months for which such determination is made, the aggregate of the required deposits to be made in respect of Principal and interest (whether or not separately stated) on Outstanding Long-Term Indebtedness during such period, also taking into account:

- (a) with respect to Balloon Long-Term Indebtedness, the amount of principal which would be payable in such period if such principal were amortized from the date of incurrence thereof over a period of twenty (20) years (or the actual number of years over which such Balloon Long-Term Indebtedness is being amortized, if greater than twenty (20) years, but in no event greater than forty (40) years) on a level debt service basis at an interest rate equal to the current market rate for an obligation with such assumed amortization as set forth in an opinion of a banking institution or an investment banking institution knowledgeable in financing of Triangle Expressway System delivered to the Trustee as the interest rate at which the Authority could reasonably expect to borrow the same by incurring Indebtedness with the same term as assumed above; provided, however, that if the date of calculation is within twelve (12) calendar months of the actual final maturity date of such Indebtedness, the full amount of principal payable at maturity will be included in such calculation, unless a binding commitment by an institutional lender or municipal underwriting firm exists, which binding commitment may contain typical and customary conditions, to provide financing to refinance such Indebtedness and such commitment provides for the refinancing of such Indebtedness on terms which would, if such commitment was implemented, constitute Long-Term Indebtedness, then in such case the payment terms contained in such commitment will be utilized for purposes of calculating the Long-Term Debt Service Requirement with respect to such Balloon Long-Term Indebtedness;
- (b) with respect to Long-Term Indebtedness which is Variable Rate Indebtedness, the interest on such Indebtedness will be calculated at the rate which is equal to the average of the actual interest rates which were in effect (weighted according to the length of the period during which each such interest rate was in effect) for the most recent twelve (12) month period immediately preceding the date of calculation for which such information is available (or shorter

period if such information is not available for a twelve (12) month period), except that with respect to new Variable Rate Indebtedness proposed to be incurred, the interest rate for such Variable Rate Indebtedness will be equal to the running average of the SIFMA Municipal Index for the most recent 52 weeks immediately preceding the date of calculation for which such information is available;

- (c) with respect to any Credit Facility, (i) to the extent that such Credit Facility has not been used or drawn upon, the principal and interest relating to such Credit Facility will not be included in the Long-Term Debt Service Requirement and (ii) to the extent that the Authority has reimbursed a Credit Provider for a drawing on a Credit Facility to pay principal or interest on Indebtedness that is already included in the Long-Term Debt Service Requirement, only the portion of the reimbursement payment that is in excess of the payment of principal and interest paid from the drawing will be included in the Long-Term Debt Service Requirement; and
- (d) with respect to Derivative Indebtedness, during any Derivative Period and for so long as the provider of the Derivative Agreement has not defaulted on its payment obligations under the Derivative Agreement, the amount of interest payable on such Derivative Indebtedness will be calculated as follows:
  - (i) for any historical computation of the Long-Term Debt Service Requirement:
  - (A) if such Derivative Indebtedness bears interest at a variable rate, the amount derived by adding (1) the amount of interest paid by the Authority on such Derivative Indebtedness at such variable rate (calculated as provided in subparagraph (b) above) and (2) the amount paid by the Authority to the provider of the Derivative Agreement relating to such Derivative Indebtedness at the Synthetic Fixed Rate, and subtracting (3) the amount received by the Authority from the provider of such Derivative Agreement at the variable rate specified in the Derivative Agreement (calculated as provided in subparagraph (b) above); and
  - (B) if such Derivative Indebtedness bears interest at a fixed rate, the amount derived by adding (1) the amount of interest paid by the Authority on such Derivative Indebtedness at such fixed rate and (2) the amount paid by the Authority to the provider of the Derivative Agreement relating to such Derivative Indebtedness at the Synthetic Variable Rate (calculated as provided in subparagraph (b) above) and subtracting (3) the amount received by the Authority from the provider of such Derivative Agreement at the fixed rate specified in the Derivative Agreement; and
  - (ii) for any projected computation of the Long-Term Debt Service Requirement:
  - (A) if such Derivative Indebtedness bears interest at a variable rate, at the Synthetic Fixed Rate; and
  - (B) if such Derivative Indebtedness bears interest at a fixed rate, at the Synthetic Variable Rate (calculated as provided in subparagraph (b) above);

provided, however, that notwithstanding the foregoing, (a) accrued and capitalized interest will be excluded from the determination of Long-Term Debt Service Requirement to the extent the same is provided from the proceeds of the Long-Term Indebtedness or otherwise provided so as to be available for deposit into an account for capitalized interest or similar account not later than the date of delivery of and payment for such Long-Term Indebtedness; (b) the aggregate amount of payments made with respect

principal or interest on Outstanding Long-Term Indebtedness will not include principal or interest payable from investment earnings on the Senior Lien Debt Service Fund, the Subordinate Lien Debt Service Fund, any Senior Lien Special Reserve Account, any Subordinate Lien Special Reserve Account or any other fund or account established by the Authority that are required to be used to pay the principal of or interest on Indebtedness; and (c) the aggregate of the payments to be made with respect to principal and interest on Outstanding Long-Term Indebtedness will not include principal or interest payable from Qualified Escrow Funds; and

(e) the deposits required to be made for any period in respect of interest on any Outstanding Senior Lien Bonds, Subordinate Lien Bonds or TIFIA Bonds issued or incurred under the Trust Agreement will be reduced by the amount of any investment earnings on the Funds and Accounts created in the Debt Service Fund.

"Long-Term Indebtedness" means all Indebtedness for any of the following:

- (a) money borrowed for an original term, or renewable at the option of the Authority for a period from the date originally incurred, of longer than one year;
- (b) leases which are required to be capitalized in accordance with generally accepted accounting principles having an original term, or renewable at the option of the Authority for a period from the date originally incurred, of longer than one year; and
- (c) installment purchase, installment financing or conditional sale contracts having an original term in excess of one year.

Long-Term Indebtedness will include Short-Term Indebtedness if a Credit Facility exists to provide financing to retire such Short-Term Indebtedness and such Credit Facility provides for the repayment of principal on terms which would, if such commitment were implemented, constitute Long-Term Indebtedness. Long-Term Indebtedness will also include the current portion of Long-Term Indebtedness. Long-Term Indebtedness will only include the obligations described in (a), (b) and (c) to the extent that such obligations are Indebtedness, as defined in the Trust Agreement.

"Maximum Long-Term Debt Service Requirement" means the highest Long-Term Debt Service Requirement for the present and any succeeding Fiscal Year.

"Moody's" means Moody's Investors Service, Inc., a corporation organized and existing under the laws of the State of Delaware, its successors and assigns, and if such corporation will be dissolved or liquidated or will no longer perform the functions of a securities rating agency, "Moody's" will be deemed to refer to any other nationally recognized securities rating agency designated by the Authority by notice to the Trustee.

"NCDOT" means the North Carolina Department of Transportation, a department of the State, and any successor to its functions.

"Net Eminent Domain Proceeds" means the gross proceeds paid to the Authority as a final award for the taking by Eminent Domain of any of the Triangle Expressway System less payment of attorneys' and other fees and expenses properly incurred in the collection of such gross proceeds.

"Net Insurance Proceeds" means the gross proceeds paid to the Authority as a result of any casualty insurance policy with respect to the Triangle Expressway System or as a result of any liability

insurance policy less payment of attorneys' and other fees and expenses properly incurred in the collection of such gross proceeds.

"Non-System Project" means any additions, acquisitions, improvements, betterments, land, buildings, structures or other facilities, including equipment, acquired or constructed, and the preparation and grading of land, relating to the Triangle Expressway System but which are specifically designated by resolution of the Authority Board as not being part of the Triangle Expressway System and are not otherwise thereafter designated as an Additional Project pursuant to the Trust Agreement.

"Officer's Certificate" means a certificate signed by an Authorized Officer.

"O&M Guaranty Agreement" means the Operating and Maintenance Expense Guaranty Agreement, dated as of August 20, 2008, between the Authority and NCDOT, including any supplement or amendment thereto.

"Operating Advance" means any payment received by the Authority from NCDOT pursuant to the terms of the O&M Guaranty Agreement to replenish amounts drawn from the Operating Reserve Fund pursuant to the Trust Agreement.

"Operating Expenses" means the Authority's current expenses for the operation, maintenance and repair of the Triangle Expressway System as determined in accordance with generally accepted accounting principles, except as modified by this definition, including, without limiting the generality of the foregoing:

- (a) all ordinary and usual expenses of operation, toll collection, maintenance and repair, which may include expenses not annually recurring;
  - (b) direct administrative expenses;
  - (c) salaries, benefits and other compensation;
  - (d) operating lease payments;
- (e) payments to any pension or retirement plan or plans properly chargeable to the Authority;
  - (f) insurance premiums and expenses;
- (g) engineering and architectural expenses relating to the operation, maintenance or repair of the Triangle Expressway System;
- (h) fees and expenses of the Trustee or its counsel, any Bond Registrar, Depositary, Traffic Consultant, tender agent, paying agent or Bond Insurer, fees and expenses payable to the USDOT pursuant to the terms of any TIFIA Loan Agreement, legal expenses, Credit Facility fees, remarketing fees and fees of consultants or professionals; and
- (i) any other similar-type operating expenses required to be paid by the Authority under the Trust Agreement or by law;

but Operating Expenses will not include:

(a) any reserves for extraordinary replacements or repairs;

- (b) any allowance for depreciation or any amortization of financing expense;
- (c) any deposits to any fund, account and subaccount created under the Trust Agreement or any Supplemental Agreement, Parity Debt Resolution or TIFIA Loan Agreement and payments of principal, premium, if any, and interest on Indebtedness from such funds, accounts and subaccounts:
- (d) any debt service payments or reserves or deposits for debt service payments in respect of Indebtedness or any lease-purchase or installment financing contracts or any other indebtedness of the Authority not secured by a pledge of and lien on the Receipts; or
- (e) any payments made under any Derivative Agreement, whether regularly scheduled payments, termination payments or other payments.

"Operating Reserve Fund" means the fund created and designated the North Carolina Turnpike Authority Triangle Expressway Operating Reserve Fund by the Trust Agreement.

"Operations and Maintenance Expense Fund" means the fund created and designated the North Carolina Turnpike Authority Triangle Expressway Operations and Maintenance Expense Fund by the Trust Agreement.

"Outstanding" when used with reference to Bonds means, as of a particular date, all Bonds theretofore authenticated and delivered under the Trust Agreement, except:

- (a) Bonds theretofore canceled by the Bond Registrar or delivered to the Bond Registrar for cancellation;
- (b) Bonds deemed to be no longer Outstanding pursuant to the redemption provisions set forth in the Trust Agreement and described in this Official Statement;
- (c) Bonds in exchange for or in lieu of which other Bonds have been authenticated and delivered under the Trust Agreement;
- (d) Bonds deemed to have been paid in accordance with the Trust Agreement and described in "THE TRUST AGREEMENT Defeasance" below; and
- (e) Bonds constituting Put Indebtedness deemed to have been purchased in accordance with the provisions of the applicable Supplemental Agreement in lieu of which other Bonds have been delivered under such Supplemental Agreement.

When used with reference to Parity Debt or TIFIA Indebtedness, "Outstanding" means, as of a particular date, all Parity Debt and TIFIA Indebtedness except:

- (a) Parity Debt and TIFIA Indebtedness theretofore canceled by the Authority;
- (b) Parity Debt and TIFIA Indebtedness for the payment or redemption of which money, Defeasance Obligations, or a combination of both, in an amount sufficient to pay on the date when such Parity Debt and TIFIA Indebtedness is to be paid or redeemed the principal amount of or Redemption Price of, and the interest accruing to such date on, the Parity Debt and TIFIA Indebtedness to be paid or redeemed, has been deposited with an escrow agent in trust for the Holders of such Parity Debt and TIFIA Indebtedness; Defeasance Obligations will be deemed to

be sufficient to pay or redeem Parity Debt and TIFIA Indebtedness on a specified date if the principal and the interest on such Defeasance Obligations, when due, together with any money left uninvested, will be sufficient to pay on such date the principal amount of or Redemption Price of, and the interest accruing on, such Parity Debt and TIFIA Indebtedness to such date;

- (c) Parity Debt and TIFIA Indebtedness in exchange for or in lieu of which other Parity Debt of TIFIA Indebtedness has been delivered under the documentation securing such Parity Debt or TIFIA Indebtedness;
- (d) Parity Debt and TIFIA Indebtedness deemed to have been paid in accordance with the defeasance or like provisions of the Parity Debt Resolution or TIFIA Resolution providing for the issuance of the Parity Debt or TIFIA Indebtedness; and
- (e) Parity Debt and TIFIA Indebtedness constituting Put Indebtedness deemed to have been purchased in accordance with the provisions of the applicable Parity Debt Resolution or TIFIA Loan Agreement in lieu of which other Parity Debt or TIFIA Indebtedness has been incurred under the Parity Debt Resolution or TIFIA Loan Agreement.

"Owner" means a Person in whose name a Bond is registered in the registration books provided for in the Trust Agreement.

"Parity Debt" means, collectively, Senior Lien Parity Debt and Subordinate Lien Parity Debt.

"Parity Debt Resolution" means the resolution and any other documentation adopted or executed and delivered by the Authority providing for the incurrence of Parity Debt. If any Senior Lien Indebtedness is to be the subject of a Credit Facility providing for repayments for draws under the Credit Facility on a parity basis with such Senior Lien Indebtedness, then the term Parity Debt Resolution will include any reimbursement agreement or similar repayment agreement executed and delivered by the Authority in connection with the provision of a Credit Facility for such Senior Lien Indebtedness. If any Subordinate Lien Indebtedness is to be the subject of a Credit Facility providing for repayments for draws under the Credit Facility on a parity basis with such Subordinate Lien Indebtedness, then the term Parity Debt Resolution will include any reimbursement agreement or similar repayment agreement executed and delivered by the Authority in connection with the provision of a Credit Facility for such Subordinate Lien Indebtedness.

"Permitted Encumbrances" means in addition to any charge created or permitted by the Trust Agreement upon the Triangle Expressway System or any part thereof or on the Receipts:

- (a) liens for taxes or other governmental charges or levies not delinquent or that are being contested in good faith by the Authority;
- (b) (i) covenants, easements, encumbrances, defects of title, reservations, restrictions and conditions existing at the time of delivery of the Series 2009 Bonds and (ii) defects, irregularities, encumbrances, easements, including easements for roads and public utilities and similar easements, rights of way, mineral conveyances, mineral reservations, and clouds on title, none of which materially impairs the use of the property affected thereby for its intended purposes;
- (c) mechanics', workers', repairmen's, architects', engineers', surveyors', or carriers' liens or other similar liens provided that the same will be discharged in the ordinary course of business and without undue delay or the validity of the same will be contested in good faith with any pending execution thereof appropriately stayed;

- (d) other liens, charges and encumbrances that, in the written opinion of the Authority Attorney, a copy of which is filed with the Trustee, do not prevent or materially impair the use of the Triangle Expressway System (the Authority Attorney may rely upon a certificate of any engineer or any architect as to whether such liens, charges and encumbrances prevent or materially impair the use of the Triangle Expressway System);
  - (e) liens on any Non-System Projects;
- (f) encumbrances on property, plant and equipment comprising a part of the Triangle Expressway System to the extent permitted by the Trust Agreement;
- (g) the pledge of State Appropriated Revenues under the State Appropriation Revenue Bond Trust Agreement to secure the State Appropriation Revenue Bonds; and
- (h) any contracts, leases or other agreements to the extent permitted by the Trust Agreement.

"Person" includes corporations, firms, associations, partnerships, joint ventures, joint stock companies, trusts, unincorporated organizations, and public bodies, as well as natural persons.

"Predecessor Bonds" of any particular Bond means every previous Bond evidencing all or a portion of the same debt as that evidenced by such particular Bond; and, for purposes of this definition, any Bond authenticated and delivered under the Trust Agreement in lieu of a lost, destroyed or stolen Bond will be deemed to evidence the same debt as the lost, destroyed or stolen Bond.

"Principal" means (a) with respect to any Capital Appreciation Bond, the Compounded Amount thereof (the difference between the stated amount to be paid at maturity and the Compounded Amount being deemed unearned interest) except as used in connection with the authorization and issuance of Bonds and with the order of priority of payments of Bonds after an Event of Default, in which case "Principal" means the initial public offering price of a Capital Appreciation Bond and the difference between the Compounded Amount and the initial public offering price will be deemed to be interest and (b) with respect to any Current Interest Bond, the principal amount of such Bond or Indebtedness payable at maturity or in satisfaction of a Sinking Fund Requirement, if applicable.

"Principal Account" means the respective accounts in the Senior Lien Debt Service Fund and the Subordinate Lien Debt Service Fund created and so designated by the Trust Agreement.

"Principal Payment Date" means any date established by any Supplemental Agreement, Parity Debt Resolution or TIFIA Loan Agreement for the payment of principal of Bonds, Parity Debt or TIFIA Indebtedness, whether at maturity or pursuant to an amortization requirement or otherwise.

"Project Fund" means the fund created and designated the North Carolina Turnpike Authority Triangle Expressway Project Fund by the Trust Agreement.

"Put Indebtedness" means fixed or variable rate Long-Term Indebtedness 25% or more of the principal of which may, at the option of the Owner or Holder thereof, be tendered to the Authority, the Trustee, a Depositary or a paying agent or other fiduciary, or an agent of any of the foregoing, for payment or purchase at one time.

"Qualified Escrow Funds" means amounts deposited in a segregated escrow fund or other similar fund or account in connection with the issuance of Long-Term Indebtedness which fund or account is

required by the documents establishing such fund or account to be applied toward the Authority's payment obligations with respect to principal or interest on (a) the Long-Term Indebtedness which is incurred under the documents establishing such fund or account or (b) Long-Term Indebtedness which is incurred prior to the establishment of such fund or account.

"Receipts" means all receipts, revenues, income, proceeds and money received in any period by or for the Authority in respect of the Triangle Expressway System, including, but without limiting the generality of the foregoing:

- (a) all toll revenues, payments, proceeds, fees, charges, rents and all other income derived by or for the Authority from the ownership and operation of the Triangle Expressway System, and all other income derived by the Authority from the operation or ownership of the Triangle Expressway System, and all rights to receive the same, whether in the form of accounts receivable, contract rights or other rights, and the proceeds of such rights whether now owned or held or hereafter coming into existence;
- (b) proceeds of use and occupancy or business interruption insurance and amounts received by the Authority from any contractor as liquidated damages for failures of such contractor to complete its contractual commitment in accordance with the terms of the contract;
- (c) proceeds of any appropriation made by the federal government or any agency or instrumentality thereof or the State or any agency, instrumentality or political subdivision thereof State for use in connection with the Triangle Expressway System, to the extent such proceeds are deposited in the Revenue Fund and are available for use in the same manner as other Receipts under the provisions of the Trust Agreement, including, without limitation, the State Appropriated Revenues; provided, however, that State Appropriated Revenues will not constitute Receipts under the Trust Agreement until such time as such amounts are withdrawn from the State Appropriation Revenue Bond Trust Agreement and deposited to the Revenue Fund;
- (d) any Derivative Agreement Regularly Scheduled Payments or Derivative Agreement Additional Payments received by the Authority under any Derivative Agreement; and
- (e) the investment income realized on, and the income and gains realized upon the maturity or sale of, securities held by or on behalf of the Authority in the Revenue Fund;

but there will not be included in "Receipts":

- (i) the proceeds of any gifts, grants, bequests, contributions or donations (except as provided in clause (c) above in this definition);
- (ii) the proceeds from the sale or disposition of all or any part of the Triangle Expressway System;
- (iii) reimbursements received by the Authority of advances made by it in respect of the Initial Project, any Additional Project, any refinancing of Indebtedness and any capital improvements;
- (iv) the investment income realized on, and the income and gains realized upon the maturity or sale of, securities held by or on behalf of the Authority in any funds, accounts and subaccounts established pursuant to the Trust Agreement (other than the

Revenue Fund), except to the extent that such investment income is transferred by the Authority to the Revenue Fund;

- (v) any payments received or revenues derived from the ownership or operation of any Non-System Project, except to the extent expressly included as a Receipt by resolution adopted by the Authority Board;
- (vi) Net Insurance Proceeds or Net Eminent Domain Proceeds other than the net proceeds of any use and occupancy or business interruption insurance;
- (vii) proceeds of any appropriation made by the federal government or any agency or instrumentality thereof or the State or any agency, instrumentality or political subdivision thereof to the extent the use of such funds is limited to a use that is inconsistent with their use as Receipts under the provisions of the Trust Agreement;
- (viii) the income from the investment of Qualified Escrow Funds to the extent such income is applied to the payment of the principal of or the interest on Long-Term Indebtedness which is excluded from the determination of the Long-Term Debt Service Requirement; and
  - (ix) the proceeds of any indebtedness of the Authority.

"Redemption Account" means the respective accounts in the Senior Lien Debt Service Fund and the Subordinate Lien Debt Service Fund created and so designated by the Trust Agreement.

"Redemption Price" means, with respect to any Indebtedness or portion thereof, the principal amount of such Indebtedness or portion called for redemption plus the applicable premium, if any, payable upon redemption thereof.

"Regular Record Date" means, with respect to any Series of Bonds, the regular record date, if any, provided for in the Supplemental Agreement relating to such Series.

"Refunded Bonds" means the Series 2009A Bonds maturing on or after January 1, 2020.

"Regular Record Date" means, with respect to the Series 2017 Bonds, the 15th day of the month preceding any Interest Payment Date, whether or not a Business Day.

"Renewal and Replacement Fund" means the fund created and designated the North Carolina Turnpike Authority Triangle Expressway Renewal and Replacement Fund by the Trust Agreement.

"Reserve Alternative Instrument" means an unconditional insurance policy or surety bond or irrevocable letter of credit or guaranty deposited in the Senior Lien Parity Reserve Account, a Senior Lien Special Reserve Account, the Subordinate Lien Parity Reserve Account or a Subordinate Lien Special Reserve Account in lieu of or in partial substitution for the deposit of cash and Investment Obligations in satisfaction of all or a portion of the Senior Lien Parity Reserve Account Requirement, a Senior Lien Special Reserve Account Requirement, the Subordinate Lien Parity Reserve Account Requirement or a Subordinate Lien Special Reserve Account Requirement. The Reserve Alternative Instrument will be payable (upon the giving of notice as required thereunder) to remedy any deficiency in the appropriate subaccounts in the Interest Account, the Principal Account and the Sinking Fund Account of the Senior Lien Debt Service Fund or the Subordinate Lien Debt Service Fund, as the case may be, in order to provide for the timely payment of interest and principal (whether at maturity or pursuant to Sinking Fund

Requirements therefor). Except as may be provided in a Senior Lien Resolution providing for a Senior Lien Special Reserve Account or in a Subordinate Lien Resolution providing for a Subordinate Lien Special Reserve Account, the provider of a Reserve Alternative Instrument will be (a) an insurer that has been assigned either (A) one of the two highest policyholder ratings accorded insurers by A. M. Best & Co. or any comparable service or (B) for bonds insured by the provider of the Reserve Alternative Instrument, a rating by Fitch, Moody's or S&P in one of the two highest rating categories (without regard to gradations within such categories) or (b) a commercial bank, insurance company or other financial institution the bonds payable or guaranteed by which have been assigned a rating by either Fitch, Moody's or S&P in one of the two highest rating categories (without regard to gradations within such categories).

"Revenue Bond Anticipation Notes" means any revenue bond anticipation notes issued by the Authority in compliance with the provisions of the Trust Agreement.

"Revenue Fund" means the fund created and designated the North Carolina Turnpike Authority Triangle Expressway Revenue Fund by the Trust Agreement.

"Revenues" means revenues of the Triangle Expressway System, as determined in accordance with generally accepted accounting principles; provided, however, that revenues will include, without limiting the generality of the foregoing:

- (a) proceeds of use and occupancy or business interruption insurance; and
- (b) proceeds of any appropriation made by the federal government or any agency or instrumentality thereof or the State or any agency, instrumentality or political subdivision thereof State for use in connection with the Triangle Expressway System, to the extent such proceeds are deposited in the Revenue Fund and are available for use in the same manner as other Receipts under the provisions of the Trust Agreement, including, without limitation, the State Appropriated Revenues; provided, however, that State Appropriated Revenues will not constitute Revenues under the Trust Agreement until such time as such amounts are withdrawn from the State Appropriation Revenue Bond Trust Agreement and deposited to the Revenue Fund; and
- (c) the investment income realized on, and the income and gains realized upon the maturity or sale of, securities held by or on behalf of the Authority in the Revenue Fund;

but there will not be included in "Revenues":

- (i) the proceeds of any gifts, grants, bequests, contributions or donations (except as provided in clause (b) above in this definition);
- (ii) the proceeds from the sale or disposition of all or any part of the Triangle Expressway System;
- (iii) reimbursements received by the Authority of advances made by it in respect of (i) the Initial Project, (ii) any Additional Project, (iii) any refinancing of Indebtedness and (iv) any capital improvements;
- (iv) the investment income realized on, and the income and gains realized upon the maturity or sale of, securities held by or on behalf of the Authority in any funds, accounts and subaccounts established pursuant to the Trust Agreement (other than the Revenue Fund), except to the extent that such investment income is transferred by the Authority to the Revenue Fund.

- (v) any payments received or revenues derived from the ownership or operation of any Non-System Project, except to the extent expressly included as a Receipt by resolution adopted by the Authority Board;
- (vi) Net Insurance Proceeds or Net Eminent Domain Proceeds other than the net proceeds of any use and occupancy or business interruption insurance;
- (vii) proceeds of any appropriation made by the federal government or any agency or instrumentality thereof or the State or any agency, instrumentality or political subdivision thereof to the extent the use of such funds is limited to a use that is inconsistent with their use as Receipts under the provisions of the Trust Agreement;
- (viii) the income from the investment of Qualified Escrow Funds to the extent such income is applied to the payment of the principal of or the interest on Long-Term Indebtedness which is excluded from the determination of the Long-Term Debt Service Requirement;
  - (ix) any payments received by the Authority under any Derivative Agreement;
- (x) the proceeds of any security deposits or moneys received to make refunds to users of the Triangle Expressway System; and
  - (xi) the proceeds of any indebtedness of the Authority.

"S&P" means Standard & Poor's Ratings Services, a Division of The McGraw-Hill Companies, Inc., and its successors and assigns, and if such entity will be dissolved or liquidated or will no longer perform the functions of a securities rating agency, "S&P" will be deemed to refer to any other nationally recognized securities rating agency designated by the Authority by notice to the Trustee.

"Second Supplemental Trust Agreement" means the Second Supplemental Trust Agreement between the Authority and the Trustee dated as of March 1, 2017.

"Securities Depository" means the Depository Trust Company, New York, New York, or any other recognized securities depository selected by the Authority, which maintains a book-entry system in respect of a Series of Bonds, and will include any substitute for or successor to the securities depository initially acting as Securities Depository.

"Securities Depository Nominee" means, as to any Securities Depository, such Securities Depository or the nominee of such Securities Depository in whose name there will be registered on the registration books maintained by the Bond Registrar the Bond certificates to be delivered to and immobilized at such Securities Depository during the continuation with such Securities Depository of participation in its book-entry system.

"Senior Lien Bonds" means the Series 2009 Bonds, the Series 2017 Bonds and any other bonds issued under the provisions of the Trust Agreement and secured on a parity with each other and any Senior Lien Parity Debt and Senior Lien Derivative Agreement Regularly Scheduled Payment by the Trust Agreement.

"Senior Lien Debt Service Fund" means the fund created and designated the North Carolina Turnpike Authority Triangle Expressway Senior Lien Debt Service Fund by the Trust Agreement.

"Senior Lien Derivative Agreement Regularly Scheduled Payments" means any Derivative Agreement Regularly Scheduled Payments with respect to Derivative Indebtedness constituting Senior Lien Indebtedness.

"Senior Lien Indebtedness" means, collectively, the Senior Lien Bonds and Senior Lien Parity Debt.

"Senior Lien Parity Debt" means all Indebtedness incurred by the Authority in respect of the Triangle Expressway System and not evidenced by Bonds which is secured on a parity (as so designated in the Parity Debt Resolution) with the Senior Lien Bonds by a pledge, charge and lien upon the Receipts as provided in the Trust Agreement, including, without limiting the generality of the foregoing, and described in "THE TRUST AGREEMENT – Security" below.

"Senior Lien Parity Reserve Account" means the account in the Senior Lien Debt Service Fund created and so designated by the Trust Agreement.

"Senior Lien Parity Reserve Account Requirement" means, initially at the time of issuance of the Series 2009 Bonds, the least of (i) the Maximum Long-Term Debt Service Requirement for all Senior Lien Bonds and Senior Lien Parity Debt secured by the Senior Lien Parity Reserve Account, (ii) 125% of the average annual Long-Term Debt Service Requirement for all Senior Lien Bonds and Senior Lien Parity Debt secured by the Senior Lien Parity Reserve Account and (iii) 10% of the stated principal amount of all Senior Lien Bonds and Senior Lien Parity Debt secured by the Senior Lien Parity Reserve Account; provided, however, that if any Series of Senior Lien Bonds or Senior Lien Parity Debt secured by the Senior Lien Parity Reserve Account has original issue discount or premium that exceeds 2% of the stated redemption price at maturity plus any original issue premium attributable exclusively to underwriter's compensation, the initial offering prices to the public will be used in lieu of the stated principal amount for purposes of the 10% limitation. Thereafter, the Senior Lien Parity Reserve Account will be adjusted annually on the first day of each Fiscal Year to equal the Maximum Long-Term Debt Service Requirement for the Senior Lien Bonds and Senior Lien Parity Debt secured by the Senior Lien Parity Reserve Account for the current Fiscal Year and the next succeeding four Fiscal Years to the extent such amount exceeds the initial deposit to the Senior Lien Parity Reserve Account Requirement at the time of issuance of the Series 2009 Bonds. The Senior Lien Parity Reserve Account Requirement may be composed of cash, Investment Obligations or Reserve Alternative Instruments, or any combination of the foregoing, as the Authority may determine.

"Senior Lien Resolution" means any Supplemental Agreement for Senior Lien Bonds or Parity Debt Resolution for Senior Lien Parity Debt, or both, as the case may be, authorizing the issuance of a Series of Senior Lien Bonds or the incurrence of Senior Lien Parity Debt.

"Senior Lien Special Reserve Account" means a special debt service reserve account, if any, created by a Senior Lien Resolution as a debt service reserve account only for the particular Senior Lien Indebtedness authorized thereby.

"Senior Lien Special Reserve Account Requirement" means the amount required to be placed or maintained in a Senior Lien Special Reserve Account as may be required by the Senior Lien Resolution creating such account. The Senior Lien Special Reserve Account Requirement may be composed of cash, Investment Obligations or Reserve Alternative Instruments or any combination of the foregoing, as the Authority may determine.

"Serial Bonds" means the Bonds of any Series that are stated to mature in consecutive annual installments.

"Series," whenever used herein with respect to Bonds, means all of the Bonds designated as being of the same series.

"Series 2009 Bonds" means, collectively, the Series 2009A Bonds and the Series 2009B Bonds.

"Series 2009A Bonds" means the North Carolina Turnpike Authority Triangle Expressway System Senior Lien Turnpike Revenue Bonds, Series 2009A, issued pursuant to the Trust Agreement and the First Supplemental Trust Agreement.

"Series 2009B Bonds" means the North Carolina Turnpike Authority Triangle Expressway System Senior Lien Turnpike Revenue Bonds, Series 2009B, issued pursuant to the Trust Agreement and the First Supplemental Trust Agreement.

"Series 2017 Bonds" means the North Carolina Turnpike Authority Triangle Expressway System Senior Lien Turnpike Revenue Refunding Bonds, Series 2017, issued pursuant to the Trust Agreement and the Second Supplemental Trust Agreement. The Series 2017 Bonds are Current Interest Bonds.

"Series 2017 Cost of Issuance Fund" means the fund created and so designated by the Second Supplemental Trust Agreement.

"Series 2017 Subaccount of the Interest Account" means the subaccount created and so designated by the Second Supplemental Trust Agreement.

"Series 2017 Subaccount of the Principal Account" means the subaccount created and so designated by the Second Supplemental Trust Agreement.

"Series 2017 Subaccount of the Redemption Account" means the subaccount created and so designated by the Second Supplemental Trust Agreement.

"Short-Term Indebtedness" means all Indebtedness incurred for borrowed money other than the current portion of Long-Term Indebtedness for any of the following:

- (a) money borrowed for an original term, or renewable at the option of the borrower for a period from the date originally incurred, of one year or less;
- (b) leases which are capitalized in accordance with generally accepted accounting principles having an original term, or renewable at the option of the lessee for a period from the date originally incurred, of one year or less; and
- (c) installment purchase, installment financing or conditional sale contracts having an original term of one year or less.

"SIFMA Municipal Index" means The Securities Industry and Financial Markets Association Municipal Swap Index or such other weekly, high-grade index comprised of seven-day, tax-exempt multimodal notes produced by Municipal Market Data, Inc., or its successor, or as otherwise designated by The Securities Industry and Financial Markets Association; provided, however, that if such index is no longer produced by Municipal Market Data, Inc. or its successor, then "SIFMA Municipal Index" means such other reasonably comparable index selected by the Authority.

"Sinking Fund Account" means the respective accounts in the Senior Lien Debt Service Fund and the Subordinate Lien Debt Service Fund created and so designated by the provisions of the Trust Agreement.

"Sinking Fund Requirement" means with respect to any Series of Bonds, the Sinking Fund Requirement provided in the Supplemental Agreement relating to such Series.

The Sinking Fund Requirements for the Term Bonds will be initially the respective principal amounts of such Term Bonds for retirement on each January 1 as fixed in the Supplemental Agreement.

If during any Bond Year, the total principal amount of Term Bonds retired by purchase or redemption under the provisions of the Supplemental Agreement will be greater than the amount of the Sinking Fund Requirement for such Term Bonds, the subsequent Sinking Fund Requirements for such Term Bonds will be reduced in such amount aggregating the amount of such excess as will be specified in an Officer's Certificate filed with the Trustee on or prior to July 15 of the next ensuing Bond Year.

"Special Record Date" means a date fixed by the Trustee for determining the Owner of Bonds for the payment of Defaulted Interest pursuant to the Trust Agreement.

"State" means the State of North Carolina.

"State Appropriation Revenue Bond Trust Agreement" means the Trust Agreement, dated as of June 1, 2009, between the Authority and the Trustee as trustee thereunder, authorizing, among other things, the issuance of revenue bonds thereunder secured by the State Appropriated Revenues to pay a portion of the costs of the Initial Project.

"Subordinate Lien Bonds" means any bonds issued under the provisions of the Trust Agreement and secured on a parity with each other and any Subordinate Lien Parity Debt and Subordinate Lien Derivative Agreement Regularly Scheduled Payment by the Trust Agreement.

"Subordinate Lien Debt Service Fund" means the fund created and designated the North Carolina Turnpike Authority Triangle Expressway Subordinate Lien Debt Service Fund by the Trust Agreement.

"Subordinate Lien Derivative Agreement Regularly Scheduled Payments" means any Derivative Agreement Regularly Scheduled Payments with respect to Derivative Indebtedness constituting Subordinate Lien Indebtedness.

"Subordinate Lien Indebtedness" means, collectively, the Subordinate Lien Bonds and Subordinate Lien Parity Debt.

"Subordinate Lien Parity Debt" means all Indebtedness incurred by the Authority in respect of the Triangle Expressway System and not evidenced by Subordinate Lien Bonds which is secured on a parity (as so designated in the Parity Debt Resolution) with the Subordinate Lien Bonds by a pledge, charge and lien upon the Receipts as provided in the Trust Agreement, including, without limiting the generality of the foregoing, as described in "THE TRUST AGREEMENT – Security" below.

"Subordinate Lien Parity Reserve Account" means the account in the Senior Lien Debt Service Fund created and so designated by the Trust Agreement.

"Subordinate Lien Parity Reserve Account Requirement" means the amount required to be placed or maintained in a Subordinate Lien Parity Reserve Account as may be required by the Subordinate Lien

Resolution first providing for the funding of the Subordinate Lien Parity Reserve Account. The Subordinate Lien Parity Reserve Account Requirement may be composed of cash, Investment Obligations or Reserve Alternative Instruments, or any combination of the foregoing, as the Authority may determine.

"Subordinate Lien Resolution" means any Supplemental Agreement for Subordinate Lien Bonds or Parity Debt Resolution for Subordinate Lien Parity Debt, or both, as the case may be, authorizing the issuance of a Series of Subordinate Lien Bonds or the incurrence of Subordinate Lien Parity Debt.

"Subordinate Lien Special Reserve Account" means a special debt service reserve account, if any, created by a Subordinate Lien Resolution as a debt service reserve account only for the particular Subordinate Lien Indebtedness authorized thereby.

"Subordinate Lien Special Reserve Account Requirement" means the amount required to be placed or maintained in a Subordinate Lien Special Reserve Account as may be required by the Subordinate Lien Resolution creating such account. The Subordinate Lien Special Reserve Account Requirement may be composed of cash, Investment Obligations or Reserve Alternative Instruments or any combination of the foregoing, as the Authority may determine.

"Supplemental Agreement" means an order or resolution of the Authority authorizing any particular Series of Bonds, together with a supplemental trust agreement executed and delivered by the Authority in connection with the issuance of such Series of Bonds that is required to be executed and delivered by the Trust Agreement prior to the issuance of any such Series.

"Synthetic Fixed Rate" means Synthetic Fixed Rate as defined in the definition of Derivative Indebtedness.

"Synthetic Variable Rate" means Synthetic Variable Rate as defined in the definition of Derivative Indebtedness.

"Term Bonds" means the Bonds of any Series, other than Serial Bonds, that are designated as such in the Supplemental Agreement for such Series.

"TIFIA Debt Service Fund" means the fund created and designated the North Carolina Turnpike Authority Triangle Expressway TIFIA Debt Service Fund by the Trust Agreement.

"TIFIA Debt Service Account" means the special account in the TIFIA Debt Service Fund created and so designated by the Trust Agreement.

"TIFIA Debt Service Reserve Account" means the special account in the TIFIA Debt Service Fund created and so designated by the Trust Agreement.

"TIFIA Debt Service Reserve Account Requirement" initially (2009) means \$1,000,000. Thereafter, until the amount on deposit in the TIFIA Debt Service Reserve Account equals 10% of the amount of the Outstanding TIFIA Indebtedness as of June 30 of the previous Fiscal Year, the TIFIA Debt Service Reserve Account Requirement will be an ascending amount computed for each Fiscal Year and will be an amount equal to (i) the TIFIA Debt Service Reserve Account Requirement computed for the prior Fiscal Year, plus (ii) 10% of the amount, if any, the Receipts received in such Fiscal Year exceed the amount projected for such Fiscal Year in the Base Case Projections. When the TIFIA Debt Service Reserve Account Requirement is an amount equal to 10% of the amount of the Outstanding TIFIA Indebtedness as of June 30 of the previous Fiscal Year, the TIFIA Debt Service Reserve Account Requirement will be an amount equal to 10% of the amount of the Outstanding TIFIA Indebtedness as of June 30 of the previous Fiscal Year.

"TIFIA Indebtedness" means the TIFIA Series 2009 Bond and any additional bonds or other secured loan from the USDOT, as lender, to the Authority, as borrower, pursuant to the Transportation Infrastructure Finance and Innovation Act of 1998, as codified as 23 U.S.C. §601 *et seq.*, as the same may be amended from time to time, with respect to the Triangle Expressway Project, and secured by the pledge, charge and lien on the Receipts in the manner provided in the Trust Agreement.

"TIFIA Loan Agreement" means the TIFIA Loan Agreement, to be entered between the USDOT and the Authority, including any supplements or amendments thereto with respect to the TIFIA Indebtedness evidenced by the TIFIA Series 2009 Bond and any other Loan Agreement or similar instrument executed and delivered by the Authority providing for the incurrence of other TIFIA Indebtedness.

"TIFIA Series 2009 Bond" means the North Carolina Turnpike Authority Triangle Expressway Revenue Bond, TIFIA Series 2009, to be dated the date of issuance thereof, issued by the Authority to the USDOT pursuant to the Trust Agreement hereof to evidence the obligation of the Authority to pay the loan repayments to the USDOT, or its assigns, pursuant to the TIFIA Loan Agreement.

"Traffic Consultant" means any traffic and revenue consultant or firm of traffic and revenue consultants of favorable reputation for skill and experience in performing the duties for which such consultant is required to be employed pursuant to the provisions of the Trust Agreement.

"Triangle Expressway System" means, collectively, Initial Project and any Additional Projects.

"Trust Agreement" means the Trust Agreement, dated as of June 1, 2009, between the Authority and the Trustee, as supplemented by the First Supplemental Trust Agreement and by the Second Supplemental Trust Agreement.

"Trustee" means Wells Fargo Bank, N.A., a national banking association duly organized and existing under the laws of the United States of America and having a designated corporate trust office in Columbia, Maryland.

"Trust Estate" means, collectively, the (a) money and Investment Obligations in the Project Fund (to the extent provided in the Trust Agreement), the Revenue Fund, the Senior Lien Debt Service Fund, the Subordinate Lien Debt Service Fund, the TIFIA Debt Service Fund, the Insurance and Condemnation Award Fund and the General Reserve Fund under the Trust Agreement and Accounts established under the Supplemental Agreements relating to their issuance, except that the Senior Lien Parity Reserve Account will be held solely for the benefit of the Senior Lien Parity Debt secured thereby notwithstanding the provisions relating to Parity Debt and TIFIA Indebtedness in the Trust Agreement, the Subordinate Lien Parity Reserve Account will be held solely for the benefit of the Subordinate Lien Parity Debt secured thereby, the TIFIA Debt Service Reserve Account will be held solely for the benefit of the TIFIA Indebtedness and any fund or account created by a Supplemental Agreement to the extent such Supplemental Agreement expressly excludes such fund or account, (b) the Receipts, except upon the disbursement of Receipts for deposit or credit to NCDOT or for deposit or credit to the Operations and Maintenance Expense Fund, the Operating Reserve Fund or the Renewal and Replacement Fund, (c) unless otherwise provided in a Supplemental Agreement, the rights to the amounts payable to the Authority under any Credit Facility and (d) the rights to amounts payable to the Authority or the Trustee pursuant to any Derivative Agreement.

"USDOT" means the United States Department of Transportation.

#### THE TRUST AGREEMENT

## **Project Fund**

A special fund is established with the Trustee and designated the "North Carolina Turnpike Authority Triangle Expressway Project Fund" and within the Project Fund there are established two special accounts designated the "Initial Project Account" and the "Additional Projects Account," respectively. The proceeds of the Series 2009 Bonds were deposited by the Trustee in the Initial Project Account and used for payment of the Costs of the Initial Project. Unless otherwise provided in a Supplemental Agreement, the proceeds of any Series of Bonds to be used for providing any Additional Project will be deposited upon the delivery of such Series of Bonds into a separate subaccount in the Additional Projects Account to be created by the Supplemental Agreement providing for the issuance of the Bonds financing such Additional Project.

The moneys in the Project Fund are held by the Trustee in trust and, pending application to the payment of the refinancing of, the reimbursement for or the Costs of the Initial Project or the Cost of any Additional Project, as the case may be, or transfer as provided in the Trust Agreement or in the Supplemental Agreement, will, to the extent permitted by law, be subject to a lien and charge in favor of the Owners of Bonds issued with respect to the Initial Project or Additional Project and Outstanding under the Trust Agreement and the applicable Supplemental Agreement and will be held for the security of such Owners.

#### **Establishment of Funds**

In addition to the Project Fund, there are established the following funds:

- (a) North Carolina Turnpike Authority Triangle Expressway Revenue Fund;
- (b) North Carolina Turnpike Authority Triangle Expressway Senior Lien Debt Service Fund, in which there are established seven special accounts to be known as the Capitalized Interest Account, the Interest Account, the Principal Account, the Sinking Fund Account, the Redemption Account, the Senior Lien Parity Reserve Account and the Hedging Acquisition Account;
- (c) North Carolina Turnpike Authority Triangle Expressway Subordinate Lien Debt Service Fund, in which there are established six special accounts to be known as the Capitalized Interest Account, the Interest Account, the Principal Account, the Sinking Fund Account, the Redemption Account and the Subordinate Lien Parity Reserve Account;
  - (d) North Carolina Turnpike Authority Triangle Expressway Renewal and Replacement Fund;
- (e) North Carolina Turnpike Authority Triangle Expressway TIFIA Debt Service Fund, in which there are established two special accounts to be known as the TIFIA Debt Service Account and the TIFIA Debt Service Reserve Account;
- (f) North Carolina Turnpike Authority Triangle Expressway Operations and Maintenance Expense Fund;
  - (g) North Carolina Turnpike Authority Triangle Expressway Operating Reserve Fund;
  - (h) North Carolina Turnpike Authority Triangle Expressway General Reserve Fund; and

(i) North Carolina Turnpike Authority Triangle Expressway Insurance and Condemnation Award Fund.

The Revenue Fund, the Senior Lien Debt Service Fund, the Subordinate Lien Debt Service Fund and the TIFIA Debt Service Fund and the accounts and subaccounts therein and the Insurance and Condemnation Award Fund and the General Reserve Fund will be established with and held by the Trustee. The Renewal and Replacement Fund, the Operations and Maintenance Expense Fund and the Operating Reserve Fund will be established with and held by a Depositary selected by the Authority.

A Senior Lien Resolution may provide for the creation of a Senior Lien Special Reserve Account for the Senior Lien Indebtedness authorized by such Senior Lien Resolution and for the deposit of moneys to and withdrawal of moneys from such Account. A Senior Lien Special Reserve Account created for any Series of Bonds will be held and maintained by the Trustee; provided, however, that if a Series of Bonds is placed with the purchaser thereof and not publicly offered, then such purchaser or a Depositary may hold the Senior Lien Special Reserve Account created for such Senior Lien Indebtedness as provided for in the Senior Lien Resolution authorizing such Senior Lien Indebtedness.

A Subordinate Lien Resolution may provide for the creation of a Subordinate Lien Special Reserve Account for the Subordinate Lien Indebtedness authorized by such Subordinate Lien Resolution and for the deposit of moneys to and withdrawal of moneys from such Account. A Subordinate Lien Special Reserve Account created for any Series of Bonds will be held and maintained by the Trustee; provided, however, that if a Series of Bonds is placed with the purchaser thereof and not publicly offered, then such purchaser or a Depositary may hold the Subordinate Lien Special Reserve Account created for such Subordinate Lien Indebtedness as provided for in the Subordinate Lien Resolution authorizing such Subordinate Lien Indebtedness.

A Senior Lien Resolution may also provide for the creation of such other funds and accounts, as the Authority may determine, for the Senior Lien Indebtedness authorized by such Senior Lien Resolution. A Subordinate Lien Resolution may also provide for the creation of such other funds and accounts, as the Authority may determine, for the Subordinate Lien Indebtedness authorized by such Subordinate Lien Resolution.

The money in all of the funds, accounts and subaccounts established with and held by the Trustee pursuant to the Trust Agreement will be held in trust and applied as provided in the Trust Agreement and, pending such application, the money in such funds, accounts and subaccounts therein will be subject to a pledge, charge and lien in favor of the Owners of the respective Series of Bonds issued and Outstanding under the Trust Agreement and for the further security of such Owners, except as otherwise provided therein or in any Supplemental Agreement.

Each Supplemental Agreement will provide, to the extent applicable, for the creation of a separate subaccount within the Capitalized Interest Account, the Interest Account, the Principal Account, the Redemption Account and the Sinking Fund Account of the Senior Lien Debt Service Fund or the Subordinate Lien Debt Service Fund, as the case may be, with respect to each Series of Bonds, which subaccounts will bear the designation of such Series of Bonds. A Supplemental Agreement for Senior Lien Bonds may provide that such Senior Lien Bonds authorized thereby may be additionally secured by the Senior Lien Parity Reserve Account or a Senior Lien Special Reserve Account or it may provide that there will not be any debt service reserve fund in respect of such Series of Bonds. If a Series of Senior Lien Bonds is secured by a Senior Lien Special Reserve Account or is not secured by any debt service reserve fund, such Series of Senior Lien Bonds will have no claim on the Senior Lien Parity Reserve Account or any other Senior Lien Special Reserve Account. A Supplemental Agreement for Subordinate Lien Bonds may provide that such Subordinate Lien Bonds authorized thereby may be additionally

secured by the Subordinate Lien Parity Reserve Account or a Subordinate Lien Special Reserve Account or it may provide that there will not be any debt service reserve fund in respect of such Series of Bonds. If a Series of Subordinate Lien Bonds is secured by a Subordinate Lien Special Reserve Account or is not secured by any debt service reserve fund, such Series of Subordinate Lien Bonds will have no claim on the Subordinate Lien Parity Reserve Account or any other Subordinate Lien Special Reserve Account.

Each Parity Debt Resolution for Senior Lien Parity Debt may provide for the creation of such funds and accounts as it may determine, including, without limiting the generality of the foregoing, an account for the payment of interest as mentioned in the Trust Agreement and described in "THE TRUST AGREEMENT – Application of Money in Interest Accounts and Capitalized Interest Accounts" below, an account or accounts for the payment of principal, whether at maturity or pursuant to an amortization requirement, as mentioned in the Trust Agreement and described in "THE TRUST AGREEMENT – Application of Money in Interest Accounts and Capitalized Interest Accounts" below. A Parity Debt Resolution for Senior Lien Parity Debt may provide that the Senior Lien Parity Debt authorized thereby may be additionally secured by the Senior Lien Parity Reserve Account or a Senior Lien Special Reserve Account or it may provide that there will not be any debt service reserve account in respect of such Senior Lien Parity Debt. If Senior Lien Parity Debt is secured by a Senior Lien Special Reserve Account or is not secured by any debt service reserve account, such Senior Lien Parity Debt will have no claim on the Senior Lien Parity Reserve Account.

Each Parity Debt Resolution for Subordinate Lien Parity Debt may provide for the creation of such funds and accounts as it may determine, including, without limiting the generality of the foregoing, an account for the payment of interest as mentioned in the Trust Agreement and described in "THE TRUST AGREEMENT – Application of Money in Interest Accounts and Capitalized Interest Accounts" below, an account or accounts for the payment of principal, whether at maturity or pursuant to an amortization requirement, as mentioned in the Trust Agreement and described in "THE TRUST AGREEMENT – Application of Money in Interest Accounts and Capitalized Interest Accounts" below. A Parity Debt Resolution for Subordinate Lien Parity Debt may provide that the Subordinate Lien Parity Debt authorized thereby may be additionally secured by the Subordinate Lien Parity Reserve Account or a Subordinate Lien Special Reserve Account or it may provide that there will not be any debt service reserve account in respect of such Subordinate Lien Parity Debt. If Subordinate Lien Parity Debt is secured by a Subordinate Lien Special Reserve Account or is not secured by any debt service reserve account, such Subordinate Lien Parity Debt will have no claim on the Subordinate Lien Parity Reserve Account.

The Authority will provide to the Trustee a certified or otherwise authentic copy of each Parity Debt Resolution and each Derivative Agreement adopted or entered into by the Authority and will otherwise provide the Trustee with such information and documents as the Trustee will request to assure that the Trustee is advised of the payments to be made pursuant to such Parity Debt Resolutions and Derivative Agreements as provided in the Trust Agreement.

# **Application of Receipts**

Except as otherwise expressly provided for in the Trust Agreement, all Receipts will be deposited on a daily basis when received in the Revenue Fund.

All Derivative Agreement Regularly Scheduled Payments received by the Authority will be deposited in the Revenue Fund upon receipt. Any Derivative Agreement Additional Payments received by the Authority from any counterparty under a Derivative Agreement will be deposited in the General Reserve Fund upon receipt. The Authority will provide the Trustee with written schedules of all Derivative Agreement Regularly Scheduled Payments prior to any such deposits in the Reserve Fund.

The Authority has issued the State Appropriation Revenue Bonds pursuant to the State Appropriation Revenue Bond Trust Agreement to pay certain Costs of the Triangle Expressway System not being funded with the proceeds of Bonds and Parity Debt issued under the Trust Agreement. Pursuant to the State Appropriation Revenue Bond Trust Agreement, the Authority has provided that all State Appropriated Revenue will be deposited as received in the Revenue Fund of the State Appropriation Revenue Bond Trust Agreement to be used to pay principal and interest on the State Appropriation Revenue Bonds. The State Appropriation Revenue Bond Trust Agreement further provides that amounts in excess of the amount needed to pay such debt service is to be withdrawn from the State Appropriation Revenue Bond Trust Agreement and deposited to the Revenue Fund under the Trust Agreement. Upon such deposit, but not prior to such deposit, State Appropriated Revenues will constitute "Revenues" and "Receipts" for all purposes of the Trust Agreement including being subject to the lien and pledge of the Trust Estate as provided in the Trust Agreement.

In order to assure that the Authority will have sufficient funds to pay Operating Expenses as the same become due, the Authority and the NCDOT have entered into the O&M Guaranty Agreement, pursuant to which the NCDOT has agreed to provide additional funding for the deposits to be made to the Operating Reserve Fund in the event the Receipts are not sufficient to make the deposits thereto as provided in the Trust Agreement and described in paragraph (j) in "SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2017 BONDS — Application of Receipts" in this Official Statement. In the event that funds from NCDOT are required to make the deposit to the Operating Reserve Fund, the Authority will provide such notices, financial information and additional documentation to NCDOT as may be needed or requested by NCDOT to provide for the timely payment by NCDOT of the amounts needed to fund such deposit. Such payments will be deposited as received to the Operating Reserve Fund and applied as provided in the Trust Agreement and described in "THE TRUST AGREEMENT — Application of Money in the Operating Reserve Fund" below.

In order to assure that the Authority will have sufficient funds to maintain the quality and sustainability of the Triangle Expressway System, the Authority and the NCDOT have entered into the Construction and Renewal and Replacement Agreement, pursuant to which the NCDOT has agreed to provide additional funding for the deposits to be made to the Renewal and Replacement Fund in the event the Receipts are not sufficient to make the deposits thereto as provided in the Trust Agreement and described in paragraph (k) in "SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2017 BONDS — Application of Receipts" in this Official Statement. In the event that funds from NCDOT are required to make the deposit to the Renewal and Replacement Fund, the Authority will provide such notices, financial information and additional documentation to NCDOT as may be needed or requested to NCDOT to provide for the timely payment by NCDOT of the amounts needed to fund the deposit. Such payments will be deposited as received to the Renewal and Replacement Fund and applied as provided in the Trust Agreement and described in "THE TRUST AGREEMENT — Application of Money in the Operating Reserve Fund" below.

## **Application of Money in Interest Accounts and Capitalized Interest Accounts**

Not later than 10:00 A.M. on each Interest Payment Date, date for the payment of Defaulted Interest or date upon which Bonds are to be redeemed, or on such other date as may be specified in the applicable Supplemental Agreement, the Trustee will withdraw from the applicable subaccount in the respective Interest Accounts and wire transfer to the Bond Registrar, in federal reserve or other immediately available funds, the amounts required for paying interest on the respective Bonds on such Interest Payment Date. The Bond Registrar will remit or otherwise set aside the amount due and payable to the Owners as provided in the Supplemental Agreements.

Unless otherwise provided by a Supplemental Agreement, on the date of issuance of any Series of Bonds, an Authorized Officer will deliver to the Trustee a schedule of transfers to be made from the applicable subaccount in the respective Capitalized Interest Accounts to the applicable subaccount of the respective Interest Accounts. The Trustee will make such transfers as required by the schedule of an Authorized Officer.

If the Authority fails to deposit with the Trustee the amounts required to be deposited in the applicable subaccount of the respective Interest Accounts as provided in the Trust Agreement, or if the balance in the applicable subaccount of the respective Interest Accounts on the Business Day next preceding an Interest Payment Date is insufficient to pay interest coming due on the Bonds on such Interest Payment Date, the Trustee will notify the Authority of the amount of the deficiency and request the Authority to immediately cure such deficiency. Upon failure of the Authority to cure such deficiency and in any event not later than such Interest Payment Date, the Trustee will transfer an amount sufficient to cure the same, drawing only upon funds (a) in the case of Senior Lien Bonds secured by the Senior Lien Parity Reserve Account, (b) in the case of Senior Lien Bonds secured by a Senior Lien Special Reserve Account, from such Senior Lien Special Reserve Account, if any, securing such Series of Senior Lien Bonds, (c) in the case of Subordinate Lien Bonds secured by the Subordinate Lien Parity Reserve Account, from the Subordinate Lien Parity Reserve Account, from such Subordinate Lien Special Res

## **Application of Money in Principal Account**

Not later than 10:00 A.M. on each Principal Payment Date, the Trustee will withdraw from the applicable subaccount in the respective Principal Accounts and wire transfer to the Bond Registrar, in federal reserve or other immediately available funds, the amount necessary to pay the principal of the respective Bonds at their respective maturities. The Bond Registrar will remit or otherwise set aside the amount due and payable to the Owners as provided in the Supplemental Agreements.

If on any date there is money in the Principal Account of the Senior Lien Debt Service Fund and no Serial Bonds are then Outstanding or if on any Principal Payment Date money remains therein after the payment of the principal of Serial Bonds then due, the Trustee will withdraw such money therefrom and will apply the same in the following order: (a) deposit into the Sinking Fund Account of the Senior Lien Debt Service Fund the amount then required to be paid thereto by the Authority pursuant to the Trust Agreement, (b) deposit, if and to the extent determined by the Authority, into the Senior Lien Parity Reserve Account or any Senior Lien Special Reserve Account such amounts as may be determined by the Authority in order to make the amounts on deposit therein equal to the Senior Lien Parity Reserve Account Requirement or the Senior Lien Special Reserve Account Requirement, as the case may be, and (c) otherwise make the deposits required by the Trust Agreement.

If on any date there is money in the Principal Account of the Subordinate Lien Debt Service Fund and no Serial Bonds are then Outstanding or if on any Principal Payment Date money remains therein after the payment of the principal of Serial Bonds then due, the Trustee will withdraw such money therefrom and will apply the same in the following order: (a) deposit into the Sinking Fund Account of the Subordinate Lien Debt Service Fund the amount then required to be paid thereto by the Authority pursuant to the Trust Agreement, (b) deposit, if and to the extent determined by the Authority, into the Subordinate Lien Parity Reserve Account or any Subordinate Lien Special Reserve Account such amounts as may be determined by the Authority in order to make the amounts on deposit therein equal to the Subordinate Lien Parity Reserve Account Requirement or the Subordinate Lien Special Reserve

Account Requirement, as the case may be, and (c) otherwise make the deposits required by the Trust Agreement.

If the Authority fails to deposit with the Trustee the amounts required to be deposited in the applicable subaccounts of the respective Principal Accounts as provided in the Trust Agreement, or if the balance in the applicable subaccount of the respective Principal Accounts on the Business Day next preceding a Principal Payment Date is insufficient to pay the Principal coming due on the Bonds on such Principal Payment Date, the Trustee will notify the Authority of the amount of the deficiency and request the Authority to immediately cure such deficiency. Upon failure of the Authority to cure such deficiency and in any event not later than such Principal Payment Date, the Trustee will transfer an amount sufficient to cure the same, drawing only upon funds (a) in the case of Senior Lien Bonds secured by the Senior Lien Parity Reserve Account, (b) in the case of Senior Lien Bonds secured by a Senior Lien Special Reserve Account, from such Senior Lien Special Reserve Account, if any, securing such Series of Senior Lien Bonds, (c) in the case of Subordinate Lien Bonds secured by the Subordinate Lien Parity Reserve Account, from the Subordinate Lien Parity Reserve Account, from such Subordinate Lien Special Reserve Account, from such Subordinate Lien S

## **Application of Money in Sinking Fund Account**

Money held for the credit of the subaccounts in the Sinking Fund Account will be applied to the retirement, purchase, redemption or payment of Term Bonds in the manner provided in the applicable Supplemental Agreement.

If the Authority fails to deposit with the Trustee the amounts required to be deposited in the applicable subaccounts of the respective Sinking Fund Accounts as provided in the Trust Agreement, or if the balance in the applicable subaccount of the respective Sinking Fund Accounts on the Business Day next preceding a Principal Payment Date is insufficient to pay the Principal coming due on the Bonds on such Principal Payment Date, the Trustee will notify the Authority of the amount of the deficiency and request the Authority to immediately cure such deficiency. Upon failure of the Authority to cure such deficiency and in any event not later than such Principal Payment Date, the Trustee will transfer an amount sufficient to cure the same, drawing only upon funds (a) in the case of Senior Lien Bonds secured by the Senior Lien Parity Reserve Account, from the Senior Lien Parity Reserve Account, (b) in the case of Senior Lien Bonds secured by a Senior Lien Special Reserve Account, from such Senior Lien Parity Reserve Account, from the Subordinate Lien Parity Reserve Account and (d) in the case of Subordinate Lien Bonds secured by a Subordinate Lien Special Reserve Account, from such Subordinate Lien

# Deposit and Application of Money in Senior Lien Parity Reserve Account, any Senior Lien Special Reserve Account, Subordinate Lien Parity Reserve Account and any Subordinate Lien Special Reserve Account; Determination of Deficiencies

(a) If a Senior Lien Resolution provides that the Senior Lien Indebtedness incurred thereunder is to be secured by the Senior Lien Parity Reserve Account, the Authority must fund, from the proceeds of such Senior Lien Indebtedness or from any other available sources, concurrently with the delivery of and payment for such Senior Lien Indebtedness, the Senior Lien Parity Reserve Account in an amount equal to the Senior Lien Parity Reserve Account Requirement. If a Senior Lien Resolution provides that the Senior Lien Indebtedness incurred thereunder is to be secured by a Senior Lien Special Reserve Account,

the Authority must fund, from the proceeds of such Senior Lien Indebtedness or from any other available sources, at the time or times and in the manner specified in the applicable Senior Lien Resolution, such Senior Lien Special Reserve Account in an amount equal to the Senior Lien Special Reserve Account Requirement for such Senior Lien Indebtedness.

If a Subordinate Lien Resolution provides that the Subordinate Lien Indebtedness incurred thereunder is to be secured by the Subordinate Lien Parity Reserve Account, the Authority must fund, from the proceeds of such Subordinate Lien Indebtedness or from any other available sources, concurrently with the delivery of and payment for such Subordinate Lien Indebtedness, the Subordinate Lien Parity Reserve Account in an amount equal to the Subordinate Lien Parity Reserve Account Requirement. If a Subordinate Lien Resolution provides that the Subordinate Lien Indebtedness incurred thereunder is to be secured by a Subordinate Lien Special Reserve Account, the Authority must fund, from the proceeds of such Subordinate Lien Indebtedness or from any other available sources, at the time or times and in the manner specified in the applicable Subordinate Lien Resolution, such Subordinate Lien Special Reserve Account Requirement for such Subordinate Lien Indebtedness.

- (b) The Trustee will use amounts in the Senior Lien Parity Reserve Account to make transfers, or use moneys provided under a Reserve Alternative Instrument to make deposits, in the order specified in the Trust Agreement, in respect of all Senior Lien Indebtedness secured by the Senior Lien Parity Reserve Account, to the appropriate subaccounts of the Interest Account, the Principal Account and the Sinking Fund Account of the Senior Lien Debt Service Fund to remedy any deficiency therein as of any Interest Payment Date or Principal Payment Date (or any earlier date as set forth in a Senior Lien Resolution), or to pay the interest on or the principal of or amortization requirements in respect of any Senior Lien Parity Debt secured by the Senior Lien Parity Reserve Account when due, whenever and to the extent the money on deposit for such purposes is insufficient. The Trustee will use amounts in the Subordinate Lien Parity Reserve Account to make transfers, or use moneys provided under a Reserve Alternative Instrument to make deposits, in the order specified in the Trust Agreement, in respect of all Subordinate Lien Indebtedness secured by the Subordinate Lien Parity Reserve Account, to the appropriate subaccounts of the Interest Account, the Principal Account and the Sinking Fund Account of the Subordinate Lien Debt Service Fund to remedy any deficiency therein as of any Interest Payment Date or Principal Payment Date (or any earlier date as set forth in a Subordinate Lien Resolution), or to pay the interest on or the principal of or amortization requirements in respect of any Subordinate Lien Parity Debt secured by the Subordinate Lien Parity Reserve Account when due, whenever and to the extent the money on deposit for such purposes is insufficient. Moneys or Investment Obligations on deposit in the Senior Lien Parity Reserve Account, the Subordinate Lien Parity Reserve Account, any Senior Lien Special Reserve Account or any Subordinate Lien Special Reserve Account will be used to satisfy deficiencies prior to any draw on a Reserve Alternative Instrument.
- (c) The Trustee will use amounts in any Senior Lien Special Reserve Account held by it to make transfers or use moneys provided under a Reserve Alternative Instrument to make deposits, in the order specified in the Trust Agreement, in respect of the particular Senior Lien Indebtedness secured by such Senior Lien Special Reserve Account, to the appropriate subaccounts of the Interest Account, the Principal Account and the Sinking Fund Account of the Senior Lien Debt Service Fund to remedy any deficiency therein as of any Interest Payment Date or Principal Payment Date (or any earlier date as set forth in a Senior Lien Resolution) or to pay the interest on or the principal of or amortization requirement in respect thereof on Senior Lien Parity Debt secured by such Senior Lien Special Reserve Account when due, whenever and to the extent the money on deposit for such purposes is insufficient. The Trustee will use amounts in any Subordinate Lien Special Reserve Account held by it to make transfers or use moneys provided under a Reserve Alternative Instrument to make deposits, in the order specified in the Trust Agreement, in respect of the particular Subordinate Lien Indebtedness secured by such Subordinate Lien

Special Reserve Account, to the appropriate subaccounts of the Interest Account, the Principal Account and the Sinking Fund Account of the Subordinate Lien Debt Service Fund to remedy any deficiency therein as of any Interest Payment Date or Principal Payment Date (or any earlier date as set forth in a Subordinate Lien Resolution) or to pay the interest on or the principal of or amortization requirement in respect thereof on Subordinate Lien Parity Debt secured by such Subordinate Lien Special Reserve Account when due, whenever and to the extent the money on deposit for such purposes is insufficient.

- (d) Any deficiency in the Senior Lien Parity Reserve Account, the Subordinate Lien Parity Reserve Account, any Senior Lien Special Reserve Account and any Subordinate Lien Special Reserve Account resulting from the withdrawal of moneys therein will be made up over the twelve-month period immediately following the month in which such withdrawal is made by monthly deposits of one-twelfth (1/12) of the amount of such deficiency, such deposits to be made pursuant to the Trust Agreement, as applicable. Any deficiency resulting from a draw on a Reserve Alternative Instrument will be made up as provided in such Reserve Alternative Instrument or documentation relating thereto, but any such deficiency must be made up by not later than the final date when such deficiency would have been required to be made up if there had been a withdrawal of moneys from the Senior Lien Parity Reserve Account, the Subordinate Lien Parity Reserve Account, any Senior Lien Special Reserve Account or any Subordinate Lien Special Reserve Account rather than a draw on a Reserve Alternative Instrument. Deficiencies may be satisfied through the deposit of additional moneys or the providing of an additional, or increase in a, Reserve Alternative Instrument.
- (e) Unless a Reserve Alternative Instrument will be in effect, if on any date of valuation pursuant to the Trust Agreement as described in "THE TRUST AGREEMENT Valuation" below, the amount on deposit in the Senior Lien Parity Reserve Account is less than 90% of the Senior Lien Parity Reserve Account Requirement, the Authority will deposit into the Senior Lien Parity Reserve Account monthly one-twelfth (1/12) of the amount required as of such date to bring the amount then on deposit in the Senior Lien Parity Reserve Account Requirement. Any such deficiency may be satisfied through the deposit of additional moneys or the providing of an additional, or increase in a, Reserve Alternative Instrument. Any deficiency in the Subordinate Lien Parity Reserve Account or any Senior Lien Special Reserve Account or Subordinate Lien Special Reserve Account resulting from a valuation of the Investment Obligations therein pursuant to the Trust Agreement as described in "THE TRUST AGREEMENT Valuation" below will be made up as provided in the relevant Senior Lien Resolution or Subordinate Lien Resolution.

#### **Application of Money in the Redemption Account**

The Trustee will apply money in the respective Redemption Accounts of the Senior Lien Debt Service Fund and the Subordinate Lien Debt Service Fund, as the case may be, for the purchase or redemption of Senior Lien Bonds or Subordinate Lien Bonds, as applicable, as follows:

(a) Subject to the provisions of clause (c) below, and if instructed to do so in writing by an Authorized Officer, the Trustee will endeavor to purchase and cancel Bonds or portions thereof, whether or not such Bonds or portions thereof are then subject to redemption, at the written direction of an Authorized Officer, provided that the purchase price of each Bond, plus accrued interest to the date of purchase, will not exceed the Redemption Price that would be payable on the next redemption date to the Owners of such Bonds under the provisions of the applicable Supplemental Agreement plus accrued interest to the redemption date if such Bond or such portion thereof were called for redemption on such redemption date from the money in the applicable subaccount of the Redemption Account. The Trustee will pay the interest accrued on such Bonds or portions thereof to the date of settlement from the applicable subaccount of the respective Interest Account and the purchase price from the applicable subaccount of the respective Redemption Account, but no such purchase will be made by the Trustee

from money in the applicable subaccount of the respective Redemption Account within the period of forty-five (45) days immediately preceding any date on which such Bonds or portions thereof are to be redeemed except from moneys other than the moneys set aside in the applicable subaccount of the respective Redemption Account for the redemption of Bonds.

- (b) Subject to the provisions of clause (c) below, the Trustee will call for redemption on a date permitted by the applicable Supplemental Agreement such amount of Bonds or portions thereof as, with the redemption premium, if any, will exhaust the moneys then held in the applicable subaccount of the respective Redemption Account as nearly as may be; provided, however, that not less than Fifty Thousand Dollars (\$50,000) principal amount of Bonds will be called for redemption at any one time unless the Trustee is so instructed by the Authority. The Trustee will pay the accrued interest on the Bonds or portions thereof to be redeemed to the date of redemption from the applicable subaccount of the respective Interest Account or any other available funds of the Authority and the Redemption Price of such Bonds or portions thereof from the applicable subaccount of the respective Redemption date, the Trustee will withdraw from the applicable subaccounts of the respective Redemption Account and the Interest Account, as applicable, and transfer to the Bond Registrar the respective amounts required to pay the Redemption Price and accrued interest to the redemption date of the Bonds or portions thereof so called for redemption.
- (c) Money in the respective Redemption Accounts may be applied by the Trustee in each Fiscal Year to the purchase or the redemption of Bonds of any one or more Series then Outstanding in accordance with the latest Officer's Certificate filed with the Trustee (i) designating one or more Series of Bonds to be purchased or redeemed, (ii) if more than one Series of Bonds is so designated, setting forth the aggregate principal amount of Bonds of each Series to be purchased or redeemed, and (iii) unless the Supplemental Agreement relating to the Bonds to be redeemed specifies the order of redemption, designating the Bonds to be redeemed within each Series, and if such Bonds are Term Bonds, the years in which future Sinking Fund Requirements are to be reduced as a result of such redemption and the amount of such reduction in each such year. In the event no such certificate is filed and unless the Supplemental Agreement relating to the Bonds to be redeemed specifies otherwise, (A) the Trustee will apply such money to the purchase of one or more Series of Bonds as it will determine or to the redemption of Bonds bearing the highest rate of interest, (B) if Bonds of more than one maturity bear the same interest rate, the Trustee will redeem such Bonds in the inverse order of maturities, and (C) if the Bonds bearing the highest rate of interest are Term Bonds, the Trustee will reduce Sinking Fund Requirements for such Term Bonds in inverse order of the scheduled redemption of such Term Bonds. All Bonds will be redeemed as provided in the applicable Supplemental Agreement.

Money held for the credit of the applicable subaccounts in the respective Redemption Accounts will be applied to the purchase or redemption of Bonds in the manner provided in the applicable Supplemental Agreement.

#### **Application of Money in the Operating Reserve Fund**

Moneys held for the credit of the Operating Reserve Fund will be used by the Authority only to pay all or a portion of the cost of any Operating Expenses in accordance with the applicable procedures used in the payment of Operating Expenses or as provided in the Capital Improvements Budget, but only to the extent that amount held in the Operations and Maintenance Expense Fund are not sufficient for such purpose.

In addition to the deposits required by the Trust Agreement as described in paragraph (j) in "SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2017 BONDS – Application of Receipts" in this Official Statement, the Authority will deposit to the credit of the Operating Reserve

Fund any amounts received by NCDOT as an Operating Advance pursuant to the terms of the O&M Guaranty Agreement.

#### **General Reserve Fund**

Moneys held for the credit of the General Reserve Fund will be used for any legally available purpose, including, without limitation, the payment of Operating Expenses, the payment of capital improvements, repayment of any amount owed to NCDOT pursuant to the O&M Guaranty Agreement and the Construction and Renewal and Replacement Agreement, the funding of any Non-System Project and the payment of any Derivative Agreement Additional Payments.

In no event will money be released by the Trustee from the General Reserve Fund for an expenditure not related to the Triangle Expressway System or for a Non-System Project unless the Authority will have certified to the Trustee in writing that: (i) the Authority is current on all payments then required to be paid under the TIFIA Loan Agreement and the TIFIA Debt Service Reserve Account is funded at the TIFIA Debt Service Reserve Account Requirement, (ii) all amounts owed to NCDOT under the O&M Guaranty Agreement and the Construction and Renewal and Replacement Agreement have been paid, (iii) the Authority will have delivered a certificate to the Trustee and the USDOT (and the Trustee will have received such certificate) demonstrating that after such release, (x) the Revenues, in each ensuing Fiscal Year as shown in a statement of a Traffic Consultant to be delivered with such certificate, are at least 130% of (1) the Long-Term Debt Service Requirement with respect to all Outstanding Senior Lien Indebtedness, Subordinate Lien Indebtedness and TIFIA Indebtedness for such Fiscal Year and (2) the amounts, if any, to be deposited to the Renewal and Replacement Fund, the Senior Lien Parity Reserve Account, the Subordinate Lien Parity Reserve Account and the TIFIA Debt Service Reserve Account for such Fiscal Year and (y) the Loan Life Coverage Ratio is at least 130%, and (iv) no Event of Default will have occurred and be continuing under the Trust Agreement.

An amount equal to 25% of the amount to be released for a Non-System Project will upon written direction by the Authority be applied to the prepayment of the TIFIA Indebtedness.

#### Security

As security for the payment of all Indebtedness issued or incurred under the Trust Agreement and the interest thereon, and as security for the payments of amounts due under any Derivative Agreement, but in each case solely as provided therein, the Authority grants to the Trustee, for the benefit of the Owners and Holders of such indebtedness and the counterparty to any such Derivative Agreement, a pledge, charge and lien upon the Trust Estate.

Any Receipts disbursed by the Trustee for deposit in the Operations and Maintenance Expense Fund, the Operating Reserve Fund or the Renewal and Replacement Fund, and any Receipts disbursed to NCDOT pursuant to the Trust Agreement, will no longer constitute Receipts within the meaning of the Trust Agreement and will no longer be subject to the pledge, charge and lien upon the Trust Estate created by the Trust Agreement.

The pledge, charge and lien upon the Trust Estate will be effective and operate immediately, without any recording or filing of any financing statement or other notice, and the Trustee will have the right to collect and receive the Receipts in accordance with the provisions of the Trust Agreement at all times during the period from and after the date of delivery of the Series 2009 Bonds issued thereunder until all Bonds, Parity Debt, Senior Lien Derivative Agreement Regularly Scheduled Payments, Subordinate Lien Derivative Agreement Regularly Scheduled Payments and TIFIA Indebtedness have

been fully paid and discharged, including, without limitation, at all times after the institution and during the pendency of bankruptcy or similar proceedings.

The aforementioned pledge, charge and lien upon the Trust Estate will not inhibit the sale or disposition of any portion of the Triangle Expressway System in accordance with the Trust Agreement and will not impair or restrict the ability of the Authority to invest in securities and other forms of investment, subject to the provisions of the Trust Agreement.

The pledge, charge and lien upon the Trust Estate will be (1) first for the security for the payment of the Owners or Holder of Senior Lien Indebtedness, including the interest thereon, and the payment of any Senior Lien Derivative Agreement Regularly Scheduled Payments, (2) second for the security for the payment of the Subordinate Lien Bonds and Subordinate Lien Parity Debt, including the interest thereon, and the payment of all Subordinate Lien Derivative Agreement Regularly Scheduled Payments, for which such pledge, charge and lien upon the Trust Estate is junior and subordinate to the pledge charge and lien upon the Trust Estate securing the Senior Lien Bonds, the Senior Lien Parity Debt and the Senior Lien Derivative Agreement Regularly Scheduled Payments and (3) third, for the security for the payment of the TIFIA Indebtedness, including the interest thereon, which (other than during any period where such TIFIA Indebtedness will become Senior Lien Bonds pursuant to the Trust Agreement) is junior and subordinate to the pledge charge and lien upon the Trust Estate securing the Senior Lien Bonds, the Senior Lien Parity Debt, the Senior Lien Derivative Agreement Regularly Scheduled Payments, the Subordinate Lien Bonds, the Subordinate Lien Parity Debt and the Subordinate Lien Derivative Agreement Regularly Scheduled Payments.

Notwithstanding any of the foregoing to the contrary, in the case of the occurrence and continuance of a Bankruptcy-Related Event, all TIFIA Indebtedness shall automatically and without notice be deemed to constitute Senior Lien Parity Debt, and the Holder of such TIFIA Indebtedness shall be entitled to all rights of a Holder of Senior Lien Parity Debt, except that the Holders of TIFIA Indebtedness shall have no rights in, or claim to, any amounts held in the Senior Lien Parity Reserve Account or any Senior Lien Special Reserve Account.

## **Security for Deposits**

Any and all money received by the Authority under the provisions of the Trust Agreement will be deposited as received with the Trustee or one or more other Depositaries as provided in the Trust Agreement, and all money so deposited with the Trustee will be trust funds under the terms of the Trust Agreement, and, to the extent permitted by law in the case of the Project Fund, will not be subject to any lien or attachment by any creditor of the Authority.

All money deposited with the Trustee or any Depositary under the Trust Agreement in excess of the amount guaranteed by the Federal Deposit Insurance Corporation or other federal agency will be continuously secured, for the benefit of the Authority and the Owners and Holders of Bonds and Senior Lien Parity Debt, either (a) by lodging with a bank or trust company chosen by the Trustee or Depositary or, if then permitted by law, by setting aside under control of the trust department of the bank or trust company holding such deposit, as collateral security, Government Obligations or other marketable securities eligible as security for the deposit of trust funds under regulations of the Comptroller of the Currency of the United States or applicable State law or regulations, having a market value (exclusive of accrued interest) not less than the amount of such deposit, or (b) if the furnishing of security as provided in clause (a) above is not permitted by applicable law, then in such other manner as may then be required or permitted by applicable State or federal laws and regulations regarding the security for, or granting a preference in the case of, the deposit of trust funds; provided, however, that it will not be necessary for the Trustee or any Depositary to give security for the deposit of any money with it for the payment of the

principal of or the redemption premium or the interest on any Bonds, or for the Trustee or any Depositary to give security for any money that will be represented by Investment Obligations purchased under the provisions of described in this clause as an investment of such money.

All money deposited with the Trustee or any Depositary will be credited to the particular fund, account or subaccount to which such money belongs.

#### **Investment of Money**

Money held for the credit of all funds, accounts and subaccounts will be continuously invested and reinvested by the Trustee or the Depositaries, whichever is applicable, in Investment Obligations or held as cash to the extent investment or reinvestment in Investment Obligations is not practicable. Except as described below with respect to the disposition of investment income, the particular investments to be made and other related matters in respect of investments may, as to each Series of Bonds, be provided in the applicable Supplemental Agreement.

Except as described below with respect to the Senior Lien Parity Reserve Account, Subordinate Lien Parity Reserve Account and TIFIA Debt Service Reserve Account, Investment Obligations will mature or be redeemable at the option of the holder thereof not later than the respective dates when the money held for the credit of such funds, accounts and subaccounts will be required for the purposes intended.

Investment Obligations in the Senior Lien Parity Reserve Account, Subordinate Lien Parity Reserve Account or TIFIA Debt Service Reserve Account will (a) mature or (b) be redeemable at the option of the holder of such Investment Obligation so that all such Investment Obligations will have an average life of not more than ten (10) years after the date of such investment.

Notwithstanding the forgoing, no Investment Obligations pertaining to any Series in any fund, account or subaccount will mature on a date beyond the latest maturity date of the respective Series of Bonds Outstanding at the time such Investment Obligations are deposited. For purposes of this clause, the maturity date of any repurchase agreement will be deemed to be the stated maturity date of such agreement and not the maturity dates of the underlying obligations.

An Authorized Officer or his designee will give to the Trustee or any Depositary written directions respecting the investment of any money required to be invested under the Trust Agreement, subject, however, to the provisions of the Trust Agreement and described in this clause, and the Trustee or such Depositary will then invest such money as so directed. The Trustee or any Depositary may request additional direction or authorization from the Authorized Officer or his designee in writing with respect to the proposed investment of money under the provisions of the Trust Agreement. Upon receipt of such directions, the Trustee or any Depositary will invest, subject to the provisions of the Trust Agreement, such money in accordance with such directions. If no such directions are given, then any uninvested funds will be invested by the Trustee in Government Obligations having the shortest maturity available, but in no event exceeding a maturity of thirty (30) days from the date of investment in the case of funds held in the Project Fund, and the date funds are required to be used to pay debt service on Bonds or TIFIA Indebtedness in the case of funds held in the Senior Lien Debt Service Fund, the Subordinate Lien Debt Service Fund or the TIFIA Debt Service Fund. The Trustee or any Depositary will have no liability for investments made in accordance with the Trust Agreement.

Investment Obligations acquired with money in or credited to any fund, account or subaccount established under the Trust Agreement will be deemed at all times to be part of such fund, account or subaccount. Any loss realized upon the disposition or maturity of such Investment Obligations will be

charged against such funds, accounts or subaccounts. The interest accruing on any such Investment Obligations and any profit realized upon the disposition or maturity of such Investment Obligations will be credited to the particular fund, account or subaccount to which such Investment Obligation relates (and, if such account is part of the Trust Estate, will be subject to the pledge of the Trust Estate in accordance with the Trust Agreement as described in "THE TRUST AGREEMENT – Security" above, except as follows:

Any investment earnings received on amounts deposited in the Senior Lien Debt Service Fund (including the Senior Lien Parity Reserve Account, to the extent that the amount on deposit in the Senior Lien Parity Reserve Account Requirement), will be transferred to the Interest Account of the Senior Lien Debt Service Fund. Any investment earnings received on amounts deposited in the Subordinate Lien Parity Reserve Account, to the extent that the amount on deposit in the Subordinate Lien Parity Reserve Account is equal to the Subordinate Lien Parity Reserve Account Requirement, will be transferred to the Revenue Fund. Any investment earnings received on amounts deposited in the TIFIA Debt Service Reserve Account, to the extent that the amount on deposit in the TIFIA Debt Service Reserve Account is equal to the TIFIA Debt Service Reserve Account Requirement, will be transferred to the Revenue Fund. Any investment earnings on any Special Reserve Account will be transferred or deposited in the manner specified in the Supplemental Agreement or Parity Debt Resolution establishing such Special Reserve Account.

Any such interest accruing and any such profit realized will not be credited or transferred to any other fund, account or subaccount unless there will be no deficiency in the respective fund, account or subaccount. If there will be a deficiency in any fund, account or subaccount, any such interest or profit will remain in such fund, account or subaccount until such deficiency has been made up.

Any such interest accruing and any such profit realized that is required to be transferred to any other fund, account or subaccount will be transferred upon the receipt thereof by the Depositaries or the Trustee, as the case may be, pursuant to the provisions of the Trust Agreement.

The Trustee will sell or reduce to cash a sufficient amount of such Investment Obligations whenever it is necessary to do so to provide money to make any payment from any such fund, account or subaccount in accordance with the provisions of the Trust Agreement. The Trustee will not be liable or responsible for any loss resulting from any such action.

Whenever a transfer of money between two or more of the funds, accounts or subaccounts established under the Trust Agreement is permitted or required, such transfer may be made as a whole or in part by transfer of one or more Investment Obligations at a value determined at the time of such transfer in accordance with the Trust Agreement, provided that the Investment Obligations transferred are those in which money of the receiving fund, account or subaccount could be invested at the date of such transfer.

For purposes of making any investment under the Trust Agreement, the Trustee or any Depositary may consolidate money held by it in any fund, account or subaccount with money in any other fund, account or subaccount. Transfers from any fund, account or subaccount to the credit of any other fund, account or subaccount provided for in the Trust Agreement may be effectuated on the books and records of the Trustee, the Authority or any Depositary without any actual transfer of funds or liquidation of investments. Investment Obligations purchased with consolidated funds will be allocated to each fund, account or subaccount on a pro rata basis in accordance with the initial amount so invested from each such fund, account or subaccount.

Unless otherwise directed by the Authority, Investment Obligations may be purchased by the Trustee or any Depositary through its own investment division or other bank facilities established for such purpose.

#### Valuation

For the purpose of determining the amount on deposit in any fund, account or subaccount, Investment Obligations in which money in such fund, account or subaccount is invested will be valued by the Trustee (a) at face value if such Investment Obligations mature within twelve (12) months from the date of valuation thereof and (b) if such Investment Obligations mature more than twelve (12) months after the date of valuation thereof, at the price at which such Investment Obligations are redeemable by the holder at its option, if so redeemable, or, if not so redeemable, at the lesser of (i) the cost of such Investment Obligations minus the amortization of any premium or plus the amortization of any discount thereon and (ii) the market value of such Investment Obligations.

All Investment Obligations in all of the funds, accounts and subaccounts created under the Trust Agreement, except the Renewal and Replacement Fund, the Operating Reserve Fund, the Operations and Maintenance Expense Fund and the General Reserve Fund, will be valued as of the last day of each Fiscal Year. When a valuation is made by the Trustee, the Trustee will report the result of such valuation to the Authority within thirty (30) days after such valuation. In addition, Investment Obligations will be valued at any time requested by the Authority on reasonable notice to the Trustee (which period of notice may be waived or reduced by the Trustee); provided, however, that the Trustee will not be required to value Investment Obligations more than once in any calendar month.

Whenever, following a valuation on the last day of each Fiscal Year as described above, the value of the cash and Investment Obligations in the Senior Lien Parity Reserve Account held by the Trustee, plus accrued interest to the date of valuation, is less than 90% of the Senior Lien Parity Reserve Account Requirement, the Trustee will compute the amount by which the Senior Lien Parity Reserve Account Requirement exceeds the balance in the Senior Lien Parity Reserve Account and will immediately give the Authority notice of such deficiency and the amount necessary to cure the same in accordance with the Trust Agreement.

Whenever the value of the cash and Investment Obligations in the Senior Lien Parity Reserve Account held by the Trustee, plus accrued interest to the date of valuation, is greater than the Senior Lien Parity Reserve Account Requirement, the Trustee will compute the amount by which the balance in the Senior Lien Parity Reserve Account Requirement, and the Authority will be entitled to transfer such excess to the credit of the Interest Account of the Senior Lien Debt Service Fund or to pay interest on Senior Lien Bonds or Senior Lien Parity Debt secured by the Senior Lien Parity Reserve Account in the manner directed by the Authority in an Officer's Certificate filed with the Trustee; provided, however, that nothing in the Trust Agreement will require the Authority to liquidate or sell any Investment Obligation held in the Senior Lien Parity Reserve Account for purposes of making such transfer.

Whenever the value of the cash and Investment Obligations in the Subordinate Lien Parity Reserve Account held by the Trustee, plus accrued interest to the date of valuation, is greater than the Subordinate Lien Parity Reserve Account Requirement, the Trustee will compute the amount by which the balance in the Subordinate Lien Parity Reserve Account exceeds the Subordinate Lien Parity Reserve Account Requirement, and the Authority will be entitled to transfer such excess to the credit of the Interest Account of the Subordinate Lien Debt Service Fund or to pay interest on Subordinate Lien Bonds or Subordinate Lien Parity Debt secured by the Subordinate Lien Parity Reserve Account in the manner directed by the Authority in an Officer's Certificate filed with the Trustee; provided, however, that

nothing in the Trust Agreement will require the Authority to liquidate or sell any Investment Obligation held in the Subordinate Lien Parity Reserve Account for purposes of making such transfer.

## Payment of Principal, Interest, Premium and Other Amounts

The Authority will cause to be paid, when due, the principal of (whether at maturity, by redemption or otherwise) and the premium, if any, and interest on the Bonds, Parity Debt and TIFIA Indebtedness and the Derivative Agreement Regularly Scheduled Payments at the places, on the dates and in the manner provided in the Trust Agreement and in the Bonds, Parity Debt and TIFIA Indebtedness and the documentation authorizing and securing such Bonds, Parity Debt and TIFIA Indebtedness and in any Derivative Agreement, according to the true intent and meaning thereof.

The Bonds, Parity Debt and TIFIA Indebtedness are special obligations of the Authority payable solely from the Receipts, the Authority's right to receive the same, and money, Investment Obligations and Reserve Alternative Instruments held in the applicable funds, accounts and subaccounts created under the Trust Agreement for each such Series of Bonds and the income from Investment Obligations in such funds, accounts and subaccounts. The Bonds, Parity Debt and TIFIA Indebtedness will be secured as provided in the Trust Agreement. The Bonds, Parity Debt and TIFIA Indebtedness will not be deemed to a debt, liability or obligation of the State or of any other public body in the State secured by a pledge of the faith and credit of the State or of any other public body in the State, respectively, but will be payable solely from the Receipts and other income or assets pledged under the Trust Agreement. The Authority will not be obligated to pay the principal of, premium, if any, or interest on the Bonds, Parity Debt and TIFIA Indebtedness except from the Receipts and other income or assets pledged under the Trust Agreement, and neither the faith and credit nor the taxing power of the State or of any other public body in the State, including the Authority, is pledged for the payment of the principal of, premium, if any, or interest on the Bonds, Parity Debt and TIFIA Indebtedness. The Authority has no taxing power.

## **Extension of Interest Payment**

If the time for the payment of the interest on any Bond, Parity Debt or TIFIA Indebtedness is extended, whether or not such extension is by or with the consent of the Authority, such interest so extended will not be entitled in case of default under the Trust Agreement to the benefit or security of the Trust Agreement and in such case the Owner of the Bond, Parity Debt or TIFIA Indebtedness for which the time for payment of interest was extended will be entitled only to the payment in full of the principal of all Bonds, Parity Debt and TIFIA Indebtedness then Outstanding and of interest for which the time for payment will not have been extended. The time for the payment of the interest on any Bond or Parity Debt will not be extended in respect of any Bond or Parity Debt covered by a Bond Insurance Policy or Credit Facility without the consent of the Bond Insurer or the Credit Provider.

#### **Rate Covenant**

The Authority covenants to fix, charge and collect tolls, fees, rentals and other charges for the use of and for services furnished or to be furnished by the Triangle Expressway System, and that from time to time and as often as it shall appear necessary, to revise such tolls, fees, rentals and other charges as may be necessary or appropriate, in order that for each Fiscal Year, beginning with the first full Fiscal Year in which the Initial Project is in operation, the Revenues in such Fiscal Year will not be less than 130% of the Long-Term Debt Service Requirement for Senior Lien Indebtedness only for such Fiscal Year.

In addition, the Authority covenants to fix, charge and collect tolls, fees, rentals and other charges for the use of and for services furnished or to be furnished by the Triangle Expressway System, and that from time to time and as often as it shall appear necessary, to revise such tolls, fees, rentals and other

charges as may be necessary or appropriate, in order that for each Fiscal Year, beginning with the first full Fiscal Year in which the Initial Project is in operation, the Revenues in such Fiscal Year will not be less than 110% of (x) the Long-Term Debt Service Requirement for Senior Lien Indebtedness, Subordinate Lien Indebtedness and TIFIA Indebtedness for such Fiscal Year and (y) the deposits to be made to the Senior Lien Parity Reserve Account and Subordinate Lien Parity Reserve Account and the TIFIA Debt Service Reserve Account for such Fiscal Year.

In addition, the Authority covenants to fix, charge and collect tolls, fees, rentals and other charges for the use of and for services furnished or to be furnished by the Triangle Expressway System, and that from time to time and as often as it shall appear necessary, to revise such tolls, fees, rentals and other charges as may be necessary or appropriate, in order that for each Fiscal Year, beginning with the first full Fiscal Year in which the Initial Project is in operation, the Loan Life Coverage Ratio will be not less than 130%.

The Authority also covenants to fix, charge and collect tolls, fees, rentals and other charges for the use of and for services furnished or to be furnished by the Triangle Expressway System, and that from time to time and as often as it shall appear necessary, to revise such tolls, fees, rentals and other charges as may be necessary or appropriate, in order that the Receipts will be sufficient in each Fiscal Year to make all of the deposits described in (a) through (h), inclusive, of the Official Statement under the heading "Security and Sources of Payment For the Series 2017 Bonds—Application of Receipts."

If the Authority fails to comply with the covenants described above, it shall request a Traffic Consultant to make its recommendations, if any, as to a revision of the Authority's tolls, fees, rentals and charges, its Operating Expenses or the method of operation of the Triangle Expressway System in order to satisfy the foregoing requirements of this Section. Copies of such request and of the recommendations of the Traffic Consultant, if any, shall be filed by the Authority with the Trustee. Promptly upon its receipt of the recommendations of the Traffic Consultant, the Authority shall, after giving due consideration to the recommendations, revise its tolls, fees, rentals and charges or its Operating Expenses or alter its methods of operation, which revisions or alterations need not comply with the Traffic Consultant's recommendations but which are projected by the Authority to result in compliance with the covenants. The Authority and the Traffic Consultant shall advise the Trustee of the actions taken by the Authority with respect to the recommendations of the Traffic Consultant. If the Authority shall comply with all of the recommendations of the Traffic Consultant, failure to comply with the rate covenants shall not constitute an Event of Default under the Trust Agreement. In the event of any failure to comply with the rate covenants and the failure of the Authority to comply with all of the recommendations of the Traffic Consultant, and in addition to the remedies elsewhere provided in the Trust Agreement, the Trustee or the Owners or Holders of not less than 25% in aggregate principal amount of the Senior Lien Indebtedness, Subordinate Lien Indebtedness or TIFIA Indebtedness then Outstanding may, and the Trustee shall, upon the request of the Owners or Holders of not less than 25% in aggregate principal amount of the Senior Lien Indebtedness, Subordinate Lien Indebtedness or TIFIA Indebtedness then Outstanding and upon being indemnified to its satisfaction, institute and prosecute in a court of competent jurisdiction an appropriate action to compel the Authority to comply with all of the recommendations of the Traffic Consultant in order to satisfy the rate covenants. The Authority covenants that it will adopt and charge tolls, fees, rentals and charges and revise its Operating Expenses or the method of operation of the Triangle Expressway System in compliance with any final order, decree or judgment entered in any such proceeding or modification thereof.

## **Limitation on Senior Lien Indebtedness**

In addition to the incurrence of Long-Term Senior Lien Indebtedness by meeting the requirements described in the Official Statement under the heading "Security and Sources of Payment For

the Series 2017 Bonds—Parity and Subordinated Indebtedness," the Authority may incur additional Senior Lien Indebtedness as described in this Section.

Completion Indebtedness constituting Senior Lien Indebtedness may be incurred in an amount not exceeding 5% of the aggregate principal amount of the Long-Term Indebtedness constituting Senior Lien Indebtedness originally incurred by the Authority to finance the costs of the Initial Project or any Additional Project; provided, however, that prior to the incurrence of such Completion Indebtedness, the Authority shall furnish to the Trustee (i) a certificate of a licensed architect or engineer estimating the costs of completing the facilities for which such Completion Indebtedness is to be incurred and (ii) an Officer's Certificate certifying that the amount of such Completion Indebtedness to be incurred will be sufficient, together with other funds, if applicable, to complete construction of the facilities as estimated by the architect or engineer in respect of which such Completion Indebtedness is to be incurred and (iii) evidence that such Senior Lien Indebtedness will be rated at an investment grade rating by such credit rating agency.

Long-Term Indebtedness constituting Senior Lien Indebtedness may be incurred for the purpose of refunding all or any part of any Outstanding Long-Term Indebtedness constituting Senior Lien Indebtedness so as to render it no longer Outstanding if prior to incurrence thereof, an Officer's Certificate is delivered to the Trustee (i) stating that the proceeds of such Long-Term Indebtedness, together with interest earnings on the Defeasance Obligations to be acquired and other available funds, will be sufficient to pay the principal of and interest and any premium on the Long-Term Indebtedness to be refunded to the redemption or maturity date or dates and the expenses incident to the refunding, and (ii) stating that either (A) the Long-Term Debt Service Requirement for any Fiscal Year thereafter on account of all Long-Term Indebtedness constituting Senior Lien Indebtedness to be Outstanding after the incurrence of such Long-Term Indebtedness to accomplish the refunding and after the refunding of such Long-Term Indebtedness will not be greater than (1) for Fiscal Years ending prior to the maturity of all TIFIA Indebtedness, the Long-Term Debt Service Requirement on account of all Long-Term Indebtedness constituting Senior Lien Indebtedness Outstanding immediately prior to the incurrence of such Long-Term Indebtedness to accomplish such refunding, including the Long-Term Indebtedness to be refunded and (2) for Fiscal Years ending after the maturity of all TIFIA Indebtedness, 110% of the Long-Term Debt Service Requirement on account of all Long-Term Indebtedness constituting Senior Lien Indebtedness Outstanding immediately prior to the incurrence of such Long-Term Indebtedness to accomplish such refunding, including the Long-Term Indebtedness to be refunded, provided that there is no limit for Fiscal Years beginning after the final maturity date of all Long-Term Indebtedness Outstanding prior to the proposed refunding or (B) the incurrence of such Long-Term Indebtedness to accomplish the refunding will satisfy the requirements of subsection (a) of this Section and (iii) evidence that such Senior Lien Indebtedness will be rated at an investment grade rating by at least one nationally recognized securities credit rating agency.

Short-Term Indebtedness constituting Senior Lien Indebtedness may be incurred if, (i) immediately after the incurrence of such Short-Term Indebtedness, the Outstanding principal amount of all Short-Term Indebtedness constituting Senior Lien Indebtedness does not exceed \$5,000,000; provided, however, that for a period of twenty (20) consecutive calendar days in each Fiscal Year, no such Short-Term Indebtedness shall be Outstanding, (ii) the proceeds of the Short-Term Indebtedness are to be used to pay Operating Expenses, (iii) the Authority is then current in the payment of all debt service then due with respect to all TIFIA Indebtedness and (iv) evidence that such Senior Lien Indebtedness will be rated at an investment grade rating by Fitch, Moody's, S&P or any other nationally recognized securities credit rating agency.

Put Indebtedness constituting Senior Lien Indebtedness may be incurred if prior to the incurrence of such Put Indebtedness (i) the conditions for the incurrence of the Senior Lien Indebtedness are met and

(ii) a Credit Facility exists to provide financing sufficient to pay the purchase price or principal of such Put Indebtedness on any date on which the Owner or Holder of such Put Indebtedness may demand payment thereof pursuant to the terms of such Put Indebtedness.

Whenever the Trust Agreement requires a certification for the most recent Fiscal Year preceding the date of incurrence of the Senior Lien Indebtedness in question for which audited financial statements are available, the Authority may, in its discretion, provide a certificate, opinion or report of an independent accountant, in lieu of the audit for such Fiscal Year, on financial statements covering twelve (12) consecutive calendar months of the eighteen (18) full consecutive calendar months preceding the date of incurrence of the Senior Lien Indebtedness in question.

The Authority may enter into Derivative Agreements with respect to Derivative Indebtedness constituting Senior Lien Indebtedness and providing for Derivative Agreement Regularly Scheduled Payments to be made as Senior Lien Derivative Agreement Regularly Scheduled Payments without compliance with any other test under the Trust Agreement.

#### **Limitation on Subordinate Lien Indebtedness**

Long-Term Indebtedness constituting Subordinate Lien Indebtedness may be incurred if prior to incurrence there is delivered to the Trustee:

- (i) an Officer's Certificate certifying that the Authority was in compliance with the rate covenants for the most recent Fiscal Year for which audited financial statements are available:
- (ii) a report of a Traffic Consultant stating that for each Fiscal Year next succeeding the date on which such Long-Term Indebtedness is incurred through the final maturity date of any Long-Term Indebtedness, the forecasted Revenues in each such Fiscal Year is at least 120% the Long-Term Debt Service Requirement with respect to all Outstanding Senior Lien Indebtedness, Subordinate Lien Indebtedness and TIFIA Indebtedness (excluding any Long-Term Indebtedness to be refunded by the Long-Term Indebtedness to be incurred) and the Long-Term Indebtedness to be incurred and that the Loan Life Coverage Ratio is a least 130%; and
- (iii) a report of a Traffic Consultant stating that (1) for each Fiscal Year next succeeding the date on which such Long-Term Indebtedness is incurred through the final maturity date of any Long-Term Indebtedness, the forecasted Receipts in each Fiscal Year will be sufficient to make all of the deposits in each such Fiscal Year described in (a) through (g), inclusive, of the Official Statement under the heading "Security and Sources of Payment For the Series 2017 Bonds—Application of Receipts" and (2) that all Outstanding TIFIA Indebtedness will be fully retired by its final maturity date.

Completion Indebtedness constituting Subordinate Lien Indebtedness may be incurred in an amount not exceeding 5% of the aggregate principal amount of the Long-Term Indebtedness constituting Subordinate Lien Indebtedness originally incurred by the Authority to finance the costs of the Initial Project or any Additional Project; provided, however, that prior to the incurrence of such Completion Indebtedness, the Authority shall furnish to the Trustee (i) a certificate of a licensed architect or engineer estimating the costs of completing the facilities for which such Completion Indebtedness is to be incurred and (ii) an Officer's Certificate certifying that the amount of such Completion Indebtedness to be incurred will be sufficient, together with other funds, if applicable, to complete construction of the facilities as estimated by the architect or engineer in respect of which such Completion Indebtedness is to be incurred.

Long-Term Indebtedness constituting Subordinate Lien Indebtedness may be incurred for the purpose of refunding all or any part of any Outstanding Long-Term Indebtedness constituting Senior Lien Indebtedness or Subordinate Lien Indebtedness so as to render it no longer Outstanding if prior to incurrence thereof, an Officer's Certificate is delivered to the Trustee (i) determining that the proceeds of such Long-Term Indebtedness, together with interest earnings on the Defeasance Obligations to be acquired and other available funds, will be sufficient to pay the principal of and interest and any premium on the Long-Term Indebtedness to be refunded to the redemption or maturity date or dates and the expenses incident to the refunding, and (ii) stating that either (A) the Long-Term Debt Service Requirement for any Fiscal Year thereafter on account of all Long-Term Indebtedness to be Outstanding after the incurrence of such Long-Term Indebtedness to accomplish the refunding and after the refunding of such Long-Term Indebtedness will not be greater by more than 10% than the Long-Term Debt Service Requirement on account of all Long-Term Indebtedness Outstanding immediately prior to the incurrence of such Long-Term Indebtedness to accomplish such refunding, including the Long-Term Indebtedness to be refunded, or (B) the incurrence of such Long-Term Indebtedness to accomplish the refunding will satisfy the requirements described in the first paragraph of this Section.

Short-Term Indebtedness constituting Subordinate Lien Indebtedness may be incurred if, immediately after the incurrence of such Short-Term Indebtedness, the Outstanding principal amount of all Short-Term Indebtedness constituting Subordinate Lien Indebtedness does not exceed 25% of the General Reserve Fund balance at the end of the most recent Fiscal Year preceding the date of incurrence of such Short-Term Indebtedness for which audited financial statements are available; provided, however, that for a period of twenty (20) consecutive calendar days in each Fiscal Year, no such Short-Term Indebtedness shall be Outstanding.

Put Indebtedness constituting Subordinate Lien Indebtedness may be incurred if prior to the incurrence of such Put Indebtedness (i) the conditions described in the first paragraph of this Section are met and (ii) a Credit Facility exists to provide financing sufficient to pay the purchase price or principal of such Put Indebtedness on any date on which the Owner or Holder of such Put Indebtedness may demand payment thereof pursuant to the terms of such Put Indebtedness.

Whenever the Trust Agreement requires a certification for the most recent Fiscal Year preceding the date of incurrence of the Subordinate Lien Indebtedness in question for which audited financial statements are available, the Authority may, in its discretion, provide a certificate, opinion or report of an independent accountant, in lieu of the audit for such Fiscal Year, on financial statements covering twelve (12) consecutive calendar months of the eighteen (18) full consecutive calendar months preceding the date of incurrence of the Subordinate Lien Indebtedness in question.

Notwithstanding the foregoing, the Authority may enter into Derivative Agreements with respect to Derivative Indebtedness constituting Subordinate Lien Indebtedness and providing for Derivative Agreement Regularly Scheduled Payments to be made as Subordinate Lien Derivative Agreement Regularly Scheduled Payments without compliance with any other requirements under the Trust Agreement.

The Authority agrees that it will not incur any Subordinate Lien Indebtedness while any TIFIA Indebtedness is Outstanding without the consent of the USDOT, except that (i) the Authority may issue Revenue Bond Anticipation Notes constituting Subordinate Lien Indebtedness pursuant to the Trust Agreement in anticipation of repayment thereof from the proceeds of TIFIA Indebtedness and (ii) the Authority may issue Subordinate Lien Indebtedness without the consent of USDOT if the Indebtedness could have been issued as Senior Lien Indebtedness as described above.

## Covenants With Respect to Construction and Operation of the Triangle Expressway System

The Authority covenants to acquire, construct, equip and complete the Initial Project and any Additional Project in conformity with applicable law and all other requirements of all governmental authorities having jurisdiction thereover, and that the Authority will complete the acquisition, construction and equipping of the Initial Project and any Additional Project with all expedition practicable.

The Authority covenants to establish and enforce reasonable rules and regulations governing the operation and use of the Triangle Expressway System, operate the Triangle Expressway System in an efficient and economical manner, maintain the properties constituting the Triangle Expressway System in good repair and in sound operating condition for so long as the same are necessary for the operation of the Triangle Expressway System, and comply with all valid acts, rules, regulations, orders and directions of any legislative, executive, administrative or judicial body that are applicable to the Triangle Expressway System.

The Authority shall adopt an Annual Budget for the Triangle Expressway System for each Fiscal Year. To the extent possible, the Authority shall prepare its Annual Budget so that it will be possible to determine from such Annual Budget (a) the amount of State Appropriated Revenues budgeted for deposit in the Revenue Fund during such Fiscal Year, (b) the amount of Receipts budgeted for deposit in the Revenue Fund during such year, (c) the amounts to be deposited or paid from Receipts, including the Operating Expenses, (d) the amount of Operating Expenses budgeted to be paid from NCDOT pursuant to the O&M Guaranty Agreement, (e) the amount of any deposits to be made to the Renewal and Replacement Fund from Receipts and (f) the amount of any deposits to be made to the Renewal and Replacement Fund pursuant to the Construction and Renewal and Replacement Agreement.

The Authority shall also adopt a Capital Improvements Budget for the Triangle Expressway System for each Fiscal Year which will show, in addition to such other matters as the Authority may determine to include, (a) the amounts, if any, to be expended during such Fiscal Year from moneys, if any, deposited to the credit of the Project Fund, the Renewal and Replacement Fund or the General Reserve Fund, together with a statement of the purposes for which such amounts are to be expended in each case and (b) the amount estimated by the Authority to be necessary for the renovation, extension, improvement, enlargement, renewal or replacement of the Triangle Expressway System, whether the same are to be commenced, continued or completed during such Fiscal Year or thereafter. The Capital Improvements Budget may be part of the Annual Budget.

The Authority shall keep the funds, accounts, subaccounts, money and investments of the Triangle Expressway System separate from all other funds, accounts, money and investments, if any, of the Authority and shall keep accurate records and accounts of all items of costs and of all expenditures relating to the Triangle Expressway System and of the revenues collected and the application of such revenues. Such records and accounts shall be open to the inspection of the Trustee.

The Authority shall cause its accountant, which may be the State Auditor, to prepare and deliver to the Authority within 180 days after the close of each Fiscal Year an audit of the Authority's books and accounts relating to the Triangle Expressway System. Reports of each such audit shall be filed with the Trustee, the Local Government Commission and the USDOT, and copies of each such report shall be mailed by the Authority to any person requesting the same in writing and shall be made available for inspection at the office of the Chief Financial Officer. Each such audit report shall be accompanied by an opinion of the accountant stating that the examination of the financial statements was conducted in accordance with generally accepted auditing standards and stating whether such financial statements present fairly the financial position of the Triangle Expressway System and the results of its operations

and a statement of cash flows for the period covered by such audit report in conformity with generally accepted accounting principles applied on a consistent basis. If for any reason beyond its control, the Authority is unable to obtain the foregoing opinion as to compliance with generally accepted accounting principles, the Authority shall be deemed to be in compliance with this requirement if it is taking all reasonable and feasible action to obtain such opinion in subsequent Fiscal Years, and if, in lieu of a statement as to compliance and conformity, such opinion states the reasons for such noncompliance or non-conformity.

#### Insurance

The Authority covenants that it will maintain or cause to be maintained a practical insurance program, with reasonable terms, conditions, provisions and costs, which the Authority determines (i) will afford adequate protection against loss caused by damage to or destruction of the Triangle Expressway System or any part thereof and (ii) will provide the Authority reasonable protection from liability for bodily injury and property damage resulting from the construction or operation of the Triangle Expressway System. Furthermore, the Authority covenants that it will maintain use and occupancy insurance covering loss of Receipts by reason of necessary interruption, total or partial, in the use of the facilities of the Triangle Expressway System, due to loss or damage to any such facility in such amount as an Insurance Consultant determines will provide income during a period of interruption of not less than six months and computed on the basis of Revenues for the preceding Fiscal Year (or the estimated Revenues for the current Fiscal Year as estimated by the Insurance Consultant if the Triangle Expressway System was not in operation during the preceding Fiscal Year.

All insurance policies shall be carried by a responsible insurance company or companies, whose claims paying ability is rated at least "A" by S&P, authorized and qualified to assume the risks thereof, or by the North Carolina Department of Insurance. The Authority may also participate in self-insurance programs (except with respect to use and occupancy insurance) so long as the types and levels of such self-insurance programs are determined in writing by an Insurance Consultant to be adequate coverage for the Authority.

## **Payment of Charges and Covenant Against Encumbrances**

The Authority shall not create or suffer to be created any lien or charge upon the Triangle Expressway System or any part thereof, or on the Receipts, except for Permitted Encumbrances. The Authority shall discharge or cause to be discharged, or shall make adequate provision to satisfy and discharge, within sixty (60) days after the same become due and payable, all lawful costs, expenses, liabilities and charges relating to the maintenance, repair, replacement or improvement of the properties constituting the Triangle Expressway System and the operation of the Triangle Expressway System and lawful claims and demands for labor, materials, supplies or other objects that might by law become a lien upon the Triangle Expressway System or Receipts if unpaid. Nothing contained in this Section shall require the Authority to pay or cause to be discharged, or make provision for the payment, satisfaction and discharge of, any lien, charge, cost, liability, claim or demand so long as the validity thereof is contested in good faith and by appropriate legal proceedings.

#### **Covenant Against Sale or Disposition**

The Authority covenants that, except as described in this Section, it will not sell, exchange or otherwise dispose of the Triangle Expressway System or any part thereof.

The Authority may from time to time sell, exchange or otherwise dispose of any equipment, motor vehicles, machinery, fixtures, apparatus, tools, instruments or other movable property if it

determines that such articles are no longer needed or are no longer useful in connection with the Triangle Expressway System, and the proceeds thereof may be used for any lawful purpose determined by the Authority.

The Authority may from time to time sell, exchange or otherwise dispose of (but not lease, contract or agree for the use thereof) any other property of the Triangle Expressway System if it determines by resolution:

- (a) that the sale, exchange or other disposition thereof would not materially adversely affect the operating efficiency of the Triangle Expressway System and would not materially reduce Receipts; or
- (b) that the sale, exchange or other disposition thereof would not materially adversely affect the ability of the Authority to comply with the rate covenants for the current and next succeeding Fiscal Year.

If the fair market value of any item of real or personal property to be sold, exchanged or otherwise disposed of in any Fiscal Year in accordance with the provisions of this Section shall be in excess of 3% of net property, plant and equipment of the Triangle Expressway System calculated in accordance with generally accepted accounting principles, or if the fair market value of any such item together with the fair market value of all other such items so disposed of in such Fiscal Year shall aggregate in excess of 3% of net property, plant and equipment of the Triangle Expressway System calculated in accordance with generally accepted accounting principles, then no such disposal shall be effected without first obtaining the written approval of a Traffic Consultant of the determinations to be made by the Authority with respect to such disposition under the provisions of this Section.

All buildings, structures and items of personal property that are constructed, placed or installed in or upon the properties constituting the Triangle Expressway System as an addition or improvement to, as a substitute for, or in renewal, replacement or alteration of, any buildings, structures, and personal property constituting part of the Triangle Expressway System, and all real property acquired as an addition to, in replacement of, or as a substitute for real property constituting a part of the Triangle Expressway System shall thereupon become part of the Triangle Expressway System.

The Authority may lease, as lessor, all or any part of the Triangle Expressway System, or contract or agree for the performance by others, of operations or services on or in connection with the Triangle Expressway System or any part thereof, for any lawful purpose, provided, that:

- (a) the Authority shall remain fully obligated and responsible under the Trust Agreement to the same extent as if such lease, contract or agreement, or any amendment or rescission thereof, had not been executed, and
- (b) the obligation of the Authority under such lease, contract or agreement shall not impair the performance of the Authority's obligations under the Trust Agreement.

#### Non-System Projects, Addition of Non-System Projects to the Triangle Expressway System

No Non-System Projects shall be financed by the Authority unless there shall be filed with the Authority and the Trustee:

(a) an opinion of counsel to the Authority to the effect that the Non-System Project or the indebtedness or other obligations incurred to finance such Non-System Project are not, directly or indirectly, secured by or payable from Receipts or issued under or secured by the Trust Agreement and

that the financing of the Non-System Project will not materially conflict with or constitute on the part of the Authority a breach of or default under any of the covenants or provisions of the Trust Agreement,

- (b) a statement, signed by a Traffic Consultant, to the effect that in its opinion the acquisition or construction of such Non-System Project will not materially adversely affect the Receipts or Revenues or impair the operating efficiency of the Triangle Expressway System, and
- (c) a statement, signed by a Traffic Consultant, to the effect that in its opinion the estimated gross revenues to be received from the operation of the Non-System Project will be sufficient to pay the estimated operating and maintenance expenses of such Non-System Project, any debt service or reserve requirements with respect thereto and any other necessary related costs and expenses.

If Non-System Projects are financed by the Authority, the Authority shall put in place necessary measures in order to account for, and keep separate and apart from Receipts and Operating Expenses, the gross revenues received from the operation of such Non-System Projects, as well as the operating and maintenance expenses of such Non-System Projects, any debt service or reserve requirements with respect thereto and any other necessary related costs and expenses.

Upon compliance with the following conditions, the Authority may determine that a Non-System Project shall be redesignated as an Additional Project within the meaning of the Trust Agreement upon which such Non-System Project shall become a part of the Triangle Expressway System:

- (i) the Authority Board shall adopt a resolution redesignating such Non-System Project as an Additional Project and a part of the Triangle Expressway System;
- (ii) there shall be filed with the Trustee a certificate or report of a Traffic Consultant stating that for the last succeeding Fiscal Year for which audited financial statements are available, the revenues received by the Authority with respect to such Non-System Project (to the extent that such revenues would have constituted Revenues if such Non-System Project were part of the Triangle Expressway System) equaled or exceeded for such period the sum of (A) the operating expenses paid by the Authority with respect to such Non-System Project (to the extent that such operating expenses would have constituted Current Expenses if such Non-System Project were part of the Triangle Expressway System), (B) any additional Current Expenses that would have been incurred by the Authority if such Non-System Project had been a part of the Triangle Expressway System (as estimated by the Traffic Consultant) and (C) a reasonable renewal and replacement reserve deposit with respect to such Non-System Project, as determined by such Traffic Consultant; and
- (iii) an Officer's Certificate stating that any outstanding indebtedness relating to such Non-System Project has been duly paid or defeased; provided, however, that the Authority may incur Senior Lien Indebtedness or Subordinate Lien Indebtedness for the purpose of refinancing any outstanding indebtedness incurred to finance a Non-System Project upon compliance with the additional indebtedness limitations described above.

#### **Events of Default**

Each of the following events is an Event of Default under the Trust Agreement:

(a) payment of the principal of and the redemption premium, if any, on any of the Bonds, is not made when the same are due and payable, either at maturity or by redemption or otherwise;

- (b) payment of the interest on any of the Bonds is not made when the same is due and payable;
- (c) final judgment for the payment of money in excess of \$1,000,000 is rendered against the Triangle Expressway System as a result of the ownership, control or operation of the Triangle Expressway System, and any such judgment is not discharged within one hundred twenty (120) days from the entry thereof or an appeal is not taken therefrom or from the order, decree or process upon which or pursuant to which such judgment will have been granted or entered, in such manner as to stay the execution of or levy under such judgment, order, decree or process or the enforcement thereof;
  - (d) the occurrence of a Bankruptcy-Related Event;
- (e) receipt by the Trustee of written notice from the Holder of any Parity Debt or TIFIA Indebtedness that any event of default has occurred and is continuing under such Parity Debt or Parity Debt Resolution or TIFIA Loan Agreement, including the failure to pay when due and payable the principal of, premium, if any, and interest on such Parity Debt or TIFIA Indebtedness;
- (f) the failure of the State to appropriate the State Appropriated Revenues or a failure of NCDOT to pay a payment required to be paid by NCDOT under the O&M Guaranty Agreement or the Construction and Renewal and Replacement Agreement;
- (g) receipt by the Trustee of written notice from the counterparty under any Derivative Agreement that the Authority has failed to make any Senior Lien Derivative Agreement Regularly Scheduled Payment or Subordinate Lien Derivative Agreement Regularly Scheduled Payment when due; and
- (h) the Authority defaults in the due and punctual performance of any other of the covenants, conditions, agreements and provisions contained in the Bonds or the Trust Agreement, including any Supplemental Agreement, and such default continues for thirty (30) days after receipt by the Authority of a written notice from the Trustee specifying such default and requesting that it be corrected, provided that if prior to the expiration of such 30-day period the Authority institutes action reasonably designed to cure such default, no "Event of Default" will be deemed to have occurred upon the expiration of such 30-day period for so long as the Authority pursues such curative action with reasonable diligence.

#### Remedies

Notwithstanding anything in the Trust Agreement or in any Supplemental Agreement, Parity Debt Resolution or TIFIA Loan Agreement to the contrary, in no event will there be any acceleration of payment of principal of or interest on any Bonds, Parity Debt or TIFIA Indebtedness as a result of the occurrence of any Event of Default under the Trust Agreement or otherwise.

Upon the happening and continuance of any Event of Default, then and in every such case the Trustee may, and upon the written request of the Owners or Holders of not less than 25% in aggregate principal amount of the Bonds, Parity Debt and TIFIA Indebtedness then Outstanding will, proceed (subject to the provisions of the Trust Agreement) to protect and enforce its rights and the rights of the Owners or Holders of the Bonds, Parity Debt and TIFIA Indebtedness under applicable laws and under the Trust Agreement by such suits, actions or special proceedings in equity or at law, or by proceedings in the office of any board or officer having jurisdiction, either for the specific performance of any covenant or agreement contained in the Trust Agreement or in aid or execution of any power therein granted or for the enforcement of any proper legal or equitable remedy, as the Trustee, being advised by counsel, chosen by the Trustee, will deem most effectual to protect and enforce such rights.

In the enforcement of any remedy under the Trust Agreement, the Trustee will be entitled to sue for, enforce payment of and receive any and all amounts then or during any Event of Default becoming, and at any time remaining, due from the Authority for principal, interest or otherwise under any of the provisions of the Trust Agreement or of the Bonds, Parity Debt and TIFIA Indebtedness and unpaid, with interest on overdue payments of principal at the rate or rates of interest specified in such Bonds, Parity Debt and TIFIA Indebtedness, together with any and all costs and expenses of collection and of all proceedings under the Trust Agreement and under such Bonds, Parity Debt and TIFIA Indebtedness, without prejudice to any other right or remedy of the Trustee or of the Owners or Holders of the Bonds, Parity Debt and TIFIA Indebtedness (except to the extent provided in the Trust Agreement), and to recover and enforce any judgment or decree against the Authority, but solely as provided therein and in such Bonds, Parity Debt and TIFIA Indebtedness, for any portion of such amounts remaining unpaid and interest, costs and expenses as above provided, and to collect (but solely from moneys in the funds and accounts pledged to secure the Bonds, Parity Debt and TIFIA Indebtedness under the provisions of the Trust Agreement and any Supplemental Agreement, Parity Debt Resolution or TIFIA Loan Agreement and any other moneys available for such purpose) in any manner provided by law, the moneys adjudged or decreed to be payable.

If an Event of Default will occur and be continuing, then, unless the same will then be prohibited under applicable law, a court of competent jurisdiction may appoint a receiver to administer and operate the Triangle Expressway System on behalf of the Authority, with full power to pay and to provide for the payment of principal of and interest on the Bonds, Parity Debt and TIFIA Indebtedness and Derivative Agreement Regularly Scheduled Payments as the same will become due, whether at maturity, pursuant to mandatory sinking fund redemption or otherwise, out of the funds and accounts available therefor, and the Operating Expenses of the Triangle Expressway System, to apply Receipts derived from such operation in accordance with the provisions of the Trust Agreement and any Supplemental Agreement, Parity Debt Resolution, TIFIA Loan Agreement or Derivative Agreement, and to take such action to the extent permitted by law to cause to be remedied any Event of Default which will occur or will have occurred and be continuing; and with such other powers, subject to the direction of said court, as are accorded to receivers in general equity cases and under the applicable provisions of the laws of North Carolina; provided, that the power of such receiver to make provisions for the payment of principal of and interest on Bonds, Parity Debt, TIFIA Indebtedness and Derivative Agreement Regularly Scheduled Payments as aforesaid will not be construed as including the power to pledge the general credit of the Authority to such payments. Any appointment of a receiver under the foregoing provision will not, by itself, constitute a separate Event of Default under the Trust Agreement.

#### **Pro Rata Application of Funds**

(a) Anything in the Trust Agreement to the contrary notwithstanding, if at any time the money in the Interest Account, the Principal Account and the Sinking Fund Account of the Senior Lien Debt Service Fund is not sufficient to pay the interest on or the principal of the Senior Lien Indebtedness as the same become due and payable, such money, together with any money then available or thereafter becoming available for such purposes (except for such money that has already been deposited in subaccounts of the Interest Account, Principal Account or Sinking Fund Account for a particular Series of Senior Lien Indebtedness pursuant to the provisions of the Trust Agreement), whether through the exercise of the remedies provided for in the Trust Agreement or otherwise, will be applied, after payment of the reasonable fees and expenses of the Trustee in exercising its rights and remedies under the Trust Agreement:

<u>first</u>: to the payment to the persons entitled thereto of all installments of interest on Senior Lien Indebtedness then due and payable in the order in which such installments became due and payable and, if the amount available will not be sufficient to pay in full any particular installment,

then to the payment, ratably according to the amounts due on such installment, to the persons entitled thereto, without any discrimination or preference except as to any difference in the respective rates of interest specified in such Senior Lien Indebtedness;

second: to the payment to the persons entitled thereto of the unpaid principal of any Senior Lien Indebtedness that will have become due and payable (other than Bonds deemed to have been paid pursuant to the provisions of the Trust Agreement described in "THE TRUST AGREEMENT – Defeasance" below), in the order of their due dates, with interest on the overdue principal at a rate equal to the rate on such Senior Lien Indebtedness, and, if the amount available will not be sufficient to pay in full all of the amounts due on the Senior Lien Indebtedness on any date, together with such interest, then to the payment ratably according to the amount of such principal due on such date, to the persons entitled thereto, without any discrimination or preference; and

third: to the payment of the interest on and the principal of Senior Lien Indebtedness, to the purchase and retirement of Senior Lien Indebtedness, and to the redemption of Senior Lien Indebtedness, all in accordance with the provisions of the Trust Agreement.

(b) Anything in the Trust Agreement to the contrary notwithstanding, if at any time the money in the Interest Account, the Principal Account and the Sinking Fund Account of the Subordinate Lien Debt Service Fund is not sufficient to pay the interest on or the principal of the Subordinate Lien Indebtedness as the same become due and payable, such money, together with any money then available or thereafter becoming available for such purposes (except for such money that has already been deposited in subaccounts of the Interest Account, Principal Account or Sinking Fund Account for a particular Series of Subordinate Lien Indebtedness pursuant to the provisions of the Trust Agreement), whether through the exercise of the remedies provided for in the Trust Agreement or otherwise, will be applied, after payment of the reasonable fees and expenses of the Trustee in exercising its rights and remedies thereunder:

<u>first</u>: to the payment to the persons entitled thereto of all installments of interest on Subordinate Lien Indebtedness then due and payable in the order in which such installments became due and payable and, if the amount available will not be sufficient to pay in full any particular installment, then to the payment, ratably according to the amounts due on such installment, to the persons entitled thereto, without any discrimination or preference except as to any difference in the respective rates of interest specified in such Subordinate Lien Indebtedness;

second: to the payment to the persons entitled thereto of the unpaid principal of any Subordinate Lien Indebtedness that will have become due and payable (other than Bonds deemed to have been paid pursuant to the provisions of the Trust Agreement described in "THE TRUST AGREEMENT – Defeasance" below), in the order of their due dates, with interest on the overdue principal at a rate equal to the rate on such Subordinate Lien Indebtedness, and, if the amount available will not be sufficient to pay in full all of the amounts due on the Subordinate Lien Indebtedness on any date, together with such interest, then to the payment ratably according to the amount of such principal due on such date, to the persons entitled thereto, without any discrimination or preference; and

third: to the payment of the interest on and the principal of Subordinate Lien Indebtedness, to the purchase and retirement of Subordinate Lien Indebtedness, and to the redemption of Subordinate Lien Bonds, all in accordance with the provisions of the Trust Agreement.

(c) Anything in the Trust Agreement to the contrary notwithstanding, if at any time the money in the TIFIA Debt Service Fund is not sufficient to pay the interest on or the principal of all TIFIA Indebtedness as the same become due and payable, such money, together with any money then available or thereafter becoming available for such purposes, whether through the exercise of the remedies provided for in the Trust Agreement or otherwise, will be applied, after payment of the reasonable fees and expenses of the Trustee in exercising its rights and remedies thereunder:

<u>first</u>: to the payment of all installments of interest on the TIFIA Indebtedness then due and payable in the order in which such installments became due and payable and, if the amount available will not be sufficient to pay in full any particular installment, then to the payment, ratably according to the amounts due on such installment, to the persons entitled thereto, without any discrimination or preference except as to any difference in the respective rates of interest specified in such TIFIA Indebtedness;

second: to the payment to the persons entitled thereto of the unpaid principal of any TIFIA Indebtedness that will have become due and payable (other than TIFIA Indebtedness deemed to have been paid pursuant to the provisions of the Trust Agreement described in "THE TRUST AGREEMENT – Defeasance" below), in the order of their due dates, with interest on the overdue principal at a rate equal to the rate on such TIFIA Indebtedness, and, if the amount available will not be sufficient to pay in full all of the amounts due on the TIFIA Indebtedness on any date, together with such interest, then to the payment ratably according to the amount of such principal due on such date, to the persons entitled thereto, without any discrimination or preference.

(d) Whenever money is to be applied by the Trustee pursuant to the provisions of the Trust Agreement described under this clause, such money will be applied by the Trustee at such times and from time to time as the Trustee in its sole discretion will determine, having due regard for the amount of money available for such application and the likelihood of additional money becoming available for such application in the future, (b) setting aside such money as provided in the Trust Agreement in trust for the proper purpose will constitute proper application by the Trustee and (c) the Trustee will incur no liability whatsoever to the Authority, to any Owner or to any other person for any delay in applying any such money so long as the Trustee acts with reasonable diligence, having due regard for the circumstances, and ultimately applies the same in accordance with such provisions of the Trust Agreement as may be applicable at the time of application by the Trustee. Whenever the Trustee exercises such discretion in applying such money, it will fix the date (which will be an Interest Payment Date unless the Trustee will deem another date more suitable) upon which such application is to be made and upon such date interest on the amounts of principal to be paid on such date will cease to accrue. The Trustee will give such notice as it may deem appropriate of the fixing of any such date and will not be required to make payment to the Owner of any Bond until such Bond is surrendered to the Trustee for appropriate endorsement or for cancellation if fully paid.

# Control of Proceedings; Restrictions Upon Action; Notice of Default

Anything in the Trust Agreement to the contrary notwithstanding, the Owners or Holders of a majority in aggregate principal amount of Bonds, Parity Debt and TIFIA Indebtedness at any time Outstanding will have the right, subject to the provisions of the Trust Agreement, by an instrument or concurrent instruments in writing executed and delivered to the Trustee, to direct the method and place of conducting all remedial proceedings to be taken by the Trustee under the Trust Agreement, provided that such direction will be in accordance with law and the provisions of the Trust Agreement.

Except as provided in the Trust Agreement, no Owner or Holder of Bonds, Parity Debt or TIFIA Indebtedness will have any right to institute any suit, action or proceeding in equity or at law on any Bonds, Parity Debt or TIFIA Indebtedness or for the execution of any trust under the Trust Agreement or for any other remedy hereunder unless such Owner or Holder of Bonds, Parity Debt or TIFIA Indebtedness previously (a) has given to the Trustee written notice of the Event of Default on account of which suit, action or proceeding is to be instituted, (b) has requested the Trustee to take action after the right to exercise such powers or right of action, as the case may be, will have accrued, (c) has afforded the Trustee a reasonable opportunity either to proceed to exercise the powers granted by the Trust Agreement or to institute such action, suit or proceedings in its or their name, and (d) has offered to the Trustee reasonable security and satisfactory indemnity against the costs, expenses and liabilities to be incurred therein or thereby, and the Trustee will have refused or neglected to comply with such request within a reasonable time. Such notification, request and offer of indemnity are declared in every such case, at the option of the Trustee, to be conditions precedent to the execution of the powers and trusts of the Trust Agreement or to any other remedy hereunder. Notwithstanding the foregoing provisions of this clause and without complying therewith, the Owners or Holders of not less than 25% in aggregate principal amount of Bonds, Parity Debt and TIFIA Indebtedness then Outstanding may institute any such suit, action or proceeding in their own names for the benefit of all Owners or Holders of Bonds, Parity Debt and TIFIA Indebtedness. It is understood and intended that, except as otherwise above provided, no one or more Owners or Holders of Bonds, Parity Debt or TIFIA Indebtedness will have any right in any manner whatsoever by his or their action to affect, disturb or prejudice the security of the Trust Agreement or to enforce any right under the Trust Agreement except in the manner provided, that all proceedings at law or in equity will be instituted, had and maintained in the manner therein provided and for the benefit of all Owners and Holders of Bonds, Parity Debt and TIFIA Indebtedness and that any individual rights of action or other right given to one or more of such Owners or Holders by law are restricted by the Trust Agreement to the rights and remedies therein provided.

The Trustee will mail to (a) all Owners of Bonds at their addresses as they appear on the registration books and (b) all Holders of Parity Debt or TIFIA Indebtedness and counterparties under Derivative Agreements providing for Derivative Agreement Regularly Scheduled Payments who will have filed their name with the Trustee for such purpose, written notice of the occurrence of any Event of Default within thirty (30) days after the Trustee has notice of the same pursuant to the provisions of the Trust Agreement that any such Event of Default will have occurred; provided, however that, except upon the happening of an Event of Default specified in the Trust Agreement and described in clauses (a) and (b) in "THE TRUST AGREEMENT – Events of Default" above, the Trustee may withhold such notice to the Owners, Holders and counterparties under Derivative Agreements if in its opinion such withholding is in the interest of such Owners, Holders and Derivative Agreement counterparties. The Trustee will not be subject to any liability to any such Owner, Holder or Derivative Agreement counterparty by reason of its failure to mail any such notice.

## **Concerning the Trustee**

Prior to the occurrence of any Event of Default and after the curing of all such Events of Default that may have occurred, the Trustee will perform such duties and only such duties of the Trustee as are specifically set forth in the Trust Agreement. Upon the occurrence and during the continuation of any Event of Default, the Trustee will use the same degree of care and skill in their exercise as a prudent person would exercise or use under the circumstances in the conduct of such person's own affairs.

No provision of the Trust Agreement or any Indebtedness or Derivative Agreement will be construed to relieve the Trustee from liability for its own negligent action, its own negligent failure to act, or its own willful misconduct, except that:

- (a) prior to any such Event of Default under the Trust Agreement, and after the curing of any Event of Default that may have occurred:
  - (i) the duties and obligations of the Trustee will be determined solely by the express provisions of the Trust Agreement, and the Trustee will not be liable except for the performance of such duties and obligations of the Trustee as are specifically set forth in the Trust Agreement, and no implied covenants or obligations will be read into the Trust Agreement against the Trustee and no permissive right of the Trustee under the Trust Agreement will impose any duty on the Trustee to take such action, and
  - (ii) in the absence of willful misconduct on its part, the Trustee may conclusively rely, as to the accuracy of the statements and the correctness of the opinions expressed therein, upon any certificate or opinion furnished to it conforming to the requirements of the Trust Agreement, but in the case of any such certificate or opinion by which any provision thereof is specifically required to be furnished to the Trustee, the Trustee will be under a duty to examine the same to determine whether or not on its face it conforms to the requirements of the Trust Agreement; and
  - (b) at all times, regardless of whether or not any such Event of Default will exist:
  - (i) the Trustee will not be liable for any error of judgment made in good faith by a responsible officer or officers of the Trustee unless it will be proved that the Trustee was negligent in ascertaining the pertinent facts, and
  - (ii) the Trustee will not be liable with respect to any action taken or omitted to be taken by it in accordance with the direction of the Owners and Holders of not less than 25% or a majority, as the Trust Agreement will require, in aggregate principal amount of the Bonds, Parity Debt and TIFIA Indebtedness then Outstanding relating to the time, method and place of conducting any proceeding for any remedy available to the Trustee, or exercising any power conferred upon the Trustee under the Trust Agreement.

None of the provisions contained in the Trust Agreement will require the Trustee to expend or risk its own funds or otherwise incur individual financial liability in the performance of any of its duties or in the exercise of any of its rights or powers.

The Trustee will be under no obligation to institute any suit or to take any remedial proceeding (including, but not limited to, the appointment of a receiver) or to enter any appearance or in any way defend in any suit in which it may be made defendant, or to take any steps in the execution of any of the trusts created by the Trust Agreement or in the enforcement of any rights and powers thereunder, until it will be indemnified to its satisfaction against any and all costs and expenses, outlays and counsel fees and other reasonable disbursements, and against all liability. The Trustee nevertheless may begin suit, or appear in and defend suit, or do anything else in its judgment proper to be done by it as such Trustee, without indemnity, and in such case the Authority, at the request of the Trustee, will reimburse the Trustee from Receipts for all costs, expenses, outlays and counsel fees and other reasonable disbursements properly incurred in connection therewith. If the Authority fails to make such reimbursement, the Trustee may reimburse itself from any money in its possession under the provisions of the Trust Agreement and will be entitled to a preference therefor over any Indebtedness Outstanding.

The Trustee will be under no obligation to effect or maintain insurance or to renew any policies of insurance or to inquire as to the sufficiency of any policies of insurance carried by the Authority, or to report, or make or file claims or proof of loss for, any loss or damage insured against or that may occur, or to keep itself informed or advised as to the payment of any taxes or assessments, or to require any such

payment to be made. Except as to the acceptance of the trusts under the Trust Agreement, the Trustee will have no responsibility in respect of the validity or sufficiency of the Trust Agreement, or in respect of the validity of Bonds, Parity Debt and TIFIA Indebtedness or the due issuance or execution and delivery thereof. The Trustee will be under no obligation to see that any duties therein imposed upon the Authority, any Bond Registrar, any consultant, any Depositary (other than a Depositary in which money will have been deposited by the Trustee under the provisions of the Trust Agreement) or any party other than itself, or any covenants therein contained on the part of any party other than itself to be performed, will be done or performed, and the Trustee will be under no obligation for failure to see that any such duties or covenants are so done or performed.

The Trustee will not be liable or responsible because of the failure of the Authority or of any of its employees or agents to make any collections or deposits or to perform any act in the Trust Agreement required of the Authority or because of the loss of any money arising through the insolvency or the act or default or omission of any Depositary (other than the Trustee or a Depositary in which such money will have been deposited by the Trustee under the provisions of the Trust Agreement). The Trustee will not be responsible for the application of any of the proceeds of Bonds or any other money deposited with it and invested, paid out, withdrawn or transferred under the Trust Agreement if such application, investment, payment, withdrawal or transfer will be made in accordance with the provisions of the Trust Agreement. The immunities and exemptions from liability of the Trustee under the Trust Agreement will extend to its directors, officers, employees and agents.

Except upon the happening of any Event of Default specified in clauses (a), (b), (e) or (f) described in "THE TRUST AGREEMENT – Events of Default" above, or the explicit report of an Event of Default pursuant to the Trust Agreement, the Trustee will not be obliged to take notice or be deemed to have notice of any Event of Default under the Trust Agreement unless specifically notified in writing of such Event of Default by the Authority or the Owners and Holders of not less than 25% in aggregate principal amount of Bonds, Parity Debt and TIFIA Indebtedness then Outstanding.

Subject to the acceptance of appointment by a successor Trustee, the Trustee may resign and thereby become discharged from the trusts created by the Trust Agreement, by notice in writing given to the Authority, and mailed, postage prepaid, at the Trustee's expense, to each Owner and Holder of Bonds and Senior Lien Parity Debt, not less than sixty (60) days before such resignation is to take effect, but such resignation will take effect immediately upon the appointment of a new Trustee under the Trust Agreement if such new Trustee will be appointed before the time limited by such notice and will then accept the trusts under the Trust Agreement.

## **Supplemental Trust Agreements**

The Authority and the Trustee may, from time to time and at any time, execute and deliver supplemental trust agreements (which supplemental trust agreements will thereafter form a part hereof) as will be substantially consistent with the terms and provisions of the Trust Agreement and, in the opinion of the Trustee, who may rely upon a written opinion of legal counsel, will not materially and adversely affect the interest of the Owners and Holders:

(a) to cure any ambiguity or formal defect or omission, to correct or supplement any provision in the Trust Agreement that may be inconsistent with any other provision therein, to make any other provisions with respect to matters or questions arising under the Trust Agreement, or to modify, alter, amend, add to or rescind, in any particular, any of the terms or provisions contained in the Trust Agreement, or

- (b) to grant or to confer upon the Trustee, for the benefit of the Owners or Holders, any additional rights, remedies, powers, authority or security that may lawfully be granted to or conferred upon the Owners, the Holders or the Trustee, or
- (c) to add to the provisions of the Trust Agreement other conditions, limitations and restrictions thereafter to be observed, or
- (d) to add to the covenants and agreements of the Authority in the Trust Agreement other covenants and agreements thereafter to be observed by the Authority or to surrender any right or power therein reserved to or conferred upon the Authority, or
- (e) to permit the qualification of the Trust Agreement under any federal statute now or hereafter in effect or under any state blue sky law, and, in connection therewith, if the Authority so determines, to add to the Trust Agreement or any supplemental trust agreement such other terms, conditions and provisions as may be permitted or required by such federal statute or blue sky law.

At least thirty (30) days prior to the execution and delivery of any supplemental trust agreement for any of the purposes set forth above, the Trustee will cause a notice of the proposed execution and delivery of such supplemental trust agreement to be mailed, postage prepaid, to all Owners of Bonds and Holders of Parity Debt and TIFIA Indebtedness. Such notice will briefly set forth in the nature of the proposed supplemental trust agreement and will state that copies thereof are on file at the designated corporate trust office of the Trustee for inspection by all Owners of Bonds and Holders of Parity Debt and TIFIA Indebtedness. A failure on the part of the Trustee to mail such notice will not affect the validity of such supplemental trust agreement.

The Owners and Holders of not less than a majority in aggregate principal amount of Senior Lien Indebtedness then Outstanding, the Owners and Holders of not less than a majority in aggregate principal amount of the Subordinate Lien Indebtedness then Outstanding and the Owners and Holders of not less than a majority in aggregate principal amount of the TIFIA Indebtedness then Outstanding will have the right, from time to time, anything contained in the Trust Agreement to the contrary notwithstanding, to consent to and approve the execution and delivery of such supplemental trust agreements as are deemed necessary or desirable by the Authority for the purpose of modifying, altering, amending, adding to or rescinding, in any particular, any of the terms or provisions contained in the Trust Agreement or in any supplemental trust agreement; provided, however, that nothing therein contained will permit, or be construed as permitting (a) an extension of the maturity of the principal of or the interest on any Senior Lien Indebtedness, Subordinate Lien Indebtedness or TIFIA Indebtedness without the consent of the Owner or Holder of such Senior Lien Indebtedness, Subordinate Lien Indebtedness or TIFIA Indebtedness, (b) a reduction in the principal amount of any Senior Lien Indebtedness, Subordinate Lien Indebtedness or TIFIA Indebtedness or the redemption premium or the rate of interest on any Senior Lien Indebtedness, Subordinate Lien Indebtedness or TIFIA Indebtedness without the consent of the Owner or Holder of such Senior Lien Indebtedness, Subordinate Lien Indebtedness or TIFIA Indebtedness, (c) the creation of a pledge, charge and lien upon the Receipts other than the pledge, charge and lien created by the Trust Agreement without the consent of all of the Owners and Holders of Senior Lien Indebtedness, Subordinate Lien Indebtedness or TIFIA Indebtedness then Outstanding, (d) a preference or priority of any Senior Lien Indebtedness, Subordinate Lien Indebtedness or TIFIA Indebtedness over any other Senior Lien Indebtedness, Subordinate Lien Indebtedness or TIFIA Indebtedness except as expressly provided by the Trust Agreement without the consent of all of the Owners and Holders of Senior Lien Indebtedness, Subordinate Lien Indebtedness or TIFIA Indebtedness then Outstanding or (e) a reduction in the aggregate principal amount of the any Senior Lien Indebtedness, Subordinate Lien Indebtedness or TIFIA Indebtedness required for consent to such supplemental trust agreement without the consent of all of the Owners and Holders of Senior Lien Indebtedness, Subordinate Lien Indebtedness or TIFIA

Indebtedness then Outstanding. For purposes of clauses (a) through (e) of this paragraph, notwithstanding any provisions in the Trust Agreement or in any Supplemental Agreement or Parity Debt Resolution to the contrary, a Bond Insurer or Credit Provider will not be deemed to be the Owner or Holder of Senior Lien Indebtedness, Subordinate Lien Indebtedness or TIFIA Indebtedness.

Nothing contained in the Trust Agreement, however, will be construed as making necessary the approval by Owners or Holders of Senior Lien Indebtedness, Subordinate Lien Indebtedness or TIFIA Indebtedness of the execution and delivery of any supplemental trust agreement as authorized in the Trust Agreement. Furthermore, notwithstanding for the foregoing provisions of this clause, to the extent that the Holders or Owners of Senior Lien Indebtedness, Subordinate Lien Indebtedness or TIFIA Indebtedness, as the case may be, are not "affected" by the proposed supplemental trust agreement as provided in the Trust Agreement described in "THE TRUST AGREEMENT – Senior Lien Indebtedness, Subordinate Lien Indebtedness and TIFIA Indebtedness Affected" below, the consent of such Owners and Holders of not less than a majority in aggregate principal amount of Senior Lien Indebtedness, Subordinate Lien Indebtedness and TIFIA Indebtedness then Outstanding, as the case may be, will not be required as described in the preceding paragraph.

If at any time the Authority and the Trustee determines that it is necessary or desirable to execute and deliver any supplemental trust agreement for any of the purposes described under this clause, the Trustee will cause notice of the proposed supplemental trust agreement to be mailed, postage prepaid, to all Owners Bonds affected thereby at their addresses as they appear on the registration books and to all Holders of Parity Debt and TIFIA Indebtedness affected thereby in accordance with the related Parity Debt Resolution or TIFIA Loan Agreement as of the date of mailing such notice. Such notice will briefly set forth the nature of the proposed supplemental trust agreement and will state that copies thereof are on file at the designated corporate trust office of the Trustee for inspection by all such Owners and Holders of Bonds, Parity Debt and TIFIA Indebtedness. The Trustee will not, however, be subject to any liability to any Owner or Holder of Bonds, Parity Debt or TIFIA Indebtedness by reason of its failure to cause the notice required by the Trust Agreement to be mailed, and any such failure to cause the notice required by the Trust Agreement to be mailed and any such failure will not affect the validity of such supplemental trust agreement when consented to and approved as provided in the Trust Agreement.

Whenever, at any time within three (3) years after the date of the mailing of such notice, the Authority delivers to the Trustee an instrument or instruments in writing purporting to be executed by the Owners or Holders of not less than a majority in aggregate principal amount of Senior Lien Indebtedness, Subordinate Lien Indebtedness and TIFIA Indebtedness then Outstanding that are affected by a proposed supplemental trust agreement, which instrument or instruments will refer to the proposed supplemental trust agreement described in such notice and will specifically consent to and approve the execution and delivery thereof in substantially the form of the copy thereof referred to in such notice, thereupon, but not otherwise, the Authority and the Trustee may execute and deliver such supplemental trust agreement in substantially such form, without liability or responsibility to any Owner or Holder of any Senior Lien Indebtedness, Subordinate Lien Indebtedness or TIFIA Indebtedness whether or not such Owner or Holder will have consented thereto.

If the Owners or Holders of not less than a majority in aggregate principal amount of any Senior Lien Indebtedness, Subordinate Lien Indebtedness or TIFIA Indebtedness then Outstanding at the time of the execution and delivery of such supplemental trust agreement and that are affected, as defined in the Trust Agreement and described in "THE TRUST AGREEMENT – Senior Lien Indebtedness, Subordinate Lien Indebtedness and TIFIA Indebtedness Affected" below, by a proposed supplemental trust agreement have consented to and approved the execution and delivery thereof as provided in the Trust Agreement, to the extent permitted by law, no Owner or Holder of any Senior Lien Indebtedness, Subordinate Lien Indebtedness or TIFIA Indebtedness will have any right to object to the execution and

delivery of such supplemental trust agreement, to object to any of the terms and provisions contained therein or the operation thereof, to question the propriety of the execution and delivery thereof, or to enjoin or restrain the Authority and the Trustee from executing and delivering the same or from taking any action pursuant to the provisions thereof.

#### Senior Lien Indebtedness, Subordinate Lien Indebtedness and TIFIA Indebtedness Affected

For purposes of the Trust Agreement, Senior Lien Indebtedness, Subordinate Lien Indebtedness or TIFIA Indebtedness will be deemed to be "affected" by a supplemental trust agreement if the same adversely affects or diminishes the rights of the Owners or Holders of such Senior Lien Indebtedness, Subordinate Lien Indebtedness or TIFIA Indebtedness against the Authority or the rights of such Owners or Holders in the security for such Senior Lien Indebtedness, Subordinate Lien Indebtedness or TIFIA Indebtedness. The Trustee who may rely upon a written opinion of legal counsel, may in its discretion determine whether any Senior Lien Indebtedness, Subordinate Lien Indebtedness or TIFIA Indebtedness would be affected by any supplemental trust agreement, and any such determination will be conclusive upon the Owners and Holders of all Senior Lien Indebtedness, Subordinate Lien Indebtedness or TIFIA Indebtedness, whether theretofore or thereafter issued or incurred. The Trustee will not be liable for any such determination made in good faith.

#### **Defeasance**

#### When:

- (a) the Bonds, Parity Debt and TIFIA Indebtedness secured by the Trust Agreement will have become due and payable in accordance with their terms or otherwise as provided in the Trust Agreement, and the whole amount of the principal and the interest and premium, if any, and other amounts so due and payable thereon will be paid; and
- (b) if the Bonds, Parity Debt and TIFIA Indebtedness will not have become due and payable in accordance with their terms, the Trustee or any Bond Registrar will hold, sufficient (i) money or (ii) Defeasance Obligations or a combination of (i) and (ii) of this clause (b), the principal of and the interest on which, when due and payable, will provide sufficient money to pay the principal of, and the interest and redemption premium, if any, on all Bonds, Parity Debt and TIFIA Indebtedness then Outstanding to the maturity date or dates of such Bonds, Parity Debt and TIFIA Indebtedness or to the date or dates specified for the redemption thereof, as verified by a verification agent acceptable to the Trustee; and
- (c) if Bonds, Parity Debt or TIFIA Indebtedness are to be called for redemption or prepayment, irrevocable instructions to call the Bonds, Parity Debt or TIFIA Indebtedness for redemption or prepayment will have been given by the Authority to the Trustee; and
- (d) sufficient funds will also have been provided or provision made for paying all other obligations payable under the Trust Agreement by the Authority, including any Derivative Agreement Regularly Scheduled Payments;

then and in that case the right, title and interest of the Trustee in the funds, accounts and subaccounts mentioned in the Trust Agreement will thereupon cease, determine and become void and, upon being furnished with an opinion, in form and substance satisfactory to the Trustee, of counsel approved by the Trustee, to the effect that all conditions precedent to the release of the Trust Agreement have been satisfied, the Trustee will release the Trust Agreement and will execute such documents to evidence such release as may be required by such counsel, and the Trustee will turn over to the Authority any surplus in, and all balances remaining in, all funds, accounts and subaccounts other than money held for the

redemption or payment of Bonds, Parity Debt or TIFIA Indebtedness. Otherwise, the Trust Agreement will be, continue and remain in full force and effect; provided, however, that in the event Defeasance Obligations will be deposited with and held by the Trustee or the Bond Registrar as provided in the Trust Agreement, (i) in addition to the requirements set forth in the Trust Agreement with respect to redemption, the Trustee, within thirty (30) days after such Defeasance Obligations will have been deposited with it, will cause a notice signed by the Trustee to be mailed, postage prepaid, to all Owners and to all Holders of Bonds, Parity Debt and TIFIA Indebtedness, setting forth (a) the date or dates, if any, designated for the redemption of the Bonds, Parity Debt or TIFIA Indebtedness, (b) a description of the Defeasance Obligations so held by it, and (c) that the Trust Agreement has been released in accordance with the provisions of the Trust Agreement, and (ii) (a) the Trustee will nevertheless retain such rights, powers and privileges under the Trust Agreement as may be necessary and convenient in respect of the Bonds, Parity Debt and TIFIA Indebtedness for the payment of the principal, interest and any premium for which such Defeasance Obligations have been deposited and (b) each Bond Registrar will retain such rights, powers and privileges under the Trust Agreement as may be necessary and convenient for the registration, transfer and exchange of Bonds; provided, however, that failure to mail such notice to any Owner or to the Owners, or to any such Holder or to such Holders, or any defect in such notice so mailed, will not affect the validity of the release of the Trust Agreement.

All money and Defeasance Obligations held by the Trustee or any Bond Registrar pursuant to the Trust Agreement will be held in trust and applied to the payment, when due, of the obligations payable therewith.

#### **Treatment of Derivative Agreements**

Anything in the Trust Agreement to the contrary notwithstanding, the counterparty under any Derivative Agreement providing for Senior Lien Derivative Agreement Regularly Scheduled Payments, Subordinate Lien Derivative Agreement Regularly Scheduled Payments or otherwise will have no rights under the Trust Agreement to direct the method and place of conducting any remedial proceedings to be taken by the Trustee thereunder and will have no voting rights with respect thereto or for any other purpose under the Trust Agreement, but will only have the right to enforce those specific rights granted to such counterparties under the Trust Agreement, including, without limitation, those rights with respect to the application of moneys in the Revenue Fund.

#### THE SECOND SUPPLEMENTAL TRUST AGREEMENT

#### **Establishment of Subaccounts**

The following Subaccounts of the accounts of the Senior Lien Debt Service Fund are established by the Second Supplemental Trust Agreement:

- (a) Series 2017 Subaccount of the Interest Account;
- (b) Series 2017 Subaccount of the Principal Account; and
- (c) Series 2017 Subaccount of the Redemption Account.

The subaccounts mentioned above will be established with and held by the Trustee pursuant to the Trust Agreement and the Second Supplemental Trust Agreement.

#### **Receipts**; Proceeds

- (a) The Trustee will deposit or cause to be deposited, from Receipts held in the Revenue Fund, to the various accounts and subaccounts specified in the Second Supplemental Trust Agreement the amounts provided by the Trust Agreement and described in "SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2017 BONDS Application of Receipts" in this Official Statement.
- (b) The Trustee will deposit to the Series 2017 Subaccount of the Redemption Account all amounts as will be delivered to the Trustee by the Authority from time to time with instructions that such amounts be so deposited.

#### Application of Money in the Series 2017 Subaccount of the Redemption Account

The Trustee will apply money in the Series 2017 Subaccount of the Redemption Account to the purchase or redemption of Series 2017 Bonds as follows:

- (a) Subject to the provisions of paragraph (c) below, the Trustee will endeavor to purchase and cancel Series 2017 Bonds or portions thereof, regardless of whether such Bonds or portions thereof are then subject to redemption, at the direction of an Authorized Officer, provided that the purchase price of each Series 2017 Bond will not exceed the Redemption Price that would be payable on the next redemption date to the Owner of such Series 2017 Bond under the provisions of the applicable Series 2017 Subaccount of the Redemption Account. The Trustee will pay the interest accrued on such Bonds or portions thereof to the date of settlement from the Series 2017 Subaccount of the Interest Account and the purchase price from the Series 2017 Subaccount of the Redemption Account, but no such purchase will be made by the Trustee from money in the Series 2017 Subaccount of the Redemption Account within the period of forty-five (45) days immediately preceding any date on which such Series 2017 Bonds or portions thereof are to be redeemed.
- (b) Subject to the provisions of paragraph (c) below, the Trustee will call for redemption on a date permitted by the Second Supplemental Trust Agreement such amount of Series 2017 Bonds or portions thereof as, with the redemption premium, if any, will exhaust the money then held in the Series 2017 Subaccount of the Redemption Account as nearly as may be practicable; provided, however, that not less than Fifty Thousand Dollars (\$50,000) in principal amount of the Series 2017 Bonds will be called for redemption at any one time unless the Trustee is so instructed by the Authority. The Trustee will pay the accrued interest on the Series 2017 Bonds or portions thereof to be redeemed to the date of redemption from the Series 2017 Subaccount of the Interest Account and the Redemption Price of such Bonds or portions thereof from the Series 2017 Subaccount of the Redemption Account. The Trustee will withdraw from the Series 2017 Subaccount of the Redemption Account and set aside the respective amounts required to pay the Redemption Price of the Series 2017 Bonds or portions thereof so called for redemption.
- (c) Money in the Series 2017 Subaccount of the Redemption Account will be applied by the Trustee in each Fiscal Year to the purchase or the redemption of Series 2017 Bonds then Outstanding in accordance with the latest Officer's Certificate filed with the Trustee designating the Series 2017 Bonds to be redeemed. In the event no such certificate is filed (i) the Trustee will apply such money to the purchase of Series 2017 Bonds bearing the highest rate of interest and (ii) if Series 2017 Bonds of more than one maturity bear the same interest rate, the Trustee will redeem such Series 2017 Bonds in the inverse order of maturities.

Upon the retirement of any Series 2017 Bonds by purchase or redemption, pursuant to the provisions of the Second Supplemental Trust Agreement, the Trustee will file with the Authority a

statement identifying such Series 2017 Bonds and setting forth the date of purchase or redemption, the amount of the purchase price or the Redemption Price of such Bonds and the amount paid as interest thereon. The expenses incurred by the Trustee in connection with the purchase or redemption of any such Series 2017 Bonds will be paid by the Authority from the Revenue Fund or from any other available moneys.

#### Payment of Principal, Interest and Premium and Pledge of Receipts

The Authority covenants that it will promptly pay the principal of and the interest on every Series 2017 Bond issued under the provisions of the Second Supplemental Trust Agreement at the places, on the dates and in the manner provided therein and in said Series 2017 Bonds, and any premium required for the retirement of said Series 2017 Bonds by purchase or redemption, according to the true intent and meaning thereof. The Authority further covenants that it will faithfully perform at all times all of its covenants, undertakings and agreements contained in the Second Supplemental Trust Agreement and the Trust Agreement, or in any Series 2017 Bond executed, authenticated and delivered under the Second Supplemental Trust Agreement or in any proceedings of the Authority pertaining thereto. The Authority represents and covenants that it is duly authorized under the Constitution and laws of the State, particularly the Act, to issue the Series 2017 Bonds authorized hereby and to pledge the Receipts in the manner and to the extent in the Second Supplemental Trust Agreement and in the Trust Agreement set forth; that all action on its part for the issuance of the Series 2017 Bonds has been duly and effectively taken; and that such Series 2017 Bonds in the hands of the Owners thereof are and will be valid and binding special obligations of the Authority payable according to their terms.

### **Supplemental Trust Agreements**

The Authority may, from time to time and at any time, execute and deliver such Trust Agreements supplemental to the Second Supplemental Trust Agreement (which supplemental Trust Agreements will thereafter form a part hereof) as will be substantially consistent with the terms and provisions of the Second Supplemental Trust Agreement and, in the opinion of the Trustee, who may rely upon a written opinion of legal counsel, will not materially and adversely affect the interest of the Owners:

- (a) to cure any ambiguity or formal defect or omission, to correct or supplement any provision in the Second Supplemental Trust Agreement that may be inconsistent with any other provision therein, to make any other provisions with respect to matters or questions arising under the Second Supplemental Trust Agreement or to modify, alter, amend, add to or rescind, in any particular, any of the terms or provisions contained in the Second Supplemental Trust Agreement;
- (b) to grant or to confer upon the Trustee for the benefit of the Owners any additional rights, remedies, powers, authority or security that may lawfully be granted to or conferred upon the Owners or the Trustee:
- (c) to add to the covenants and agreements of the Authority in the Second Supplemental Trust Agreement other covenants and agreements thereafter to be observed by the Authority or to surrender any right or power herein reserved to or conferred upon the Authority;
- (d) to permit the qualification of the Second Supplemental Trust Agreement under any federal statute now or hereafter in effect or under any state Blue Sky law, and, in connection therewith, if the Authority so determines, to add to the Second Supplemental Trust Agreement or any supplemental Trust Agreement such other terms, conditions and provisions as may be permitted or required by such federal statute or Blue Sky law; or

(e) to provide for the issuance of Series 2017 Bonds in bearer form.

At least thirty (30) days prior to the execution and delivery of any supplemental Trust Agreement for any of the purposes described under this clause, the Trustee will cause at the Authority's expense a notice of the proposed supplemental Trust Agreement to be mailed first-class, postage prepaid, to the Local Government Commission and to all Owners of the Series 2017 Bonds. Such notice will briefly set forth the nature of the proposed supplemental Trust Agreement and will state that copies thereof are on file at the designated corporate trust office of the Trustee for inspection by all Owners of the Series 2017 Bonds. A failure on the part of the Trustee to mail such notice will not affect the validity of such supplemental Trust Agreement.

Subject to the terms and provisions contained in the Second Supplemental Trust Agreement and described under this clause, and not otherwise, the Owners of not less than a majority in aggregate principal amount of the Series 2017 Bonds then Outstanding that will be affected, as defined in the Trust Agreement, by a proposed supplemental Trust Agreement will have the right, from time to time, anything contained in the Second Supplemental Trust Agreement to the contrary notwithstanding, to consent to and approve the execution and delivery by the Authority and the Trustee of such supplemental Trust Agreement as will be deemed necessary or desirable by the Authority for the purpose of modifying, altering, amending, adding to or rescinding, in any particular, any of the terms or provisions contained in the Second Supplemental Trust Agreement or in any supplemental Trust Agreement; provided, however, that nothing therein contained will permit, or be construed as permitting (a) an extension of the maturity of the principal of or the interest on any Series 2017 Bond without the consent of the Owner of such Series 2017 Bond, (b) a reduction in the principal amount of any Series 2017 Bond or the redemption premium or the rate of interest thereon without the consent of the Owner of such Series 2017 Bond, (c) the creation of a pledge, charge and lien upon the Receipts other than the pledge, charge and lien created by the Trust Agreement without the consent of all Owners of the Series 2017 Bonds then Outstanding, (d) a preference or priority of any Series 2017 Bond over any other Series 2017 Bond without the consent of all Owners of the Series 2017 Bonds then Outstanding, or (e) a reduction in the aggregate principal amount of Series 2017 Bonds required for consent to such supplemental Trust Agreement without the consent of all Owners of the Series 2017 Bonds then Outstanding. Nothing contained in the Second Supplemental Trust Agreement, however, will be construed as making necessary the approval by the Owners of the execution and delivery of any supplemental Trust Agreement as authorized in the Second Supplemental Trust Agreement.

The Trustee will, at the expense of the Authority, such expense to be paid from the Revenue Fund or from any other available moneys, cause notice of the proposed supplemental Trust Agreement to be mailed, postage prepaid, to the Local Government Commission and all Owners of the Series 2017 Bonds as of the date such notice is mailed. Such notice will briefly set forth the nature of the proposed supplemental Trust Agreement and will state that copies thereof are on file at the principal corporate trust office of the Trustee for inspection by all Owners. The Trustee will not, however, be subject to any liability to any Owner by reason of its failure to mail such notice, and any such failure will not affect the validity of such supplemental Trust Agreement when approved and consented to as provided in the Second Supplemental Trust Agreement.

Whenever, at any time within three (3) years after the date of the mailing of such notice, the Authority will deliver to the Trustee an instrument or instruments in writing purporting to be executed by the Owners of not less than a majority in aggregate principal amount of Series 2017 Bonds then Outstanding that are affected, as defined in the Second Supplemental Trust Agreement, by a proposed supplemental Trust Agreement, which instrument or instruments will refer to the proposed supplemental Trust Agreement described in such notice and will specifically consent to and approve the execution and delivery thereof in substantially the form of the copy thereof referred to in such notice, thereupon, but not

otherwise, the Authority and the Trustee may execute and deliver such supplemental Trust Agreement in substantially such form, without liability or responsibility to any Owner, whether or not such Owner will have consented thereto.

If the Owners of not less than a majority in aggregate principal amount of the Series 2017 Bonds Outstanding at the time of the execution and delivery of such supplemental Trust Agreement and that are affected, as defined in the Second Supplemental Trust Agreement, by a proposed Trust Agreement have consented to and approved the execution and delivery thereof as therein provided, to the extent permitted by law, no Owner will have any right to object to the execution and delivery of such supplemental Trust Agreement, to object to any of the terms and provisions contained therein or the operation thereof, to question the propriety of the execution and delivery thereof, or enjoin or restrain the Authority or the Trustee from executing and delivering the same or from taking any action pursuant to the provisions thereof.

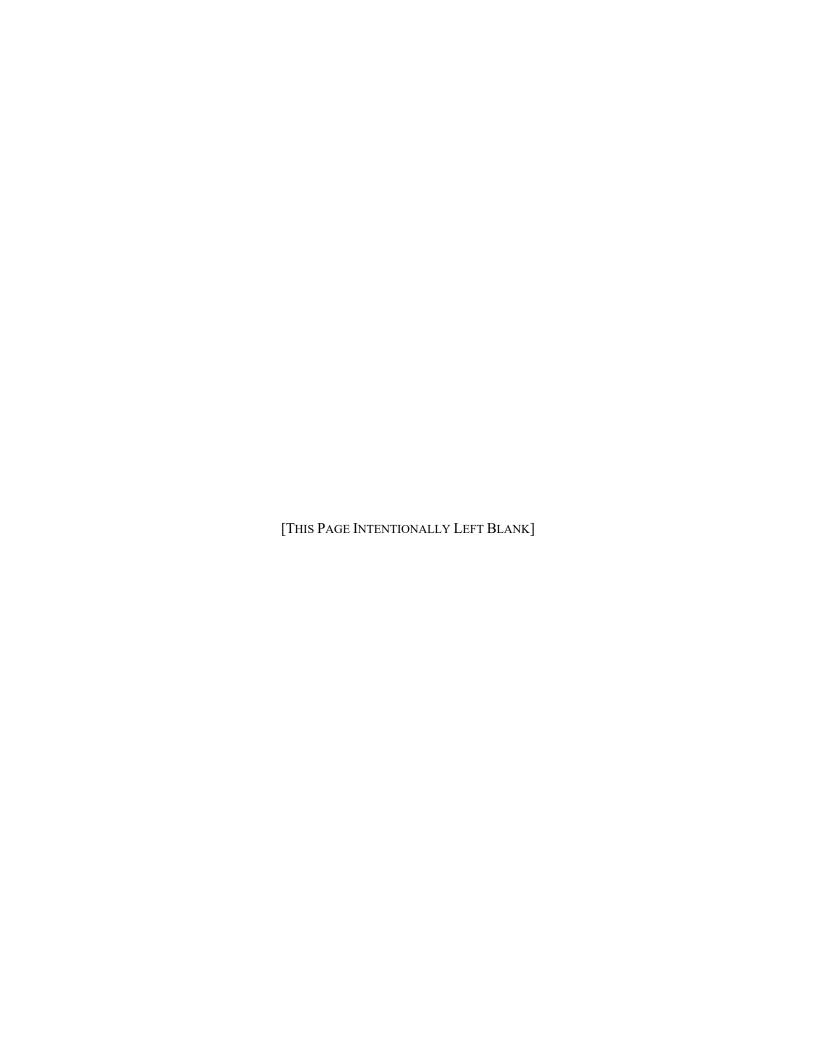
Upon the execution and delivery of any supplemental Trust Agreement pursuant to the provisions of the Second Supplemental Trust Agreement, the Second Supplemental Trust Agreement will be and be deemed to be modified and amended in accordance therewith, and the respective rights, duties and obligations under the Second Supplemental Trust Agreement of the Authority, the Trustee and all Owners will thereafter be determined, exercised and enforced in all respects pursuant to the provisions of the Second Supplemental Trust Agreement, as so modified and amended.

#### **Provisions Relating to the Bond Insurer**

Under the Second Supplemental Trust Agreement, Assured Guaranty Municipal Corp., the Bond Insurer with respect to the Insured Series 2017 Bonds (the "Series 2017 Bond Insurer") has certain rights unless waived by the Bond Insurer in writing including the following:

- (i) The Series 2017 Bond Insurer shall be deemed to be the sole holder of the Insured Series 2017 Bonds for the purpose of exercising any voting right or privilege or giving any consent or direction or taking any other action that the holders of the Insured Series 2017 Bonds are entitled to take pursuant to the Trust Agreement pertaining to (i) defaults and remedies and (ii) the duties and obligations of the Trustee.
- (ii) The Series 2017 Bond Insurer shall, to the extent it makes any payment of principal of or interest on the Insured Series 2017 Bonds, become subrogated to the rights of the recipients of such payments in accordance with the terms of the Bond Insurance Policy for the Series 2017 Bonds(which subrogation rights shall also include the rights of any such recipients in connection with any Insolvency Proceeding).
- (iii) The Traffic Consultant is CDM Smith Inc. In the event that the Authority determines to consider engaging the services of another Traffic Consultant (or any successor thereto), the Authority shall advise the Series 2017 Bond Insurer and shall provide the Series 2017 Bond Insurer with the names of at least three firms that the Authority may engage to provide the services of a Traffic Consultant. Thereafter, unless the Series 2017 Bond Insurer objects within thirty days to the use of any of the firms proposed as the Traffic Consultant (in which event the Authority shall propose an alternative firm for approval), the Authority may engage any of the firms so proposed to be the Traffic Consultant.
- (iv) The Series 2017 Bond Insurer shall be given written notice of any amendment of the Trust Agreement or the Second Supplemental Trust Agreement that do not require the consent of the Owners. Any amendments to the Trust Agreement or the Second Supplemental Trust Agreement that do require the consent of the Owners shall also require the consent of the Series 2017 Bond Insurer.

# APPENDIX B 2013 IMPACT ANALYSIS





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September 9, 2013

Andy Lelewski Director of Toll Road Operations North Carolina Turnpike Authority 1578 Mail Service Center Raleigh, NC 27699-1578

Subject: Updated Impact Analysis of Morrisville Parkway Extension and Old Holly Springs -

**Apex Road Interchanges** 

Dear Mr. Lelewski:

CDM Smith is pleased to provide this letter that presents updated transaction and toll revenue impacts associated with two proposed new interchanges on the Triangle Expressway. The North Carolina Turnpike Authority (NCTA or the Authority) has proposed a new full-access interchange that would provide access to Morrisville Parkway Extension, and a new full-access interchange that would provide access to Old Holly Springs Apex Road. Updated traffic and toll revenue impacts on the Triangle Expressway were developed for the following three scenarios.

- 1. The implementation of the Morrisville Parkway Extension (Morrisville) interchange;
- 2. The implementation of the Old Holly Springs Apex Road (Apex) interchange; and
- 3. The implementation of both the Morrisville and Apex interchanges.

The opening date of the proposed interchange(s) for all three scenarios is January 1, 2016. Updated estimates of transactions and toll revenue impacts are provided for fiscal years 2016 through 2051. A fiscal year runs from July 1 through June 30. The fiscal year (FY) is referred to by the most recent year, for example, FY 2013 runs from July 1, 2012 through June 30, 2013.

The revised transactions and toll revenue impacts are based on prior studies which are described in the section titled Previous Studies. The current revised transactions and toll revenues contained in this letter do not include new socio-economics, land-use plans or any new model runs.



#### **Project Background**

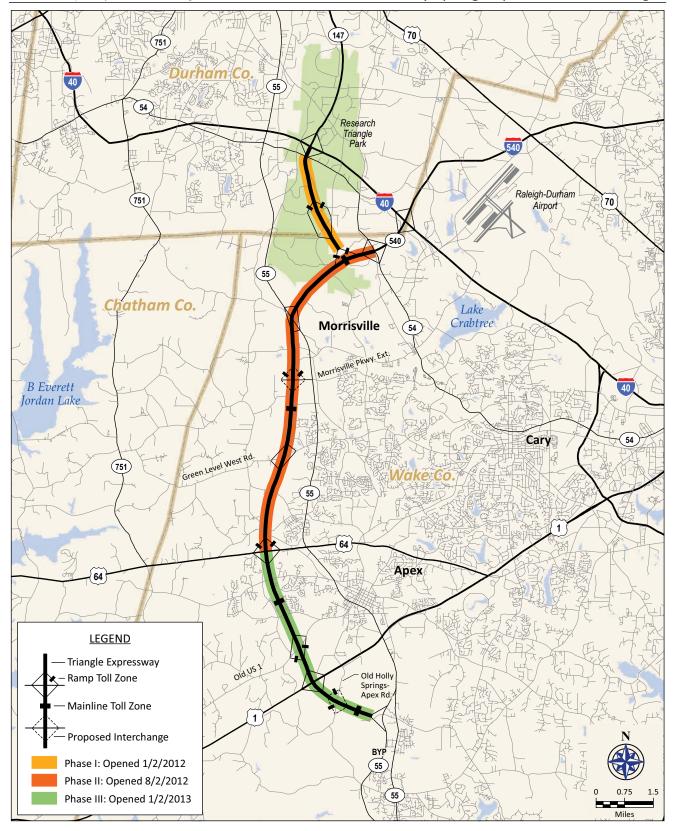
The Triangle Expressway is an 18.8 mile toll road, as shown in Figure 1, which partially completes the outer beltway around the Raleigh, North Carolina area. The project opened in the following three phases:

- Phase I opened to traffic on December 8, 2011 and tolling commenced on January 2, 2012.
   This section is comprised of NC 147 and the connections to NC 540.
- Phase II opened to traffic on August 1, 2012 and tolling commenced on August 2, 2012. This section is comprised of NC 540 from NC 54 in the north to US 64 in the south.
- Phase III opened to traffic on December 20, 2012 and tolling commenced on January 2, 2013.
   This section is comprised of NC 540 from US 64 in Apex to the NC 55 Bypass in Holly Springs.

The Triangle Expressway is a closed system in that all movements on the roadway are tolled (i.e. there is no toll-free travel). The interchange locations and toll collection locations are shown in Figure 1. Toll collection on the Triangle Expressway is all electronic. Customers can pay using a NC Quick Pass transponder or by a video billing program called Bill By Mail. NC Quick Pass customers receive a discounted toll rate compared to Bill By Mail customers. Non-stop, all-electronic tolling (AET) is implemented on the Triangle Expressway so motorists do not stop or travel through conventional toll plazas. Instead they travel at highway speeds through tolling zones, where the vehicles are detected.

The current tolls on the Triangle Expressway are provided in Table 1 for each toll location, and by NC Quick Pass and Bill By Mail. NC Quick Pass customers receive an approximately 35 percent discount from the Bill By Mail rate. The toll rates are also shown for each of the three vehicle classes: Class 1 (two-axle vehicles), Class 2 (three axle vehicles), and Class 3 (four-or-more axle vehicles). Class 2 toll rates are two times the Class 1 toll rates, and Class 3 toll rates are four times the Class 1 toll rates. The current 2013 toll rates are also shown in Figure 2.

The locations of the two proposed interchanges can be seen on Figure 1. The Morrisville interchange would be located between the NC 55 interchange and the Green Level West Road interchange, and would have toll zones located on the ramps providing access to-and-from the north. The Apex interchange would be located between US 1 and NC 55 Bypass, and would have toll zones located on the ramps to-and-from the north.





PROJECT LOCATION MAP AND TOLL SYSTEM CONFIGURATION



## Table 1 Current Toll Rates on the Triangle Expressway Toll Rates Effective January 2013

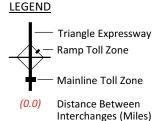
	N	IC Quick Pas	s	Bill By Mail			
Toll Locations	Class 1	Class 2	Class 3	Class 1	Class 2	Class 3	
(from north to south)	2 Axles	3 Axles	4+ Axles	2 Axles	3 Axles	4+ Axles	
Ramps at Hopson Road	\$0.30	\$0.60	\$1.20	\$0.45	\$0.90	\$1.80	
North Ramps at NC 147 and NC 540	0.65	1.30	2.60	1.00	2.00	4.00	
South Ramps at NC 147 and NC 540	0.82	1.64	3.28	1.25	2.50	5.00	
Mainline at NC 147	0.52	1.04	2.08	0.80	1.60	3.20	
Mainline North of Green Level West Road	0.65	1.30	2.60	1.00	2.00	4.00	
Ramps at US 64	0.36	0.72	1.44	0.55	1.10	2.20	
Mainline North of Old US 1	0.82	1.64	3.28	1.26	2.52	5.04	
Ramps at Old US 1	0.21	0.42	0.84	0.32	0.64	1.28	
Mainline North of NC 55	0.35	0.70	1.40	0.53	1.06	2.12	

#### **Previous Studies**

CDM Smith has conducted a series of studies regarding the Triangle Expressway. The following studies form the basis for this current interchange update study. These studies are described below starting with the oldest and progressing to the most current. All of the studies were conducted by CDM Smith at the request of the Authority.

- 1. Triangle Expressway: Comprehensive Traffic and Revenue Study Final Report, dated April 6, 2009 (2009 Comprehensive Report). This report presented traffic and toll revenue estimates for the Triangle Expressway from FY 2012 through 2051. This was a comprehensive study that was used in support of project financing. The study included origin-destination surveys, stated preference surveys, assignments using the Triangle Regional Model, and an independent corridor growth analysis. Although subsequent studies have been performed on the Triangle Expressway, as described below, this study remains the only certified forecast. Neither the Morrisville nor Apex interchanges were part of the report.
- 2. Triangle Expressway: Veridea Interchange Test, dated October 2010. This memorandum presented estimated traffic and toll revenue impacts on the Triangle Expressway assuming the Veridea interchange was built. The Veridea interchange is now called the Apex interchange. This work was based on the 2009 Comprehensive Report.





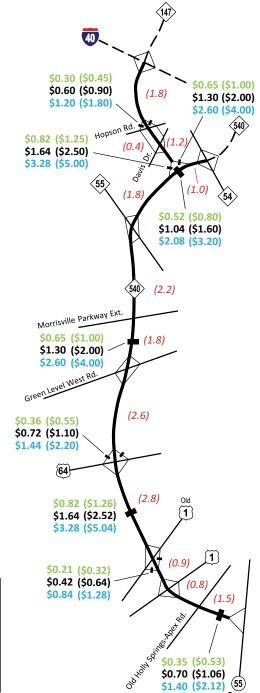
 NC Quick
 Bill by Mail

 \$0.00
 (\$0.00)
 - Class 1

 \$0.00
 (\$0.00)
 - Class 2

 \$0.00
 (\$0.00)
 - Class 3

Note: These rates are effective January 2013.



	Ma	ximum I	Toll in 20	13				
	(	Via Trian 17.8 Mile	Via NC 540 (15.4 Mile Through Tri					
	Vehicle Class	Toll T	oll Per Mile	Toll T	oll Per Mile			
	Class 1	\$2.64	\$0.148	\$2.34	\$0.152			
	Class 2	\$5.28	\$0.297	\$4.68	\$0.356			
1	Class 3	\$10.56	\$0.593	\$9.36	\$0.608			



### CURRENT TOLL RATES ON THE TRIANGLE EXPRESSWAY



- 3. Triangle Expressway: Morrisville Parkway Interchange Test, dated December 2010. This memorandum presented the potential traffic and toll revenue impacts to the Triangle Expressway associated with the proposed new Morrisville Interchange. Several scenarios were analyzed based on different tolling options. A preferred tolling option was selected. This work was based on the 2009 Comprehensive Report.
- 4. Final Technical Memorandum 24 Month Monthly Transactions and Gross Toll Revenue Estimates for the Triangle Expressway (the 2012 Technical Memorandum), dated April 25, 2012. This letter report was developed to reflect the revised phased opening of the Triangle Expressway. Both the opening dates and the definition of the phases of roadway changed substantially from the assumptions in the 2009 Comprehensive Report. CDM Smith developed new monthly traffic and gross toll revenue estimates from January 2012 through December 13, 2014 to reflect the new assumed phases and opening dates. The estimates in the 2012 Technical Memorandum were refinements based on the 2009 Comprehensive Report. The Morrisville and Apex interchanges were not included in the study.
- 5. Revised Annual Gross Toll Revenue Estimates for the Triangle Expressway Proposed Changes in Implementation Date of Annual Toll Increases (2012 Revised Toll Revenue Letter), dated December 13, 2012. In late 2012, the NCTA proposed to revise the schedule of planned toll increases on the Triangle Expressway by shifting a planned toll increase from January 1, 2013 to July 1, 2014 for toll zones in Phases I and II. The NCTA also proposed to shift a planned toll increase from January 1, 2014 to July 1, 2014 for toll zones in Phase III. Thereafter, tolls would increase annually on July 1 of each year. The letter report provided revised estimates of annual gross toll revenue for the Triangle Expressway associated with the revised toll schedule. The letter also provided a revised schedule of toll rate adjustments. The estimated number of transactions on the Triangle Expressway were not changed from the 2009 Comprehensive Report (fiscal years 2014 through 2051) and the 2012 Technical Memorandum (fiscal year 2013). This was a conservative assumption as it did not include a small, positive adjustment in toll transactions due to the lower toll rates associated with the deferral of the planned toll increases. The Morrisville and Apex interchanges were not included as part of this study.
- 6. Revised Annual Gross Toll Revenue Estimates for the Triangle Expressway Associated With a Revised Schedule of Annual Toll Increases (2013 Revised Toll Revenue Letter), dated June 3, 2013. In the spring of 2013, the NCTA proposed to change the implementation date of the programmed toll increases on the Triangle Expressway. These changes consisted of deferring Phase I and Phase II toll rate increases from July 1, 2013 to January 1, 2014, and accelerating Phase III toll rate increases from July 1, 2014 to January 1, 2014. All future toll rate increases would occur on January 1 instead of on July 1. Estimated annual gross and net toll revenue was presented in the letter report from FY 2013 through FY 2051. The revised toll schedule was also provided by toll location and by ETC and video payment types. The letter also



provided a revised schedule of toll rate adjustments. The estimated number of transactions on the Triangle Expressway were not changed from the 2009 Comprehensive Report (fiscal years 2014 through 2051) and the 2012 Technical Memorandum (fiscal year 2013). This was a conservative assumption as it did not include a small, positive adjustment in toll transactions due to the lower toll rates associated with the deferral of the planned toll increases. The Morrisville and Apex interchanges were not included as part of this study.

#### **Study Methodology**

The goal of this study was to update the potential transaction and toll revenue impacts of the 3 scenarios: Morrisville interchange, the Apex interchange, and both interchanges. For a point of reference, a comparison is made between the estimated annual transactions and toll revenue associated with the interchange scenarios and the Base Case. The Base Case transactions and toll revenue is a product of the 2009 Comprehensive Report, refined by the 2012 Technical Report (to reflect revised project phasing) and refined by the 2013 Revised Toll Revenue Letter (to reflect revised toll schedule adjustments).

The following methodology was employed for this update study:

- Reviewed the CDM Smith prior work from the Veridea Interchange Test and the Morrisville Parkway Interchange Test.
- Reviewed the proposed toll configurations and toll rates for the proposed interchanges from prior work.
- Updated the future year toll rates for the proposed interchanges, based upon actual toll rates on the Triangle Expressway and planned toll schedule revisions as studied in the 2013 Revised Toll Revenue letter.
- Compared recent monthly traffic volumes at both tolled and non-tolled locations on the Triangle Expressway with prior estimates developed by CDM Smith to determine the accuracy of the prior traffic estimates and whether adjustments needed to be made to the prior CDM Smith traffic forecasts based on that actual experience.
- Developed updated transaction and toll revenue estimates for each of the interchange scenarios from FY 2016 through 2051. This included updating the toll schedule for each of the proposed interchanges, and applying the impacts of the proposed interchanges starting in January of calendar year 2016. The updated forecasts were developed using a spreadsheet model.



#### **Estimated Transaction and Toll Revenue Impacts**

This section presents the following information:

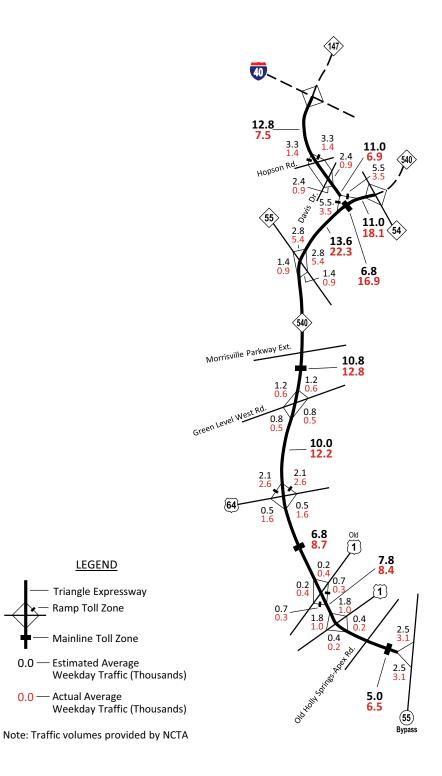
- 1. Actual and estimated traffic volumes on the Triangle Expressway.
- 2. Base Case toll rate assumptions, and annual transactions and toll revenue estimates. The Base Case is comprised of the Triangle Expressway traffic and toll revenue as reported in the 2009 Comprehensive Report including the revisions presented in the 2012 Technical Memorandum to reflect actual phasing and opening dates, as well as the revisions presented in the 2013 Revised Toll Revenue Letter to reflect the revised schedule of toll rate increases.
- 3. Morrisville interchange scenario, including toll rate assumptions and annual transactions and toll revenue estimates. The traffic and toll revenue estimates for the Morrisville interchange scenario are compared to the Base Case.
- 4. Apex interchange scenario, including toll rate assumptions and annual transactions and toll revenue estimates. The traffic and toll revenue estimates for the Apex interchange scenario are compared to the Base Case.
- 5. Morrisville interchange and Apex Road interchange scenario, including toll rate assumptions and annual transactions and toll revenue estimates. The traffic and toll revenue estimates for this scenario are compared to the Base Case.
- 6. Summary of the three interchange scenarios and the Base Case.

#### Historical Traffic on the Triangle Expressway

The NCTA provided CDM Smith with actual traffic volumes at both tolled and non-tolled locations on the Triangle Expressway on a monthly basis through March 2013. Figures 3, 4 and 5 present the actual average weekday traffic by mainline and ramps, for January, February and March of 2013, respectively. Also shown in the figures are the estimated average weekday traffic volumes developed by CDM Smith in the 2012 Technical Memorandum. These are the most recently developed estimates by CDM Smith for the Triangle Expressway, and reflect the phasing that actually occurred on the Triangle Expressway.

As can be seen in Figures 3, 4 and 5, the actual traffic volumes are similar to the estimates for each location south of NC 55, including the NC 55 ramps to-and-from the south. For example, in March 2013, actual average weekday traffic at the ramps to-and-from the south at NC 55 totaled 2,000 compared to an estimated 2,800. The actual average weekday traffic at the ramps to-and-from the north at Green Level Road was 1,400 compared to an estimated 2,600. In aggregate, the actual traffic demand in the corridor surrounding the proposed Morrisville interchange (south of NC 55 through I-64) was six percent higher in March 2013 than our estimates. These are examples in the vicinity of the proposed Morrisville interchange.

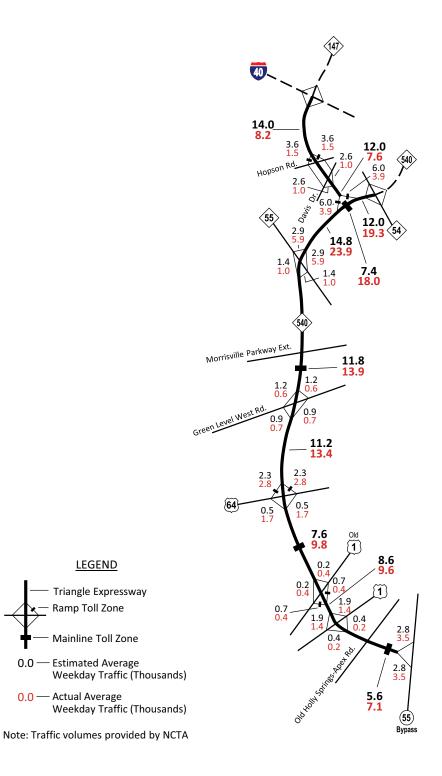






### AVERAGE WEEKDAY TRAFFIC JANUARY 2013

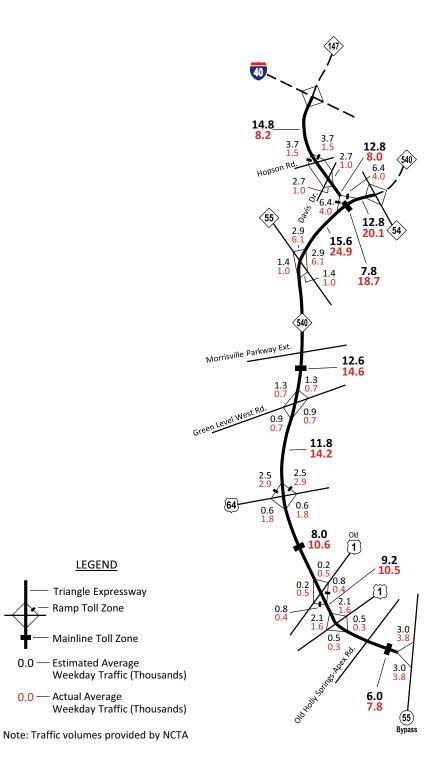






### AVERAGE WEEKDAY TRAFFIC FEBRUARY 2013







### AVERAGE WEEKDAY TRAFFIC MARCH 2013



Estimated traffic volumes in the vicinity of the proposed Apex interchange are also close to the observed traffic volumes. For example, in March 2013 the actual average weekday traffic totaled 600 at the US 1 ramps to-and-from the south, compared to an estimated 1,000. Similarly, the actual average weekday traffic totaled 7,600 at the NC 55 Bypass ramps, compared to an estimated 6,000. Table 2 provides a tabular comparison of the estimated and actual traffic volumes on the Triangle Expressway for January, February and March 2013 from NC 55 southward to NC 55 Bypass. This is the area that is relevant to the impacts of the proposed new interchanges. In the area surrounding the proposed Apex interchange (from Old US 1through the NC 55 Bypass) the actual demand was identical to our forecasts in March 2013.

Based on the review of actual traffic volumes with the forecasts, it was determined that the forecasts were predicting traffic volumes within an acceptable level of accuracy, particularly given that the Triangle Expressway is still in its ramp-up phase. The time-frame for ramp-up is difficult to forecast in any new facility. Because the forecasts and actual traffic volumes are similar, it was not necessary to make adjustments to the previous CDM Smith traffic forecasts for the Base Case. It also followed that the original traffic impact forecasts for the proposed Morrisville and Apex interchanges were still valid, although refinements needed to be made for the appropriate toll schedule and opening year and ramp-up.

#### Base Case Transactions and Toll Revenue

Table 3 presents the Base Case schedule of toll rate adjustments for Class 1 vehicles, both ETC and video, for each toll zone on the Triangle Expressway. Actual toll rates are shown from January 2012 through the rates effective on January 1, 2013. Assumed future toll rates are presented from January 1, 2013 through January 1, 2051. It is assumed that toll rate increases occur on January 1 of each year. Class 2 toll rates are two times the Class 1 rates, and Class 3 rates are four times the Class 1 rates. ETC customers receive a 35 percent discount from the video rates. The assumed ETC toll rates for Class 1, 2, and 3 vehicles are shown in Figure 6 for years 2016 and 2030. The toll rates shown would be in effect from July 1 through June 30 of the next year, as the toll rate is assumed to increase on July 1 of each year. The same information for video toll rates is shown in Figure 7. The year 2016 is shown for comparative purposes with the interchange scenarios, because the opening year for the proposed interchanges is 2016.

Estimated annual transactions are shown in Table 4, by class and by method of payment (ETC and video) from FY 2013 through FY 2051. The entire Triangle Expressway was opened in early January 2013. Total estimated transactions increase from 15,953,000 in FY 2013 to 110,283,000 in FY 2051. This represents an average annual increase in transactions of about 5.2 percent per year. The percent ETC is estimated to increase from 75.0 % in FY 2013 to 90.7 % in FY 2051. Ramp-up is included in transaction totals for the initial three years of the facility.



Table 2
Comparison of Actual and Estimated Average Weekday Traffic Volumes on the Triangle Expressway From NC 55 Southward (Thousands)

	Janua	ry 2013	Februa	ary 2013	Marc	h 2013
Location	Actual	Estimates	Actual	Estimates	Actual	Estimates
NC 55 (north)						
	1.0	2.0	2.0	2.0	2.0	2.0
ramps to/from south	1.8	2.8	2.0	2.8	2.0	2.8
Mainline	12.8	10.8	13.9	11.8	14.6	12.6
Green Level West Rd.						
ramps to/from north	1.2	2.4	1.2	2.4	1.4	2.6
ramps to/from south	1.0	1.6	1.4	1.8	1.4	1.8
US 64						
ramps to/from north	5.2	4.2	5.6	4.6	5.8	5.0
ramps to/from south	3.2	1.0	3.4	1.0	3.6	1.2
Old US 1						
ramps to/from north	0.8	0.4	0.8	0.4	1.0	0.4
ramps to/from south	0.6	1.4	0.8	1.4	0.8	1.6
US 1						
ramps to/from north	2.0	3.6	2.8	3.8	3.2	4.2
ramps to/from south	0.4	0.8	0.4	0.8	0.6	1.0
Mainline	6.5	5.0	7.1	5.6	7.8	6.0
iviainiine	0.5	5.0	7.1	5.6	7.8	6.0
NC 55 Bypass						
ramps	6.1	5.0	7.0	5.6	7.6	6.0

#### Table 3 Base Case Schedule of Toll Rate Adjustments Class 1 - ETC and Video

(Proportional Adjustments to Other Vehicle Classes)

	Phase I - Opened 1/2/2012								Phase II - Opened 8/2/2012				Phase III - Opened 1/2/2013					
			Triangle E	xpressway	Triangle E	xpressway	Mainline	e Zone 1:	Mainline	e Zone 2:			Mainline	Zone 3:			Mainline	e Zone 4:
Date	Hopson	n Road/	Ram	ıp to	Ram	np to	NC 540 E	Between	Betweer	n NC 55 &			Betweer	US 64 &			Betwee	n US 1 &
Of Rate	Davis Dri	ve Ramps	NC 540	/NC 54	NC 540	)/NC 55	Triangle E	xpressway	Green Leve	l West Road	US 64	Ramps	Old	US 1	Old US	1 Ramps	NC 55	Bypass
Adjustment	ETC	Video	ETC	Video	ETC	Video	ETC	Video	ETC	Video	ETC	Video	ETC	Video	ETC	Video	ETC	Video
1/2/2012 (1)	0.30	0.45	0.65	1.00	0.82	1.25	0.52	0.80										
8/2/2012 (1)		0.45	0.65	1.00	0.82	1.25	0.52	0.80	0.65	1.00	0.36	0.55						
1/2/2013 (1)		0.45	0.65	1.00	0.82	1.25	0.52	0.80	0.65	1.00	0.36	0.55	0.82	1.26	0.21	0.32	0.35	0.53
1/1/2014	0.31	0.47	0.69	1.05	0.86	1.31	0.55	0.84	0.69	1.05	0.38	0.58	0.82	1.26	0.21	0.32	0.35	0.53
1/1/2015	0.33	0.50	0.72	1.10	0.90	1.38	0.58	0.88	0.72	1.10	0.40	0.61	0.86	1.32	0.22	0.33	0.36	0.55
1/1/2016	0.34	0.52	0.76	1.16	0.95	1.45	0.61	0.93	0.76	1.16	0.42	0.64	0.91	1.39	0.23	0.35	0.38	0.58
1/1/2017	0.36	0.54	0.78	1.20	0.98	1.50	0.63	0.96	0.78	1.20	0.43	0.66	0.94	1.44	0.24	0.36	0.39	0.60
1/1/2018	0.37	0.56	0.81	1.24	1.01	1.55	0.65	1.00	0.81	1.24	0.45	0.69	0.97	1.49	0.25	0.37	0.40	0.62
1/1/2019	0.38	0.58	0.84	1.29	1.05	1.61	0.67	1.03	0.84	1.29	0.47	0.71	1.01	1.54	0.26	0.39	0.42	0.64
1/1/2020	0.39	0.60	0.87	1.33	1.08	1.66	0.70	1.07	0.87	1.33	0.48	0.73	1.04	1.60	0.26	0.40	0.44	0.67
1/1/2021	0.41	0.62	0.90	1.38	1.12	1.72	0.72	1.10	0.90	1.38	0.50	0.76	1.08	1.65	0.28	0.42	0.45	0.69
1/1/2022	0.42	0.64	0.93	1.42	1.16	1.77	0.74	1.13	0.93	1.42	0.51	0.78	1.11	1.70	0.28	0.43	0.47	0.71
1/1/2023	0.43	0.66	0.95	1.46	1.19	1.82	0.77	1.17	0.95	1.46	0.53	0.81	1.14	1.75	0.30	0.45	0.48	0.73
1/1/2024	0.45	0.68	0.99	1.51	1.23	1.88	0.78	1.20	0.99	1.51	0.54	0.83	1.17	1.80	0.30	0.46	0.49	0.75
1/1/2025	0.46	0.70	1.01	1.55	1.27	1.94	0.81	1.24	1.01	1.55	0.56	0.86	1.21	1.86	0.31	0.47	0.51	0.78
1/1/2026	0.47	0.72	1.04	1.60	1.30	1.99	0.84	1.28	1.04	1.60	0.58	0.88	1.25	1.91	0.32	0.49	0.52	0.80
1/1/2027	0.49	0.74	1.08	1.65	1.34	2.05	0.86	1.31	1.08	1.65	0.60	0.91	1.29	1.97	0.33	0.50	0.54	0.82
1/1/2028	0.50	0.76	1.11	1.70	1.38	2.12	0.88	1.35	1.11	1.70	0.61	0.93	1.32	2.03	0.34	0.52	0.56	0.85
1/1/2029	0.52	0.79	1.14	1.75	1.42	2.18	0.91	1.39	1.14	1.75	0.63	0.96	1.36	2.09	0.35	0.53	0.57	0.87
1/1/2030	0.53	0.81	1.17	1.80	1.46	2.24	0.94	1.44	1.17	1.80	0.65	0.99	1.40	2.15	0.36	0.55	0.59	0.90
1/1/2031	0.54	0.83	1.21	1.85	1.51	2.31	0.97	1.48	1.21	1.85	0.67	1.02	1.45	2.22	0.37	0.56	0.61	0.93
1/1/2032	0.56	0.85	1.25	1.91	1.55	2.38	0.99	1.52	1.25	1.91	0.69	1.05	1.49	2.29	0.38	0.58	0.63	0.96
1/1/2033	0.58	0.88	1.28	1.96	1.60	2.45	1.03	1.57	1.28	1.96	0.71	1.08	1.54	2.36	0.39	0.59	0.65	0.99
1/1/2034	0.60	0.91	1.32	2.02	1.64	2.52	1.06	1.62	1.32	2.02	0.73	1.11	1.58	2.43	0.40	0.61	0.67	1.02
1/1/2035	0.61	0.93	1.36	2.08	1.69	2.60	1.09	1.67	1.36	2.08	0.75	1.15	1.63	2.50	0.41	0.63	0.69	1.05
1/1/2036	0.63	0.96	1.40	2.14	1.75	2.68	1.12	1.72	1.40	2.14	0.77	1.18	1.68	2.57	0.43	0.65	0.71	1.08
1/1/2037	0.64	0.98	1.43	2.19	1.79	2.74	1.14	1.76	1.43	2.19	0.79	1.21	1.72	2.63	0.44	0.66	0.73	1.10
1/1/2038	0.65	1.00	1.46	2.23	1.83	2.79	1.16	1.79	1.46	2.23	0.81	1.23	1.75	2.68	0.45	0.67	0.74	1.12
1/1/2039	0.66 0.67	1.02	1.49	2.27	1.87	2.85	1.18	1.83	1.49	2.27	0.83 0.85	1.25 1.27	1.78	2.73	0.46	0.68	0.75	1.14
1/1/2040		1.04	1.52	2.31	1.91	2.91	1.20	1.87	1.52	2.31			1.82	2.78	0.47	0.69	0.76	1.16
1/1/2041 1/1/2042	0.68	1.06	1.55	2.36	1.95	2.97	1.22	1.91 1.94	1.55	2.36 2.40	0.87 0.88	1.30	1.86	2.84	0.48	0.70 0.71	0.77 0.78	1.18
	0.69	1.08	1.57	2.40	1.98	3.01	1.24		1.57			1.32	1.89	2.88	0.49			1.20
1/1/2043	0.70	1.09	1.59	2.42	2.00	3.04	1.25	1.96	1.59	2.42	0.89	1.33	1.91	2.91	0.49	0.72	0.79	1.21
1/1/2044	0.71	1.10 1.11	1.61	2.44	2.02	3.07	1.26	1.98 2.00	1.61 1.63	2.44 2.46	0.90 0.91	1.34 1.35	1.93	2.94	0.49 0.49	0.73 0.74	0.80	1.22 1.23
1/1/2045 1/1/2046	0.72 0.73	1.11	1.63 1.65	2.46 2.48	2.04	3.10	1.27 1.28				0.91	1.35	1.95 1.97	2.97 3.00		0.74	0.81 0.82	1.23
1/1/2046	0.73	1.12	1.65	2.48	2.06 2.08	3.13 3.16	1.28	2.02 2.04	1.65 1.67	2.48 2.50	0.92	1.36	1.97	3.00	0.49 0.49	0.75	0.82	1.24
1/1/2047	0.74	1.13	1.69	2.50	2.08	3.19	1.30	2.04	1.69	2.50	0.93	1.37	2.01	3.06	0.49	0.76	0.83	1.25
1/1/2048	0.75	1.14	1.69	2.52	2.10	3.19	1.30	2.08	1.71	2.52	0.94	1.38	2.01	3.06	0.49	0.77	0.84	1.26
1/1/2049	0.76	1.15	1.71	2.54	2.12	3.22	1.31	2.08	1.71	2.54	0.95	1.39	2.03	3.12	0.49	0.78	0.85	1.27
	0.77	1.15	1.75	2.57	2.14	3.25	1.32	2.10	1.75	2.57	0.96	1.40	2.05	3.12		0.79	0.86	1.28
1/1/2051	U./8	1.1/	1./5	2.00	2.16	5.28	1.55	2.12	1.75	2.00	0.97	1.41	2.07	5.15	0.49	0.80	0.8/	1.29

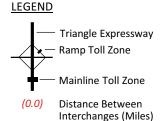
(1) Actual Toll Rates

Class 2 tolls are two times the Class 1 tolls.

Class 3 tolls are four times the Class 1 tolls.

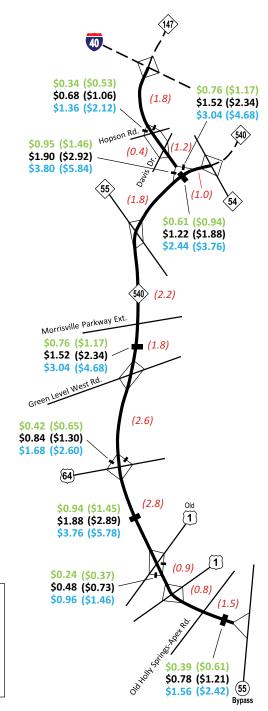
Electronic rates are 65 per cent of video rates.





2016 2030

\$0.00 (\$0.00) - Class 1 \$0.00 (\$0.00) - Class 2 \$0.00 (\$0.00) - Class 3

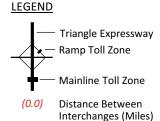


N	/laximun	n Electronic T	oll in 2016	;				
<u>(</u>		igle Parkway Through Trip)	Via NC 540 (15.4 Mile Through Tr					
Vehicle Class	Toll T	oll Per Mile	Toll T	oll Per Mile				
Class 1	\$3.04	\$0.171	\$2.70	\$0.175				
Class 2	\$6.08	\$0.342	\$5.40	\$0.351				
Class 3	\$12.16	\$0.683	\$10.80	\$0.701				



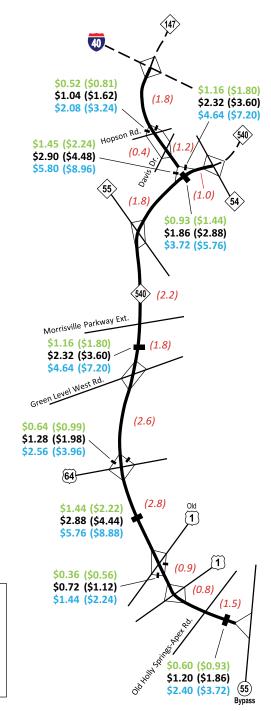
### ETC TOLL RATE ASSUMPTIONS BASE CASE





2016 2030

\$0.00 (\$0.00) - Class 1 \$0.00 (\$0.00) - Class 2 \$0.00 (\$0.00) - Class 3



	Maxim	um Video Tol	l in 2016					
(		igle Parkway Through Trip)	Via NC 540 ) (15.4 Mile Through Tri					
Vehicle Class	Toll T	oll Per Mile	Toll T	oll Per Mile				
Class 1	\$4.65	\$0.261	\$4.13	\$0.268				
Class 2	\$9.30	\$0.522	\$8.26	\$0.536				
Class 3	\$18.60	\$1.045	\$16.52	\$1.073				







Table 4
Estimated Annual Toll Transactions
Triangle Expressway - Base Case Scenario
(Thousands)

Fiscal Year         ETC         Video         Total         Transactions         ETC           2013 (1)         11,420         3,921         15,340         353         41         394         197         22         219         15,953         75           2014         18,405         5,909         24,314         675         73         748         376         41         417         25,479         76           2015         24,352         7,232         31,584         903         90         993         504         50         554         33,131         77           2016         28,953         7,962         36,915         1,066         98         1,164         594         55         649         38,728         79           2017         31,859         8,110         39,969         1,142         95         1,237         637         53         690         41,896         80           2018         34,805         8,200         43,005         1,213
2013 (1)         11,420         3,921         15,340         353         41         394         197         22         219         15,953         75           2014         18,405         5,909         24,314         675         73         748         376         41         417         25,479         76           2015         24,352         7,232         31,584         903         90         993         504         50         554         33,131         77           2016         28,953         7,962         36,915         1,066         98         1,164         594         55         649         38,728         79           2017         31,859         8,110         39,969         1,142         95         1,237         637         53         690         41,896         80           2018         34,805         8,200         43,005         1,213         91         1,304         677         51         728         45,037         81           2019         38,029         8,291         46,320         1,290         87         1,377         720         49         769         48,466         82           2020         41,557         <
2014       18,405       5,909       24,314       675       73       748       376       41       417       25,479       76         2015       24,352       7,232       31,584       903       90       993       504       50       554       33,131       77.         2016       28,953       7,962       36,915       1,066       98       1,164       594       55       649       38,728       79.         2017       31,859       8,110       39,969       1,142       95       1,237       637       53       690       41,896       80         2018       34,805       8,200       43,005       1,213       91       1,304       677       51       728       45,037       81         2019       38,029       8,291       46,320       1,290       87       1,377       720       49       769       48,466       82         2020       41,557       8,385       49,942       1,373       84       1,457       766       47       813       52,212       83         2021       45,223       8,413       53,636       1,436       83       1,519       801       46       847
2015       24,352       7,232       31,584       903       90       993       504       50       554       33,131       77.         2016       28,953       7,962       36,915       1,066       98       1,164       594       55       649       38,728       79.         2017       31,859       8,110       39,969       1,142       95       1,237       637       53       690       41,896       80.         2018       34,805       8,200       43,005       1,213       91       1,304       677       51       728       45,037       81.         2019       38,029       8,291       46,320       1,290       87       1,377       720       49       769       48,466       82.         2020       41,557       8,385       49,942       1,373       84       1,457       766       47       813       52,212       83.         2021       45,223       8,413       53,636       1,436       83       1,519       801       46       847       56,002       84.
2016     28,953     7,962     36,915     1,066     98     1,164     594     55     649     38,728     79       2017     31,859     8,110     39,969     1,142     95     1,237     637     53     690     41,896     80       2018     34,805     8,200     43,005     1,213     91     1,304     677     51     728     45,037     81       2019     38,029     8,291     46,320     1,290     87     1,377     720     49     769     48,466     82       2020     41,557     8,385     49,942     1,373     84     1,457     766     47     813     52,212     83       2021     45,223     8,413     53,636     1,436     83     1,519     801     46     847     56,002     84
2017     31,859     8,110     39,969     1,142     95     1,237     637     53     690     41,896     80       2018     34,805     8,200     43,005     1,213     91     1,304     677     51     728     45,037     81       2019     38,029     8,291     46,320     1,290     87     1,377     720     49     769     48,466     82       2020     41,557     8,385     49,942     1,373     84     1,457     766     47     813     52,212     83       2021     45,223     8,413     53,636     1,436     83     1,519     801     46     847     56,002     84
2018     34,805     8,200     43,005     1,213     91     1,304     677     51     728     45,037     81       2019     38,029     8,291     46,320     1,290     87     1,377     720     49     769     48,466     82       2020     41,557     8,385     49,942     1,373     84     1,457     766     47     813     52,212     83       2021     45,223     8,413     53,636     1,436     83     1,519     801     46     847     56,002     84
2019     38,029     8,291     46,320     1,290     87     1,377     720     49     769     48,466     82       2020     41,557     8,385     49,942     1,373     84     1,457     766     47     813     52,212     83       2021     45,223     8,413     53,636     1,436     83     1,519     801     46     847     56,002     84
2020     41,557     8,385     49,942     1,373     84     1,457     766     47     813     52,212     83       2021     45,223     8,413     53,636     1,436     83     1,519     801     46     847     56,002     84
2021 45,223 8,413 53,636 1,436 83 1,519 801 46 847 56,002 84
2022 49 021 8 275 57 406 1 479 86 1 565 825 48 972 50 944 95
-20222,001 0,010 1,400 1,410 00 1,300 020 40 075 23,044 03.
2023 53,186 8,342 61,528 1,523 88 1,611 849 49 898 64,037 86
2024 57,720 8,313 66,033 1,570 91 1,661 876 51 927 68,621 87.
2025 62,672 8,288 70,960 1,620 94 1,714 903 53 956 73,630 88
2026 66,013 8,300 74,313 1,660 97 1,757 926 54 980 77,050 89
2027 67,570 8,350 75,920 1,690 99 1,789 942 55 997 78,706 89
2028 69,219 8,407 77,626 1,720 101 1,821 959 56 1,015 80,462 89
2029 70,963 8,472 79,435 1,752 103 1,855 977 57 1,034 82,324 89.
2030 72,802 8,543 81,345 1,786 105 1,891 996 58 1,054 84,290 89
2031 74,410 8,581 82,991 1,818 106 1,924 1,014 59 1,073 85,988 89
2032 75,750 8,581 84,331 1,849 106 1,955 1,031 59 1,090 87,376 90
2033 77,113 8,581 85,694 1,881 106 1,987 1,049 59 1,108 88,789 90
2034 78,501 8,581 87,082 1,913 106 2,019 1,067 59 1,126 90,227 90
2035 79,914 8,581 88,495 1,945 106 2,051 1,085 59 1,144 91,690 90
2036 81,232 8,624 89,856 1,976 106 2,082 1,102 59 1,161 93,099 90
2037 82,450 8,710 91,160 2,006 107 2,113 1,119 60 1,179 94,452 90
2038 83,687 8,797 92,484 2,036 108 2,144 1,135 60 1,195 95,823 90
2039 84,942 8,885 93,827 2,067 109 2,176 1,152 61 1,213 97,216 90
2040 86,216 8,974 95,190 2,098 111 2,209 1,170 62 1,232 98,631 90
2041 87,292 9,064 96,356 2,124 112 2,236 1,184 62 1,246 99,838 90
2042 88,165 9,154 97,319 2,145 113 2,258 1,196 63 1,259 100,836 90
2043 89,047 9,246 98,293 2,167 114 2,281 1,208 64 1,272 101,846 90
2044 89,938 9,338 99,276 2,188 115 2,303 1,220 64 1,284 102,863 90.
2045 90,837 9,432 100,269 2,210 116 2,326 1,232 65 1,297 103,892 90.
2046 91,745 9,526 101,271 2,232 117 2,349 1,245 65 1,310 104,930 90.
2047 92,663 9,621 102,284 2,254 119 2,373 1,257 66 1,323 105,980 90.
2048 93,589 9,717 103,306 2,277 120 2,397 1,270 67 1,337 107,040 90.
2049 94,525 9,815 104,340 2,300 121 2,421 1,282 67 1,349 108,110 90.
2050 95,471 9,913 105,384 2,323 122 2,445 1,295 68 1,363 109,192 90.
2051 96,425 10,012 106,437 2,346 123 2,469 1,308 69 1,377 110,283 90.

<sup>(1)</sup> Full project open January 1, 2013.

Note: Forecasts include an assumed ramp-up to full traffic volumes. Ramp-up is assumed to occur over the first three years of operation. The assumed ramp-up is applied by each phase or interchange, reflecting the opening date of each toll zone.



Estimated annual gross toll revenue and adjusted toll revenue are presented in Table 5 from FY 2013 through FY 2051. Gross toll revenue is estimated to total \$10,905,000 in FY 2013 and increase to \$176,273,000 in FY 2051. This represents an average annual increase in gross toll revenue of about 7.6 percent per year. The toll revenue is anticipated to increase faster than the toll transactions due to programmed annual toll increases.

Adjusted toll revenue estimates are also provided in Table 5. They comprise the gross toll revenue less leakage (uncollected toll revenue). The percent revenue leakage, presented in Table 5, is the percent reduction factor that is applied to the gross toll revenue to account for uncollected toll revenue, largely associated with the video component of the toll collection system. The percent revenue leakage was estimated in the 2009 Comprehensive Report, and ranges from 6.3 percent in FY 2013 to 2.8 percent beginning in FY 2034 and continuing through FY 2051.

#### Morrisville Interchange Scenario

The assumed toll rate schedule for Class 1, ETC and video, assuming the proposed interchanges is presented in Table 6. Toll rates for the existing toll locations on the Triangle Expressway do not change from the Base Case. Assumed toll rates for both the Morrisville and Apex interchanges are shown in the same table. The toll rates for the proposed interchanges do not change for any of the three interchange scenarios (only Morrisville interchange, only Apex interchange, both interchanges). The interchanges are assumed to open on January 1, 2016. It is assumed that the tolls will increase for all toll zones on January 1, 2016, and on every July 1 thereafter. Figure 8 portrays the toll locations for the Morrisville interchange scenario, and the ETC toll rates in 2016 and 2030 for Classes 1, 2, and 3. Figure 9 shows the same information for video toll rates.

Estimated annual transactions are presented in Table 7, assuming the presence of the full-access Morrisville interchange beginning in January 2016. Total estimated transactions increase from 15,953,000 in FY 2013 to 116,110,000 in FY 2051. This represents an average annual increase in transactions of about 5.4 percent per year. The percent ETC is estimated to increase from 75.0 % in FY 2013 to 90.5 % in FY 2051. Ramp-up is included in transaction totals for the initial three years of the facility.

Gross toll revenue estimates, as shown in Table 8, increase from \$10,905,000 in FY 2013 to \$183,222,000 in FY 2051. This is a 7.7 percent average annual increase in gross toll revenue. The adjusted annual toll revenue is estimated to increase from \$10,218,000 in FY 2013 to \$178,092,000 in FY 2051. The estimated percent revenue leakage is the same between the Base Case and the Morrisville interchange scenario.

A comparison of the estimated annual toll transactions and toll revenue is presented in Table 9 between the Base Case and the Morrisville interchange scenario. It is estimated that the Morrisville



Table 5 Estimated Annual Gross and Adjusted Toll Revenue Triangle Expressway - Base Case Scenario (Thousands of Dollars)

										All Classes				
												Adjusted	Estimated Percent	
Fiscal		Class 1			Class 2			Class 3		Total	Percent	Gross	Revenue	
Year_	ETC	Video	Total	ETC	Video	Total	ETC	Video	Total	Revenue	ETC	Revenue (2)	Leakage (3)	
2013 (1)	\$ 6,502	\$ 3,332	\$ 9,834	\$ 435	\$ 73	\$ 508	\$ 482	\$ 81	\$ 564	\$ 10,905	68.0%	\$ 10,218	(6.3) %	
2014	10,830	5,221	16,051	850	137	987	946	152	1,098	18,136	69.6%	17,012	(6.2)	
2015	15,021	6,726	21,747	1,198	179	1,377	1,333	200	1,533	24,657	71.2%	22,906	(7.1)	
2016	18,666	7,777	26,443	1,479	204	1,683	1,647	227	1,874	30,000	72.6%	28,050	(6.5)	
2017	21,349	8,248	29,597	1,640	205	1,845	1,827	229	2,056	33,498	74.1%	31,421	(6.2)	
2018	24,171	8,637	32,808	1,797	204	2,001	2,001	227	2,228	37,037	75.5%	34,889	(5.8)	
2019	27,394	9,064	36,458	1,974	203	2,177	2,198	226	2,424	41,059	76.9%	38,801	(5.5)	
2020	31,156	9,497	40,653	2,163	202	2,365	2,410	225	2,635	45,653	78.3%	43,325	(5.1)	
2021	35,252	9,844	45,096	2,331	207	2,538	2,597	231	2,828	50,462	79.6%	48,040	(4.8)	
2022	39,464	10,103	49,567	2,472	220	2,692	2,754	245	2,999	55,258	80.9%	52,606	(4.8)	
2023	44,025	10,355	54,380	2,618	232	2,850	2,917	259	3,176	60,406	82.0%	57,869	(4.2)	
2024	49,245	10,634	59,879	2,779	246	3,025	3,095	275	3,370	66,274	83.2%	63,689	(3.9)	
2025	55,139	10,921	66,060	2,951	261	3,212	3,285	291	3,576	72,848	84.3%	70,225	(3.6)	
2026	59,844	11,269	71,113	3,112	275	3,387	3,465	307	3,772	78,272	84.9%	75,611	(3.4)	
2027	63,310	11,707	75,017	3,266	289	3,555	3,637	322	3,959	82,531	85.1%	79,807	(3.3)	
2028	66,885	12,169	79,054	3,429	303	3,732	3,819	338	4,157	86,943	85.3%	84,161	(3.2)	
2029	70,665	12,656	83,321	3,601	319	3,920	4,012	356	4,368	91,609	85.4%	88,769	(3.1)	
2030	74,841	13,179	88,020	3,786	335	4,121	4,218	374	4,592	96,733	85.6%	93,831	(3.0)	
2031	78,663	13,618	92,281	3,953	348	4,301	4,405	388	4,793	101,375	85.8%	98,435	(2.9)	
2032	82,046	13,958	96,004	4,099	357	4,456	4,568	398	4,966	105,426	86.0%	102,369	(2.9)	
2033	85,574	14,307	99,881	4,251	366	4,617	4,737	408	5,145	109,643	86.2%	106,463	(2.9)	
2034	89,253	14,665	103,918	4,408	375	4,783	4,913	418	5,331	114,032	86.4%	110,839	(2.8)	
2035	93,091	15,032	108,123	4,571	384	4,955	5,095	429	5,524	118,602	86.6%	115,281	(2.8)	
2036	96,714	15,445	112,159	4,736	395	5,131	5,278	441	5,719	123,009	86.8%	119,565	(2.8)	
2037	100,099	15,909	116,008	4,902	407	5,309	5,463	454	5,917	127,234	86.8%	123,671	(2.8)	
2038	103,603	16,386	119,989	5,073	419	5,492	5,654	467	6,121	131,602	86.9%	127,917	(2.8)	
2039	107,229	16,878	124,107	5,251	432	5,683	5,852	481	6,333	136,123	86.9%	132,312	(2.8)	
2040	110,982	17,384	128,366	5,434	445	5,879	6,056	496	6,552	140,797	87.0%	136,855	(2.8)	
2041	114,019	17,817	131,836	5,583	456	6,039	6,222	508	6,730	144,605	87.0%	140,556	(2.8)	
2042	116,300	18,174	134,474	5,695	465	6,160	6,347	518	6,865	147,499	87.0%	143,369	(2.8)	
2043	118,626	18,537	137,163	5,809	474	6,283	6,474	529	7,003	150,449	87.0%	146,236	(2.8)	
2044	120,998	18,908	139,906	5,925	484	6,409	6,603	539	7,142	153,457	87.0%	149,160	(2.8)	
2045	123,418	19,286	142,704	6,043	493	6,536	6,735	550	7,285	156,525	87.0%	152,142	(2.8)	
2046	125,887	19,672	145,559	6,164	503	6,667	6,870	561	7,431	159,657	87.0%	155,187	(2.8)	
2047	128,404	20,065	148,469	6,288	513	6,801	7,007	572	7,579	162,849	87.0%	158,289	(2.8)	
2048	130,972	20,466	151,438	6,413	523	6,936	7,147	584	7,731	166,105	87.0%	161,454	(2.8)	
2049	133,592	20,876	154,468	6,542	534	7,076	7,290	595	7,885	169,429	87.0%	164,685	(2.8)	
2050	136,264	21,293	157,557	6,672	545	7,217	7,436	607	8,043	172,817	87.0%	167,978	(2.8)	
2051	138,989	21,719	160,708	6,806	555	7,361	7,585	619	8,204	176,273	87.0%	171,337	(2.8)	

<sup>(1)</sup> Full project open January 1, 2013.

<sup>(2)</sup> Net of leakage, based on the CDM Smith 2009 Comprehensive Report.

<sup>(3)</sup> Percent reduction applied to the annual gross toll revenue to account for uncollected toll revenue (revenue leakage).

Note: Forecasts include an assumed ramp-up to full traffic volumes. Ramp-up is assumed to occur over the first three years of operation. The assumed ramp-up is applied by each phase or interchange, reflecting the opening date of each toll zone.



#### Table 6 Schedule of Toll Rate Adjustments Including Proposed Interchanges Class 1 - ETC and Video (Proportional Adjustments to Other Vehicle Classes)

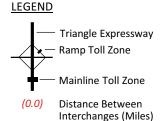
	Phase I					Phase II				Phase III												
			Triangle E	xpressway	Triangle E	xpressway	Mainlir	ne Zone 1:	Prop	osed	Mainlin	e Zone 2:			Mainlin	e Zone 3:			Prop	osed	Mainlin	e Zone 4:
Date	Hopso	n Road/	Ran	np to	Ran	np to	NC 540	Between	Morri	isville	Between	n NC 55 &			Betwee	n US 64 &			A	oex	Betwee	n US 1 &
Of Rate	Davis Dr	ive Ramps	NC 540	)/NC 54	NC 540	D/NC 55	Triangle	Expressway	Parkwa	y Ramps	Green Leve	l West Road	US 64	Ramps	Old	US 1	Old US	1 Ramps	Rai	mps	NC 55	Bypass
Adjustment	ETC	Video	ETC	Video	ETC	Video	ETC	Video	ETC	Video	ETC	Video	ETC	Video	ETC	Video	ETC	Video	ETC	Video	ETC	Video
1/2/2012 (1)	\$ 0.30	\$ 0.45	\$ 0.65	\$ 1.00	\$ 0.82	\$ 1.25	\$ 0.52	\$ 0.80														
8/2/2012 (1)	0.30	0.45	0.65	1.00	0.82	1.25	0.52	0.80			\$ 0.65	\$ 1.00	\$ 0.36	\$ 0.55								
1/2/2013 (1)	0.30	0.45	0.65	1.00	0.82	1.25	0.52	0.80			0.65	1.00	0.36	0.55	\$ 0.82	\$ 1.26	\$ 0.21	\$ 0.32			\$ 0.35	\$ 0.53
1/1/2014	0.31	0.47	0.69	1.05	0.86	1.31	0.55	0.84			0.69	1.05	0.38	0.58	0.82	1.26	0.21	0.32			0.35	0.53
1/1/2015	0.33	0.50	0.72	1.10	0.90	1.38	0.58	0.88			0.72	1.10	0.40	0.61	0.86	1.32	0.22	0.33			0.36	0.55
1/1/2016 (2)	0.34	0.52	0.76	1.16	0.95	1.45	0.61	0.93	0.42	0.64	0.76	1.16	0.42	0.64	0.91	1.39	0.23	0.35	0.20	0.31	0.38	0.58
1/1/2017	0.36	0.54	0.78	1.20	0.98	1.50	0.63	0.96	0.43	0.66	0.78	1.20	0.43	0.66	0.94	1.44	0.24	0.36	0.21	0.32	0.39	0.60
1/1/2018	0.37	0.56	0.81	1.24	1.01	1.55	0.65	1.00	0.44	0.68	0.81	1.24	0.45	0.69	0.97	1.49	0.25	0.37	0.22	0.33	0.40	0.62
1/1/2019	0.38	0.58	0.84	1.29	1.05	1.61	0.67	1.03	0.46	0.71	0.84	1.29	0.47	0.71	1.01	1.54	0.26	0.39	0.22	0.34	0.42	0.64
1/1/2020	0.39	0.60	0.87	1.33	1.08	1.66	0.70	1.07	0.48	0.73	0.87	1.33	0.48	0.73	1.04	1.60	0.26	0.40	0.23	0.36	0.44	0.67
1/1/2021	0.41	0.62	0.90	1.38	1.12	1.72	0.72	1.10	0.49	0.76	0.90	1.38	0.50	0.76	1.08	1.65	0.28	0.42	0.24	0.37	0.45	0.69
1/1/2022	0.42	0.64	0.93	1.42	1.16	1.77	0.74	1.13	0.51	0.78	0.93	1.42	0.51	0.78	1.11	1.70	0.28	0.43	0.25	0.38	0.47	0.71
1/1/2023	0.43	0.66	0.95	1.46	1.19	1.82	0.77	1.17	0.52	0.80	0.95	1.46	0.53	0.81	1.14	1.75	0.30	0.45	0.26	0.39	0.48	0.73
1/1/2024	0.45	0.68	0.99	1.51	1.23	1.88	0.78	1.20	0.54	0.83	0.99	1.51	0.54	0.83	1.17	1.80	0.30	0.46	0.26	0.40	0.49	0.75
1/1/2025	0.46	0.70	1.01	1.55	1.27	1.94	0.81	1.24	0.55	0.85	1.01	1.55	0.56	0.86	1.21	1.86	0.31	0.47	0.28	0.42	0.51	0.78
1/1/2026	0.47	0.72	1.04	1.60	1.30	1.99	0.84	1.28	0.57	0.88	1.04	1.60	0.58	0.88	1.25	1.91	0.32	0.49	0.28	0.43	0.52	0.80
1/1/2027	0.49	0.74	1.08	1.65	1.34	2.05	0.86	1.31	0.59	0.90	1.08	1.65	0.60	0.91	1.29	1.97	0.33	0.50	0.29	0.44	0.54	0.82
1/1/2028 1/1/2029	0.50 0.52	0.76 0.79	1.11 1.14	1.70 1.75	1.38 1.42	2.12 2.18	0.88 0.91	1.35 1.39	0.61	0.93 0.96	1.11 1.14	1.70 1.75	0.61 0.63	0.93 0.96	1.32 1.36	2.03 2.09	0.34 0.35	0.52 0.53	0.30 0.31	0.46 0.47	0.56 0.57	0.85 0.87
1/1/2030	0.52	0.79	1.14	1.75	1.42	2.18	0.91	1.39	0.64	0.96	1.14	1.75	0.65	0.96	1.40	2.15	0.35	0.55	0.31	0.47	0.59	0.90
1/1/2031	0.54	0.83	1.17	1.85	1.40	2.24	0.97	1.44	0.66	1.01	1.17	1.85	0.67	1.02	1.40	2.13	0.30	0.56	0.32	0.48	0.55	0.93
1/1/2031	0.54	0.85	1.21	1.91	1.55	2.31	0.99	1.52	0.68	1.01	1.25	1.91	0.69	1.02	1.43	2.22	0.37	0.58	0.33	0.50	0.63	0.96
1/1/2032	0.58	0.83	1.23	1.96	1.60	2.45	1.03	1.57	0.70	1.03	1.23	1.96	0.03	1.03	1.49	2.25	0.39	0.59	0.34	0.52	0.65	0.90
1/1/2034	0.60	0.91	1.32	2.02	1.64	2.52	1.06	1.62	0.72	1.11	1.32	2.02	0.71	1.11	1.58	2.43	0.40	0.61	0.36	0.55	0.67	1.02
1/1/2035	0.61	0.93	1.36	2.08	1.69	2.60	1.09	1.67	0.74	1.14	1.36	2.08	0.75	1.15	1.63	2.50	0.41	0.63	0.37	0.56	0.69	1.05
1/1/2036	0.63	0.96	1.40	2.14	1.75	2.68	1.12	1.72	0.77	1.17	1.40	2.14	0.77	1.18	1.68	2.57	0.43	0.65	0.38	0.58	0.71	1.08
1/1/2037	0.64	0.98	1.43	2.19	1.79	2.74	1.14	1.76	0.79	1.20	1.43	2.19	0.79	1.21	1.72	2.63	0.44	0.66	0.39	0.59	0.73	1.10
1/1/2038	0.65	1.00	1.46	2.23	1.83	2.79	1.16	1.79	0.81	1.24	1.46	2.23	0.81	1.23	1.75	2.68	0.45	0.67	0.40	0.61	0.74	1.12
1/1/2039	0.66	1.02	1.49	2.27	1.87	2.85	1.18	1.83	0.83	1.28	1.49	2.27	0.83	1.25	1.78	2.73	0.46	0.68	0.41	0.63	0.75	1.14
1/1/2040	0.67	1.04	1.52	2.31	1.91	2.91	1.20	1.87	0.85	1.32	1.52	2.31	0.85	1.27	1.82	2.78	0.47	0.69	0.42	0.65	0.76	1.16
1/1/2041	0.68	1.06	1.55	2.36	1.95	2.97	1.22	1.91	0.88	1.36	1.55	2.36	0.87	1.30	1.86	2.84	0.48	0.70	0.43	0.67	0.77	1.18
1/1/2042	0.69	1.08	1.57	2.40	1.98	3.01	1.24	1.94	0.90	1.39	1.57	2.40	0.88	1.32	1.89	2.88	0.49	0.71	0.44	0.68	0.78	1.20
1/1/2043	0.70	1.09	1.59	2.42	2.00	3.04	1.25	1.96	0.92	1.42	1.59	2.42	0.89	1.33	1.91	2.91	0.49	0.72	0.45	0.69	0.79	1.21
1/1/2044	0.71	1.10	1.61	2.44	2.02	3.07	1.26	1.98	0.94	1.45	1.61	2.44	0.90	1.34	1.93	2.94	0.49	0.73	0.46	0.70	0.80	1.22
1/1/2045	0.72	1.11	1.63	2.46	2.04	3.10	1.27	2.00	0.96	1.48	1.63	2.46	0.91	1.35	1.95	2.97	0.49	0.74	0.47	0.71	0.81	1.23
1/1/2046	0.73	1.12	1.65	2.48	2.06	3.13	1.28	2.02	0.98	1.51	1.65	2.48	0.92	1.36	1.97	3.00	0.49	0.75	0.48	0.72	0.82	1.24
1/1/2047	0.74	1.13	1.67	2.50	2.08	3.16	1.29	2.04	1.00	1.54	1.67	2.50	0.93	1.37	1.99	3.03	0.49	0.76	0.49	0.73	0.83	1.25
1/1/2048	0.75	1.14	1.69	2.52	2.10	3.19	1.30	2.06	1.02	1.57	1.69	2.52	0.94	1.38	2.01	3.06	0.49	0.77	0.50	0.74	0.84	1.26
1/1/2049	0.76	1.15	1.71	2.54	2.12	3.22	1.31	2.08	1.04	1.60	1.71	2.54	0.95	1.39	2.03	3.09	0.49	0.78	0.51	0.75	0.85	1.27
1/1/2050	0.77	1.16	1.73	2.57	2.14	3.25	1.32	2.10	1.06	1.63	1.73	2.57	0.96	1.40	2.05	3.12	0.49	0.79	0.52	0.77	0.86	1.28
1/1/2051	0.78	1.17	1.75	2.60	2.16	3.28	1.33	2.12	1.08	1.66	1.75	2.60	0.97	1.41	2.07	3.15	0.49	0.80	0.53	0.79	0.87	1.29

(1) Actual toll rates.

(2) Assumed opening date of the proposed interchanges.

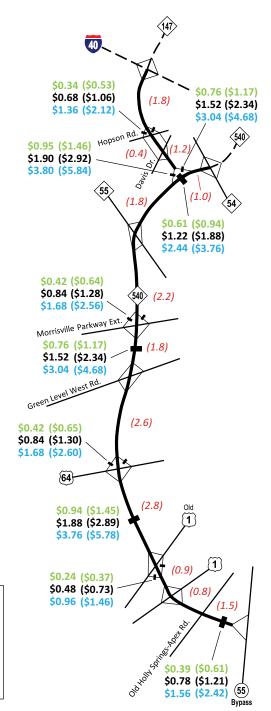
Class 2 tolls are two times the Class 1 tolls.
Class 3 tolls are four times the Class 1 tolls. Electronic rates are 65 per cent of video rates.





<u>2016</u> <u>2030</u>

\$0.00 (\$0.00) - Class 1 \$0.00 (\$0.00) - Class 2 \$0.00 (\$0.00) - Class 3

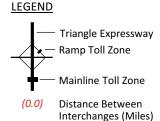


N	1aximun	n Electronic T	oll in 2016	i		
(:	Via Trian 17.8 Mile	Via NC 540 (15.4 Mile Through Tri				
Vehicle Class	Toll T	oll Per Mile	Toll T	oll Per Mile		
Class 1	\$3.04	\$0.171	\$2.70	\$0.175		
Class 2	\$6.08	\$0.342	\$5.40	\$0.351		
Class 3	\$12.16	\$0.683	\$10.80	\$0.701		



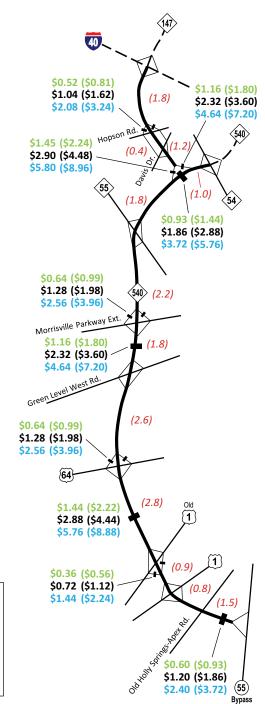
### ETC TOLL RATE ASSUMPTIONS MORRISVILLE PARKWAY INTERCHANGE





2016 2030

\$0.00 (\$0.00) - Class 1 \$0.00 (\$0.00) - Class 2 \$0.00 (\$0.00) - Class 3



	Maxim	um Video Tol	l in 2016				
(		igle Parkway Through Trip)	Via NC 540 (15.4 Mile Through Tr				
Vehicle Class	Toll T	oll Per Mile	Toll T	oll Per Mile			
Class 1 Class 2 Class 3	\$4.65 \$9.30 \$18.60	\$0.261 \$0.522 \$1.045	\$4.13 \$8.26 \$16.52	\$0.268 \$0.536 \$1.073			



### VIDEO TOLL RATE ASSUMPTIONS MORRISVILLE PARKWAY INTERCHANGE



Table 7
Estimated Annual Toll Transactions
Triangle Expressway - Morrisville Interchange Scenario
(Thousands)

Fiscal   Percent   Piscal   Percent   Piscal   Percent   Piscal   Percent   Piscal   Percent   Piscal   Percent   Piscal   Piscal   Piscal   Percent   Piscal   Pis											All Cla	sses
2013   11,420   3,921   15,340   353   41   394   197   22   219   15,953   75,076	Fiscal		Class 1			Class 2			Class 3		Total	Percent
2014   18,405   5,909   24,314   675   73   748   376   41   417   25,479   76,4%	Year	ETC	Video	Total	ETC	Video	Total	ETC	Video	Total	Transactions	ETC
2015   24,352   7,232   31,584   903   90   993   504   50   554   33,131   77.7%   2016 (2)   29,699   8,332   38,031   908   84   992   507   47   554   39,577   78.6%   2017   32,756   8,513   41,269   985   83   1,068   549   46   595   42,932   79.9%   2018   35,915   8,643   44,558   1,062   80   1,142   592   44   636   44,536   81.1%   2019   39,352   8,770   48,122   1,144   77   1,221   638   43   681   50,024   82.2%   2020   43,079   8,892   51,971   1,231   74   1,305   686   42   728   54,004   83.3%   2021   47,170   8,979   56,149   1,305   75   1,380   728   42   770   58,299   84.4%   2022   51,675   9032   60,707   1,363   78   1,441   760   44   804   62,952   85.5%   2023   56,630   9,088   65,718   1,424   82   1,506   794   46   840   68,064   86.5%   2024   62,081   9,145   71,226   1,488   86   1,574   830   48   878   73,678   87.4%   2025   68,079   9,204   77,283   1,557   90   1,647   868   50   918   79,848   83.3%   2026   71,856   9,239   81,095   1,600   93   1,693   892   52   944   83,732   88.8%   2027   73,135   9,249   82,384   1,615   94   1,709   900   52   952   85,045   89.0%   2028   74,437   9,259   83,696   1,630   95   1,725   909   53   962   86,383   89.1%   2029   75,764   9,270   85,034   1,661   96   1,757   926   54   980   89,131   89.4%   2030   77,114   9,280   86,394   1,661   96   1,757   926   54   980   89,131   89.4%   2030   77,114   9,285   90,632   1,741   97   1,809   938   54   992   90,552   86,600   2032   79,908   9,285   89,193   1,712   97   1,809   944   1,008   92,010   89.7%   2033   81,347   9,285   90,632   1,741   97   1,809   946   54   1,004   90,900   99,447   90.4%   2038   88,281   9,519   9,0632   1,741   97   1,809   948   54   1,004   90,900   99,447   90.4%   2038   88,281   9,519   9,0632   1,741   97   1,809   946   54   1,004   90,900   99,447   90.4%   2038   88,281   9,519   9,0632   1,741   97   1,809   946   54   1,004   90,900   99,447   90.4%   2038   89,666   9,614   99,220   1,913   100   2,013   1,057   56   1,123	2013 (1)	11,420	3,921	15,340	353	41	394	197	22	219	15,953	75.0%
2016 (2) 29,699	2014	18,405	5,909	24,314	675	73	748	376	41	417	25,479	76.4%
2017   32,756   8,513   41,269   985   83   1,068   549   46   595   42,932   79,9%	2015	24,352	7,232	31,584	903	90	993	504	50	554	33,131	77.7%
2018   35,915   8,643   44,558   1,062   80   1,142   592   44   636   46,336   81.1%	2016 (2)	29,699	8,332	38,031	908	84	992	507	47	554	39,577	78.6%
2019   39,352   8,770   48,122   1,144   77   1,221   638   43   681   50,024   82.2%   2020   43,079   8,892   51,971   1,231   74   1,305   686   42   728   54,004   83.3%   2021   47,170   8,979   56,149   1,305   75   1,380   728   42   770   58,299   84.4%   2022   51,675   9,032   60,070   1,363   78   1,441   760   44   804   62,952   85,5%   2023   56,630   9,088   65,718   1,424   82   1,506   794   46   840   68,064   86,594   2024   62,081   9,145   71,226   1,488   86   1,574   830   48   878   73,678   87.4%   2025   68,079   9,204   77,283   1,557   90   1,647   888   50   918   79,848   88.3%   2026   71,856   9,239   81,095   1,600   93   1,693   892   52   944   83,732   88.8%   2027   73,135   9,249   82,384   1,615   94   1,709   900   52   952   85,045   89.0%   2028   74,437   9,259   83,696   1,630   95   1,725   909   53   962   86,383   89.1%   2029   75,764   9,270   85,034   1,661   96   1,757   926   54   980   89,111   89.4%   2031   78,495   9,285   87,780   1,683   97   1,780   938   54   992   90,552   89.6%   2032   79,908   9,285   89,193   1,712   97   1,809   954   1,005   93,495   89.9%   2033   81,347   9,285   90,632   1,741   97   1,838   971   54   1,025   93,495   89.9%   2034   82,811   9,285   90,632   1,741   97   1,838   971   54   1,025   93,495   89.9%   2035   84,302   9,285   93,587   1,800   97   1,867   987   54   1,041   95,004   90.1%   2036   85,691   9,331   95,022   1,829   97   1,867   987   54   1,041   95,004   90.1%   2037   86,977   9,425   96,402   1,857   98   1,955   1,055   55   1,099   99,447   90.4%   2039   89,606   9,614   99,200   1,913   100   2,013   1,067   56   1,123   102,356   90.5%   2040   90,905   9,710   100,660   1,941   101   2,042   1,083   57   1,140   103,842   90.5%   2044   94,875   10,105   104,980   2,025   105   2,130   1,125   59   1,188   103,289   90.5%   2044   94,875   10,105   104,980   2,055   105   2,130   1,125   59   1,188   103,289   90.5%   2046   96,782   10,308   10,005   106,942   2,005   107   2,152   1,1	2017	32,756	8,513	41,269	985	83	1,068	549	46	595	42,932	79.9%
2020         43,079         8,892         51,971         1,231         74         1,305         686         42         728         54,004         83.3%           2021         47,170         8,979         56,149         1,305         75         1,380         728         42         770         58,299         84.4%           2022         51,675         9,032         60,707         1,363         78         1,441         760         44         804         62,952         85.5%           2023         56,630         9,088         65,718         1,424         82         1,506         794         46         840         68,064         86.5%           2024         62,081         9,145         71,226         1,488         86         1,574         830         48         878         73,678         87.4%           2026         71,856         9,229         81,095         1,600         93         1,633         892         52         944         83,732         88.8%           2026         71,856         9,239         81,095         1,600         93         1,693         892         52         944         83,732         88.8%           2028	2018	35,915	8,643	44,558	1,062	80	1,142	592	44	636	46,336	81.1%
2021         47,170         8,979         56,149         1,305         75         1,380         728         42         770         58,299         84.4%           2022         51,675         9,032         60,707         1,363         78         1,441         760         44         804         62,952         85,5%           2023         56,630         9,088         65,718         1,424         82         1,506         794         46         840         68,064         86,5%           2024         62,081         9,145         71,226         1,488         86         1,574         830         48         878         73,678         87.4%           2025         68,079         9,204         77,283         1,557         90         1,647         868         50         918         79,488         88.3%           2026         71,856         9,239         81,095         1,600         93         1,693         892         52         944         83,732         88.83%           2027         73,135         9,249         82,384         1,615         94         1,709         900         53         962         86,383         89.1%           2029	2019	39,352	8,770	48,122	1,144	77	1,221	638	43	681	50,024	82.2%
2022         51,675         9,032         60,707         1,363         78         1,441         760         44         804         62,952         85.5%           2023         56,630         9,088         65,718         1,424         82         1,506         794         46         840         68,064         86.5%           2024         62,081         9,145         71,226         1,488         86         1,574         833         48         878         73,678         87.4%           2025         68,079         9,204         77,283         1,557         90         1,647         868         50         918         79,848         88.3%           2026         73,856         9,239         81,095         1,600         93         1,693         892         52         944         83,732         88.8%           2027         73,135         9,249         82,384         1,615         94         1,709         900         52         952         85,045         80,383           2028         74,437         9,280         86,034         1,661         96         1,757         926         54         980         89,131         89.3%           2031	2020	43,079	8,892	51,971	1,231	74	1,305	686	42	728	54,004	83.3%
2023         56,630         9,088         65,718         1,424         82         1,506         794         46         840         68,064         86.5%           2024         62,081         9,145         71,226         1,488         86         1,574         830         48         878         73,678         87.4%           2025         68,079         9,204         77,283         1,557         90         1,647         868         50         918         79,678         87.4%           2026         71,856         9,239         81,095         1,600         93         1,693         892         52         944         83,732         88.8%           2027         73,135         9,249         82,384         1,615         94         1,709         900         52         952         85,045         89.0%           2028         74,437         9,259         83,696         1,630         95         1,725         909         53         962         86,383         89.1%           2030         77,114         9,280         86,394         1,661         96         1,757         926         54         980         89,131         89.3%           2032	2021	47,170	8,979	56,149	1,305	75	1,380	728	42	770	58,299	84.4%
2024         62,081         9,145         71,226         1,488         86         1,574         830         48         878         73,678         87.4%           2025         68,079         9,204         77,283         1,557         90         1,647         868         50         918         79,848         88.3%           2026         71,856         9,239         81,095         1,600         93         1,693         892         52         944         83,732         88.8%           2027         73,135         9,249         82,384         1,615         94         1,709         900         52         952         85,045         89.0%           2028         74,437         9,259         83,696         1,630         95         1,725         909         53         962         86,383         89.1%           2030         77,114         9,280         86,394         1,661         96         1,757         926         54         980         89,131         89.3%           2031         78,495         9,285         87,780         1,683         97         1,780         938         54         992         90,552         89.6%           2032	2022	51,675	9,032	60,707	1,363	78	1,441	760	44	804	62,952	85.5%
2025         68,079         9,204         77,283         1,557         90         1,647         868         50         918         79,848         88.3%           2026         71,856         9,239         81,095         1,600         93         1,693         892         52         944         83,732         88.8%           2027         73,135         9,249         82,384         1,615         94         1,709         900         52         952         85,045         89.0%           2028         74,437         9,259         83,696         1,630         95         1,725         909         53         962         86,383         89.1%           2029         75,764         9,270         85,034         1,661         96         1,757         926         54         980         89,131         89.3%           2031         78,495         9,285         89,193         1,712         97         1,809         954         54         1,008         99.552         89,6%           2032         79,908         9,285         89,193         1,712         97         1,809         954         54         1,008         99.552         89,6%           2033	2023	56,630	9,088	65,718	1,424	82	1,506	794	46	840	68,064	86.5%
2026         71,856         9,239         81,095         1,600         93         1,693         892         52         944         83,732         88.8%           2027         73,135         9,249         82,384         1,615         94         1,709         900         52         952         85,045         89.0%           2028         74,437         9,259         83,696         1,630         95         1,725         909         53         962         86,383         89.1%           2029         75,764         9,270         86,394         1,661         96         1,757         926         54         980         89,131         89.4%           2031         78,495         9,285         87,780         1,683         97         1,780         938         54         992         90,552         89.6%           2032         79,908         9,285         89,193         1,712         97         1,809         954         54         1,008         92,010         89.7%           2033         81,347         9,285         99,193         1,712         97         1,809         954         54         1,008         92,010         89.7%           2034	2024	62,081	9,145	71,226	1,488	86	1,574	830	48	878	73,678	87.4%
2027         73,135         9,249         82,384         1,615         94         1,709         900         52         952         85,045         89.0%           2028         74,437         9,259         83,696         1,630         95         1,725         909         53         962         86,333         89.1%           2029         75,764         9,270         85,034         1,645         95         1,740         918         53         971         87,745         89.3%           2030         77,114         9,280         86,394         1,661         96         1,757         926         54         980         89,131         89.4%           2031         78,495         9,285         87,780         1,683         97         1,780         938         54         992         90,552         89.6%           2032         79,908         9,285         89,193         1,712         97         1,809         954         54         1,008         92,010         89.7%           2033         81,347         9,285         90,632         1,741         97         1,887         987         54         1,041         95,004         90.1%           2035	2025	68,079	9,204	77,283	1,557	90	1,647	868	50	918	79,848	88.3%
2028         74,437         9,259         83,696         1,630         95         1,725         909         53         962         86,383         89.1%           2029         75,764         9,270         85,034         1,645         95         1,740         918         53         971         87,745         89,3%           2030         77,114         9,280         86,394         1,661         96         1,757         926         54         980         89,131         89,4%           2031         78,495         9,285         87,780         1,683         97         1,780         938         54         992         90,552         89,6%           2032         79,908         9,285         89,193         1,712         97         1,809         954         54         1,008         92,010         89,7%           2033         81,347         9,285         90,632         1,741         97         1,838         971         54         1,041         95,001         89,7%           2034         82,811         9,285         93,587         1,800         97         1,867         987         54         1,041         95,004         90,5%           2036 <td>2026</td> <td>71,856</td> <td>9,239</td> <td>81,095</td> <td>1,600</td> <td>93</td> <td>1,693</td> <td>892</td> <td>52</td> <td>944</td> <td>83,732</td> <td>88.8%</td>	2026	71,856	9,239	81,095	1,600	93	1,693	892	52	944	83,732	88.8%
2029         75,764         9,270         85,034         1,645         95         1,740         918         53         971         87,745         89.3%           2030         77,114         9,280         86,394         1,661         96         1,757         926         54         980         89,131         89.4%           2031         78,495         9,285         87,780         1,683         97         1,780         938         54         992         90,552         89.6%           2032         79,908         9,285         89,193         1,712         97         1,809         954         54         1,008         92,010         89,7%           2033         81,347         9,285         90,632         1,741         97         1,838         971         54         1,025         93,495         89,9%           2034         82,811         9,285         93,587         1,800         97         1,867         987         54         1,041         95,004         90.1%           2035         84,302         9,285         93,587         1,800         97         1,897         1,004         54         1,058         96,542         90.2%           2037	2027	73,135	9,249	82,384	1,615	94	1,709	900	52	952	85,045	89.0%
2030         77,114         9,280         86,394         1,661         96         1,757         926         54         980         89,131         89.4%           2031         78,495         9,285         87,780         1,683         97         1,780         938         54         992         90,552         89.6%           2032         79,908         9,285         89,193         1,712         97         1,809         954         54         1,008         92,010         89.7%           2033         81,347         9,285         90,632         1,741         97         1,838         971         54         1,025         93,495         89.9%           2034         82,811         9,285         92,096         1,770         97         1,867         987         54         1,041         95,004         95,004         90.9%           2035         84,302         9,285         93,587         1,800         97         1,897         1,004         54         1,058         96,542         90.2%           2036         85,691         9,331         95,022         1,829         97         1,926         1,020         54         1,074         98,022         90.3% <td>2028</td> <td>74,437</td> <td>9,259</td> <td>83,696</td> <td>1,630</td> <td>95</td> <td>1,725</td> <td>909</td> <td>53</td> <td>962</td> <td>86,383</td> <td>89.1%</td>	2028	74,437	9,259	83,696	1,630	95	1,725	909	53	962	86,383	89.1%
2031         78,495         9,285         87,780         1,683         97         1,780         938         54         992         90,552         89.6%           2032         79,908         9,285         89,193         1,712         97         1,809         954         54         1,008         92,010         89.7%           2033         81,347         9,285         90,632         1,741         97         1,838         971         54         1,025         93,495         89.9%           2034         82,811         9,285         92,096         1,770         97         1,867         987         54         1,041         95,004         90.1%           2035         84,302         9,285         93,587         1,800         97         1,897         1,004         54         1,058         96,542         90.2%           2036         85,691         9,331         95,022         1,829         97         1,926         1,020         54         1,074         98.022         90.3%           2037         86,977         9,425         96,402         1,857         98         1,955         1,035         55         1,090         99,447         90.4%	2029	75,764	9,270	85,034	1,645	95	1,740	918	53	971	87,745	89.3%
2032         79,908         9,285         89,193         1,712         97         1,809         954         54         1,008         92,010         89.7%           2033         81,347         9,285         90,632         1,741         97         1,838         971         54         1,025         93,495         89.9%           2034         82,811         9,285         92,096         1,770         97         1,867         987         54         1,041         95,004         90.1%           2035         84,302         9,285         93,587         1,800         97         1,887         1,004         54         1,058         96,542         90.2%           2036         85,691         9,331         95,022         1,829         97         1,926         1,020         54         1,074         98,022         90.3%           2037         86,977         9,425         96,402         1,857         98         1,955         1,035         55         1,090         99,447         90.4%           2038         88,281         9,519         97,800         1,884         99         1,983         1,051         55         1,106         100,889         90.4%	2030	77,114	9,280	86,394	1,661	96	1,757	926	54	980	89,131	89.4%
2033         81,347         9,285         90,632         1,741         97         1,838         971         54         1,025         93,495         89.9%           2034         82,811         9,285         92,096         1,770         97         1,867         987         54         1,041         95,004         90.1%           2035         84,302         9,285         93,587         1,800         97         1,897         1,004         54         1,058         96,542         90.2%           2036         85,691         9,331         95,022         1,829         97         1,926         1,020         54         1,074         98,022         90.3%           2037         86,977         9,425         96,402         1,857         98         1,955         1,035         55         1,090         99,447         90.4%           2038         88,281         9,519         97,800         1,884         99         1,983         1,051         55         1,106         100,889         90.4%           2039         89,606         9,614         99,220         1,913         100         2,013         1,067         56         1,123         102,356         90.5%	2031	78,495	9,285	87,780	1,683	97	1,780	938	54	992	90,552	89.6%
2034         82,811         9,285         92,096         1,770         97         1,867         987         54         1,041         95,004         90.1%           2035         84,302         9,285         93,587         1,800         97         1,897         1,004         54         1,058         96,542         90.2%           2036         85,691         9,331         95,022         1,829         97         1,926         1,020         54         1,074         98,022         90.3%           2037         86,977         9,425         96,402         1,857         98         1,955         1,035         55         1,090         99,447         90.4%           2038         88,281         9,519         97,800         1,884         99         1,983         1,051         55         1,106         100,889         90.4%           2039         89,606         9,614         99,220         1,913         100         2,013         1,067         56         1,123         102,356         90.5%           2040         90,950         9,710         100,660         1,941         101         2,042         1,083         57         1,140         103,842         90.5%	2032	79,908	9,285	89,193	1,712	97	1,809	954	54	1,008	92,010	89.7%
2035         84,302         9,285         93,587         1,800         97         1,897         1,004         54         1,058         96,542         90.2%           2036         85,691         9,331         95,022         1,829         97         1,926         1,020         54         1,074         98,022         90.3%           2037         86,977         9,425         96,402         1,857         98         1,955         1,035         55         1,090         99,447         90.4%           2038         88,281         9,519         97,800         1,884         99         1,983         1,051         55         1,106         100,889         90.4%           2039         89,606         9,614         99,220         1,913         100         2,013         1,067         56         1,123         102,356         90.5%           2040         90,950         9,710         100,660         1,941         101         2,042         1,083         57         1,140         103,842         90.5%           2041         92,085         9,807         101,892         1,966         102         2,068         1,096         57         1,153         105,113         90.5% <td>2033</td> <td>81,347</td> <td>9,285</td> <td>90,632</td> <td>1,741</td> <td>97</td> <td>1,838</td> <td>971</td> <td>54</td> <td>1,025</td> <td>93,495</td> <td>89.9%</td>	2033	81,347	9,285	90,632	1,741	97	1,838	971	54	1,025	93,495	89.9%
2036         85,691         9,331         95,022         1,829         97         1,926         1,020         54         1,074         98,022         90.3%           2037         86,977         9,425         96,402         1,857         98         1,955         1,035         55         1,090         99,447         90.4%           2038         88,281         9,519         97,800         1,884         99         1,983         1,051         55         1,106         100,889         90.4%           2039         89,606         9,614         99,220         1,913         100         2,013         1,067         56         1,123         102,356         90.5%           2040         90,950         9,710         100,660         1,941         101         2,042         1,083         57         1,140         103,842         90.5%           2041         92,085         9,807         101,892         1,966         102         2,068         1,096         57         1,153         105,113         90.5%           2042         93,006         9,905         102,911         1,985         103         2,088         1,107         58         1,165         106,164         90.5%     <	2034	82,811	9,285	92,096	1,770	97	1,867	987	54	1,041	95,004	90.1%
2037         86,977         9,425         96,402         1,857         98         1,955         1,035         55         1,090         99,447         90.4%           2038         88,281         9,519         97,800         1,884         99         1,983         1,051         55         1,106         100,889         90.4%           2039         89,606         9,614         99,220         1,913         100         2,013         1,067         56         1,123         102,356         90.5%           2040         90,950         9,710         100,660         1,941         101         2,042         1,083         57         1,140         103,842         90.5%           2041         92,085         9,807         101,892         1,966         102         2,068         1,096         57         1,153         105,113         90.5%           2042         93,006         9,905         102,911         1,985         103         2,088         1,107         58         1,165         106,164         90.5%           2043         93,936         10,005         103,941         2,005         104         2,109         1,118         58         1,165         106,164         90.5%	2035	84,302	9,285	93,587	1,800	97	1,897	1,004	54	1,058	96,542	90.2%
2038         88,281         9,519         97,800         1,884         99         1,983         1,051         55         1,106         100,889         90.4%           2039         89,606         9,614         99,220         1,913         100         2,013         1,067         56         1,123         102,356         90.5%           2040         90,950         9,710         100,660         1,941         101         2,042         1,083         57         1,140         103,842         90.5%           2041         92,085         9,807         101,892         1,966         102         2,068         1,096         57         1,153         105,113         90.5%           2042         93,006         9,905         102,911         1,985         103         2,088         1,107         58         1,165         106,164         90.5%           2043         93,936         10,005         103,941         2,005         104         2,109         1,118         58         1,176         107,226         90.5%           2044         94,875         10,105         104,980         2,025         105         2,130         1,129         59         1,188         108,298         90.5% <td>2036</td> <td>85,691</td> <td>9,331</td> <td>95,022</td> <td>1,829</td> <td>97</td> <td>1,926</td> <td>1,020</td> <td>54</td> <td>1,074</td> <td>98,022</td> <td>90.3%</td>	2036	85,691	9,331	95,022	1,829	97	1,926	1,020	54	1,074	98,022	90.3%
2039         89,606         9,614         99,220         1,913         100         2,013         1,067         56         1,123         102,356         90.5%           2040         90,950         9,710         100,660         1,941         101         2,042         1,083         57         1,140         103,842         90.5%           2041         92,085         9,807         101,892         1,966         102         2,068         1,096         57         1,153         105,113         90.5%           2042         93,006         9,905         102,911         1,985         103         2,088         1,107         58         1,165         106,164         90.5%           2043         93,936         10,005         103,941         2,005         104         2,109         1,118         58         1,176         107,226         90.5%           2044         94,875         10,105         104,980         2,025         105         2,130         1,129         59         1,188         108,298         90.5%           2045         95,824         10,206         106,030         2,045         107         2,152         1,141         59         1,200         109,382         90.5%	2037	86,977	9,425	96,402	1,857	98	1,955	1,035	55	1,090	99,447	90.4%
2040         90,950         9,710         100,660         1,941         101         2,042         1,083         57         1,140         103,842         90.5%           2041         92,085         9,807         101,892         1,966         102         2,068         1,096         57         1,153         105,113         90.5%           2042         93,006         9,905         102,911         1,985         103         2,088         1,107         58         1,165         106,164         90.5%           2043         93,936         10,005         103,941         2,005         104         2,109         1,118         58         1,176         107,226         90.5%           2044         94,875         10,105         104,980         2,025         105         2,130         1,129         59         1,188         108,298         90.5%           2045         95,824         10,206         106,030         2,045         107         2,152         1,141         59         1,200         109,382         90.5%           2046         96,782         10,308         107,090         2,066         108         2,174         1,152         60         1,212         110,476         90.	2038	88,281	9,519	97,800	1,884	99	1,983	1,051	55	1,106	100,889	90.4%
2041         92,085         9,807         101,892         1,966         102         2,068         1,096         57         1,153         105,113         90.5%           2042         93,006         9,905         102,911         1,985         103         2,088         1,107         58         1,165         106,164         90.5%           2043         93,936         10,005         103,941         2,005         104         2,109         1,118         58         1,176         107,226         90.5%           2044         94,875         10,105         104,980         2,025         105         2,130         1,129         59         1,188         108,298         90.5%           2045         95,824         10,206         106,030         2,045         107         2,152         1,141         59         1,200         109,382         90.5%           2046         96,782         10,308         107,090         2,066         108         2,174         1,152         60         1,212         110,476         90.5%           2047         97,750         10,411         108,161         2,086         109         2,195         1,163         61         1,224         111,580         90	2039	89,606	9,614	99,220	1,913	100	2,013	1,067	56	1,123	102,356	90.5%
2042         93,006         9,905         102,911         1,985         103         2,088         1,107         58         1,165         106,164         90.5%           2043         93,936         10,005         103,941         2,005         104         2,109         1,118         58         1,176         107,226         90.5%           2044         94,875         10,105         104,980         2,025         105         2,130         1,129         59         1,188         108,298         90.5%           2045         95,824         10,206         106,030         2,045         107         2,152         1,141         59         1,200         109,382         90.5%           2046         96,782         10,308         107,090         2,066         108         2,174         1,152         60         1,212         110,476         90.5%           2047         97,750         10,411         108,161         2,086         109         2,195         1,163         61         1,224         111,580         90.5%           2048         98,727         10,515         109,242         2,107         110         2,217         1,175         61         1,236         112,695         9	2040	90,950	9,710	100,660	1,941	101	2,042	1,083	57	1,140	103,842	90.5%
2043         93,936         10,005         103,941         2,005         104         2,109         1,118         58         1,176         107,226         90.5%           2044         94,875         10,105         104,980         2,025         105         2,130         1,129         59         1,188         108,298         90.5%           2045         95,824         10,206         106,030         2,045         107         2,152         1,141         59         1,200         109,382         90.5%           2046         96,782         10,308         107,090         2,066         108         2,174         1,152         60         1,212         110,476         90.5%           2047         97,750         10,411         108,161         2,086         109         2,195         1,163         61         1,224         111,580         90.5%           2048         98,727         10,515         109,242         2,107         110         2,217         1,175         61         1,236         112,695         90.5%           2049         99,715         10,620         110,335         2,128         111         2,239         1,187         62         1,249         113,823	2041	92,085	9,807	101,892	1,966	102	2,068	1,096	57	1,153	105,113	90.5%
2044         94,875         10,105         104,980         2,025         105         2,130         1,129         59         1,188         108,298         90.5%           2045         95,824         10,206         106,030         2,045         107         2,152         1,141         59         1,200         109,382         90.5%           2046         96,782         10,308         107,090         2,066         108         2,174         1,152         60         1,212         110,476         90.5%           2047         97,750         10,411         108,161         2,086         109         2,195         1,163         61         1,224         111,580         90.5%           2048         98,727         10,515         109,242         2,107         110         2,217         1,175         61         1,236         112,695         90.5%           2049         99,715         10,620         110,335         2,128         111         2,239         1,187         62         1,249         113,823         90.5%           2050         100,712         10,726         111,438         2,150         112         2,262         1,199         62         1,261         114,961 <td< td=""><td>2042</td><td>93,006</td><td>9,905</td><td>102,911</td><td>1,985</td><td>103</td><td>2,088</td><td>1,107</td><td>58</td><td>1,165</td><td>106,164</td><td>90.5%</td></td<>	2042	93,006	9,905	102,911	1,985	103	2,088	1,107	58	1,165	106,164	90.5%
2045         95,824         10,206         106,030         2,045         107         2,152         1,141         59         1,200         109,382         90.5%           2046         96,782         10,308         107,090         2,066         108         2,174         1,152         60         1,212         110,476         90.5%           2047         97,750         10,411         108,161         2,086         109         2,195         1,163         61         1,224         111,580         90.5%           2048         98,727         10,515         109,242         2,107         110         2,217         1,175         61         1,236         112,695         90.5%           2049         99,715         10,620         110,335         2,128         111         2,239         1,187         62         1,249         113,823         90.5%           2050         100,712         10,726         111,438         2,150         112         2,262         1,199         62         1,261         114,961         90.5%	2043	93,936	10,005	103,941	2,005	104	2,109	1,118	58	1,176	107,226	90.5%
2046     96,782     10,308     107,090     2,066     108     2,174     1,152     60     1,212     110,476     90.5%       2047     97,750     10,411     108,161     2,086     109     2,195     1,163     61     1,224     111,580     90.5%       2048     98,727     10,515     109,242     2,107     110     2,217     1,175     61     1,236     112,695     90.5%       2049     99,715     10,620     110,335     2,128     111     2,239     1,187     62     1,249     113,823     90.5%       2050     100,712     10,726     111,438     2,150     112     2,262     1,199     62     1,261     114,961     90.5%	2044	94,875	10,105	104,980	2,025	105	2,130	1,129	59	1,188	108,298	90.5%
2046     96,782     10,308     107,090     2,066     108     2,174     1,152     60     1,212     110,476     90.5%       2047     97,750     10,411     108,161     2,086     109     2,195     1,163     61     1,224     111,580     90.5%       2048     98,727     10,515     109,242     2,107     110     2,217     1,175     61     1,236     112,695     90.5%       2049     99,715     10,620     110,335     2,128     111     2,239     1,187     62     1,249     113,823     90.5%       2050     100,712     10,726     111,438     2,150     112     2,262     1,199     62     1,261     114,961     90.5%	2045	95,824	10,206	106,030	2,045	107	2,152	1,141	59	1,200	109,382	90.5%
2047     97,750     10,411     108,161     2,086     109     2,195     1,163     61     1,224     111,580     90.5%       2048     98,727     10,515     109,242     2,107     110     2,217     1,175     61     1,236     112,695     90.5%       2049     99,715     10,620     110,335     2,128     111     2,239     1,187     62     1,249     113,823     90.5%       2050     100,712     10,726     111,438     2,150     112     2,262     1,199     62     1,261     114,961     90.5%	2046			107,090		108			60			90.5%
2048     98,727     10,515     109,242     2,107     110     2,217     1,175     61     1,236     112,695     90.5%       2049     99,715     10,620     110,335     2,128     111     2,239     1,187     62     1,249     113,823     90.5%       2050     100,712     10,726     111,438     2,150     112     2,262     1,199     62     1,261     114,961     90.5%	2047			108,161					61			90.5%
2049     99,715     10,620     110,335     2,128     111     2,239     1,187     62     1,249     113,823     90.5%       2050     100,712     10,726     111,438     2,150     112     2,262     1,199     62     1,261     114,961     90.5%												
2050 100,712 10,726 111,438 2,150 112 2,262 1,199 62 1,261 114,961 90.5%		,	,				,	,			,	
		,	,									
			,									

<sup>(1)</sup> Full project open January 1, 2013.

Note: Forecasts include an assumed ramp-up to full traffic volumes. Ramp-up is assumed to occur over the first three years of operation. The assumed ramp-up is applied by each phase or interchange, reflecting the opening date of each toll zone.

<sup>(2)</sup> Morrisville Interchange is assumed to open on January 1, 2016.



Table 8 Estimated Annual Gross and Adjusted Toll Revenue Triangle Expressway - Morrisville Interchange Scenario (Thousands of Dollars)

												All Classes			
															Estimated
														Adjusted	Percent
Fiscal		Class 1			Class	2		-		ss 3		Total	Percent	Gross	Revenue
Year	ETC	Video	Total	ETC	Vide		Total	ETC	Vid	deo	Total	Revenue	ETC	Revenue (3)	Leakage (4)
2013 (1)	\$ 6,502	\$ 3,332	\$ 9,834	\$ 435			\$ 508	\$ 482	\$	81	\$ 563	\$ 10,905	68.0%	\$ 10,218	(6.3) %
2014	10,830	5,221	16,051	850	1	37	987	946		152	1,098	18,136	69.6%	17,012	(6.2)
2015	15,021	6,726	21,747	1,198	1	79	1,377	1,333		200	1,533	24,657	71.2%	22,906	(7.1)
2016 (2)	19,128	8,191	27,319	1,143	1	60	1,303	1,272		178	1,450	30,072	71.6%	28,117	(6.5)
2017	21,867	8,693	30,560	1,283	1	61	1,444	1,431		180	1,611	33,615	73.1%	31,531	(6.2)
2018	24,809	9,134	33,943	1,434	1	62	1,596	1,595		181	1,776	37,315	74.6%	35,151	(5.8)
2019	28,154	9,610	37,764	1,602	1	63	1,765	1,783		182	1,965	41,494	76.0%	39,212	(5.5)
2020	32,067	10,095	42,162	1,785		64	1,949	1,988		182	2,170	46,281	77.4%	43,921	(5.1)
2021	36,529	10,542	47,071	1,957		70	2,127	2,181		190	2,371	51,569	78.9%	49,094	(4.8)
2022	41,417	10,960	52,377	2,116	1	84	2,300	2,356		205	2,561	57,238	80.2%	54,491	(4.8)
2023	46,790	11,375	58,165	2,284	1	98	2,482	2,544		221	2,765	63,412	81.4%	60,749	(4.2)
2024	52,993	11,827	64,820	2,470		14	2,684	2,750		239	2,989	70,493	82.6%	67,744	(3.9)
2025	60,099	12,299	72,398	2,673		31	2,904	2,976		258	3,234	78,536	83.7%	75,709	(3.6)
2026	65,398	12,724	78,122	2,834	2	44	3,078	3,154		273	3,427	84,627	84.4%	81,750	(3.4)
2027	68,670	13,131	81,801	2,947	2	54	3,201	3,280		283	3,563	88,565	84.6%	85,642	(3.3)
2028	71,965	13,545	85,510	3,065	2	63	3,328	3,413		294	3,707	92,545	84.8%	89,584	(3.2)
2029	75,362	13,972	89,334	3,188	2	75	3,463	3,551		307	3,858	96,655	84.9%	93,659	(3.1)
2030	79,079	14,421	93,500	3,319	2	86	3,605	3,697		319	4,016	101,121	85.1%	98,087	(3.0)
2031	82,714	14,835	97,549	3,447	2	95	3,742	3,841		330	4,171	105,462	85.3%	102,404	(2.9)
2032	86,259	15,205	101,464	3,574	3	03	3,877	3,982		338	4,320	109,661	85.6%	106,481	(2.9)
2033	89,956	15,585	105,541	3,706	3	10	4,016	4,129		346	4,475	114,032	85.8%	110,725	(2.9)
2034	93,810	15,975	109,785	3,843	3	18	4,161	4,282		355	4,637	118,583	86.0%	115,263	(2.8)
2035	97,831	16,374	114,205	3,984	3	26	4,310	4,441		364	4,805	123,320	86.2%	119,867	(2.8)
2036	101,630	16,824	118,454	4,127	3	35	4,462	4,599		374	4,973	127,889	86.3%	124,308	(2.8)
2037	105,182	17,329	122,511	4,272	3	45	4,617	4,761		385	5,146	132,274	86.3%	128,570	(2.8)
2038	108,860	17,850	126,710	4,420	3	56	4,776	4,926		396	5,322	136,808	86.4%	132,977	(2.8)
2039	112,667	18,386	131,053	4,575	3	66	4,941	5,098		408	5,506	141,500	86.5%	137,538	(2.8)
2040	116,605	18,937	135,542	4,734	3	77	5,111	5,276		421	5,697	146,350	86.5%	142,252	(2.8)
2041	119,795	19,408	139,203	4,865	3	87	5,252	5,420		430	5,850	150,305	86.5%	146,096	(2.8)
2042	122,190	19,797	141,987	4,962	3	94	5,356	5,529		439	5,968	153,311	86.5%	149,018	(2.8)
2043	124,635	20,193	144,828	5,062	4	02	5,464	5,640		449	6,089	156,381	86.5%	152,002	(2.8)
2044	127,126	20,596	147,722	5,163	4	10	5,573	5,753		457	6,210	159,505	86.5%	155,039	(2.8)
2045	129,669	21,008	150,677	5,265	4	18	5,683	5,868		466	6,334	162,694	86.5%	158,139	(2.8)
2046	132,263	21,429	153,692	5,371	4	27	5,798	5,985		475	6,460	165,950	86.5%	161,303	(2.8)
2047	134,908	21,856	156,764	5,479	4	35	5,914	6,105		485	6,590	169,268	86.5%	164,528	(2.8)
2048	137,606	22,294	159,900	5,588	4	43	6,031	6,227		496	6,723	172,654	86.5%	167,820	(2.8)
2049	140,359	22,741	163,100	5,700	4	53	6,153	6,351		505	6,856	176,109	86.5%	171,178	(2.8)
2050	143,166	23,195	166,361	5,813	4	62	6,275	6,478		515	6,993	179,629	86.5%	174,599	(2.8)
2051	146,029	23,659	169,688	5,930	4	71	6,401	6,608		525	7,133	183,222	86.5%	178,092	(2.8)

<sup>(1)</sup> Full project open January 1, 2013.

(4) Percent reduction applied to the annual gross toll revenue to account for uncollected toll revenue (revenue leakage).

Note: Forecasts include an assumed ramp-up to full traffic volumes. Ramp-up is assumed to occur over the first three years of operation. The assumed ramp-up is applied by each phase or interchange, reflecting the opening date of each toll zone.

<sup>(2)</sup> Morrisville Interchange is assumed to open on January 1, 2013.

<sup>(3)</sup> Net of leakage, based on the CDM Smith 2009 Comprehensive Report.



Table 9

Comparison of Estimated Transactions and Toll Revenue To Base Case
Triangle Expressway - Morrisville Parkway Scenario

Estimated Annual Gross Transactions (thousands)						_	Estimated Annual Gross Toll Revenue (thousands)					
			Including	-				Ir	ncluding		-	
			Morrisville	Difference				M	orrisville	Difference		
Fiscal		Base	Parkway	in	Percent		Base	Р	arkway	in	Percent	
Year		Case	Interchange (2)	Transactions	Difference		Case	Inte	rchange (2)	Revenue	Difference	
2013	(1)	15,953	15,953		0.0%	\$	10,905	\$	10,905	\$ (0)	0.0%	
2014		25,479	25,479	-	0.0%		18,136		18,136	-	0.09	
2015		33,131	33,131	-	0.0%		24,657		24,657	-	0.09	
2016	(2)	38,728	39,577	849	2.2%		30,000		30,072	72	0.29	
2017		41,896	42,932	1,036	2.5%		33,498		33,615	117	0.39	
2018		45,037	46,336	1,299	2.9%		37,037		37,315	278	0.89	
2019		48,466	50,024	1,558	3.2%		41,059		41,494	435	1.19	
2020		52,212	54,004	1,792	3.4%		45,653		46,281	628	1.49	
2021		56,002	58,299	2,297	4.1%		50,462		51,569	1,107	2.29	
2022		59,844	62,952	3,108	5.2%		55,258		57,238	1,980	3.69	
2023		64,037	68,064	4,027	6.3%		60,406		63,412	3,006	5.0%	
2024		68,621	73,678	5,057	7.4%		66,274		70,493	4,219	6.4%	
2025		73,630	79,848	6,218	8.4%		72,848		78,536	5,688	7.8%	
2026		77,050	83,732	6,682	8.7%		78,272		84,627	6,355	8.19	
2027		78,706	85,045	6,339	8.1%		82,531		88,565	6,034	7.3%	
2028		80,462	86,383	5,921	7.4%		86,943		92,545	5,602	6.49	
2029		82,324	87,745	5,421	6.6%		91,609		96,655	5,046	5.5%	
2030		84,290	89,131	4,841	5.7%		96,733		101,121	4,388	4.5%	
2031		85,988	90,552	4,564	5.3%		101,375		105,462	4,087	4.09	
2032		87,376	92,010	4,634	5.3%		105,426		109,661	4,235	4.0%	
2033		88,789	93,495	4,706	5.3%		109,643		114,032	4,389	4.09	
2034		90,227	95,004	4,777	5.3%		114,032		118,583	4,551	4.09	
2035		91,690	96,542	4,852	5.3%		118,602		123,320	4,718	4.0%	
2036		93,099	98,022	4,923	5.3%		123,009		127,889	4,880	4.09	
2037		94,452	99,447	4,995	5.3%		127,234		132,274	5,040	4.09	
2038		95,823	100,889	5,066	5.3%		131,602		136,808	5,206	4.09	
2039		97,216	102,356	5,140	5.3%		136,123		141,500	5,377	4.09	
2040		98,631	103,842	5,211	5.3%		140,797		146,350	5,553	3.9%	
2041		99,838	105,113	5,275	5.3%		144,605		150,305	5,700	3.99	
2042		100,836	106,164	5,328	5.3%		147,499		153,311	5,812	3.9%	
2043		101,846	107,226	5,380	5.3%		150,449		156,381	5,932	3.9%	
2044		102,863	108,298	5,435	5.3%		153,457		159,505	6,048	3.99	
2045		103,892	109,382	5,490	5.3%		156,525		162,694	6,169	3.9%	
2046		104,930	110,476	5,546	5.3%		159,657		165,950	6,293	3.9%	
2047		105,980	111,580	5,600	5.3%		162,849		169,268	6,419	3.9%	
2048		107,040	112,695	5,655	5.3%		166,105		172,654	6,549	3.9%	
2049		108,110	113,823	5,713	5.3%		169,429		176,109	6,680	3.9%	
2050		109,192	114,961	5,769	5.3%		172,817		179,629	6,812	3.9%	
2051		110,283	116,110	5,827	5.3%		176,273		183,222	6,949	3.9%	

<sup>(1)</sup> Full project open January 1, 2013.

Note: Forecasts include an assumed ramp-up to full traffic volumes. Ramp-up is assumed to occur over the first three years of operation. The assumed ramp-up is applied by each phase or interchange, reflecting the opening date of each toll zone.

<sup>(2)</sup> Morrisville Interchange is assumed to open on January 1, 2016.



interchange will add approximately 849,000 additional transactions in FY 2016, which represents a 2.2 percent increase in toll transactions compared to the Base Case. In FY 2051 it is estimated that the Morrisville interchange will add approximately 5,827,000 transactions, which is a 5.3 percent increase in toll transactions compared to the Base Case.

The impact of the Morrisville interchange on annual gross toll revenue is also shown in Table 9. In FY 2016, an additional \$72,000 is forecast to be generated due to the Morrisville interchange, which is an additional 0.2 percent increase in toll revenue compared to the Base Case. In FY 2051, it is estimated that \$6,949,000 in additional toll revenue will be generated compared to the Base Case. This represents a 3.9 percent impact in toll revenue.

The percent impact on gross toll revenue is less than the impact on toll transactions in any given fiscal year. This is because the additional trips that are generated by the new interchange have a lower toll than the average toll for the entire system, the Base Case.

#### Apex Interchange Scenario

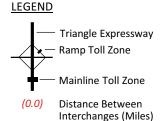
Table 6 shows the toll rate schedule for Class 1, ETC vehicles for all toll locations on the Triangle Expressway and the proposed interchanges from 2012 through 2051. Figure 10 portrays the toll locations for the Apex interchange scenario, and the ETC toll rates in 2016 and 2030 for Classes 1, 2, and 3. Figure 11 shows the same information for video toll rates.

Estimated annual transactions are presented in Table 10, assuming the presence of the full-access Apex interchange beginning in January 2016. Total estimated transactions increase from 15,953,000 in FY 2013 to 121,000,000 in FY 2051. This represents an average annual increase in transactions of about 5.5 percent per year. The percent ETC is estimated to increase from 75.0 % in FY 2013 to 90.7 % in FY 2051. Ramp-up is included in transaction totals for the initial three years of the facility.

Gross toll revenue estimates, as shown in Table 11, increase from \$10,905,000 in FY 2013 to \$185,986,000 in FY 2051. This is a 7.8 percent average annual increase in gross toll revenue. The adjusted annual toll revenue is estimated to increase from \$10,218,000 in FY 2013 to \$180,778,000 in FY 2051. The estimated percent revenue leakage is the same between the Base Case and the Apex interchange scenario.

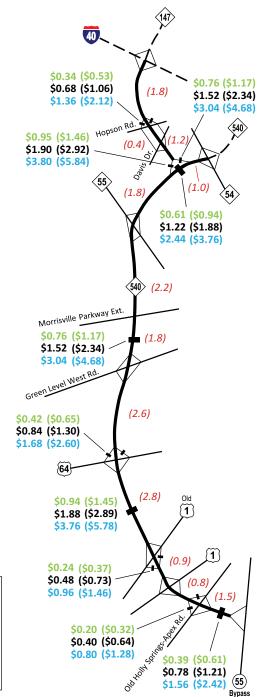
A comparison of the estimated annual toll transactions and toll revenue is presented in Table 12 between the Base Case and the Apex interchange scenario. It is estimated that the Apex interchange will add approximately 2,866,000 additional transactions in FY 2016, which represents a 7.4 percent increase in toll transactions compared to the Base Case. In FY 2051 it is estimated that the Apex interchange will add approximately 10,717,000 toll transactions, which is a 9.7 percent increase compared to the Base Case.





<u>2016</u> <u>2030</u>

\$0.00 (\$0.00) - Class 1 \$0.00 (\$0.00) - Class 2 \$0.00 (\$0.00) - Class 3

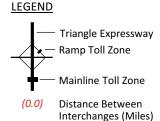


Maximum Electronic Toll in 2016									
Via Triangle Parkway Via NC 54 (17.8 Mile Through Trip) (15.4 Mile Throu									
Vehicle Class	Toll T	oll Per Mile	Toll Toll Per Mile						
Class 1	\$3.04	\$0.171	\$2.70	\$0.175					
Class 2	\$6.08	\$0.342	\$5.40	\$0.351					
Class 3	\$12.16	\$0.683	\$10.80	\$0.701					



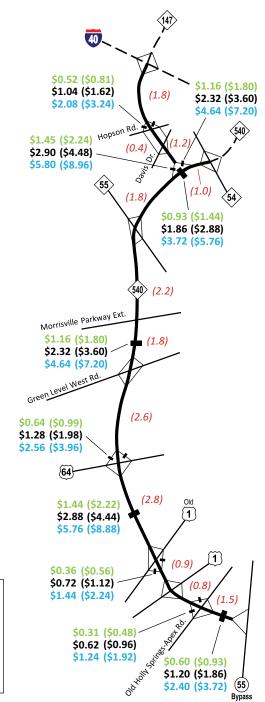
### ETC TOLL RATE ASSUMPTIONS APEX ROAD INTERCHANGE





2016 2030

\$0.00 (\$0.00) - Class 1 \$0.00 (\$0.00) - Class 2 \$0.00 (\$0.00) - Class 3



	Maximum Video Toll in 2016									
<u>(</u>	Via Triar 17.8 Mile	Via NC 540 (15.4 Mile Through Trip)								
Vehicle Class	Toll T	Toll Toll Per Mile								
Class 1	\$4.65	\$0.261	\$4.13	\$0.268						
Class 2	\$9.30	\$0.522	\$8.26	\$0.536						
Class 3	\$18.60	\$1.045	\$16.52	\$1.073						



### VIDEO TOLL RATE ASSUMPTIONS APEX ROAD INTERCHANGE



Table 10
Estimated Annual Toll Transactions
Triangle Expressway - Apex Interchange Scenario
(Thousands)

										All Cla	sses
Fiscal		Class 1			Class 2			Class 3		Total	Percent
Year	ETC	Video	Total	ETC	Video	Total	ETC	Video	Total	Transactions	ETC
2013 (1)	11,420	3,921	15,340	353	41	394	197	22	219	15,953	75.0%
2014	18,405	5,909	24,314	675	73	748	376	41	417	25,479	76.4%
2015	24,352	7,232	31,584	903	90	993	504	50	554	33,131	77.7%
2016 (2)	31,079	8,565	39,644	1,146	106	1,252	639	59	698	41,594	79.0%
2017	35,011	8,947	43,958	1,253	104	1,357	699	58	757	46,072	80.2%
2018	38,858	9,198	48,056	1,350	101	1,451	753	57	810	50,317	81.4%
2019	43,080	9,444	52,524	1,453	98	1,551	810	55	865	54,940	82.5%
2020	47,630	9,669	57,299	1,561	95	1,656	870	53	923	59,878	83.6%
2021	51,840	9,707	61,547	1,630	95	1,725	909	53	962	64,234	84.7%
2022	55,715	9,575	65,290	1,659	96	1,755	925	54	979	68,024	85.7%
2023	60,083	9,479	69,562	1,694	99	1,793	945	55	1,000	72,355	86.7%
2024	65,045	9,422	74,467	1,736	101	1,837	968	57	1,025	77,329	87.6%
2025	70,729	9,409	80,138	1,787	105	1,892	996	58	1,054	83,084	88.5%
2026	74,082	9,370	83,452	1,819	107	1,926	1,015	59	1,074	86,452	89.0%
2027	74,928	9,310	84,238	1,835	108	1,943	1,023	60	1,083	87,264	89.1%
2028	76,195	9,303	85,498	1,859	109	1,968	1,036	61	1,097	88,563	89.3%
2029	77,842	9,340	87,182	1,890	111	2,001	1,054	62	1,116	90,299	89.5%
2030	79,837	9,417	89,254	1,928	113	2,041	1,075	63	1,138	92,433	89.6%
2031	81,646	9,464	91,110	1,964	115	2,079	1,095	64	1,159	94,348	89.8%
2032	83,116	9,464	92,580	1,998	115	2,113	1,114	64	1,178	95,871	89.9%
2033	84,612	9,464	94,076	2,032	115	2,147	1,133	64	1,197	97,420	90.1%
2034	86,135	9,464	95,599	2,066	115	2,181	1,152	64	1,216	98,996	90.3%
2035	87,685	9,464	97,149	2,101	115	2,216	1,172	64	1,236	100,601	90.4%
2036	89,131	9,511	98,642	2,135	115	2,250	1,191	64	1,255	102,147	90.5%
2037	90,468	9,607	100,075	2,167	116	2,283	1,208	65	1,273	103,631	90.6%
2038	91,825	9,703	101,528	2,200	118	2,318	1,227	66	1,293	105,139	90.6%
2039	93,202	9,800	103,002	2,233	119	2,352	1,245	66	1,311	106,665	90.6%
2040	94,600	9,898	104,498	2,266	120	2,386	1,264	67	1,331	108,215	90.7%
2041	95,781	9,997	105,778	2,294	121	2,415	1,279	68	1,347	109,540	90.7%
2042	96,739	10,097	106,836	2,317	122	2,439	1,292	68	1,360	110,635	90.7%
2043	97,706	10,197	107,903	2,341	124	2,465	1,305	69	1,374	111,742	90.7%
2044	98,683	10,299	108,982	2,364	125	2,489	1,318	70	1,388	112,859	90.7%
2045	99,670	10,402	110,072	2,388	126	2,514	1,331	70	1,401	113,987	90.7%
2046	100,667	10,506	111,173	2,411	127	2,538	1,345	71	1,416	115,127	90.7%
2047	101,673	10,612	112,285	2,436	129	2,565	1,358	72	1,430	116,280	90.7%
2048	102,690	10,718	113,408	2,460	130	2,590	1,372	72	1,444	117,442	90.7%
2049	103,717	10,825	114,542	2,484	131	2,615	1,385	73	1,458	118,615	90.7%
2050	104,754	10,933	115,687	2,509	132	2,641	1,399	74	1,473	119,801	90.7%
2051	105,802	11,042	116,844	2,534	134	2,668	1,413	75	1,488	121,000	90.7%

<sup>(1)</sup> Full project open January 1, 2013.

Note: Forecasts include an assumed ramp-up to full traffic volumes. Ramp-up is assumed to occur over the first three years of operation. The assumed ramp-up is applied by each phase or interchange, reflecting the opening date of each toll zone.

<sup>(2)</sup> Apex Interchange is assumed to open on January 1, 2016.



Table 11 Estimated Annual Gross and Adjusted Toll Revenue Triangle Expressway - Apex Interchange Scenario (Thousands of Dollars)

													All	Classes	
															Estimated
														Adjusted	Percent
Fiscal		Class 1			Class	2				iss 3		Total	Percent	Gross	Revenue
Year	ETC	Video	Total	ETC	Vide		Tota		ETC	deo	Total	Revenue	ETC	Revenue (3)	Leakage (4)
2013 (1)	\$ 6,502	\$ 3,332	\$ 9,834	\$ 435	\$	73	\$ 5	80	\$ 482	\$ 81	\$ 563	\$ 10,905	68.0%	\$ 10,218	(6.3) %
2014	10,830	5,221	16,051	850	- 1	137	9	87	946	152	1,098	18,136	69.6%	17,012	(6.2)
2015	15,021	6,726	21,747	1,198		179	1,3		1,333	200	1,533	24,657	71.2%	22,906	(7.1)
2016 (2)	19,768	8,255	28,023	1,568	- 2	218	1,7		1,746	242	1,988	31,797	72.6%	29,730	(6.5)
2017	22,862	8,861	31,723	1,757		221	1,9		1,957	246	2,203	35,904	74.0%	33,678	(6.2)
2018	26,114	9,366	35,480	1,940		221	2,1		2,160	247	2,407	40,048	75.4%	37,725	(5.8)
2019	29,848	9,913	39,761	2,147		222	2,3		2,390	247	2,637	44,767	76.8%	42,305	(5.5)
2020	34,204	10,483	44,687	2,370		222	2,5		2,640	248	2,888	50,167	78.2%	47,608	(5.1)
2021	38,569	10,827	49,396	2,542		227	2,7		2,833	254	3,087	55,252	79.5%	52,600	(4.8)
2022	42,604	10,955	53,559	2,657		237	2,8		2,959	264	3,223	59,676	80.8%	56,812	(4.8)
2023	46,956	11,082	58,038	2,775		247	3,0		3,092	275	3,367	64,427	82.0%	61,721	(4.2)
2024	51,956	11,248	63,204	2,909		258	3,1		3,239	289	3,528	69,899	83.1%	67,173	(3.9)
2025	57,654	11,448	69,102	3,056		271	3,3		3,403	302	3,705	76,134	84.2%	73,393	(3.6)
2026	62,233	11,755	73,988	3,209		284	3,4		3,572	317	3,889	81,370	84.8%	78,603	(3.4)
2027	65,873	12,216	78,089	3,372		299	3,6		3,755	333	4,088	85,848	85.0%	83,015	(3.3)
2028	69,765	12,727	82,492	3,551		314	3,8		3,953	351	4,304	90,661	85.2%	87,760	(3.2)
2029	73,986	13,289	87,275	3,744		333	4,0		4,171	371	4,542	95,894	85.4%	92,921	(3.1)
2030	78,760	13,917	92,677	3,958		352	4,3		4,409	393	4,802	101,789	85.6%	98,735	(3.0)
2031	83,008	14,425	97,433	4,143		366	4,5		4,618	409	5,027	106,969	85.8%	103,867	(2.9)
2032	86,578	14,785	101,363	4,297		376	4,6		4,788	419	5,207	111,243	86.0%	108,017	(2.9)
2033	90,301	15,154	105,455	4,456		385	4,8		4,965	430	5,395	115,691	86.2%	112,336	(2.9)
2034	94,183	15,534	109,717	4,620		395	5,0		5,149	440	5,589	120,321	86.4%	116,952	(2.8)
2035	98,232	15,923	114,155	4,790		405	5,1		5,339	451	5,790	125,140	86.6%	121,636	(2.8)
2036	102,056	16,361	118,417	4,963		416	5,3		5,531	464	5,995	129,791	86.7%	126,157	(2.8)
2037	105,627	16,852	122,479	5,137		128	5,5		5,725	478	6,203	134,247	86.8%	130,488	(2.8)
2038	109,326	17,357	126,683	5,315		141	5,7		5,924	491	6,415	138,854	86.8%	134,966	(2.8)
2039	113,152	17,878	131,030	5,501		154	5,9		6,131	506	6,637	143,622	86.9%	139,601	(2.8)
2040	117,112	18,413	135,525	5,693		468	6,1		6,345	522	6,867	148,553	86.9%	144,394	(2.8)
2041	120,317	18,872	139,189	5,849		480	6,3		6,519	534	7,053	152,571	87.0%	148,299	(2.8)
2042	122,723	19,250	141,973	5,967		489	6,4		6,649	545	7,194	155,623	87.0%	151,266	(2.8)
2043	125,179	19,635	144,814	6,086		199	6,5		6,783	557	7,340	158,739	87.0%	154,294	(2.8)
2044	127,681	20,028	147,709	6,208		509	6,7		6,918	567	7,485	161,911	87.0%	157,377	(2.8)
2045	130,235	20,429	150,664	6,331		518	6,8		7,057	578	7,635	165,148	87.0%	160,524	(2.8)
2046	132,840	20,838	153,678	6,458		530	6,9		7,197	590	7,787	168,453	87.0%	163,736	(2.8)
2047	135,496	21,253	156,749	6,588		539	7,1		7,342	602	7,944	171,820	87.0%	167,009	(2.8)
2048	138,207	21,679	159,886	6,719		550	7,2		7,488	615	8,103	175,258	87.0%	170,351	(2.8)
2049	140,971	22,113	163,084	6,854		562	7,4		7,638	626	8,264	178,764	87.0%	173,759	(2.8)
2050	143,791	22,555	166,346	6,991		574	7,5		7,790	639	8,429	182,340	87.0%	177,234	(2.8)
2051	146,666	23,006	169,672	7,131	!	584	7,7	15	7,947	652	8,599	185,986	87.0%	180,778	(2.8)

<sup>(1)</sup> Full project open January 1, 2013.

(3) Net of leakage, based on the CDM Smith 2009 Comprehensive Report.
(4) Percent reduction applied to the annual gross toll revenue to account for uncollected toll revenue (revenue leakage).
Note: Forecasts include an assumed ramp-up to full traffic volumes. Ramp-up is assumed to occur over the first three years of operation. The assumed ramp-up is applied by each phase or interchange, reflecting the opening date of each toll zone.

<sup>(2)</sup> Apex Interchange is assumed to open on January 1, 2016.



Table 12

Comparison of Estimated Transactions and Toll Revenue To Base Case

Triangle Expressway - Apex Interchange Scenario

		Estima	ted Annual Gross	ousands)	Estimated Annual Gross Toll Revenue (thousands)								
	_		Including					li	ncluding				
			Apex	Difference					Apex	Diff	erence		
Fiscal		Base	Road	in	Percent		Base		Road		in	Percent	
Year		Case	Interchange (2)	Transactions	Difference		Case	Inte	rchange (2)	Re	venue	Difference	
2013	(1)	15,953	15,953	-	0.0%	\$	10,905	\$	10,905	\$	(0)	0.0%	
2014		25,479	25,479	-	0.0%		18,136		18,136		-	0.0%	
2015		33,131	33,131	-	0.0%		24,657		24,657		-	0.0%	
2016	(2)	38,728	41,594	2,866	7.4%		30,000		31,797		1,797	6.0%	
2017		41,896	46,072	4,176	10.0%		33,498		35,904		2,406	7.2%	
2018		45,037	50,317	5,280	11.7%		37,037		40,048		3,011	8.1%	
2019		48,466	54,940	6,474	13.4%		41,059		44,767		3,708	9.0%	
2020		52,212	59,878	7,666	14.7%		45,653		50,167		4,514	9.9%	
2021		56,002	64,234	8,232	14.7%		50,462		55,252		4,790	9.5%	
2022		59,844	68,024	8,180	13.7%		55,258		59,676		4,418	8.0%	
2023		64,037	72,355	8,318	13.0%		60,406		64,427		4,021	6.7%	
2024		68,621	77,329	8,708	12.7%		66,274		69,899		3,625	5.5%	
2025		73,630	83,084	9,454	12.8%		72,848		76,134		3,286	4.5%	
2026		77,050	86,452	9,402	12.2%		78,272		81,370		3,098	4.0%	
2027		78,706	87,264	8,558	10.9%		82,531		85,848		3,317	4.0%	
2028		80,462	88,563	8,101	10.1%		86,943		90,661		3,718	4.3%	
2029		82,324	90,299	7,975	9.7%		91,609		95,894		4,285	4.7%	
2030		84,290	92,433	8,143	9.7%		96,733		101,789		5,056	5.2%	
2031		85,988	94,348	8,360	9.7%		101,375		106,969		5,594	5.5%	
2032		87,376	95,871	8,495	9.7%		105,426		111,243		5,817	5.5%	
2033		88,789	97,420	8,631	9.7%		109,643		115,691		6,048	5.5%	
2034		90,227	98,996	8,769	9.7%		114,032		120,321		6,289	5.5%	
2035		91,690	100,601	8,911	9.7%		118,602		125,140		6,538	5.5%	
2036		93,099	102,147	9,048	9.7%		123,009		129,791		6,782	5.5%	
2037		94,452	103,631	9,179	9.7%		127,234		134,247		7,013	5.5%	
2038		95,823	105,139	9,316	9.7%		131,602		138,854		7,252	5.5%	
2039		97,216	106,665	9,449	9.7%		136,123		143,622		7,499	5.5%	
2040		98,631	108,215	9,584	9.7%		140,797		148,553		7,756	5.5%	
2041		99,838	109,540	9,702	9.7%		144,605		152,571		7,966	5.5%	
2042		100,836	110,635	9,799	9.7%		147,499		155,623		8,124	5.5%	
2043		101,846	111,742	9,896	9.7%		150,449		158,739		8,290	5.5%	
2044		102,863	112,859	9,996	9.7%		153,457		161,911		8,454	5.5%	
2045		103,892	113,987	10,095	9.7%		156,525		165,148		8,623	5.5%	
2046		104,930	115,127	10,197	9.7%		159,657		168,453		8,796	5.5%	
2047		105,980	116,280	10,300	9.7%		162,849		171,820		8,971	5.5%	
2048		107,040	117,442	10,402	9.7%		166,105		175,258		9,153	5.5%	
2049		108,110	118,615	10,505	9.7%		169,429		178,764		9,335	5.5%	
2050		109,192	119,801	10,609	9.7%		172,817		182,340		9,523	5.5%	
2051		110,283	121,000	10,717	9.7%		176,273		185,986		9,713	5.5%	

<sup>(1)</sup> Full project open January 1, 2013.

Note: Forecasts include an assumed ramp-up to full traffic volumes. Ramp-up is assumed to occur over the first three years of operation.

The assumed ramp-up is applied by each phase or interchange, reflecting the opening date of each toll zone.

<sup>(2)</sup> Apex Interchange is assumed to open on January 1, 2016.



The impact of the Apex interchange on annual gross toll revenue is also shown in Table 12. In FY 2016, an additional \$1,797,000 is forecast to be generated due to the Morrisville interchange, which represents an additional 6.0 percent increase in toll revenue compared to the Base Case. In FY 2051, it is estimated that \$9,713,000 in additional toll revenue will be generated compared to the Base Case. This represents a 5.5 percent impact in toll revenue.

The percent impact on gross toll revenue is less than the impact on toll transactions in any given fiscal year. This is because the additional trips that are generated by the new interchange have a lower toll than the average toll for the entire system, the Base Case.

#### Morrisville and Apex Interchange Scenario

Table 6 shows the toll rate schedule for Class 1, ETC vehicles for all toll locations on the Triangle Expressway and the proposed interchanges from 2012 through 2051. Figure 12 portrays the toll locations for the Morrisville interchange scenario and the Apex interchange scenario, and the ETC toll rates in 2016 and 2030 for Classes 1, 2, and 3. Figure 13 shows the same information for video toll rates.

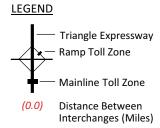
Modeling assignments showed that the two proposed interchanges operate quite independently of each other regarding their respective impacts on the Triangle Expressway. Therefore the impacts for the combined Morrisville and Apex interchange scenario are largely additive.

Table 13 shows the estimated annual toll transactions for the combined Morrisville and Apex interchange scenario. Total estimated transactions increase from 15,953,000 in FY 2013 to 126,829,000 in FY 2051. This represents an average annual increase in transactions of about 5.6 percent per year. The percent ETC is estimated to increase from 75.0 % in FY 2013 to 90.5 % in FY 2051. Ramp-up is included in transaction totals for the initial three years of the facility.

Gross toll revenue estimates, as shown in Table 14, increase from \$10,905,000 in FY 2013 to \$192,934,000 in FY 2051. This is a 7.9 percent average annual increase in gross toll revenue. The adjusted annual toll revenue is estimated to increase from \$10,218,000 in FY 2013 to \$187,532,000 in FY 2051. The estimated percent revenue leakage is the same between the Base Case and the combined Morrisville and Apex interchange scenario.

A comparison of the estimated annual toll transactions and toll revenue is presented in Table 15 between the Base Case and the combined Morrisville and Apex interchange scenario. It is estimated that the new interchanges will add approximately 3,730,000 additional transactions in FY 2016, which represents a 9.6 percent increase in toll transactions compared to the Base Case. In FY 2051 it is estimated that the new interchanges will add approximately 16,546,000 toll transactions, which is a 15.0 percent increase compared to the Base Case.





<u>2016</u> <u>2030</u> \$0.00 (\$0.00) - Class 1

\$0.00 (\$0.00) - Class 2

φυ.υυ	(40.00)	Class E
\$0.00	(\$0.00)	- Class 3

147
\$0.34 (\$0.53) \$0.68 (\$1.06) \$1.36 (\$2.12) \$3.04 (\$4.68)
\$0.95 (\$1.46) \$1.90 (\$2.92) \$3.80 (\$5.84) (0.4) (0.4) (1.2) (1.0)
\$0.61 (\$0.94) \$1.22 (\$1.88) \$2.44 (\$3.76)
\$0.42 (\$0.64) \$0.84 (\$1.28) \$1.68 (\$2.56) (2.2)
Morrisville Parkway Ext. \$0.76 (\$1.17) \$1.52 (\$2.34) \$3.04 (\$4.68)
Green Level West Rd.
\$0.42 (\$0.65) \$0.84 (\$1.30) \$1.68 (\$2.60)
\$0.94 (\$1.45) \$1.88 (\$2.89) \$3.76 (\$5.78)
\$0.24 (\$0.37) \$0.48 (\$0.73) \$0.96 (\$1.46)
\$0.20 (\$0.32) \$0.40 (\$0.64) \$0.80 (\$1.28) \$0.78 (\$1.21) \$1.56 (\$2.42) \$pypass

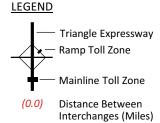
N	/laximun	n Electronic T	oll in 2016	i
(		igle Parkway Through Trip)		NC 540 Through Trip)
Vehicle Class	Toll T	oll Per Mile	Toll T	oll Per Mile
Class 1	\$3.04	\$0.171	\$2.70	\$0.175
Class 2	\$6.08	\$0.342	\$5.40	\$0.351
Class 3	\$12.16	\$0.683	\$10.80	\$0.701

ETC TOLL RATE ASSUMPTIONS MORRISVILLE PARKWAY AND APEX ROAD INTERCHANGES



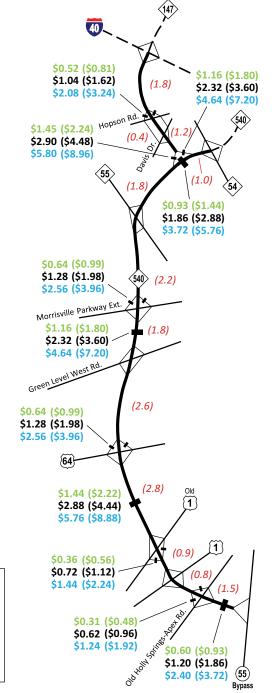


Not To Scale



2016 2030 \$0.00 (\$0.00) - Class 1 \$0.00 (\$0.00) - Class 2

\$0.00 (\$0.00) - Class 3



	Maxim	um Video Tol	l in 2016				
(		igle Parkway Through Trip)		NC 540 Through Trip)			
Vehicle Class	Toll T	oll Per Mile	Toll Toll Per Mile				
Class 1	\$4.65	\$0.261	\$4.13	\$0.268			
Class 2	\$9.30	\$0.522	\$8.26	\$0.536			
Class 3	\$18.60	\$1.045	\$16.52	\$1.073			







Table 13
Estimated Annual Toll Transactions
Triangle Expressway - Morrisville and Apex Interchange Scenario
(Thousands)

										All Cla	sses
Fiscal		Class 1			Class 2			Class 3		Total	Percent
Year	ETC	Video	Total	ETC	Video	Total	ETC	Video	Total	Transactions	ETC
2013 (1)	11,420	3,921	15,340	353	41	394	197	22	219	15,953	75.0%
2014	18,405	5,909	24,314	675	73	748	376	41	417	25,479	76.4%
2015	24,352	7,232	31,584	903	90	993	504	50	554	33,131	77.7%
2016 (2)	31,836	8,939	40,776	988	92	1,080	551	51	602	42,458	78.6%
2017	35,908	9,349	45,257	1,096	92	1,188	611	52	663	47,108	79.8%
2018	39,968	9,641	49,609	1,198	91	1,289	668	51	719	51,617	81.0%
2019	44,404	9,923	54,327	1,306	89	1,395	728	49	777	56,499	82.2%
2020	49,152	10,176	59,328	1,419	86	1,505	791	48	839	61,672	83.3%
2021	53,788	10,274	64,062	1,498	86	1,584	835	48	883	66,529	84.4%
2022	58,359	10,232	68,591	1,543	89	1,632	860	50	910	71,133	85.4%
2023	63,527	10,225	73,752	1,595	92	1,687	889	51	940	76,379	86.4%
2024	69,405	10,254	79,659	1,655	96	1,751	923	53	976	82,386	87.4%
2025	76,137	10,325	86,462	1,723	100	1,823	961	56	1,017	89,302	88.3%
2026	79,925	10,309	90,234	1,759	102	1,861	981	57	1,038	93,133	88.8%
2027	80,493	10,210	90,703	1,760	103	1,863	981	57	1,038	93,604	88.9%
2028	81,413	10,155	91,568	1,768	103	1,871	986	57	1,043	94,482	89.1%
2029	82,643	10,138	92,781	1,783	104	1,887	994	58	1,052	95,720	89.2%
2030	84,148	10,153	94,301	1,802	105	1,907	1,005	59	1,064	97,272	89.4%
2031	85,731	10,168	95,899	1,829	106	1,935	1,020	59	1,079	98,913	89.6%
2032	87,274	10,168	97,442	1,860	106	1,966	1,037	59	1,096	100,504	89.7%
2033	88,845	10,168	99,013	1,892	106	1,998	1,055	59	1,114	102,125	89.9%
2034	90,445	10,168	100,613	1,924	106	2,030	1,073	59	1,132	103,775	90.0%
2035	92,073	10,168	102,241	1,957	106	2,063	1,091	59	1,150	105,454	90.2%
2036	93,590	10,219	103,809	1,988	106	2,094	1,108	59	1,167	107,070	90.3%
2037	94,994	10,321	105,315	2,018	107	2,125	1,125	60	1,185	108,625	90.3%
2038	96,419	10,424	106,843	2,048	109	2,157	1,142	61	1,203	110,203	90.4%
2039	97,866	10,529	108,395	2,079	110	2,189	1,159	61	1,220	111,804	90.4%
2040	99,334	10,634	109,968	2,110	111	2,221	1,176	62	1,238	113,427	90.5%
2041	100,573	10,740	111,313	2,136	112	2,248	1,191	62	1,253	114,814	90.5%
2042	101,579	10,848	112,427	2,157	113	2,270	1,203	63	1,266	115,963	90.5%
2043	102,595	10,956	113,551	2,179	114	2,293	1,215	64	1,279	117,123	90.5%
2044	103,621	11,066	114,687	2,201	115	2,316	1,227	64	1,291	118,294	90.5%
2045	104,657	11,176	115,833	2,223	116	2,339	1,240	65	1,305	119,477	90.5%
2046	105,704	11,288	116,992	2,245	118	2,363	1,252	66	1,318	120,673	90.5%
2047	106,761	11,401	118,162	2,268	119	2,387	1,264	66	1,330	121,879	90.5%
2048	107,828	11,515	119,343	2,290	120	2,410	1,277	67	1,344	123,097	90.5%
2049	108,907	11,630	120,537	2,313	121	2,434	1,290	68	1,358	124,329	90.5%
2050	109,996	11,747	121,743	2,336	122	2,458	1,303	68	1,371	125,572	90.5%
2051	111,096	11,864	122,960	2,360	124	2,484	1,316	69	1,385	126,829	90.5%

<sup>(1)</sup> Full project open January 1, 2013.

Note: Forecasts include an assumed ramp-up to full traffic volumes. Ramp-up is assumed to occur over the first three years of operation. The assumed ramp-up is applied by each phase or interchange, reflecting the opening date of each toll zone.

<sup>(2)</sup> Morrisville and Apex Interchanges are assumed to open on January 1, 2016.



Table 14
Estimated Annual Gross and Adjusted Toll Revenue
Triangle Expressway - Morrisville and Apex Interchange Scenario
(Thousands of Dollars)

																Estimated
														Adjus	ed	Percent
Fiscal		Class 1			Clas	s 2				ass 3		Total	Percent	Gros	S	Revenue
Year	ETC	Video	Total	ETC	Vide		otal	_	ETC	deo	Total	Revenue	ETC	Revenu	e (3)	Leakage (4)
2013 (1)	\$ 6,502	\$ 3,332	\$ 9,834	\$ 435	\$	73	\$ 508	\$		\$ 81	\$ 563	\$ 10,905	68.0%	\$ 1	0,218	(6.3) %
2014	10,830	5,221	16,051	850		137	987		946	152	1,098	18,136	69.6%	1	7,012	(6.2)
2015	15,021	6,726	21,747	1,198		179	1,377		1,333	200	1,533	24,657	71.2%		2,906	(7.1)
2016 (2)	20,236	8,670	28,906	1,232		174	1,406		1,371	193	1,564	31,876	71.6%		9,804	(6.5)
2017	23,380	9,306	32,686	1,401		177	1,578		1,561	198	1,759	36,023	73.1%		3,790	(6.2)
2018	26,752	9,864	36,616	1,577		180	1,757		1,755	201	1,956	40,329	74.6%		7,990	(5.8)
2019	30,610	10,459	41,069	1,775		182	1,957		1,975	203	2,178	45,204	76.0%		2,718	(5.5)
2020	35,115	11,083	46,198	1,992		184	2,176		2,219	205	2,424	50,798	77.4%		3,207	(5.1)
2021	39,846	11,526	51,372	2,169		190	2,359		2,417	212	2,629	56,360	78.8%		3,655	(4.8)
2022	44,558	11,811	56,369	2,301		202	2,503		2,562	224	2,786	61,658	80.2%		3,698	(4.8)
2023	49,722	12,102	61,824	2,441		213	2,654		2,719	237	2,956	67,434	81.4%		1,602	(4.2)
2024	55,703	12,441	68,144	2,601		226	2,827		2,896	253	3,149	74,120	82.6%		1,229	(3.9)
2025	62,614	12,825	75,439	2,780		241	3,021		3,094	269	3,363	81,823	83.7%		3,877	(3.6)
2026	67,787	13,210	80,997	2,930		253	3,183		3,261	283	3,544	87,724	84.3%		1,741	(3.4)
2027	71,233	13,640	84,873	3,052		264	3,316		3,399	295	3,694	91,883	84.5%		3,851	(3.3)
2028	74,845	14,104	88,949	3,187		275	3,462		3,548	307	3,855	96,266	84.7%		3,185	(3.2)
2029	78,683	14,605	93,288	3,331		289	3,620		3,710	322	4,032	100,940	84.9%		7,811	(3.1)
2030	82,998	15,159	98,157	3,491		303	3,794		3,889	338	4,227	106,178	85.1%		2,993	(3.0)
2031	87,060	15,642	102,702	3,638		314	3,952		4,054	350	4,404	111,058	85.3%		7,837	(2.9)
2032	90,791	16,031	106,822	3,772		321	4,093		4,202	359	4,561	115,476	85.5%		2,127	(2.9)
2033	94,683	16,432	111,115	3,911		330	4,241		4,357	368	4,725	120,081	85.7%		5,599	(2.9)
2034	98,741	16,844	115,585	4,054		338	4,392		4,518	377	4,895	124,872	85.9%		1,376	(2.8)
2035	102,972	17,265	120,237	4,203		346	4,549		4,685	386	5,071	129,857	86.1%		5,221	(2.8)
2036	106,972	17,740	124,712	4,354		356	4,710		4,852	397	5,249	134,671	86.3%		0,900	(2.8)
2037	110,712	18,272	128,984	4,506		367	4,873		5,022	409	5,431	139,288	86.3%		5,388	(2.8)
2038	114,583	18,821	133,404	4,662		378	5,040		5,196	420	5,616	144,060	86.4%		0,026	(2.8)
2039	118,590	19,385	137,975	4,826		389	5,215		5,377	433	5,810	149,000	86.4%		1,828	(2.8)
2040	122,735	19,966	142,701	4,995		401	5,396		5,565	447	6,012	154,109	86.5%		9,794	(2.8)
2041	126,092	20,464	146,556	5,131		411	5,542		5,718	457	6,175	158,273	86.5%		3,841	(2.8)
2042	128,614	20,874	149,488	5,234		419	5,653		5,832	466	6,298	161,439	86.5%		5,919	(2.8)
2043	131,186	21,292	152,478	5,339		427	5,766		5,949	477	6,426	164,670	86.5%		0,059	(2.8)
2044	133,810	21,717	155,527	5,445		436	5,881		6,068	485	6,553	167,961	86.5%		3,258	(2.8)
2045	136,486	22,151	158,637	5,553		444	5,997		6,190	495	6,685	171,319	86.5%		5,522	(2.8)
2046	139,216	22,594	161,810	5,665		453	6,118		6,313	505	6,818	174,746	86.5%		9,853	(2.8)
2047	142,000	23,045	165,045	5,779		462	6,241		6,439	515	6,954	178,240	86.5%		3,249	(2.8)
2048	144,840	23,507	168,347	5,894		471	6,365		6,567	526	7,093	181,805	86.5%		5,714	(2.8)
2049	147,738	23,978	171,716	6,012		481	6,493		6,699	536	7,235	185,444	86.5%		0,252	(2.8)
2050	150,692	24,456	175,148	6,132		491	6,623		6,833	547	7,380	189,151	86.5%		3,855	(2.8)
2051	153,706	24,945	178,651	6,255		500	6,755		6,970	558	7,528	192,934	86.5%	18	7,532	(2.8)

<sup>(1)</sup> Full project open January 1, 2013.

<sup>(2)</sup> Morrisville and Apex Interchanges are assumed to open on January 1, 2016.

Note: Forecasts include an assumed ramp-up to full traffic volumes. Ramp-up is assumed to occur over the first three years of operation. The assumed ramp-up is applied by each phase or interchange, reflecting the opening date of each toll zone.



Table 15
Comparison of Estimated Transactions and Toll Revenue To Base Case
Triangle Expressway - Morrisville and Apex Interchange Scenario

Fiscal Base	Including Morrisville / Apex	Difference			Including	_				
Fiscal Base		Difference		Including						
Fiscal Base	Apex				Morrisville/	Difference				
		in	Percent	Base	Apex	in	Percent			
Year Case	Interchanges (2)	Transactions	Difference	Case	Interchanges (2)	Revenue	Difference			
2013 (1) 15,9	15,953		0.0%	\$ 10,905	\$ 10,905	\$ (0)	0.0%			
2014 25,4	79 25,479	-	0.0%	18,136	18,136	-	0.0%			
2015 33,1	33,131	-	0.0%	24,657	24,657	-	0.0%			
2016 (2) 38,7	28 42,458	3,730	9.6%	30,000	31,876	1,876	6.3%			
2017 41,8	96 47,108	5,212	12.4%	33,498	36,023	2,525	7.5%			
2018 45,0	51,617	6,580	14.6%	37,037	40,329	3,292	8.9%			
2019 48,4	56,499	8,033	16.6%	41,059	45,204	4,145	10.1%			
2020 52,2	12 61,672	9,460	18.1%	45,653	50,798	5,145	11.3%			
2021 56,0	02 66,529	10,527	18.8%	50,462	56,360	5,898	11.7%			
2022 59,8	14 71,133	11,289	18.9%	55,258	61,658	6,400	11.6%			
2023 64,0	37 76,379	12,342	19.3%	60,406	67,434	7,028	11.6%			
2024 68,6	21 82,386	13,765	20.1%	66,274	74,120	7,846	11.8%			
2025 73,6	89,302	15,672	21.3%	72,848	81,823	8,975	12.3%			
2026 77,0	50 93,133	16,083	20.9%	78,272	87,724	9,452	12.1%			
2027 78,7	93,604	14,898	18.9%	82,531	91,883	9,352	11.3%			
2028 80,4	94,482	14,020	17.4%	86,943	96,266	9,323	10.7%			
2029 82,3	24 95,720	13,396	16.3%	91,609	100,940	9,331	10.2%			
2030 84,2	90 97,272	12,982	15.4%	96,733	106,178	9,445	9.8%			
2031 85,9	98,913	12,925	15.0%	101,375	111,058	9,683	9.6%			
2032 87,3	76 100,504	13,128	15.0%	105,426	115,476	10,050	9.5%			
2033 88,7	39 102,125	13,336	15.0%	109,643	120,081	10,438	9.5%			
2034 90,2	27 103,775	13,548	15.0%	114,032	124,872	10,840	9.5%			
2035 91,6	90 105,454	13,764	15.0%	118,602	129,857	11,255	9.5%			
2036 93,0	99 107,070	13,971	15.0%	123,009	134,671	11,662	9.5%			
2037 94,4	108,625	14,173	15.0%	127,234	139,288	12,054	9.5%			
2038 95,8	23 110,203	14,380	15.0%	131,602	144,060	12,458	9.5%			
2039 97,2	111,804	14,588	15.0%	136,123	149,000	12,877	9.5%			
2040 98,6	113,427	14,796	15.0%	140,797	154,109	13,312	9.5%			
2041 99,8	114,814	14,976	15.0%	144,605	158,273	13,668	9.5%			
2042 100,8	115,963	15,127	15.0%	147,499	161,439	13,940	9.5%			
2043 101,8	117,123	15,277	15.0%	150,449	164,670	14,221	9.5%			
2044 102,8	53 118,294	15,431	15.0%	153,457	167,961	14,504	9.5%			
2045 103,8	119,477	15,585	15.0%	156,525	171,319	14,794	9.5%			
2046 104,93	120,673	15,743	15.0%	159,657	174,746	15,089	9.5%			
2047 105,98	30 121,879	15,899	15.0%	162,849	178,240	15,391	9.5%			
2048 107,0	123,097	16,057	15.0%	166,105	181,805	15,700	9.5%			
2049 108,1	.0 124,329	16,219	15.0%	169,429	185,444	16,015	9.5%			
2050 109,19	2 125,572	16,380	15.0%	172,817	189,151	16,334	9.5%			
2051 110,28	126,829	16,546	15.0%	176,273	192,934	16,661	9.5%			

<sup>(1)</sup> Full project open January 1, 2013.

<sup>(2)</sup> Morrisville and Apex Interchanges are assumed to open on January 1, 2016.

 $Note: Forecasts\ include\ an\ assumed\ ramp-up\ to\ full\ traffic\ volumes.\ Ramp-up\ is\ assumed\ to\ occur\ over\ the\ first\ three\ years\ of\ operation.$ 

The assumed ramp-up is applied by each phase or interchange, reflecting the opening date of each toll zone.



The impact of the two new interchanges on annual gross toll revenue is also shown in Table 15. In FY 2016, an additional \$1,876,000 is forecast to be generated, which represents an additional 6.3 percent increase in toll revenue compared to the Base Case. In FY 2051, it is estimated that \$16,661,000 in additional toll revenue will be generated compared to the Base Case. This represents a 9.5 percent impact in toll revenue.

#### Summary and Conclusion Regarding the Impact of the Proposed Interchanges

A summary of the estimated annual adjusted toll revenue associated with the Base Case and the three interchange scenarios is shown in Table 16. Also shown is the percent difference in the estimated adjusted toll revenue compared to the Base Case. In all three scenarios, the new interchange generates additional toll revenue on the Triangle Expressway. The Apex Road interchange generates more toll revenue than the Morrisville Parkway interchange due to the landuse development assumptions. The two interchanges are estimated to operate quite independently of each other, and do not compete with each other for traffic.

The revised transaction and toll revenue impacts associated with the proposed interchanges are still based on the original modeling and socio-economic and land-use assumptions in the 2009 Comprehensive Report, and updated to reflect the actual phasing of the Triangle Expressway, the revised toll schedule implementation described in the 2013 Revised Toll Revenue Letter and presented in this letter, and the assumed opening year of the proposed interchanges.

No adjustments were made to reflect actual facility operations because the comparison CDM Smith made between the actual and estimated traffic volumes on the Triangle Expressway for January, February and March 2013 showed that the estimated volumes were tracking quite closely to actual data. This is particularly true since the Triangle Expressway is still in the ramp-up phase of traffic demand and ramp-up is very difficult to predict. Also, there was only three months of actual experience for the entire Triangle Expressway, so adjusting traffic forecasts based on that limited time period would carry undue risk.

Lastly, in the opinion of CDM Smith, it would be preferable to update the Triangle Expressway forecasts based on new socio-economics and land-use information. The traffic demand in future years is of course heavily dependent on development in the greater Raleigh-Durham area. The regional demand model, Version 5, contains recently updated socio-economics and land-use information that could result in changed travel demand in the area. Of particular importance is updated information regarding development around the proposed Apex interchange as the prior assumptions included significant development in this area.



#### Table 16 Comparison of Estimated Adjusted Toll Revenues Triangle Expressway

Percent Difference in Adjusted Toll Revenue Estimated Annual Adjusted Toll Revenue (thousands) Compared to the Base Case Morrisville and Morrisville and Morrisville Apex Apex Morrisville Apex Apex Fiscal Base Interchange Interchange Interchange Interchange Interchange Interchange Scenario Year Case Scenario Scenario Scenario Scenario Scenario (1) \$ \$ 2013 10,218 \$ \$ 10,218 10,218 10,218 0.0 0.0 0.0 2014 17,012 17,012 17,012 17,012 0.0 0.0 0.0 2015 22,906 22,906 22,906 22,906 0.0 0.0 0.0 28,050 28.117 29,730 29.804 0.2 6.0 6.3 2016 (2) 2017 31,421 31,531 33,678 33,790 0.3 7.2 7.5 2018 34,889 35,151 37,725 37,990 0.8 8.1 8.9 2019 38,801 39,212 42,305 42,718 1.1 9.0 10.1 2020 43,325 43,921 47,608 48,207 1.4 9.9 11.3 48,040 49,094 52,600 53,655 2.2 11.7 2021 9.5 52,606 2022 54,491 56,812 58,698 3.6 8.0 11.6 2023 57,869 60,749 61,721 64,602 5.0 6.7 11.6 63,689 67,744 71,229 2024 67,173 6.4 5.5 11.8 2025 70,225 75,709 73,393 78,877 7.8 4.5 12.3 2026 75,611 81,750 78,603 84.741 8.1 4.0 12.1 2027 79,807 85,642 83,015 88,851 7.3 4.0 11.3 2028 84,161 89,584 87,760 93,185 6.4 4.3 10.7 2029 88,769 92,921 97,811 5.5 4.7 10.2 93,659 2030 93,831 98,087 98,735 102,993 4.5 5.2 9.8 2031 98,435 102,404 103,867 107,837 4.0 5.5 9.6 102,369 106,481 108,017 112,127 2032 4.0 5.5 9.5 2033 106,463 110,725 112,336 116,599 4.0 5.5 9.5 110,839 5.5 9.5 2034 115,263 116,952 121,376 4.0 2035 115,281 119,867 121,636 126,221 4.0 5.5 9.5 2036 119,565 124,308 126,157 130,900 4.0 5.5 9.5 9.5 2037 123.671 128,570 130,488 135,388 4.0 5.5 127,917 132,977 134,966 140,026 4.0 9.5 2038 5.5 9.5 2039 132,312 137,538 139,601 144,828 4.0 5.5 2040 136,855 142,252 144,394 149,794 3.9 5.5 9.5 2041 140,556 146,096 148,299 153,841 3.9 5.5 9.5 149,018 2042 143.369 151,266 156,919 3.9 5.5 9.5 2043 146,236 152,002 154,294 160,059 3.9 5.5 9.5 2044 149,160 155,039 157,377 163,258 3.9 5.5 9.5 2045 152.142 158.139 160.524 166.522 3.9 5.5 9.5 2046 155,187 161,303 163,736 169,853 3.9 5.5 9.5 2047 158,289 164,528 167,009 173,249 3.9 5.5 9.5 2048 161,454 167,820 170.351 176,714 3.9 5.5 9.5 2049 164,685 171,178 173,759 180,252 3.9 5.5 9.5 3.9 5.5 9.5 2050 167,978 174,599 177,234 183,855

171,337

2051

178,092

Note: Forecasts include an assumed ramp-up to full traffic volumes. Ramp-up is assumed to occur over the first three years of operation. The assumed ramp-up is applied by each phase or interchange, reflecting the opening date of each toll zone.

187,532

3.9

5.5

9.5

180,778

<sup>(1)</sup> Full project open January 1, 2013.

<sup>(2)</sup> Morrisville and Apex Interchanges are assumed to open on January 1, 2016.



In summary, CDM Smith assumes that the estimates contained in the letter report are appropriate for use in planning purposes, keeping in mind that the traffic volumes associated with the Apex interchange are based on past land-use assumptions.

Sincerely,

Leslie Johnson Project Manager

Leslie J. Johnson

CDM Smith Inc.

#### **APPENDIX C**

# OPERATIONS AND MAINTENANCE EXPENSE GUARANTY AGREEMENT AND CONSTRUCTION COMPLETION ASSURANCE AND STANDBY RENEWAL AND REPLACEMENT FUNDING AGREEMENT



#### OPERATING AND MAINTENANCE EXPENSE GUARANTY AGREEMENT

Dated as of 10 . 20, 2008

by and between

#### NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

and

NORTH CAROLINA TURNPIKE AUTHORITY

#### OPERATING AND MAINTENANCE EXPENSE GUARANTY AGREEMENT

THIS OPERATING AND MAINTENANCE EXPENSE GUARANTY AGREEMENT, dated as of a 2008, by and between the NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ("NCDOT"), a department of the State of North Carolina duly organized and existing pursuant to Section 143B-345 et seq. of the North Carolina General Statutes, as amended, and the NORTH CAROLINA TURNPIKE AUTHORITY ("NCTA"), a body politic and corporate and a public agency of the State of North Carolina duly organized and existing pursuant to Article 6H of Chapter 136 of the North Carolina General Statutes, as amended (the "Enabling Act");

#### WITNESSETH:

WHEREAS, the General Assembly of North Carolina has created NCTA to study, plan, develop, design, establish, purchase, construct and operate and maintain Turnpike Projects (as defined in the Enabling Act) in the State;

WHEREAS, Section 136-89.183 of the Enabling Act provides that NCDOT and NCTA may enter into partnership agreements for purposes of financing the costs of acquiring, constructing, equipping, operating or maintaining any Turnpike Project;

WHEREAS, Section 136-89.191 of the Enabling Act provides that NCDOT may participate in the cost of preconstruction activities, construction, maintenance or operation of a Tumpike Project;

WHEREAS, Section 136-18(39) of the North Carolina General Statutes authorizes NCDOT to enter into partnership agreements with the NCTA to finance the cost of equipping, maintaining, and operating transportation infrastructure in the State;

WHEREAS, the Authority is undertaking a Turnpike Project located in Wake County and Durham County known as the "Triangle Expressway Project" as more fully described in Section 1 of the Project Specific Agreement for Triangle Expressway, dated March 6, 2008, between NCDOT and NCTA (the "Project"), and intends to finance the cost of acquisition, construction and equipping of the Project with revenue bonds issued by the Authority and other indebtedness incurred by the Authority pursuant to the Enabling Act and The State and Local Government Revenue Bond Act, Article 5 of Chapter 159 of the General Statutes of North Carolina, as amended; and

WHEREAS, NCDOT desires to support the financial viability of the Project and the financing thereof, and to this end has determined to guaranty the payment of Operating and Maintenance Expenses (hereinafter defined) of the Project in order to (a) assure the purchasers and owners of revenue bonds and other indebtedness issued or incurred to finance the Project that the first use of the revenues of the Project will be used to pay the debt service with respect to such bonds and other indebtedness and to maintain required reserves prior to the payment of Operating and Maintenance Expenses, subject to the terms of this Agreement, and (b) assure

NCTA that at all times there will be sufficient funds available to pay Operating and Maintenance Expenses of the Project;

**NOW THEREFORE**, the parties hereto, each in consideration of the promises and undertakings of the other as hereinafter provided, **DO HEREBY** covenant and mutually agree as follows:

Section 1. <u>Definitions</u>. In addition to the meanings of certain capitalized terms as set forth in the recitals set forth above, the following terms shall have the following meanings in this Agreement:

"Agreement" means this Operating and Maintenance Expense Guaranty Agreement, as the same may be supplemented or amended from time to time.

"Credit Facility" means a line of credit, letter of credit, standby bond purchase agreement or similar liquidity or credit facility established or obtained in connection with the incurrence of any Indebtedness.

"Credit Provider" means the entity providing a Credit Facility.

"Debt Service Reserve Fund" means a debt service reserve fund or account created by the Trust Agreement or any other documentation relating to Indebtedness of NCTA as a reserve to provide funds to pay principal of or interest on Indebtedness authorized thereby if insufficient Receipts are available for such payment. The Trust Agreement or such other documentation may establish one or more of such fund funds for this purpose, each of which shall be a "Debt Service Reserve Fund" for purposes of this Agreement.

"Debt Service Reserve Fund Requirement" means, as of the time of any calculation, the aggregate amounts then required to be placed or maintained in any Debt Service Reserve Fund. In the event that the Trust Agreement or other documentation relating to Indebtedness provides that a withdrawal of funds from a Debt Service Reserve Fund is to be replenished over a period of time, or additional funding of such Debt Service Reserve Fund is otherwise required to be made over a period of time, the term "Debt Service Reserve Fund Requirement" as used herein means only the amount required to be on deposit at the time of the calculation.

"Debt Service Requirement" means, for any period for which such determination is made, the aggregate of the required deposits to be made by NCTA to one or more corporate trustees or other entities in respect of principal (whether at maturity or pursuant to a sinking fund redemption or otherwise) or interest (whether or not separately stated) on Indebtedness during such period; including directly to the holders of Indebtedness, such as the United States Department of Transportation. Notwithstanding the foregoing, Indebtedness does not include, for purposes of this Agreement, any amounts owed to NCDOT pursuant to this Agreement.

"General Engineering Consultant" means any independent engineer or independent firm of engineers of favorable reputation retained by NCTA to assist NCTA in assessing the status of maintenance and upkeep of the Project, the costs associated therewith and the expected cost of unusual or extraordinary maintenance, repairs, renewals or replacements or capital improvements

related to the Project, and advising NCTA regarding the level of reserves that should be maintained to assure that funds will be available when needed for that purpose.

"General Reserve Fund" means the fund created under the Trust Agreement that shall be the repository for the deposit of Receipts that are not required to be used to pay or fund the Debt Service Requirement, the Debt Service Reserve Fund Requirement, the Operating Reserve Fund Requirement or the Renewal and Replacement Reserve Fund Requirement or be deposited in the Operations and Maintenance Expense Fund.

"Indebtedness" means all obligations incurred or assumed by the NCTA in connection with the ownership or operation of the Project:

- (a) for payments of principal and interest with respect to borrowed money, including any obligation to repay a Credit Provider for moneys drawn to pay and retire or purchase Indebtedness; and
- (b) for payments under leases which are required to be capitalized in accordance with generally accepted accounting principles and under installment or lease purchase or conditional sale contracts;

provided, however, that Indebtedness shall include only such obligations as are secured by Receipts.

"Operating and Maintenance Expenses" means the NCTA's cash expenses, exclusive of all and any such like expenses capitalized as Project costs, for the operation, maintenance and repair of the Project, including, without limiting the generality of the foregoing,

- (a) expenses of repair and maintenance of the Project, including periodic roadway resurfacing and repair, replacement of toll collection, vehicle identification, toll integration and video enforcement equipment and all administrative and engineering expenses relating to repair and maintenance of the Project,
  - (b) expenses for toll collection,
- (c) salaries and other compensation of NCTA personnel allocable to the operation of the Project,
- (d) operating lease payments, for property, plant and equipment needed for the operation of the Project,
- (e) insurance premiums and expenses, including deposits of reserves required for additional self-insurance, infrastructure replacement, or business interruption coverage required by bond covenants and subject to review by the Risk Management Division of the North Carolina Department of Insurance,
- (f) engineering and consulting expenses relating to the operation, maintenance or repair of the Project, including engineering certifications required pursuant to this Agreement,

- (g) fees and expenses of the bond trustees, registrars and paying agents, and fees and expenses for similar services with respect to the Project;
  - (h) expenses for incident response;
  - (i) costs of legal services relating to Project management and operation;
  - (j) expenses of marketing, promotion and advertising relating to the Project; and
- (k) fees and expenses otherwise required or permitted to be paid by the NCTA under the provisions of the Trust Agreement, by any other documentation relating to Indebtedness or by law for management and operation of the Project;

but Operating and Maintenance Expenses shall not include

- (a) deposits to the Renewal and Replacement Reserve Fund or any other reserves for extraordinary replacements or repairs,
  - (b) any allowance for depreciation or amortization of financing expense;
- (c) payments made by NCTA or the Trustee to any reserve accounts under the Trust Agreement, any expenses of Extraordinary Maintenance and Repair, or any payments of Debt Service; and
- (d) Project costs and expenses of any nature not directly required for the Project, such as operating expenses included in the Annual Plan of Work or Project costs payable from bond proceeds including, but not limited to: administrative office space, supplies, equipment, telephone and other communications service fees; administrative salaries and wages, and travel expenses; bond financing, insurance and legal fees; and like expenses properly allocable to other NCTA turnpike projects.

"Operating Reserve Fund" means the fund or funds created pursuant to the Trust Agreement as a reserve for the payment of Operating and Maintenance Expenses in the event that Receipts are not sufficient for such purpose.

"Operating Reserve Fund Requirement" means, as of the time of calculation, the maximum aggregate amounts required by the Trust Agreement to be set aside in the Operating Reserve Fund as a reserve to fund Operating and Maintenance Expenses in the event that Receipts are not sufficient for such purpose; provided, however, that the Operating Reserve Fund Requirement may not exceed at any time one-fourth (1/4) of the Operating and Maintenance Expenses for the Project for the current Fiscal Year as set forth in the Annual Budget.

"Operations and Maintenance Expense Fund" means the fund or funds created pursuant to the Trust Agreement pursuant to which deposits are to be made from Receipts to pay Operating and Maintenance Expenses.

"Project" has the meaning given such term in the preambles to this Agreement.

"Receipts" means all receipts, revenues, income, proceeds and money received in any period by or for the NCTA in respect of the Project, including, but without limiting the generality of the foregoing,

- (a) all toll payments, proceeds, fees, charges and rents,
- (b) any proceeds of use and occupancy or business interruption insurance, and
- (c) payments from the State of North Carolina received by NCTA to the extent that such payments have been pledged to pay Indebtedness and other obligations of NCTA pursuant to the terms of the Trust Agreement.

"Renewal and Replacement Reserve Fund" means the fund created by the Trust Agreement as a reserve to provide funds to pay the costs of maintenance, repair, renewal, reconstruction or replacement of any portion of component of the Project of a type which is not normally included as an annually recurring cost in the NCTA's Annual Budget for the Project.

"Renewal and Replacement Reserve Fund Requirement" means, as of the time of any calculation, the aggregate amount then required to be placed or maintained in the Renewal and Replacement Reserve Fund by the Trust Agreement.

"State" means the State of North Carolina.

"Trust Agreement" means the Master Trust Agreement, to be executed between NCTA and the Trustee, as the same may be supplemented and amended from time to time, or any similar instrument entered into or adopted by the NCTA that provides for the issuance or incurrence of Indebtedness and contains the terms regarding the collection and disposition of Receipts.

"Trustee" means the Trustee service as such or any successor Trustee under the provisions of the Trust Agreement.

- Section 2. <u>Guaranty of Payment of Operating and Maintenance Expenses</u>. (a) NCTA shall provide in the Trust Agreement or any other documentation pursuant to which any Indebtedness is incurred that the Receipts shall be set aside as received and applied on or prior to the last day of each month in the following order of priority:
  - (i) for the payment of the Debt Service Requirement on Indebtedness then due and payable;
  - (ii) to any Debt Service Reserve Fund for Indebtedness so that the amount in each such Debt Service Reserve Fund equals the Debt Service Reserve Fund Requirement;
  - (iii) to the Renewal and Replacement Reserve Fund so that the amount in the Renewal and Replacement Reserve Fund equals the Renewal and Replacement Reserve Fund Requirement;

- (iv) to the Operations and Maintenance Expense Fund so that the amount in the Operations and Maintenance Expense Fund is equal to the Operating and Maintenance Expenses budgeted for the next succeeding month as set forth in the Annual Budget; and
- (v) to the Operating Reserve Fund so that the amount in the Operating Reserve Fund equals the Operating Reserve Fund Requirement;
- (vi) to NCDOT any amounts necessary to reimburse NCDOT for payments made by NCDOT to NCTA pursuant to this Agreement, interest thereon at the rates and in the manner specified in this Agreement; and
- (vii) the balance, if any, to the General Reserve Fund for uses as provided in the Trust Agreement.

Notwithstanding the foregoing, NCTA may change the order of priority for required deposits of Receipts to fund the Debt Service Requirement or the Debt Service Reserve Fund Requirement, for one class of Indebtedness from another class of Indebtedness in order to provide that selected classes of Indebtedness, and the deposit to a Debt Service Reserve Fund in connection therewith, is senior or subordinate to other Indebtedness, or is payable prior to or after the deposit of any Receipts to fund the Renewal and Replacement Reserve Fund Requirement, and may also provide that deposits of any Debt Service Requirement or Debt Service Reserve Fund Requirement with respect to any Indebtedness may be made after deposits to the Operations and Maintenance Expense Fund and the Operating Reserve Fund.

(b) The Authority shall provide in the Trust Agreement that Operating and Maintenance Expenses are to be paid as due from the Operations and Maintenance Expense Fund. If at any time amounts in the Operations and Maintenance Expense Fund shall not be sufficient to make the required payments, then the Trust Agreement shall provide that a transfer shall be made from the Operating Reserve Fund to the Operations and Maintenance Expense Fund in the amount of such deficiency to the extent that amounts on deposit in the Operating Reserve Fund are available for such purpose. Subject to the availability of funds as provided in subsection (c) below, NCDOT hereby guarantees to NCTA that NCDOT will pay to, or on behalf of, NCTA (i) the amount necessary to replenish the Operating Reserve Fund for any transfers so made to the Operations and Maintenance Expense Fund from amounts held in the Operating Reserve Fund up to the Operating Reserve Fund Requirement at the time the transfer is so made and (ii) the amount required to he transferred from the Operating Reserve Fund to the Operations and Maintenance Expense Fund pursuant to the Trust Agreement (up to the Operating Reserve Fund Requirement at the time such transfer is required by the Trust Agreement) to the extent that there are not sufficient Receipts held in the Operating Reserve Fund for such purpose. Payments to NCTA shall be paid by NCDOT upon sixty (60) days' written notice from NCTA (or by the Trustee on behalf of NCTA) to NCDOT advising NCDOT of the amount transferred from the Operating Reserve Fund to the Operations and Maintenance Expense Fund and requesting reimbursement therefor. Any such written request shall be accompanied by a certificate of a General Engineering Consultant stating that in the opinion of such General Engineering Consultant, the then current Renewal and Replacement Reserve Fund Requirement is reasonably necessary in order to assure that funds will be available as needed to pay the cost of unusual or

extraordinary maintenance, repairs, renewals or replacements or capital improvements related to the Project in accordance with prudent management practices.

Notwithstanding the foregoing, if following any transfer or required transfer from the Operating Reserve Fund as provided above, but before the time of payment by NCDOT pursuant to the preceding paragraph, additional Receipts have been deposited in the Operating Reserve Fund, then NCTA will provide immediate notice to NCDOT of the amount of Receipts so deposited in the Operating Reserve Fund and the required payment by NCDOT pursuant to the preceding paragraph shall be reduced by the amount of Receipts so deposited in the Operating Reserve Fund. The parties hereto hereby acknowledge and agree that there may be multiple payment from, and deposits to, the Operating Reserve Fund.

- (c) The payments to be paid by NCDOT pursuant to Section 2(b) are to be funded from amounts then available in the State Highway Fund. The payment by the NCDOT is subject to appropriation and availability of funds for such use in the State Highway Fund. All payment requests shall be subject to periodic audits to ensure such payments include only those Operations and Maintenance Expenses allowable pursuant to this Agreement. In the event of an overpayment, NCDOT will withhold or decrease future payments to recoup the overpayment. Costs incurred for maintenance or operations that exceeds the standards agreed upon by the parties herein will not be reimbursed without prior written concurrence.
- (d) The NCTA will include in its Annual Project Budget and Annual Plan of Work a schedule that includes an accounting of operations and maintenance obligations incurred to date (including interest owed), a schedule of anticipated NCDOT operations and maintenance support requirements for the current budget year and future budget years, and a schedule of anticipated NCTA repayments for the current budget year and future budget years.
- (e) The Authority shall keep accurate records and accounts of all items of costs and of all expenditures relating to the Operation and Maintenance of the Triangle Expressway System and of the revenues collected and the application of such revenues. Such records and accounts shall be open to the inspection of the NCDOT.

The NCTA shall cause its accountant, which may be the State Auditor, to prepare and deliver to the NCTA within 180 days after the close of each Fiscal Year an audit of NCTA's books and accounts relating to the Triangle Expressway System. Reports of each such audit shall be delivered by the NCTA to NCDOT in writing. Each such audit report shall be accompanied by an opinion of the accountant stating that the examination of the financial statements was conducted in accordance with generally accepted auditing standards and stating whether such financial statements present fairly the financial position of the Triangle Expressway System and the results of its operations and a statement of cash flows for the period covered by such audit report in conformity with generally accepted accounting principles applied on a consistent basis.

(f) NCTA shall conform to NCDOT's performance standards for Operation and Maintenance for the Statewide Tier Network. (See Attachment A) NCTA may exceed these standards for litter pick-up, Incident Response and Snow and Ice Removal.

- Section 3. Repayment of Guaranty Payments. (a) In the event that NCDOT makes any payment to NCTA pursuant to Section 2 of this Agreement, the amounts so paid shall become an obligation of NCTA to NCDOT to repay the amount so paid, with interest on the unpaid principal, computed at a rate equal to that payable by the NCTA in accordance with G.S. 136-176(b).
- (b) NCTA shall repay the obligations to NCDOT as provided in subsection (a) of this Section solely from Receipts available for such repayment as provided Section 2(a)(ix) above or from amounts deposited and held in the General Reserve Fund. Payments by NCTA shall be credited first to unpaid interest, then to the payment of unpaid principal. The failure to pay any payments due pursuant to this Section 3(b) shall not constitute an event of default hereunder if insufficient Receipts or other amounts held in the General Reserve Fund are not available to make such payments.
- Section 4. <u>Annual Budget</u>. NCTA hereby covenants with NCDOT that it shall maintain an Annual Budget that, to the extent practicable, budgets sufficient funds to make all payments of Operating and Maintenance Expenses from Receipts. Subject to the terms of the Trust Agreement regarding the establishment and maintenance of tolls and other Receipts, NCTA shall endeavor to set tolls at a rate sufficient to generate Receipts to pay the Operating and Maintenance Expenses set forth in the Annual Budget.
- Section 5. <u>Term of this Agreement</u>. The obligation of NCTA to make payments pursuant to Section 2 of this Agreement shall remain in effect for so long as any Indebtedness of the NCTA remains outstanding and unpaid. The obligation of NCTA to reimburse NCDOT for payments made pursuant to Section 3 of this Agreement shall remain in effect until all payments to be paid by NCTA to NCDOT hereunder have been paid.
- Section 6. Remedies; Enforcement NCDOT and NCTA hereby expressly agree that the sole remedy for any noncompliance by either party under this Agreement shall be specific performance enforceable only by an action filed by the other party to this Agreement.
- Section 7. <u>Amendment of the Trust Agreement</u>. Following the execution and delivery of the Trust Agreement by NCTA, the NCTA shall not enter into any amendment to the Trust Agreement that affects the rights or obligations of NCDOT under this Agreement without the consent of NCDOT.
- Section 8. <u>Authorization</u>: Each party to this Agreement represents to the other that it is fully authorized to enter into this Agreement and to perform its obligations hereunder and that no waiver, consent, approval, or authorization from any third party is required to be obtained or made in connection with the execution, delivery, or performance of this Agreement. The execution and delivery of this Agreement by NCDOT has been approved by the State Board of Transportation as required by Section 136-89.183 of the Enabling Act.
- Section 9. Governing Law: This Agreement shall be construed under and in accordance with the laws of the State.

IN WITNESS WHEREOF, NCDOT and NCTA have entered into this Agreement all as of the 20 day of 400051, 2008.

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

Name: J. Douglas Galyon

Title: Chairman, Board of Transportation

(SEAL)

NORTH CAROLINA TURNPIKE AUTHORITY

By:\_\_\_ Name:

Title:\_

# NCDOT Maintenance and Operations Performance Standards for the Statewide Tier

			RELATIVE	ELEMENT	20	008	200	9	2010	) <del></del>
		ELEMENT	IMPORTANCE	WT. VALUE		EL. POINTS				POINTS
0 E	RM-1	Low Shoulder	8	3.25%	85	2.76	90	2.93	95	3.09
SHLD & DITCH	RM-2	High Shoulder	7	2.85%	85	2.42	90	2.56	95	2.70
Ø 🖺	RM-3	Lateral Ditches	6	2.44%	85	2.07	90	2.20	95	2.32
	RM-4	Crossline Pipa (Blocked) < 54"	Ġ	2.44%	85	2.07	90	2.20	95	2.32
Щ	RM-5		7	2.85%	85	2,42	90	2.56	95	2.70
₹ .	RM-6	Curb & Gutter (Blocked)	5	2.03%	85	1.73	90	1.83	95	1.93
DRAINAGE	RM-7	Curb & Gutter (Damaged)	4	1.63%	85	1.38	90	1.46	95	1.54
č	RM-8	Drop Injels, CB's, etc (Blocked)	5	2.03%	85	1.73	90	1.83	98	1.99
'	RM-9	Drop inlets, CB's, etc (Damaged)	4	1.63%	85	1.38	90	1.46	98	1.59
ROADSIDE APPURT	RM-10	Guardraii/Cable/Median Barrier/Conc	9	3.66%	99	3.62	99	3.62	99	3.62
띯	R-8	ROW Fence	2	0.81%	94	0.76	94	0.76	94	0.78
8₽	R-6	Stormwater Devices	4	1.63%	90	1.46	90	1.46	90	1.48
2. ¥	RM-11	Impact Attenuators	9	3.66%	99	3,62	99	3.62	99	3.62
	R-1	Mowing	7	2,85%	90	2.58	90	2.56	90	2.56
핑	R-2	Brush & Tree Control	6	2,44%	85	2.07	85	2.07	90	2.20
lis I	R-3	Turi Condition	4	1.63%	80	1.30	85	1.38	90	1.46
₽	R-4	Uncontrolled Growth	4	1.63%	70	1.14	70	1.14	70	1.14
ROADSIDE	R-5	Litter & Debris Control	4	1.63%	90	1.48	90	1.46	90	1.48
œ	R-7	Landscape Beds	3	1.22%	90	1.10	90	1.10	90	1.10
	T-1	Long line pavement markings	8	3,25%	85	2.76	90	2.93	95	3.09
	T-2	Words % Symbols	5	2.03%	85	1.73	90	1.83	95	1.93
	T-3	Pavement Markers	7	2,85%	85	2.42	90	2.56	95	2.70
₽	T-5	Overhead Signs	, 6	2,44%	92	2.72	92	2.24	92	2.24
TRAFFIC/ITS	T-4	Signs ground	9	3,25%	92	2.99	92	2.99	92	2.99
	T-6	Rwdy, Bridge & IC lighting	4	1.63%	90	1.46	90	1.46	90	1,46
	T-7	Traffic Signal Systems	8	3,25%	80	2.93	90	2,93	90	2.93
μ.	T-8	Traffic Signal Maintenance	В	3,25%	90	2,93	90	2,93	90	2.93
	T-9	Traffic Signal Emergency	9	3,68%	90	3.29	90	3.29	90	3.29
	T-12	Dynamic Message Sign	8	3.25%	90	2.93	90	2,93	90	2.93
	B-2	Bridge Decks	9	3.66%	80	2.93	85	3,11	85	3.11
vo i	B-3	•	9					1	90	
BRIDGES	B-4	Superstructure	9	3,66%	80 80	2.93	95	3.11	90	3.29
ă	B-6	Substructure	_	3,65%		2,93	85	3.11	90	3.29
꾶	B-5	Pipes & Culverts > 54"	7	2.85%	90	2.56	90	2.56		2.66
ш,	B-7	NBIS Culvert	7	2.65%	80	2.28	80	2.28	80	2.28
	P-2	Overhead Sign Structures	6	2.44%	95	2.32	95	2.32	95	2,32
PVMT	P-2	Asphalt pavement repair	9	3,66%	95	3.48	95	3.48	95	3,48
₹	P-1	Concrete pavement repair	9	3.66%	95	3.48	95	3,48	95	3,48
	P-I	Pvm't Shoulder Condition	8	2.44%	90	2,20	9D	2,20	90	2.20
	<u> </u>	Total	246	100.00%	L	87.84		89,93		92.07
	OTHER	IMPORTANT MEASURES								
	RKPI-1					90		90		90
	B-9	Tunnels				100		100		100
	B-8					100		100		100
		Drawbridge Machinery								
	PKPI-1	Snow & Ica Control (all lanes clear) Ride Quality				12 HR 1.5/85		12 HR		12 HR 1.5/85
	PKPi-2		of Condi			1.5/85		1.5/65 85		1.5/65 85
	PKPI-3	Pavement Condition Rating (% in Goo	ra Corraj							
	PKPI-4	Narrow Lane Width				99		99		99
		Paved Shoulder Width				95		95		95
	BKPI-1	Bridge Condition Rating (% in Good C				90		90		90
	TKPI-1	Incident Clearance Time (min, TMC/no	on-+MC)			30/90		30/90		30/90
	TKPI-2	ITS Devices (min. TMC/non-TMC)				15/30		15/30		15/30

## CONSTRUCTION COMPLETION ASSURANCE AND STANDBY RENEWAL AND REPLACEMENT FUNDING AGREEMENT

Dated as of April 15, 2009

by and between

#### NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

and

NORTH CAROLINA TURNPIKE AUTHORITY

### CONSTRUCTION COMPLETION ASSURANCE AND STANDBY RENEWAL AND REPLACEMENT FUNDING AGREEMENT

THIS CONSTRUCTION COMPLETION ASSURANCE AND STANDBY RENEWAL AND REPLACEMENT FUNDING AGREEMENT, dated as of \_\_\_\_\_\_\_, 2009, by and between the NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ("NCDOT"), a department of the State of North Carolina duly organized and existing pursuant to Section 143B-345 et seq. of the North Carolina General Statutes, as amended, and the NORTH CAROLINA TURNPIKE AUTHORITY ("NCTA"), a body politic and corporate and a public agency of the State of North Carolina duly organized and existing pursuant to Article 6H of Chapter 136 of the North Carolina General Statutes, as amended (the "Enabling Act");

#### WITNESSETH:

WHEREAS, the General Assembly of North Carolina has created NCTA to study, plan, develop, design, establish, purchase, construct and operate and maintain Turnpike Projects (as defined in the Enabling Act) in the State;

WHEREAS, Section 136-89.183 of the Enabling Act provides that NCDOT and NCTA may enter into partnership agreements for purposes of financing the costs of acquiring, constructing, equipping, operating or maintaining any Turnpike Project;

WHEREAS, Section 136-89.191 of the Enabling Act provides that NCDOT may participate in the cost of preconstruction activities, construction, maintenance or operation of a Turnpike Project;

WHEREAS, Section 136-18(39) of the North Carolina General Statutes authorizes NCDOT to enter into partnership agreements with NCTA to finance the cost of equipping, maintaining, and operating transportation infrastructure in the State;

WHEREAS, NCTA is undertaking a Turnpike Project located in Wake County and Durham County known as the "Triangle Expressway System" as more fully described in Section 1 of the Project Specific Agreement for Triangle Expressway, dated March 6, 2008, between NCDOT and NCTA (the "Triangle Expressway System"), and is now undertaking the construction of the Triangle Expressway System by the construction of a new approximately 19 mile toll road facility (the "Initial Project") and intends to finance the cost of acquisition, construction and equipping of the Initial Project with revenue bonds issued by NCTA and other Indebtedness incurred by NCTA pursuant to the Enabling Act and The State and Local Government Revenue Bond Act, Article 5 of Chapter 159 of the General Statutes of North Carolina, as amended; and

WHEREAS, NCDOT desires to support the financial viability of the Initial Project and the financing thereof, and to this end has determined to enter into this Agreement to (a) assure the purchasers and owners of revenue bonds and other Indebtedness issued or incurred to finance the Initial Project that funds will be available to NCTA to complete the Costs of the Initial Project in the event that the proceeds of the revenue bonds and other Indebtedness described above is not sufficient and (b) assure NCTA that at all times there will be sufficient funds

available to pay for necessary renewals and replacement of the various components of the Initial Project;

**NOW THEREFORE**, the parties hereto, each in consideration of the promises and undertakings of the other as hereinafter provided, **DO HEREBY** covenant and mutually agree as follows:

Section 1. <u>Definitions</u>. In addition to the meanings of certain capitalized terms as set forth in the recitals set forth above, the following terms shall have the following meanings in this Agreement:

"Agreement" means this Construction Completion Assurance and Renewal And Replacement Fund Guaranty Agreement, as the same may be supplemented or amended from time to time.

"Costs of the Initial Project" means all costs for right-of-way acquisition and design, engineering, construction, acquisition and equipping of the Initial Project in accordance with the Plans and Specifications therefore.

"Credit Facility" means a line of credit, letter of credit, standby bond purchase agreement or similar liquidity or credit facility established or obtained in connection with the incurrence of any Indebtedness.

"Credit Provider" means the entity providing a Credit Facility.

"Debt Service Reserve Fund" means a debt service reserve fund or account to be created by the Trust Agreement or any other documentation relating to Indebtedness of NCTA as a reserve to provide funds to pay principal of or interest on Indebtedness authorized thereby if insufficient Receipts are available for such payment. The Trust Agreement or such other documentation may establish one or more of such funds for this purpose, each of which shall be a "Debt Service Reserve Fund" for purposes of this Agreement.

"Debt Service Reserve Fund Requirement" means, as of the time of any calculation, the aggregate amounts then required to be placed or maintained in any Debt Service Reserve Fund. In the event that the Trust Agreement or other documentation relating to Indebtedness provides that a withdrawal of funds from a Debt Service Reserve Fund is to be replenished over a period of time, or additional funding of such Debt Service Reserve Fund is otherwise required to be made over a period of time, the term "Debt Service Reserve Fund Requirement" as used herein means only the amount required to be on deposit at the time of the calculation.

"Debt Service Requirement" means, for any period for which such determination is made, the aggregate of the required deposits to be made by NCTA to one or more corporate trustees or other entities in respect of principal (whether at maturity or pursuant to a sinking fund redemption or otherwise) or interest (whether or not separately stated) on Indebtedness during such period; including directly to the holders of Indebtedness, such as the United States Department of Transportation. Notwithstanding the foregoing, Indebtedness does not include, for purposes of this Agreement, any amounts owed to NCDOT pursuant to this Agreement.

"General Engineering Consultant" means any independent engineer or independent firm of engineers prequalified to do work in North Carolina, in accordance with the established guidelines of the North Carolina Department of Transportation; who is retained by NCTA to assist NCTA in assessing the status of maintenance and upkeep of the Triangle Expressway System, the costs associated therewith and the expected cost of unusual or extraordinary maintenance, repairs, renewals or replacements or capital improvements related to the Initial Project, and advising NCTA regarding the level of reserves that should be maintained to assure that funds will be available when needed for that purpose.

"General Reserve Fund" means the fund to be created under the Trust Agreement that shall be the repository for the deposit of Receipts that are not required to be used to pay or fund the Debt Service Requirement, the Debt Service Reserve Fund Requirement, the Operating Reserve Fund Requirement or the Renewal and Replacement Reserve Fund Requirement or be deposited in the Operations and Maintenance Expense Fund.

"Indebtedness" means all obligations incurred or assumed by NCTA in connection with the ownership or operation of the Triangle Expressway System:

- (a) for payments of principal and interest with respect to borrowed money, including any obligation to repay a Credit Provider for moneys drawn to pay and retire or purchase Indebtedness; and
- (b) for payments under leases which are required to be capitalized in accordance with generally accepted accounting principles and under installment or lease purchase or conditional sale contracts;

provided, however, that Indebtedness shall include only such obligations as are secured by Receipts.

"Initial Project" has the meaning given such term in the preambles to this Agreement.

"Operating Reserve Fund" means the fund or funds created pursuant to the Trust Agreement as a reserve for the payment of Operating and Maintenance Expenses in the event that Receipts are not sufficient for such purpose.

"Operating Reserve Fund Requirement" means, as of the time of calculation, the maximum aggregate amounts required by the Trust Agreement to be set aside in the Operating Reserve Fund as a reserve to fund Operating and Maintenance Expenses in the event that Receipts are not sufficient for such purpose; provided, however, that the Operating Reserve Fund Requirement may not exceed at any time one-fourth (1/4th) of the Operating and Maintenance Expenses for the Project for the current Fiscal Year as set forth in the Annual Budget.

"Operations and Maintenance Expense Fund" means the fund or funds created pursuant to the Trust Agreement pursuant to which deposits are to be made from Receipts to pay. Operating and Maintenance Expenses.

"Receipts" means all receipts, revenues, income, proceeds and money received in any period by or for NCTA in respect of the Triangle Expressway System, including, but without limiting the generality of the foregoing,

- (a) all toll payments, proceeds, fees, charges and rents,
- (b) any proceeds of use and occupancy or business interruption insurance, and
- (c) payments from the State of North Carolina received by NCTA to the extent that such payments have been pledged to pay Indebtedness and other obligations of NCTA pursuant to the terms of the Trust Agreement or other documentation relating to Indebtedness of NCTA.

"Renewal and Replacement Reserve Fund" means the fund to be created by the Trust Agreement as a reserve to provide funds to pay the costs of maintenance, repair, renewal, reconstruction or replacement of any portion of component of the Triangle Expressway System of a type which is not normally included as an annually recurring cost in NCTA's Annual Budget for the Triangle Expressway System.

"Renewal and Replacement Reserve Fund Requirement" means, as of the time of any calculation, the aggregate amount then required to be placed or maintained in the Renewal and Replacement Reserve Fund by the Trust Agreement.

"State" means the State of North Carolina.

"Trust Agreement" means the Trust Agreement, to be executed between NCTA and the Trustee, as the same may be supplemented and amended from time to time, and any similar instrument entered into or adopted by NCTA that provides for the issuance or incurrence of Indebtedness and contains the terms regarding the collection and disposition of Receipts.

"Trustee" means the entity serving as Trustee under the provisions of the Trust Agreement.

Section 2. <u>Undertaking to Provide Additional Funds to Pay Costs of the Initial Project.</u>
(a) Based upon the estimate of its engineers and the contract prices proposed to NCTA, NCTA believes that sufficient funds will be available to pay the Costs of the Initial Project from the proceeds of the revenue bonds and other Indebtedness referred to in the preambles to this Agreement. Nevertheless, the parties hereto acknowledge that unexpected or unforeseen circumstances could result in additional unanticipated costs in excess of the amounts available from such revenue bonds and other Indebtedness. In order to provide assurances to NCTA and to the purchasers of NCTA's revenue bonds or other Indebtedness that sufficient funds will be available to complete the Initial Project, NCDOT hereby undertakes to provide additional funding to provide for the completion of the Initial Project in the event that the funds referred to above are not sufficient therefor.

(b) The payments to be paid by NCDOT pursuant to Section 2(a) are to be funded from amounts then available in the State Highway Trust Fund or the State Highway Fund, as applicable. The payment by NCDOT is subject to appropriation and availability of funds for

such use in the State Highway Trust Fund or the State Highway Fund, as applicable. In the event that NCTA determines that it is necessary to request funds from NCDOT to provide for completion of the Initial Project, NCTA shall provide notice and documentation of such need as soon as such necessity comes to the attention of NCTA and in no event less than ninety (90) days before when such need must be funded. Any such written request shall be accompanied by a certificate of a General Engineering Consultant stating that in the opinion of such General Engineering Consultant, the then current unanticipated costs are reasonably necessary in order to assure that funds will be available as needed to pay the costs of the Initial Project in accordance with prudent management practices.

NCTA will cooperate with the appropriate officials of NCDOT such that the timing of payments to pay the remaining Costs of the Initial Project pursuant to the undertaking set forth above will not disrupt NCDOT's other contractual obligations being funded from the State Highway Trust Fund or State Highway Fund and will not interfere with NCDOT's committed debt service payments.

(c) NCTA shall expend the proceeds of the revenue bonds and other Indebtedness issued to finance the Initial Project in strict compliance with the terms of the Trust Agreement pursuant to which such bonds or other Indebtedness is incurred. Amounts set aside in the Project Fund created under such Trust Agreement shall be used solely for Costs of the Initial Project.

NCTA shall keep accurate records and accounts of all items of costs and of all expenditures relating to the Costs of the Initial Project. Such records and accounts shall be open to the inspection of NCDOT. NCTA shall cause its accountant, which may be the State Auditor, to prepare and deliver to NCTA within 180 days after the close of each Fiscal Year an audit of NCTA's books and accounts relating to the Triangle Expressway System. Reports of each such audit shall be delivered by NCTA to NCDOT in writing immediately upon receipt. In addition, to the extent that there are any findings proposed by the State Auditor, NCTA shall provide the State Auditor's preliminary findings to NCDOT, as well as NCTA's response to those findings. Each such audit report shall be accompanied by an opinion of the accountant stating that the examination of the financial statements was conducted in accordance with generally accepted auditing standards and stating whether such financial statements present fairly the financial position of the Triangle Expressway System and the results of its operations and a statement of cash flows for the period covered by such audit report in conformity with generally accepted accounting principles applied on a consistent basis.

Section 3. Repayment of Amounts Provided to Pay Costs of the Initial Project. (a) In the event that NCDOT makes any payment to NCTA pursuant to Section 2 of this Agreement, the amounts so paid shall become an obligation of NCTA to NCDOT to repay the amount so paid, with interest on the unpaid principal, computed at a rate equal to that payable by NCTA in accordance with G.S. 136-176(b).

(b) NCTA shall repay the obligations to NCDOT as provided in subsection (a) of this Section solely from Receipts available for such repayment-after payment of the Debt Service Requirement, funding of any deficiency in the Debt Service Reserve Fund Requirement, funding any deficiency in the Renewal and Replacement Reserve Fund Requirement under the terms of the Trust Agreement, funding any deficiency in the Operating Reserve Fund Requirement and

making any deposit to the Operations and Maintenance Expense Fund pursuant to the Trust Agreement or from amounts deposited and held in the General Reserve Fund. Payments by NCTA shall be credited first to unpaid interest, then to the payment of unpaid principal. The failure to pay any payments due pursuant to this Section 3(b) shall not constitute an event of default hereunder if insufficient Receipts or other amounts held in the General Reserve Fund are not available to make such payments.

- Section 4. Renewal and Replacement Fund Deposits. (a) NCTA shall provide in the Trust Agreement or any other documentation pursuant to which any Indebtedness is incurred that the Receipts shall be set aside as received and applied on or prior to the last day of each month in the following order of priority:
  - (i) for the payment of the Debt Service Requirement on Indebtedness then due and payable;
  - (ii) to any Debt Service Reserve Fund for Indebtedness so that the amount in each such Debt Service Reserve Fund equals the Debt Service Reserve Fund Requirement;
  - (iii) to the Operating Reserve Fund as a reserve for the payment of Operating and Maintenance Expenses in the event that Receipts are not sufficient for such purpose and the Operations and Maintenance Expense Fund to pay Operating and Maintenance Expenses.
  - (iv) to the Renewal and Replacement Reserve Fund so that the amount in the Renewal and Replacement Reserve Fund equals the Renewal and Replacement Reserve Fund Requirement; and
    - (v) other deposits as set forth in the Trust Agreement.

Notwithstanding the foregoing, NCTA may change the order of priority for required deposits of Receipts to fund the Debt Service Requirement or the Debt Service Reserve Fund Requirement, for one class of Indebtedness from another class of Indebtedness in order to provide that selected classes of Indebtedness, and the deposit to a Debt Service Reserve Fund in connection therewith, is senior or subordinate to other Indebtedness, or is payable prior to or after the deposit of any Receipts to fund the Renewal and Replacement Reserve Fund Requirement, and may also provide that deposits of any Debt Service Requirement or Debt Service Reserve Fund Requirement with respect to any Indebtedness may be made after deposits to the Operations and Maintenance Expense Fund and the Operating Reserve Fund.

(b) If at any time amounts in the Renewal and Replacement Reserve Fund shall not be equal to the Renewal and Replacement Reserve Fund Requirement, then subject to the availability of funds as provided in subsection (c) below, NCDOT hereby agrees that NCDOT will pay to, or on behalf of, NCTA (i) the amount necessary so that amounts in the Renewal and Replacement Reserve Fund shall be equal to the Renewal and Replacement Reserve Fund Requirement. Payments to NCTA shall be paid by NCDOT upon ninety (90) days' written notice from NCTA (or by the Trustee on behalf of NCTA) to NCDOT advising NCDOT of the amount of the deficiency and requesting funding therefor. Any such written request shall be accompanied by a certificate of a General Engineering Consultant stating that in the opinion of

such General Engineering Consultant, based upon a methodology agreed upon by NCTA and NCDOT, the then current Renewal and Replacement Reserve Fund Requirement is reasonably necessary in order to assure that funds will be available as needed to pay the cost of maintenance, repairs, renewals or replacements or capital improvements related to the Triangle Expressway System in accordance with prudent management practices.

- (c) The payments to be paid by NCDOT pursuant to Section 4(b) are to be funded from amounts then available in the State Highway Trust Fund or the State Highway Fund, as applicable. The payment by NCDOT is subject to appropriation and availability of funds for such use in the State Highway Trust Fund or State Highway Fund, as applicable.
- (d) NCTA shall keep accurate records and accounts of all deposits to and costs and expenditures paid from the Renewal and Replacement Reserve Fund. Such records and accounts shall be open to the inspection of NCDOT.
- Section 5. Repayment of Amounts Deposited by NCDOT for the Renewal and Replacement Reserve Fund. (a) In the event that NCDOT makes any payment to NCTA pursuant to Section 4 of this Agreement, the amounts so paid shall become an obligation of NCTA to NCDOT to repay the amount so paid, with interest on the unpaid principal, computed at a rate equal to that payable by NCTA in accordance with G.S. 136-176(b).
- (b) NCTA shall repay the obligations to NCDOT as provided in subsection (a) of this Section solely from Receipts available for such repayment after payment of the Debt Service Requirement, funding of any deficiency in the Debt Service Reserve Fund Requirement, funding any deficiency in the Renewal and Replacement Reserve Fund Requirement under the terms of the Trust Agreement, funding any deficiency in the Operating Reserve Fund Requirement and making any deposit to the Operations and Maintenance Expense Fund pursuant to the Trust Agreement or from amounts deposited and held in the General Reserve Fund. Payments by NCTA shall be credited first to unpaid interest, then to the payment of unpaid principal. The failure to pay any payments due pursuant to this Section 3(b) shall not constitute an event of default hereunder if insufficient Receipts or other amounts held in the General Reserve Fund are not available to make such payments.
- Section 6. <u>Annual Budget</u>. NCTA hereby covenants with NCDOT that it shall maintain an Annual Budget that, to the extent practicable, budgets sufficient funds to make all deposits to the Renewal and Replacement Reserve Fund from Receipts. Subject to the terms of the Trust Agreement regarding the establishment and maintenance of tolls and other Receipts, NCTA shall endeavor to the extent practicable to set tolls at a rate sufficient to generate Receipts to fund the Renewal and Replacement Reserve Fund Requirement set forth in the Annual Budget.
- Section 7. <u>Term of this Agreement</u>. The obligation of NCTA to make payments pursuant to Section 2 and Section 4 of this Agreement shall remain in effect for so long as any Indebtedness of NCTA remains outstanding and unpaid. The obligation of NCTA to reimburse NCDOT for payments made pursuant to Section 3 and Section 5 of this Agreement shall remain in effect until all payments to be paid by NCTA to NCDOT hereunder have been paid.

- Section 8. Remedies; Enforcement NCDOT and NCTA hereby expressly agree that the sole remedy for any noncompliance by either party under this Agreement shall be specific performance enforceable only by an action filed by the other party to this Agreement.
- Section 9. Amendment of the Trust Agreement. NCTA's allocation of funds among the accounts described in Section 3(b) shall not change substantially without the prior written consent of NCDOT.
- Section 10. <u>Effective Date</u>. NCDOT's obligations under this Agreement shall not become effective until the bonds are sold and the design/build contract has been awarded.
- Section 11. <u>Authorization</u>: Each party to this Agreement represents to the other that it is fully authorized to enter into this Agreement and to perform its obligations hereunder and that no waiver, consent, approval, or authorization from any third party is required to be obtained or made in connection with the execution, delivery, or performance of this Agreement. The execution and delivery of this Agreement by NCDOT has been approved by the State Board of Transportation as required by Section 136-89.183 of the Enabling Act.
- Section 12. <u>Governing Law</u>: This Agreement shall be construed under and in accordance with the laws of the State.

IN WITNESS WHEREOF, NCDOT and NCTA have entered into this Agreement all as of the 15th day of April, 2009.

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

Name: J. Douglas Galyon

Title: Chair, North Ca

Carolina Board

Board of

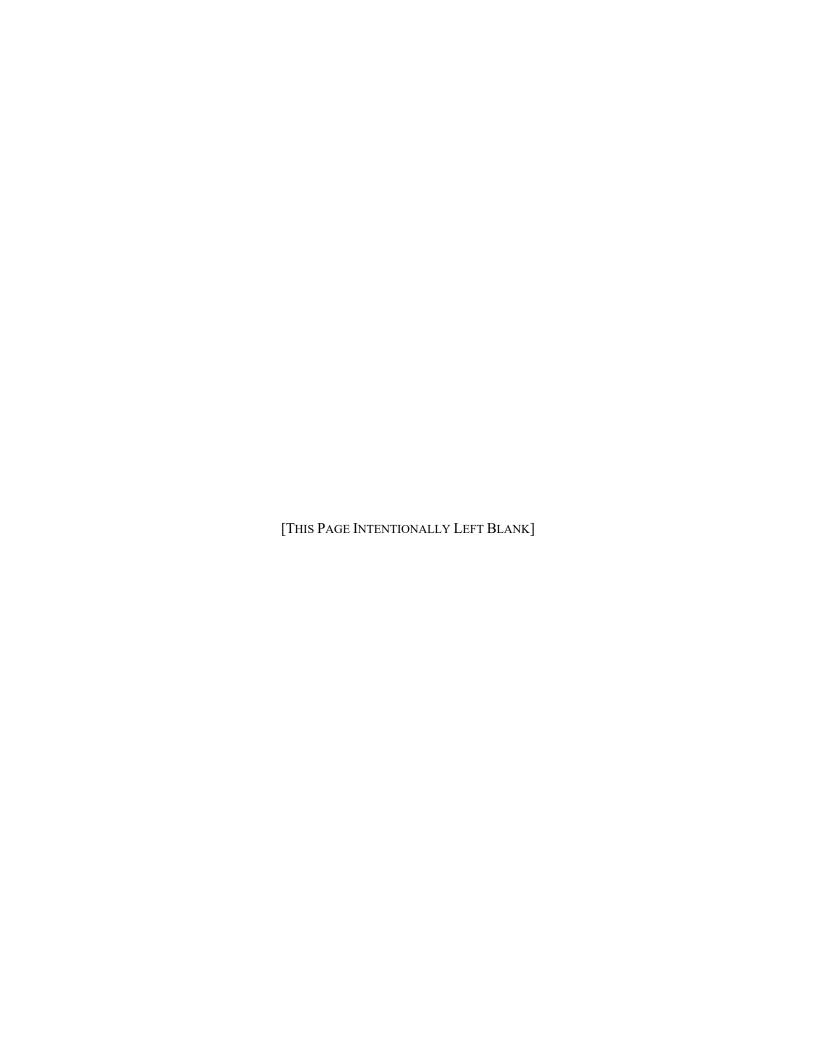
Transportation

(SEAL)

NORTH CAROLINA TURNPIKE AUTHORITY

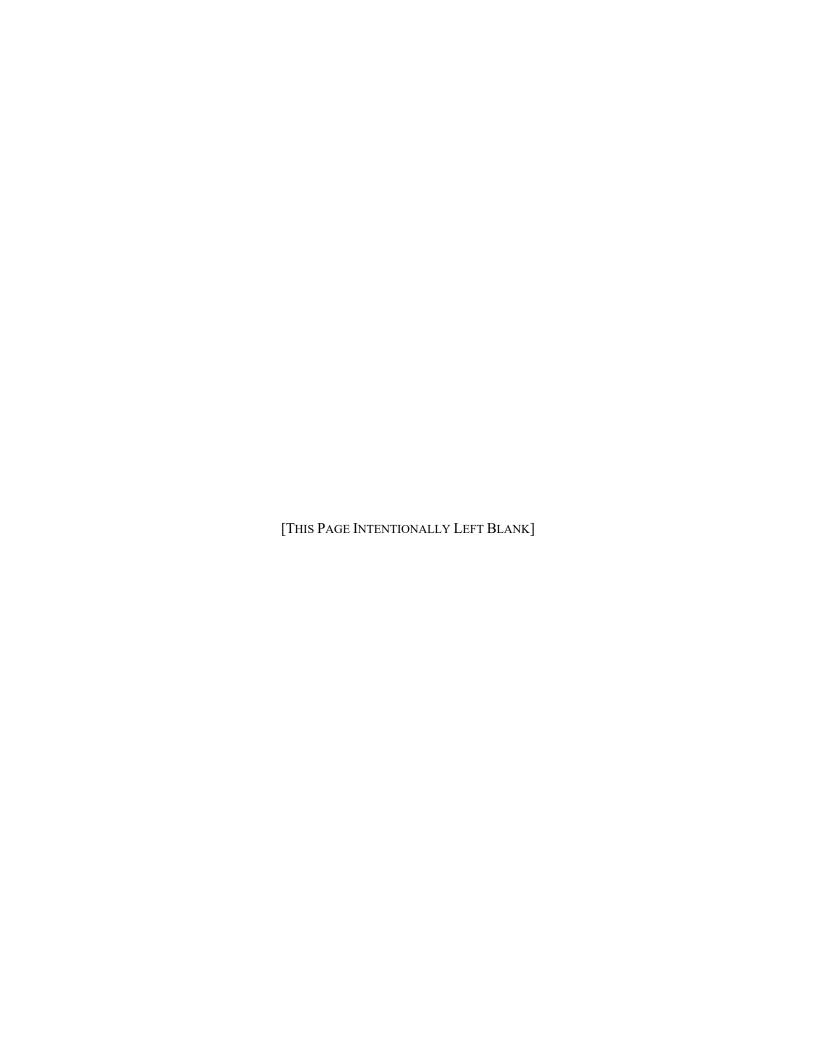
Name: David Joyner

Title: Executive Director



### APPENDIX D

## PROPOSED FORM OF OPINION OF BOND COUNSEL



HUNTON & WILLIAMS LLP POST OFFICE BOX 109 RALEIGH, NORTH CAROLINA 27602

TEL 919 · 899 · 3000 FAX 919 · 833 · 6352

March 30, 2017

Board of Directors North Carolina Turnpike Authority Raleigh, North Carolina

### \$200,515,000 North Carolina Turnpike Authority Triangle Expressway System Senior Lien Turnpike Revenue Refunding Bonds, Series 2017

### Gentlemen:

We have examined the applicable law and certified copies of proceedings and documents relating to the issuance by the North Carolina Turnpike Authority (the "Authority") of its Triangle Expressway System Senior Lien Turnpike Revenue Refunding Bonds, Series 2017 in the aggregate principal amount of \$200,515,000 (the "Bonds") to provide funds, together with other available funds, to (a) refund certain of the Authority's Triangle Expressway System Senior Lien Turnpike Revenue Bonds, Series 2009A, issued in the original aggregate principal amount of \$234,910,000 (the "Series 2009A Bonds"), which financed a portion of the costs of the Authority's Triangle Expressway, an approximately 18.8 mile toll road facility in Durham and Wake Counties, North Carolina (the "Project"), (b) pay the premium for a municipal bond insurance policy issued by Assured Guaranty Municipal Corp. (the "Series 2017 Bond Insurer") with respect to certain Bonds, (c) pay the premium for a municipal bond debt service reserve insurance policy with respect to the Bonds also issued by the Series 2017 Bond Insurer, and (d) pay costs incurred in connection with the issuance of the Bonds. The Series 2009A Bonds to be refunded are hereinafter referred to as the "Refunded Bonds". Reference is made to the form of the Bonds for additional information concerning their details, payment and redemption provisions and the proceedings pursuant to which they are issued.

The Bonds recite that they are issued under and pursuant to the Constitution and laws of the State of North Carolina (the "State"), including Article 6H (Public Toll Roads and Bridges) of Chapter 136, as amended, of the North Carolina General Statutes (the "NCGS"), and The State and Local Government Revenue Bond Act, Article 5 of Chapter 159, as amended, of the NCGS, a Bond Order of the Authority adopted on March 3, 2017 (the "Bond Order"), authorizing the issuance of the Bonds, and a Trust Agreement, dated as of June 1, 2009, between the Authority and Wells Fargo Bank, N.A., as trustee (in such capacity, the "Trustee"), as supplemented by a First Supplemental Trust Agreement, dated as of July 1, 2009, and a Second Supplemental Trust Agreement dated as of March 1, 2017 (together, the "Trust Agreement"). Proceeds of the Bonds will be deposited under an Escrow Agreement between the Authority and Wells Fargo Bank, N.A., as escrow agent, dated as of March 1, 2017 (the "Escrow Agreement"), invested in U.S. Treasury securities and used to pay principal and interest on the Refunded Bonds through their redemption

North Carolina Turnpike Authority March 30, 2017 Page 2

date on January 1, 2019. All terms not defined herein are as defined in the Trust Agreement.

The Bonds are limited obligations of the Authority secured by a pledge, charge and lien upon Receipts. The Authority is not obligated to pay the principal of or the interest on the Bonds except from Receipts or certain other monies made available therefor under the Trust Agreement, and neither the faith and credit nor the taxing power of the State or any political subdivision or agency thereof, including the Authority, is pledged to the payment of the principal of and the interest on the Bonds. In addition to the Series 2009A Bonds not being refunded, after the issuance of the Bonds there will be outstanding the Authority's Triangle Expressway System Senior Lien Turnpike Revenue Bonds, Series 2009B and a borrowing from the United States Department of Transportation under the Transportation Infrastructure Finance and Innovation Act of 1998, as amended (in the aggregate, the "Other Outstanding Revenue Debt"), which are either also secured by a pledge of Receipts in parity with the Bonds or may, in certain events, be so secured. The Trust Agreement provides for the issuance or incurrence from time to time under the conditions, limitations and restrictions therein set forth of additional bonds and Senior Lien Parity Debt secured by the pledge of Receipts in parity with the Bonds and the Other Outstanding Revenue Debt.

Without undertaking to verify the same by independent investigation, we have relied on (a) computations provided to The Arbitrage Group, Inc., Buhl, Alabama, independent accountants, the mathematical accuracy of which has been verified by them, relating to the yield of investments in the escrow fund established in connection with the refunding of the Refunded Bonds, the sufficiency of such investments to pay when due the principal of and interest on the Refunded Bonds and the yields on the Bonds and the Refunded Bonds, and (b) certifications by representatives of the Authority, the North Carolina Department of Transportation and the North Carolina Local Government Commission as to certain facts relevant to both our opinion and requirements of the Internal Revenue Code of 1986, as amended (the "Code"). The Authority has covenanted to comply with the provisions of the Code regarding, among other matters, the use, expenditure and investment of the proceeds of the Bonds and the timely payment to the United States of any arbitrage rebate amounts with respect to the Bonds, all as set forth in the proceedings and documents relating to the issuance of the Bonds (the "Covenants").

The Series 2017 Bond Insurer has issued a municipal bond insurance policy with respect to the Bonds maturing in 2024, 2026 – 2029, 2031 and 2039 and a municipal bond debt service reserve insurance policy (the "Policies") with respect to all the Bonds. Reference is made to the Policies for a full statement of their terms and conditions and to the opinion of counsel to the Series 2017 Bond Insurer as to the validity of the Policies, upon which you are relying as to matters therein. No opinion as to such matters is expressed herein.

North Carolina Turnpike Authority March 30, 2017 Page 3

Based on the foregoing and in accordance with customary opinion practice, we are of the opinion that:

- 1. The Bonds have been authorized and issued in accordance with the Constitution and statutes of the State and constitute valid and legally binding limited obligations of the Authority, payable as to principal and interest solely from Receipts. The Bonds do not create or constitute a debt or pledge of the faith and credit of the State of North Carolina or any political subdivision or agency thereof, including the Authority.
- 2. The Bond Order has been duly adopted by the Authority, the Trust Agreement and the Escrow Agreement have been duly executed and delivered by the Authority, and the Trust Agreement constitutes a valid and legally binding agreement of the Authority which assigns and pledges the Receipts to the Trustee and is enforceable against the Authority in accordance with its terms.
- 3. The rights of the holders of the Bonds and the enforceability of such rights, including enforcement by the Trustee of the obligations of the Authority under the Trust Agreement, may be limited or otherwise affected by (a) bankruptcy, insolvency, reorganization, fraudulent conveyance, moratorium and other laws affecting the rights of creditors generally and (b) principles of equity, whether considered at law or in equity.
- Under current law, interest, including accrued original issue discount ("OID"), on the Bonds (a) is not included in gross income for federal income tax purposes and (b) is neither an item of tax preference nor taken into account in determining adjusted current earnings for purposes of the federal alternative minimum income tax imposed on individuals and corporations. In the case of the Bonds maturing in 2029 and bearing interest at 3.125% (the "OID Bonds"), the difference between (i) the stated principal amount of the OID Bonds and (ii) the initial offering price to the public (excluding bond houses and brokers) at which a substantial amount of such maturity is sold, will constitute OID; OID will accrue for federal income tax purposes on a constant-yield-to-maturity method based on regular compounding; and a holder's basis in such a Bond will be increased by the amount of OID treated for federal income tax purposes as having accrued on the Bond while the holder holds the Bond. The opinions in the preceding sentences are subject to the condition that there is compliance subsequent to the issuance of the Bonds with all requirements of the Code that must be satisfied in order that interest thereon not be included in gross income for federal income tax purposes. Failure of the Authority to comply with the Covenants could cause interest on the Bonds to be included in gross income for Federal income tax purposes retroactively to their date of issue. Assuming compliance with the Covenants, the Bonds are eligible for treatment by financial institutions as a part of their "de minimis" 2% under Section 265 of the Code relating to deductions for interest allocable to the cost of acquiring or carrying tax-exempt obligations. We express no opinion

North Carolina Turnpike Authority March 30, 2017 Page 4

regarding other federal tax consequences of the ownership of or receipt or accrual of interest on the Bonds.

5. Under current law, interest on the Bonds is exempt from State income taxes.

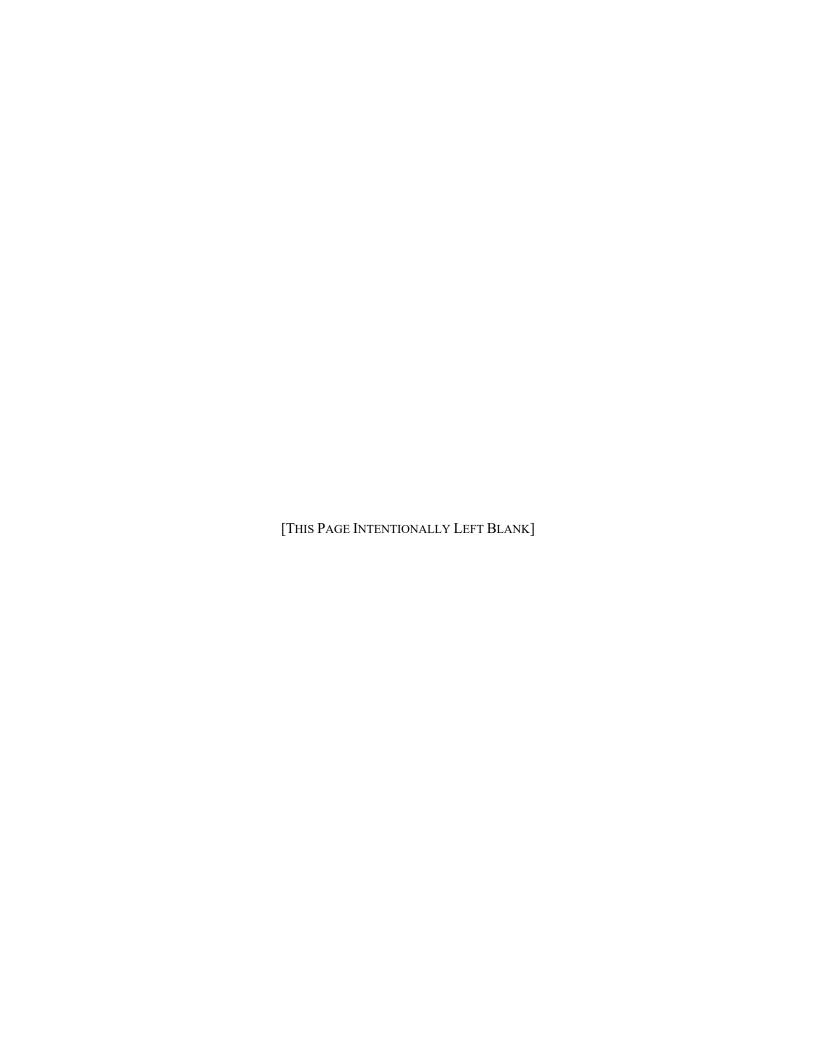
Our services as bond counsel to the Authority for the Bonds have been limited to rendering the foregoing opinion based on our review of such legal proceedings as we deem necessary to approve the validity of the Bonds and the tax status of the interest thereon. We have not made any investigation concerning the Project, the Receipts or the financial resources of the Authority or the Series 2017 Bond Insurer and therefore we express no opinion as to the accuracy or completeness of any information, including the Preliminary Official Statement dated March 14, 2017, or the Official Statement dated March 22, 2017, with respect to the Bonds, that may have been relied upon by anyone in making the decision to purchase Bonds.

Very truly yours,

**HUNTON & WILLIAMS LLP** 

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# APPENDIX E DTC'S BOOK-ENTRY-ONLY SYSTEM



#### **APPENDIX E**

#### DTC'S BOOK-ENTRY-ONLY SYSTEM

The Depository Trust Company, New York, New York ("DTC"), will act as securities depository for the Series 2017 Bonds. The Series 2017 Bonds will be issued as fully-registered bonds registered in the name of Cede & Co. (DTC's partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully-registered Series 2017 Bond for each maturity in the aggregate principal amount of such maturity will be deposited with DTC, or with the Trustee on DTC's behalf.

DTC is a limited-purpose trust company organized under the New York Banking Law, a "banking organization" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code and a "clearing agency" registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments that DTC's participants ("Direct Participants") deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between Direct Participants' accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation ("DTCC"). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly ("Indirect Participants"). DTC has Standard & Poor's rating of AA+. The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at www.dtcc.com.

Purchases of the Series 2017 Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the Series 2017 Bonds on DTC's records. The ownership interest of each actual purchaser of the Series 2017 Bonds ("Beneficial Owner") is in turn to be recorded on the Direct and Indirect Participants' records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participants through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Series 2017 Bonds are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in the Series 2017 Bonds, except in the event that use of the book-entry system for the Series 2017 Bonds is discontinued.

To facilitate subsequent transfers, all Series 2017 Bonds deposited by Direct Participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of the Series 2017 Bonds with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Series 2017 Bonds; DTC's records reflect only the identity of the Direct Participants to whose accounts the Series 2017 Bonds are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants are responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants and by Direct Participants and Indirect Participants to Beneficial Owners of the Series 2017 Bonds will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Beneficial Owners of the Series 2017 Bonds may wish to take certain steps to augment transmission to them of notices of significant events with respect to the Series 2017 Bonds, such as redemptions, tenders, defaults and proposed amendments to the security documents. For example, Beneficial Owners of the Series 2017 Bonds may wish to ascertain that the nominee holding the Series 2017 Bonds for their benefit has agreed to obtain and transmit notices to Beneficial Owners. In the alternative, Beneficial Owners may wish to provide their names and addresses to the registrar and request that copies of notices be provided directly to them.

Redemption notices will be sent to DTC. If less than all the Series 2017 Bonds are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such issue to be redeemed.

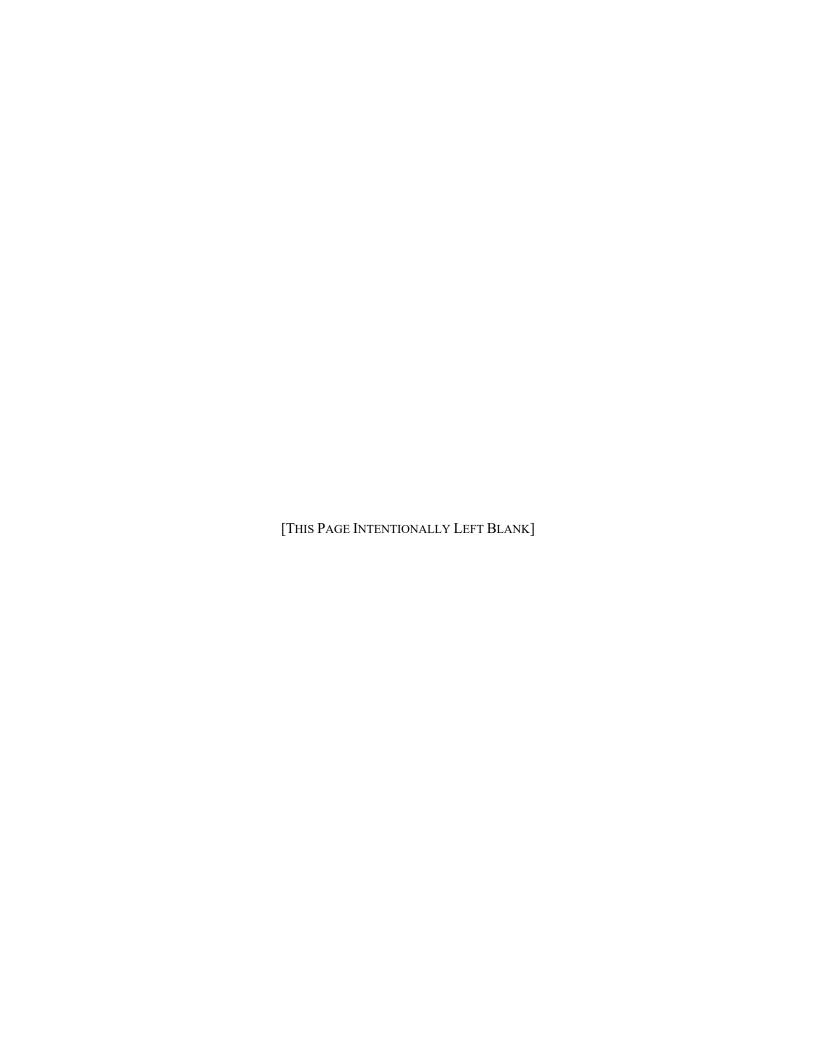
Neither DTC nor Cede & Co. (nor such other DTC nominee) will consent or vote with respect to the Series 2017 Bonds unless authorized by a Direct Participant in accordance with DTC's Procedures. Under its usual procedures, DTC will mail an Omnibus Proxy to the Authority as soon as possible after the record date. The Omnibus Proxy will assign Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts the Series 2017 Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Principal and interest payments on the Series 2017 Bonds will be made to Cede & Co. or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts upon DTC's receipt of funds and corresponding detail information from the Authority or the Trustee on each payable date in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Participants and not of DTC, the Authority, or the Trustee, subject to any statutory or regulatory requirements as may be in effect from time to time. Payments of principal and interest to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the Authority and the Trustee, disbursement of such payments to Direct Participants shall be the responsibility of DTC, and disbursements of such payments to the Beneficial Owners shall be the responsibility of the Direct and Indirect Participants.

DTC may discontinue providing its services as depository with respect to the Series 2017 Bonds at any time by giving reasonable notice to the Authority or the Trustee. Under such circumstances, in the event that a successor depository is not obtained, Series 2017 Bonds are required to be printed and delivered. The Authority may decide to discontinue use of the system of book-entry-only transfers through DTC (or a successor securities depository). In that event, Series 2017 Bonds are required to be printed and delivered.

The information in this Official Statement concerning DTC and DTC's book-entry system has been obtained from DTC, and the Authority takes no responsibility for the accuracy thereof.

# APPENDIX F SPECIMEN MUNICIPAL BOND INSURANCE POLICY





# MUNICIPAL BOND INSURANCE POLICY

ISSUER: Policy No: -N

BONDS: \$ in aggregate principal amount of Effective Date:

Premium: \$

ASSURED GUARANTY MUNICIPAL CORP. ("AGM"), for consideration received, hereby UNCONDITIONALLY AND IRREVOCABLY agrees to pay to the trustee (the "Trustee") or paying agent (the "Paying Agent") (as set forth in the documentation providing for the issuance of and securing the Bonds) for the Bonds, for the benefit of the Owners or, at the election of AGM, directly to each Owner, subject only to the terms of this Policy (which includes each endorsement hereto), that portion of the principal of and interest on the Bonds that shall become Due for Payment but shall be unpaid by reason of Nonpayment by

On the later of the day on which such principal and interest becomes Due for Payment or the Business Day next following the Business Day on which AGM shall have received Notice of Nonpayment, AGM will disburse to or for the benefit of each Owner of a Bond the face amount of principal of and interest on the Bond that is then Due for Payment but is then unpaid by reason of Nonpayment by the Issuer, but only upon receipt by AGM, in a form reasonably satisfactory to it, of (a) evidence of the Owner's right to receive payment of the principal or interest then Due for Payment and (b) evidence, including any appropriate instruments of assignment, that all of the Owner's rights with respect to payment of such principal or interest that is Due for Payment shall thereupon vest in AGM. A Notice of Nonpayment will be deemed received on a given Business Day if it is received prior to 1:00 p.m. (New York time) on such Business Day; otherwise, it will be deemed received on the next Business Day. If any Notice of Nonpayment received by AGM is incomplete, it shall be deemed not to have been received by AGM for purposes of the preceding sentence and AGM shall promptly so advise the Trustee, Paying Agent or Owner, as appropriate, who may submit an amended Notice of Nonpayment. Upon disbursement in respect of a Bond, AGM shall become the owner of the Bond, any appurtenant coupon to the Bond or right to receipt of payment of principal of or interest on the Bond and shall be fully subrogated to the rights of the Owner, including the Owner's right to receive payments under the Bond, to the extent of any payment by AGM hereunder. Payment by AGM to the Trustee or Paying Agent for the benefit of the Owners shall, to the extent thereof, discharge the obligation of AGM under this Policy.

Except to the extent expressly modified by an endorsement hereto, the following terms shall have the meanings specified for all purposes of this Policy. "Business Day" means any day other than (a) a Saturday or Sunday or (b) a day on which banking institutions in the State of New York or the Insurer's Fiscal Agent are authorized or required by law or executive order to remain closed. "Due for Payment" means (a) when referring to the principal of a Bond, payable on the stated maturity date thereof or the date on which the same shall have been duly called for mandatory sinking fund redemption and does not refer to any earlier date on which payment is due by reason of call for redemption (other than by mandatory sinking fund redemption), acceleration or other advancement of maturity unless AGM shall elect, in its sole discretion, to pay such principal due upon such acceleration together with any accrued interest to the date of acceleration and (b) when referring to interest on a Bond, payable on the stated date for payment of interest. "Nonpayment" means, in respect of a Bond, the failure of the Issuer to have provided sufficient funds to the Trustee or, if there is no Trustee, to the Paying Agent for payment in full of all principal and interest that is Due for Payment on such Bond. "Nonpayment" shall also include, in respect of a Bond, any payment of principal or interest that is Due for Payment made to an Owner by or on behalf of the Issuer which recovered from been such Owner pursuant

Page 2 of 2 Policy No. -N

United States Bankruptcy Code by a trustee in bankruptcy in accordance with a final, nonappealable order of a court having competent jurisdiction. "Notice" means telephonic or telecopied notice, subsequently confirmed in a signed writing, or written notice by registered or certified mail, from an Owner, the Trustee or the Paying Agent to AGM which notice shall specify (a) the person or entity making the claim, (b) the Policy Number, (c) the claimed amount and (d) the date such claimed amount became Due for Payment. "Owner" means, in respect of a Bond, the person or entity who, at the time of Nonpayment, is entitled under the terms of such Bond to payment thereof, except that "Owner" shall not include the Issuer or any person or entity whose direct or indirect obligation constitutes the underlying security for the Bonds.

AGM may appoint a fiscal agent (the "Insurer's Fiscal Agent") for purposes of this Policy by giving written notice to the Trustee and the Paying Agent specifying the name and notice address of the Insurer's Fiscal Agent. From and after the date of receipt of such notice by the Trustee and the Paying Agent, (a) copies of all notices required to be delivered to AGM pursuant to this Policy shall be simultaneously delivered to the Insurer's Fiscal Agent and to AGM and shall not be deemed received until received by both and (b) all payments required to be made by AGM under this Policy may be made directly by AGM or by the Insurer's Fiscal Agent on behalf of AGM. The Insurer's Fiscal Agent is the agent of AGM only and the Insurer's Fiscal Agent shall in no event be liable to any Owner for any act of the Insurer's Fiscal Agent or any failure of AGM to deposit or cause to be deposited sufficient funds to make payments due under this Policy.

To the fullest extent permitted by applicable law, AGM agrees not to assert, and hereby waives, only for the benefit of each Owner, all rights (whether by counterclaim, setoff or otherwise) and defenses (including, without limitation, the defense of fraud), whether acquired by subrogation, assignment or otherwise, to the extent that such rights and defenses may be available to AGM to avoid payment of its obligations under this Policy in accordance with the express provisions of this Policy.

This Policy sets forth in full the undertaking of AGM, and shall not be modified, altered or affected by any other agreement or instrument, including any modification or amendment thereto. Except to the extent expressly modified by an endorsement hereto, (a) any premium paid in respect of this Policy is nonrefundable for any reason whatsoever, including payment, or provision being made for payment, of the Bonds prior to maturity and (b) this Policy may not be canceled or revoked. THIS POLICY IS NOT COVERED BY THE PROPERTY/CASUALTY INSURANCE SECURITY FUND SPECIFIED IN ARTICLE 76 OF THE NEW YORK INSURANCE LAW.

In witness whereof, ASSURED GUARANTY MUNICIPAL CORP. has caused this Policy to be executed on its behalf by its Authorized Officer.



A subsidiary of Assured Guaranty Municipal Holdings Inc. 1633 Broadway, New York, N.Y. 10019 (212) 974-0100

Form 500NY (5/90)





