DISCLAIMER FOR VOLUNTARY DISCLOSURE REGARDING LOAN

On April 26, 2013, the Pennsylvania Turnpike Commission (the "**Issuer**") entered into a Loan Agreement with DVRC Pennsylvania Turnpike, LP (the "**Loan Agreement**"), and on May 11, 2016 the Issuer issued a promissory note in the aggregate principal amount of $50,000,000 pursuant to the Loan Agreement and a supplemental indenture amending and supplementing the Indenture (as defined in the Loan Agreement) (the forgoing is collectively referred to herein as the "**Transaction**"). A copy of the Loan Agreement is attached hereto.

The Issuer is filing this information as a voluntary filing on the Municipal Securities Rulemaking Board's Electronic Municipal Market Access ("**EMMA**") system.* The Issuer is not required pursuant to any continuing disclosure undertaking to file this information and makes no commitment to update this information.

This information is provided as of its date only. The Issuer makes no commitment to provide any notice (advance or otherwise) of any amendment, modification, redemption, cancellation, or other event or circumstance with respect to the Transaction.

The provision of this information to EMMA is not intended as an offer to sell any security and the Issuer does not intend that the Transaction involve the offering to the public of any security of the Issuer. No representation is made as to whether this information is material or important with respect to any particular outstanding debt issue of the Issuer or whether other events have occurred with respect to the Issuer or its outstanding debt that might be material or important to owners of the Issuer's outstanding debt.

Forward-looking statements, if any, included in the Transaction documents, including, but not limited to, the Loan Agreement, are inherently subject to a variety of risks and uncertainties that could cause actual results to differ materially from those that have been projected. Such risks and uncertainties which could affect forward-looking statements include, among others, changes in economic conditions and various other events, conditions and circumstances, many of which are beyond the control of the Issuer. Any forward-looking statements contained in a Transaction document speak only as of the date of such document. The Issuer disclaims any obligation or undertaking to release publicly any updates or revision to any forward-looking statement to reflect any changes in the Issuer's expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based.

Date: October 19, 2017*

* Note: The Loan Agreement was originally posted to EMMA in May 2016 and is being reposted on the date hereof to another indexing category under EMMA.

LOAN AGREEMENT

dated as of April 26, 2013 between

PENNSYLVANIA TURNPIKE COMMISSION,

as Borrower

and

DVRC PENNSYLVANIA TURNPIKE, LP,

as Lender

$200,000,000 LOAN FACILITY

TABLE OF CONTENTS

LOAN AGREEMENT

THIS LOAN AGREEMENT is entered into on April 26, 2013, by and between **DVRC PENNSYLVANIA TURNPIKE, LP**, a Pennsylvania limited partnership (hereinafter called "Lender"), with a business office at 1055 Westlakes Drive, 3rd Floor, Berywn, Pennsylvania 19312, and **PENNSYLVANIA TURNPIKE COMMISSION**, an instrumentality of the Commonwealth of Pennsylvania (hereinafter called "Commission"), with its principal executive office located at 700 South Eisenhower Boulevard, Middletown, Pennsylvania 17057.

WHEREAS:

A. In 1990, the United States Congress enacted legislation to create an Immigrant Investor Program (the "Program") which is currently administered by the U.S. Citizenship and Immigration Services ("USCIS").

B. The Program permits foreign citizens to receive permanent United States residency in exchange for making a minimum investment of Five Hundred Thousand Dollars ($500,000.00) in a new commercial enterprise that will create at least ten (10) direct and/or indirect full-time jobs per minimum investment unit in an area designated by the USCIS as a "regional center."

C. Commission is an instrumentality of the Commonwealth of Pennsylvania created by the Enabling Acts (as defined herein) with the power to construct, operate and maintain the System (as defined herein).

D. Commission conducts certain of its operations within the geographic area of the counties listed in Schedule I attached hereto ("Eligible Counties"), which it is anticipated will be designated part of the "The Delaware Valley Regional Center" by the USCIS.

E. Lender has been created to permit foreign investors (the "Investors") to invest in, among other things, a transportation project in the Eligible Counties and obtain lawful U.S. residence under the Program.

F. Lender wishes to make a loan to Commission in tranches in an aggregate amount not to exceed Two Hundred Million Dollars ($200,000,000.00).

G. Commission shall use the proceeds of the loan to facilitate, fund and/or reimburse for amounts spent in connection with the Project (as defined below).

WITNESSETH:

In consideration of the mutual covenants contained herein and intending to be legally bound hereby, the parties hereto agree as follows:

SECTION 1. DEFINITIONS

1.1 Defined Terms. As used in this Agreement, the following terms have the meanings specified below:

"Additional Bonds" shall have the meaning set forth in the Indenture.

"Affiliate" shall mean, with respect to a specified Person, another Person that directly, or indirectly through one or more intermediaries, Controls or is Controlled by or is under common Control with the Person specified; provided, that two or more Persons shall not be deemed Affiliates because an individual is a director and/or officer of each such Person.

"Aggregate Commitment Amount" shall mean the Tranche 1 Commitment Amount, the Tranche 2 Commitment Amount, the Tranche 3 Commitment Amount and the Tranche 4 Commitment Amount.

"Agreement" shall mean this Loan Agreement, and any riders, extensions, supplements, amendments or modifications to this Loan Agreement.

"Borrowing Request" shall have the meaning set forth in Section 2.1.

"Business Day" shall mean any day that is not a Saturday, Sunday or other day on which commercial banks in Philadelphia, Pennsylvania are authorized or required by law to remain closed.

"Close-Out Date" shall mean, with respect to any Tranche, the first date that all or any portion of such Tranche requested by Commission hereunder is advanced from Lender to Commission.

"Code" shall have the meaning set forth in the Indenture.

"Commission" shall have the meaning set forth in the Preamble.

"Commission's Books" shall mean and include Commission's and its applicable Affiliates' books and records solely as related to this Agreement, the Loans, the Obligations, Qualifying Expenditures and New Jobs.

"Commitment" shall mean the Tranche 1 Commitment, the Tranche 2 Commitment, the Tranche 3 Commitment or the Tranche 4 Commitment.

"Commitment Amount" shall mean the Tranche 1 Commitment Amount, the Tranche 2 Commitment Amount, the Tranche 3 Commitment Amount or the Tranche 4 Commitment Amount.

"Commonwealth" shall mean the Commonwealth of Pennsylvania.

"Control" means the possession, directly or indirectly, of the power to direct or cause the direction of the management or policies of a Person, whether through the ability to exercise voting power, by contract or otherwise. "Controlling" and "Controlled" have meanings correlative thereto.

"DVRC" shall mean Delaware Valley Regional Center, LLC, a Delaware limited liability company.

"Economic Impact Study" shall have the meaning set forth in Section 4.9(a).

"Effective Date" shall mean the date on which all the conditions specified in Section 7.1(a) are satisfied or waived.

"Eligible Counties" shall have the meaning set forth in Paragraph D of the Recitals.

"Enabling Acts" shall have the meaning set forth in the Indenture.

"Environmental Law" shall mean all applicable and binding laws, rules, regulations, codes, ordinances, orders, decrees, judgments, injunctions, or agreements issued, promulgated or entered into by any Governmental Authority, relating in any way to the environment, preservation or reclamation of natural resources, the management, release or threatened release of any Hazardous Material or to health and safety matters.

"Event of Default" shall have the meaning set forth in Section 5.

"Fitch" shall mean Fitch Ratings and its successors and assigns

"Governmental Authority" shall mean the government of the United States, any other nation or any political subdivision thereof, whether state or local, and any agency, authority, instrumentality, regulatory body, court, central bank or other entity exercising executive, legislative, judicial, taxing, regulatory or administrative powers or functions of or pertaining to government.

"Hazardous Materials" shall mean all explosive or radioactive substances or wastes and all hazardous or toxic substances, wastes or other pollutants, including petroleum or petroleum distillates, asbestos or asbestos containing materials, polychlorinated biphenyls, radon gas, infectious or medical wastes and all other substances or wastes of any nature regulated pursuant to any Environmental Law.

"Indenture" shall mean the Amended and Restated Trust Indenture dated as of March 1, 2001, between Commission and Trustee, attached hereto as Exhibit A-1, as amended and supplemented to date by any amendment and supplement, including any Supplemental Indentures, and as may be further amended or supplemented.

"Interest Rate" shall mean [redacted] per annum.

"Investors" shall have the meaning set forth in Paragraph E of the Recitals.

"Job Creation Requirement" shall have the meaning set forth in Section 4.9(a).

"Lender" shall have the meaning set forth in the Preamble.

"Lender Costs" shall mean all reasonable out-of-pocket expenses incurred by Lender in connection with (a) the preparation, execution and delivery of this Agreement and the other Loan Documents up to a maximum of $50,000, (b) any subsequent amendments, modifications or waivers of the provisions of this Agreement and the other Loan Documents requested by Commission, (c) after the occurrence of an Event of Default, any investigations or inspections pursuant to Section 4.2(b) hereof and (d) after the occurrence of an Event of Default, enforcing or defending its rights under or in connection with this Agreement and the other Loan Documents.

"Lien" shall mean, with respect to any asset, (a) any mortgage, deed of trust, lien (other than mechanics' liens), pledge, hypothecation, encumbrance, charge or security interest in (including sales of accounts), on or of such asset, (b) the interest of a vendor or a lessor under any conditional sale agreement, capital lease or title retention agreement (or any financing lease having substantially the same economic effect as any of the foregoing, but excluding any operating leases) relating to such asset and (c) in the case of securities, any purchase option, call or similar right of a third party with respect to such securities.

"Loans" shall mean collectively, the aggregate outstanding principal amount of the Tranche 1 Loan, the Tranche 2 Loan, the Tranche 3 Loan and the Tranche 4 Loan and "Loan" shall mean the outstanding principal amount of each Tranche.

"Loan Documents" shall mean this Agreement, the Supplemental Indentures, the Notes and all other agreements, documents or instruments now or hereafter executed and delivered under this Agreement, the Supplemental Indentures, the Notes or in connection with the Loan, including, without limitation, the Notes, and all amendments, modifications, extensions and restatements of such agreements, documents or instruments.

"Material Adverse Effect" shall mean a material adverse effect on (a) the operations, assets or financial condition of Commission, (b) the validity or enforceability against Commission of any Loan Document, (c) the ability of Commission to perform its obligations under any Loan Document or (d) the ability of Commission to complete the Project in all material respects in accordance with the Project Completion Schedule.

"Maturity Date" shall mean with respect to each Tranche, the date occurring five (5) years after the Close-Out Date for such Tranche.

"Moody's" shall mean Moody's Investors Service, Inc.

"New Jobs" shall have the meaning set forth in Section 4.9(a).

"Notes" shall mean collectively, the Promissory Notes dated each Close-Out Date with respect to each Tranche, made by Commission in favor of Lender in substantially the form attached hereto as Exhibit A, and "Note" shall mean each of such Promissory Notes.

"Obligations" shall mean and include all loans, advances, debts, liabilities, obligations (including interest accruing during the pendency of any bankruptcy, insolvency, receivership or other similar proceeding, regardless of whether allowed or allowable in such proceeding), guaranties, covenants and duties owing by Commission to Lender which arise under, out of, or in connection with, this Agreement or any other Loan Document.

"Origination Fee" means (i) $50,000 in the case of the Tranche 1 Loan, (ii) $50,000 in the case of the Tranche 2 Loan, (iii) $50,000 in the case of the Tranche 3 Loan, and (iv) $50,000 in the case of the Tranche 4 Loan.

"Parity Obligations" shall have the meaning set forth in the Indenture.

"Payment Date" shall have the meaning set forth in Section 2.3.

"Period Conditions" shall mean the conditions set forth in Section 2.2(a) and 2.2(b).

"Person" shall mean any natural person, corporation, limited liability company, trust, joint venture, association, company, partnership, Governmental Authority or other entity.

"Potential Event of Default" shall mean any condition or event which, with notice, lapse of time or both, would, unless cured or waived, become an Event of Default.

"Program" shall have the meaning set forth in the Paragraph A of the Recitals.

"Project" shall mean the reconfiguration of the Pennsylvania Turnpike ("PA Turnpike") toll system and re-directing Interstate 95 ("I-95") onto the PA Turnpike by building the main movements of the interchange along with associated highway widening of the PA Turnpike and I-95 that will include all costs required to complete the Post - National Environmental Policy Act Final Environmental Impact Statement re-evaluations, environmental mitigation, design, right-of-way activities, public outreach, construction, overall project and construction management, specific management plans, contingencies, and utility relocations.

"Project Completion Schedule" shall have the meaning set forth in Section 4.11.

"Qualifying Expenditures" shall mean any expenditures for the Project from and after the Close-Out Date for each Tranche until the date that is two (2) years after the applicable Close-Out Date.

"Repayment Amount" shall have the meaning set forth in Section 2.7.

"Repayment Period" shall have the meaning set forth in Section 2.7.

"Resolution" shall mean the Resolution of Commission dated March 19, 2013, which authorized, among other things, the issuance of the Loans, the Notes and Commission entering into this Agreement and the other Loan Documents.

"Responsible Officer" shall mean any of the Chairman, Chief Executive Officer and Chief Financial Officer (or any equivalent of the foregoing officers) of Commission.

"Revenues" shall have the meaning set forth in the Indenture.

"S&P" shall mean Standard & Poor's Ratings Services, a Standard & Poor's Financial Services LLC business.

"Shortfall Qualifying Amount" shall have the meaning set forth in Section 4.9(b).

"Supplemental Indentures" shall mean collectively, the Supplemental Trust Indentures dated on or prior to each Close-Out Date hereunder, between Commission and the Trustee, as amended, restated, supplemented or otherwise modified from time to time.

"System" shall have the meaning set forth in the Indenture.

"Tranche" shall mean the Tranche 1 Loan, the Tranche 2 Loan, the Tranche 3 Loan or the Tranche 4 Loan.

"Tranche 1 Commitment" shall mean the commitment of Lender to make advances to Commission under Section 2.1(a).

"Tranche 1 Commitment Amount" shall mean Fifty Million Dollars ($50,000,000.00).

"Tranche 1 Loan" shall mean the aggregate outstanding principal amount of the advances made to Commission pursuant to Section 2.1(a).

"Tranche 2 Commitment" shall mean the commitment of Lender to make advances to Commission under Section 2.1(b).

"Tranche 2 Commitment Amount" shall mean Fifty Million Dollars ($50,000,000.00).

"Tranche 2 Loan" shall mean the aggregate outstanding principal amount of the advances made to Commission pursuant to Section 2.1(b).

"Tranche 3 Commitment" shall mean the commitment of Lender to make advances to Commission under Section 2.1(c).

"Tranche 3 Commitment Amount" shall mean Fifty Million Dollars ($50,000,000.00).

"Tranche 3 Loan" shall mean the aggregate outstanding principal amount of the advances made to Commission pursuant to Section 2.1(c).

"Tranche 4 Commitment" shall mean the commitment of Lender to make advances to Commission under Section 2.1(d).

"Tranche 4 Commitment Amount" shall mean Fifty Million Dollars ($50,000,000.00).

"Tranche 4 Loan" shall mean the aggregate outstanding principal amount of the advances made to Commission pursuant to Section 2.1(d).

"Trust Estate" shall have the meaning set forth in the Indenture.

"Trustee" shall mean U.S. Bank National Association or successor.

"United States" or "U.S." shall mean the United States of America.

"USCIS" shall have the meaning set forth in Paragraph A of the Recitals.

"Visa" shall have the meaning set forth in Section 2.7.

1.2 Terms Generally. The definitions of terms herein shall apply equally to the singular and plural forms of the terms defined. Whenever the context may require, any pronoun shall include the corresponding masculine, feminine and neuter forms. The words, "include," "includes" and "including" shall be deemed to be followed by the phrase "without limitation." The word "will" shall be construed to have the same meaning and effect as the word "shall." Unless the context requires otherwise (a) any definition of or reference to any agreement, instrument or other document herein shall be construed as referring to such agreement, instrument or other document as from time to time amended, supplemented or otherwise modified (subject to any restrictions on such amendments, supplements or modifications set forth herein), (b) any reference herein to any Person shall be construed to include such Person's successors and assigns, (c) the words "herein," "hereof" and "hereunder," and words of similar import, shall be construed to refer to this Agreement in its entirety and not to any particular provision hereof, (d) all references herein to Sections shall be construed to refer to Sections of this Agreement and (e) the words "asset" and "property" shall, except where the context dictates otherwise, be construed to have the same meaning and effect and to refer to any and all tangible and intangible assets and properties, including cash, securities, accounts and contract rights.

1.3 Agreement Effectiveness. This Agreement shall only be effective on the Effective Date and neither party shall have any obligations hereunder prior to the Effective Date.

SECTION 2. LOAN AND TERMS OF PAYMENT

2.1 Commitment; Loan. In accordance with the terms of this Section 2 and subject to the conditions set forth in Section 7, Lender hereby agrees as follows:

(a) Tranche 1 Commitment. Lender hereby agrees to make one or more advances to Commission in an aggregate amount not to exceed the Tranche 1 Commitment Amount for use in the Project (including to reimburse Commission for Qualifying Expenditures previously spent).

(b) Tranche 2 Commitment. Lender hereby agrees to make one or more advances to Commission in an aggregate amount not to exceed the Tranche 2 Commitment Amount for use in the Project (including to reimburse Commission for Qualifying Expenditures previously spent).

(c) Tranche 3 Commitment. Lender hereby agrees to make one or more advances to Commission in an aggregate amount not to exceed the Tranche 3 Commitment Amount for use in the Project (including to reimburse Commission for Qualifying Expenditures previously spent).

(d) Tranche 4 Commitment. Lender hereby agrees to make one or more advances to Commission in an aggregate amount not to exceed the Tranche 4 Commitment Amount for use in the Project (including to reimburse Commission for Qualifying Expenditures previously spent).

(e) Borrowing Requests. Each Tranche shall be made to Commission in one or more advances promptly upon request by Commission (but no more frequently than monthly), and in any event within five (5) Business Days after receipt by Lender of a borrowing request substantially in the form attached hereto as Exhibit B ("Borrowing Request") together with reasonable evidence of Qualifying Expenditures made, or a plan for Qualifying Expenditures to be made or reimbursed with the proceeds of such Tranche, in an amount sufficient to support each such advance. Commission shall use commercially reasonable efforts to fully request hereunder all available advances in an aggregate amount equal to such Commitment Amount for such Tranche by the date which is 120 days from the applicable Close-Out Date for such Tranche.

(f) Evidence of Debt. Commission shall execute and deliver to Lender for each Tranche a Note to evidence Commission's obligation to repay Lender for such Tranche, with interest as set forth herein. The Notes evidencing repayment of the Loans are incorporated herein by reference and made part hereof.

2.2 Period Conditions.

(a) Initial Funding Period Conditions. Lender represents and warrants that within twenty-four (24) months from the Effective Date (the "Initial Funding Period"), (1) DVRC shall have received designation as a Regional Center (the "Designation Condition"), and (2) shall have available in escrow funds to fully fund the Tranche 1 Loan (the "Tranche Condition") (both conditions (1) and (2) collectively referred to as "Initial Funding Period Conditions"). Once Lender has available in escrow the funds to fully fund the Tranche 1 Loan, and provided the Initial Funding Period has not terminated, Lender shall notify Commission in writing and Commission will comply with Section 7.1(b). If Lender does not meet both of the Initial Funding Period Conditions by the expiration of the Initial Funding Period, then Commission will not be obligated to accept the Tranche 1 Loan or reimburse Lender for any fees and this Agreement shall be deemed cancelled and of no further effect. Commission agrees that if Commission borrows the Tranche 1 Loan in accordance with this Agreement, the Initial Funding Period will be extended by an additional twelve (12) months from the date of the completion of the Tranche Condition ("Extended Funding Period").

(b) Extended Funding Period Conditions. Lender shall have until the expiration of the Extended Funding Period to have available in escrow or fully fund the Tranche 2 Loan, the Tranche 3 Loan and the Tranche 4 Loan. Lender and Commission agree that Tranche 2 shall be fully funded before Tranche 3 and Tranche 3 shall be fully funded before Tranche 4. Once Lender has available in escrow the funds to fully fund the Tranche 2 Loan, the Tranche 3 Loan or the Tranche 4 Loan and provided the Extended Funding Period has not terminated, Lender shall notify Commission in writing and Commission will comply with Section 7.1(b). If Lender does not have available in escrow funds to fully fund any of Tranche 2 through Tranche 4 or have fully funded Tranche 2 through Tranche 4 by the termination of the

Extended Funding Period, then Commission will not be obligated to accept any such Tranche, or reimburse Lender for any fees related to any such Tranche, and this Agreement shall be deemed cancelled and of no further effect with respect to any such Tranche.

2.3 Interest. Except as set forth in Section 2.5, the principal balance of each Tranche shall bear interest at the Interest Rate. With respect to each Tranche, interest is due and payable semi-annually in arrears to Lender on the first day of June and December of every year (each a "Payment Date") until such Tranche Loan has been paid in full; provided, that if such day is not a Business Day, the Payment Date shall be the following Business Day. Interest shall be determined based on amounts advanced and outstanding from time to time during the previous semi-annual period. All interest hereunder shall be calculated on the basis of a 360-day year of twelve 30-day months.

2.4 Payments.

(a) Generally. Unless sooner prepaid following the occurrence and continuation of an Event of Default, Commission shall pay to Lender amounts due and owing in respect of each Tranche as follows on the following regularly scheduled payment dates: (i) on the Maturity Date of such Tranche, the principal balance of such Tranche and all interest and other amounts then outstanding with respect to such Tranche, (ii) on the date any Repayment Amount is due pursuant to Section 2.7 or Section 4.9, an amount equal to such Repayment Amount, (iii) on the date any Excess Amount is due pursuant to Section 2.7, an amount equal to such Excess Amount and (iv) on the date any Shortfall Qualifying Amount is due pursuant to Section 4.9, an amount equal to such Shortfall Qualifying Amount plus any accrued and unpaid interest on the Shortfall Qualifying Amount then outstanding, and payment of Lender Costs, if any, all as set forth in Section 4.9. Except as set forth in Section 2.7 and 4.9, prepayment of the principal amount of the Loans shall not be permitted.

(b) Commission's Optional Payment. Commission, at its sole option, may, upon written notice to Lender at any point up to six (6) calendar months prior to the Maturity Date for a Tranche, repay the entire outstanding principal amount of such Tranche on the applicable Maturity Date for such Tranche (each, a "Bond Issue Date") by delivering Additional Bonds in authorized denominations of $5,000 and integral multiples thereof to Lender with a coupon of [redacted] a maturity at least [redacted] years and no greater than [redacted] years from the Bond Issue Date and a no-call period of at least [redacted] years and no greater than [redacted] years from the Bond Issue Date. In order for Commission to select such option, on each Bond Issue Date, (i) Commission's long term credit rating shall be at least investment grade by at least two of Moody's, S&P and Fitch, (ii) Commission must meet all conditions under the Indenture for the issuance of Additional Bonds and such Additional Bonds shall constitute Parity Obligations under the Indenture, (iii) the interest on such Additional Bonds shall not be includable in gross income for purposes of federal and state income taxation, (iv) the Additional Bonds must have a CUSIP and be tradable and clearable through all domestic exchanges and clearing agencies as is customary for Commission's tax-exempt bond issuances, (v) Commission shall issue an official statement for the Additional Bonds and such other documents required under securities laws as is customary for Commission's tax-exempt bond issuances, and (vi) Commission shall deliver all certifications and opinions as is customary for Commission's tax-exempt bond issuances. All costs of issuance in connection with the deliverance of Additional Bonds to Lender pursuant to this Section 2.4(b) shall be borne by Commission. The amount of the Additional Bonds to be issued for repayment of each Tranche shall be determined on the applicable Close-Out Date by using a bond yield equal to [redacted], as provided by Thomson Reuters on the applicable Close-Out Date plus [redacted]) (the "Bond Spread"), as such further calculation is further set forth on Schedule 2.4 attached hereto.

2.5 Default Interest. Without duplication, after the occurrence of an Event of Default, and so long as such Event of Default is continuing, upon notice given to Commission by Lender, the rate of interest applicable to the outstanding principal of the Loans hereunder shall be [redacted] per annum plus the rate otherwise applicable to the Loans as provided in Section 2.3.

2.6 Statement of Obligations. Lender may from time to time deliver to Commission a statement of the Obligations of Commission to Lender, including principal of each Tranche, interest and Lender Costs owing, and such statement shall be conclusively presumed to be correct and accurate and constitute an account stated between Commission and Lender, absent manifest error, unless, within sixty (60) days after receipt thereof by Commission, Commission shall deliver to Lender written objection thereto specifying the error or errors, if any, contained in such statement.

2.7 Repayment for Failed Visa Applications. Notwithstanding anything to the contrary contained herein, Commission acknowledges that Lender has advised it that it is issuing limited partnership units to Investors pursuant to the Program and that the proceeds from the subscriptions for such units are being utilized by Lender to make the Loans. If all or any portion of the Loans is advanced to Commission and one or more Investors whose subscription funded such advances are not issued a conditional permanent residence U.S. Visa ("Visa") pursuant to the Program, Lender shall provide written notice and certification thereof to Commission and (i) if the entire Aggregate Commitment Amount available to be drawn by Commission at such time has been advanced hereunder, Commission shall, within six (6) months of Commission's receipt of such notice and certification (the "Repayment Period"), repay to Lender an amount equal to the product of Five Hundred Thousand Dollars ($500,000.00) multiplied by the number of Investors indicated in the foregoing notice and certification which were not issued Visas (the "Repayment Amount") and (ii) if less than the entire Aggregate Commitment Amount available to be drawn by Commission at such time has been advanced to Commission, such available Aggregate Commitment Amount shall be permanently reduced by the Repayment Amount; provided that, the Repayment Amount shall be applied first, to reduce the Tranche 4 Commitment Amount, second, to reduce the Tranche 3 Commitment Amount, third, to reduce the Tranche 2 Commitment Amount, and fourth, to reduce the Tranche 1 Commitment Amount; provided further that, to the extent the Repayment Amount exceeds the Aggregate Commitment Amount drawn by Commission at such time, Commission shall, upon the expiration of the applicable Repayment Period, repay to Lender such excess amount (an "Excess Amount"). In addition to the foregoing, on the date any Repayment Amount is paid by Commission to Lender, Lender shall pay to Commission a fee, to offset Commission's costs associated with the breakage of such portions of the Loans and to replace such amounts with alternate financing, in an aggregate amount equal to Ten Thousand Dollars ($10,000.00) multiplied by the number of Investors indicated in the notice and certification that precipitated Commission's payment of such Repayment Amount.

2.8 Term of Agreement. This Agreement shall remain in effect until all of the Obligations of Commission hereunder have been paid in full.

SECTION 3. COMMISSION'S REPRESENTATIONS AND WARRANTIES

In order to induce Lender to enter into this Agreement and to make the Loans to Commission as herein provided, Commission hereby makes the following representations and warranties contained in Section 3.1 through 3.14 as of the Effective Date, which representations and warranties, for the avoidance of doubt, (a) exclude any representations and warranties with respect to the Program, and (b) shall survive the execution and delivery of this Agreement and the occurrence of the Effective Date:

3.1 Place of Business. Commission's principal executive office is located at the address indicated in the Preamble.

3.2 Organization; Powers. Commission is an instrumentality of, and is duly established and existing under, the laws of the Commonwealth, with all requisite power and authority to deliver this Agreement and the other Loan Documents, to adopt the Resolution and to execute and deliver this Agreement and the other Loan Documents and to perform its obligations hereunder. Commission has all requisite power and authority to carry on its business as now conducted and, except where the failure to do so, individually or in the aggregate, could not reasonably be expected to result in a Material Adverse Effect. Commission has no Affiliates.

3.3 Authorization; Enforceability. The transactions contemplated by this Agreement are within Commission's powers and have been duly authorized by all necessary action of Commission. Each Loan Document has been duly executed and delivered by Commission. Each Loan Document constitutes a legal, valid and binding obligation of Commission, enforceable in accordance with its terms, subject to applicable bankruptcy, insolvency, reorganization, moratorium or other laws affecting creditors' rights generally and subject to general principles of equity, regardless of whether considered in a proceeding in equity or at law.

3.4 Governmental Approvals; No Conflicts. The transactions by Commission contemplated by this Agreement (a) do not with respect to Commission require any consent or approval of, registration or filing with, or any other action by, any Governmental Authority, except such as have been obtained or made and are in full force and effect, (b) do not violate (i) any applicable law or regulation applicable to Commission or (ii) the Enabling Acts or the Resolution or any organizational documents of Commission or any order of any Governmental Authority applicable to Commission, (c) do not violate or result in a default under any indenture, agreement or other instrument binding upon Commission or its assets. The property of Commission is not subject to any Lien, other than those permitted under the terms of the Indenture.

3.5 Taxes. To the extent required by applicable law, Commission has timely filed or caused to be filed all tax returns, filings and reports required to have been filed with the applicable Governmental Authorities, if any.

3.6 Litigation. There are no actions, suits, investigations or proceedings by or before any arbitrator or Governmental Authority pending against or, to the knowledge of Commission, threatened against or affecting, Commission (i) which could reasonably be expected to be adversely determined and that, if adversely determined, could reasonably be expected, individually or in the aggregate, to result in a Material Adverse Effect or (ii) that involve this Agreement or the borrowing transactions by Commission contemplated hereby.

3.7 Financial Condition; No Material Adverse Change. The audited balance sheet and statements of operations and cash flows (including the notes thereto) of Commission (i) as of and for the fiscal year ended May 31, 2012, reported on by Zelenkofske Axelrod, independent public accountants, and (ii) as of and for the fiscal quarter and the portion of the fiscal year ended January 31, 2013, certified by its chief financial officer, in each case copies of which have heretofore been furnished to Lender, present fairly, in all material respects, the financial position and results of operations and cash flows of Commission, as of such dates and for such periods, in accordance with generally accepted accounting principles. Since January 31, 2013, there has been no material adverse change in the operations, assets or financial condition of Commission.

3.8 Compliance with Laws and Agreements. Commission is in compliance with all laws, regulations and orders of each Governmental Authority applicable to it or its property (including any Environmental Law and, to the extent required by law, the Employee Retirement Income Security Act of 1974) and all indentures, agreements and other instruments binding upon it or its property, except where the failure to be so, individually or in the aggregate, could not reasonably be expected to result in a Material Adverse Effect.

3.9 Investment Company. Commission is not an "investment company" as defined in, or subject to regulation under, the Investment Company Act of 1940.

3.10 Plans; Construction of the Project. The plans for the Project have been approved, to the extent required by applicable laws or regulations or any restrictive covenant affecting title to the Project, by any Governmental Authority claiming jurisdiction under applicable laws or regulations or any restrictive covenant affecting title to the Project. Commission is not aware of any material violation of any law or regulation of any Governmental Authority with respect thereto.

3.11 Permits and Approvals. All planning and other approvals, authorizations and/or permits currently required under any Governmental Authority for any phase of the Project presently occurring have been obtained, are in full force and effect and Commission has not received any written notice of revocation, termination or default thereof. With respect to any permits not presently obtained and which are not required for a current phase of the Project, Commission has no reason to believe that it will not be able to obtain such permits in the ordinary course of business so as not to delay the progress of the Project.

3.12 Disclosure. There is no fact of which Commission is aware which has not been disclosed to Lender in writing pursuant to the terms of this Agreement prior to the Effective Date and which, singly or in the aggregate with all such other facts of which Commission is aware, could reasonably be expected to result in a Material Adverse Effect.

3.13 Project Completion Schedule. The Project Completion Schedule has been prepared in good faith using reasonable assumptions and Commission is not aware of any reason the Project would not be completed in all material respects in accordance with the Project Completion Schedule.

3.14 No Acceleration of Indebtedness. No agreement, instrument or other document governing or evidencing obligations of Commission evidenced by bonds, debentures, notes or loans permits by its terms the holders of such obligations to require the payment thereof prior to the stated maturity date therefor for any reason, including, without limitation, the occurrence of a default with respect to such obligations.

In addition to the above representations and warranties, on each Close-Out Date, Commission shall make the following additional representations and warranties:

3.15 Security. The Notes, when authenticated by the Trustee pursuant to Section 7.2(b) of this Agreement and the Indenture, shall constitute Additional Bonds and Parity Obligations under the Indenture.

3.16 Valid Lien; Indenture a Contract. Commission's irrevocable pledge of the Revenues to and for the payment of the Notes owed to Lender (i) is valid and binding as of the Close-Out Date and all Revenues and any other property that comprises the Trust Estate now or hereafter received by Commission are immediately subject to the lien thereof, (ii) creates a pledge of, lien on and security interest therein as provided in the Indenture, (iii) requires no further acts, instruments, approvals, filings, registration, recording or publication of the Indenture or notice to any Person, except as required by law, to validly establish the pledge provided for under the Indenture or to protect or maintain the lien created thereby on the Revenues to secure the Notes owed the Lender and (iv) does not require any act of appropriation for the application thereof to the purposes for which pledged.

SECTION 4. COMMISSION'S AFFIRMATIVE COVENANTS

At all times any Loan is outstanding and until the Obligations are paid in full, Commission shall comply with the following, unless Lender shall otherwise consent in writing:

4.1 Existence; Conduct of Business. Commission, to the fullest extent allowable under applicable law, will do or cause to be done all things necessary to preserve, renew and keep in full force and effect its legal existence and the rights, licenses, permits, privileges and franchises material to the conduct of its business, except where the failure to do so, individually or in the aggregate, could not reasonably be expected to result in a Material Adverse Effect.

4.2 Inspection Rights.

(a) Commission shall permit Lender or its representatives, during Commission's usual business hours and upon ten (10) Business Days' prior notice, to have access to and examine and make copies of Commission's Books.

(b) At any time that Lender requests, Commission will permit, upon ten (10) Business Days' prior notice, Lender and its officers, agents and employees, or a third party on behalf of Lender, to conduct investigations or inspections to verify (i) that there is no Material Adverse Effect, (ii) that no Event of Default or Potential Event of Default has occurred and is continuing and (iii) the accuracy of any reports delivered hereunder. After the occurrence of an Event of Default, all such investigations and inspections shall be at the sole expense of Commission.

4.3 Financial Statements and Other Information. Commission shall provide to Lender (a) quarterly unaudited statements in connection with the operations of Commission no later than sixty (60) days after the end of each quarter; (b) audited financial statements within one hundred eighty (180) days after Commission's fiscal year-end; (c) such other material reports, schedules, invoices, permits, approvals, consents and authorizations relating to the Project as Lender may reasonably request from time to time; and (d) such other information concerning its business, property and financial affairs as Lender may reasonably request from time to time.

4.4 Lender Costs. Commission shall promptly after receipt of a reasonably detailed invoice therefor, reimburse Lender for reasonable sums expended by Lender for Lender Costs.

4.5 Compliance with Laws. Commission will comply with all laws, rules, regulations and orders of any Governmental Authority applicable to it or its property, except where the failure to do so, individually or in the aggregate, could not reasonably be expected to result in a Material Adverse Effect.

4.6 Notices of Material Events. Upon any such event becoming known to a Responsible Officer of Commission, Commission shall promptly notify Lender of (a) any event having a Material Adverse Effect, (b) the occurrence of any Event of Default or Potential Event of Default under this Agreement, (c) the institution of any litigation, governmental investigation or administrative proceedings against or affecting the Project and (d) the institution of any litigation, governmental investigation or administrative proceedings against or affecting the Commission, which has had or is reasonably likely to have a Material Adverse Effect.

4.7 Taxes. To the extent required by applicable law, Commission shall timely file or cause to be filed all tax returns, filings and reports required to be filed with any applicable Governmental Authority, if any.

4.8 Insurance. Commission, at its sole expense, shall maintain a program of insurance and/or self-insurance with respect to the property and equipment comprising the Project, in amounts and against such risks as are customarily insured against by Commission for similar property or equipment owned, leased or operated by Commission.

4.9 Job Creation Requirements; Shortfall Qualifying Amount.

(a) Commission shall create a minimum of ten (10) new full-time direct and/or indirect jobs in the Eligible Counties for each Five Hundred Thousand Dollars ($500,000.00) advanced under each Tranche during the period commencing on the Close-Out

Date for such Tranche and ending on the date that is one hundred eighty (180) days after two (2) years after such Close-Out Date (the "Job Creation Requirement"); it being understood and agreed by Lender and Commission that Loans of $200,000,000 would require the creation of four thousand (4,000) full-time direct and/or indirect permanent jobs. The total number of direct and/or indirect jobs ("New Jobs") required to satisfy the Job Creation Requirement will be created or deemed created by completion and operation of the Project substantially as described in the economic impact study commissioned by DVRC with the approval of Commission from Evans, Carroll & Associates, dated February 10, 2013 (together with any subsequent modifications, the "Economic Impact Study"), attached hereto as Exhibit D. Commission shall use the proceeds of the Loans only with respect to amounts incurred by the Project. Until such time as Commission has satisfied the Job Creation Requirement, at six (6) month intervals (and as otherwise reasonably required by the USCIS), Commission will provide Lender with reports describing, among other things, the use of proceeds of the Loans, progress of the Project, costs incurred to date and percentage of work completed.

(b) To evidence the completion and operation of the Project substantially as described in the Economic Impact Study, Commission shall, for each Tranche and by the date that is no later than one hundred eighty (180) days after the end of each two (2) year period referenced in Section 4.9(a) in respect of such Tranche, provide to Lender and DVRC or cause to be provided to Lender and DVRC the following: (i) where appropriate and customary, copies of contractors' certificates certifying completion of the Project, reports of project status, costs incurred to date and percentage of work completed with respect to the Project and (ii) such additional information with respect to the Project as may be reasonably required by USCIS, in each case, as reasonably acceptable to Lender. If Commission has not met the Job Creation Requirement in respect of advances under any Tranche by the end of the applicable two (2) year period, Commission, within thirty (30) days following notice from Lender of the failure to meet the Job Creation Requirement, shall repay to Lender the portion of the principal amount that was attributable to the amount of Qualifying Expenditures that Commission failed to incur ("Shortfall Qualifying Amount") plus any accrued and unpaid interest on the Shortfall Qualifying Amount then outstanding, and payment of Lender Costs, if any, incurred by Lender in enforcing its rights under the Loan Documents with respect thereto.

(c) Commission agrees that it shall not enter into any EB-5 financing for the Project with any other lender.

4.10 Project Completion. The Project shall be (a) undertaken in all material respects in accordance with the Economic Impact Study, (as amended from time to time with the prior written consent (such consent not to be unreasonably withheld or delayed) of the Lender, the "Project Completion Schedule"), attached hereto as Exhibit F and (b) completed no later than the date occurring six (6) years after the Close-Out Date for the Tranche 1 Loan.

4.11 Permits and Approvals. During the course of the Project, Commission shall cause all planning and other approvals, authorizations and/or permits required under any Governmental Authority for any phase of the Project to be obtained and remain in full force and effect; provided that Commission shall promptly notify Lender in writing of (i) any written notice of revocation, termination or default with respect to any of the foregoing and (ii) any reason Commission may have to believe that it will not be able to obtain such permits in the ordinary course of business so as not to delay completion of the Project in accordance with the Project Completion Schedule.

SECTION 5. EVENTS OF DEFAULT

5.1 Events of Default. An Event of Default under the Indenture shall constitute an Event of Default under this Agreement.

SECTION 6. LENDER'S RIGHTS AND REMEDIES

6.1 Termination; Enforcement. If an Event of Default shall occur and shall not have been remedied, then and in every such case, (i) Lender may terminate the Commitments (provided that, in the case of an Event of Default described in Section 801(e) of the Indenture, the Commitments shall automatically terminate) and (ii) Lender, by its agents and attorneys, may proceed to protect and enforce its rights under this Agreement forthwith by a suit or suits in equity or at law, whether for the specific performance of any covenant herein contained, or in aid of the execution of any power herein granted or in the enforcement of any other legal or equitable right as Lender, being advised by counsel, shall deem most effectual to enforce any of its rights or to perform any of its duties under this Agreement; provided, however, that there shall be no right to accelerate the time for payment of the Loans.

6.2 Cumulative Rights and Remedies; Lender Waivers. Subject to Section 6.1 above, Lender's rights and remedies under this Agreement and all other agreements shall be cumulative; Lender shall have all other rights and remedies not inconsistent herewith as provided by law or in equity; no exercise by Lender of one right or remedy shall be deemed an election, and no waiver by Lender of any Event of Default or breach of this Agreement on Commission's part shall be deemed a waiver of similar subsequent Events of Default; no delay by Lender shall constitute a waiver, election or acquiescence by it.

SECTION 7. CONDITIONS

7.1 Conditions to Obligations of Lender.

(a) Effective Date Conditions. The obligation of Lender to perform any of its obligations hereunder is subject to delivery to Lender, in form and substance reasonably satisfactory to Lender prior to or concurrently with the Effective Date, of the following:

(i) this Agreement duly executed by Commission;

(ii) opinion of counsel to Commission;

(iii) a general certificate of the Commission in substantially the form attached hereto as Exhibit D;

(iv) a certificate of a Responsible Officer of Commission in substantially the form attached hereto as Exhibit E; and

(v) the approval letter of the Attorney General of the Commonwealth as to the form and legality of this Agreement.

(b) Conditions for each Tranche. Upon Lender having provided written notice to Commission that it has received sufficient funds from Investors such that the Commitment Amount for a Tranche is available to advance to Commission and provided Lender is in compliance with the Period Conditions contained in Section 2.2 of this Agreement, then Commission shall:

(i) Deliver a fully executed Note in the Commitment Amount for such Tranche to Lender;

(ii) Direct the Trustee to authenticate the Note for such Tranche as Additional Bonds under the Indenture upon the Trustee's receipt of all of the documents, certificates and opinions required by Section 210 of the Indenture for the issuance of Additional Bonds;

(iii) If so requested by Lender, cooperate with Lender to provide the due diligence customarily required to deliver an opinion, at Lender's expense, of nationally recognized bond counsel (which may be counsel to Commission), to the effect that interest on the Notes issued as Additional Bonds under the Indenture is not included in gross income for federal income tax purposes under the Code;

(iv) Deliver to Lender an opinion of counsel to Commission, satisfactory to Lender;

(v) Execute a general certificate with respect to the Note and the Supplemental Indenture in substantially the form attached hereto as Exhibit D-1;

(vi) Execute a certificate of a Responsible Officer of Commission in substantially the form attached hereto as Exhibit E; and

(vii) Pay the Origination Fee for such Tranche to Lender.

Notwithstanding the foregoing, no Tranche shall be made available to Commission if Commission is not in compliance with the representations and warranties contained in Sections 3.2, 3.3, 3.4, 3.8, 3.14, 3.15 and 3.16 of this Agreement and, if a Tranche has been funded under this Agreement, no Potential Event of Default or Event of Default shall have occurred under this Agreement.

7.2 Each Advance. Notwithstanding anything herein to the contrary, Lender shall have no obligation to make any advance on any Tranche hereunder unless (a) Lender and the Investors for such advance have received all necessary approvals under the Program (as reasonably determined by Lender), (b) Lender is reasonably satisfied that there has at the time of any such advance been no Material Adverse Effect and that no Event of Default or Potential Event of Default has then occurred and is continuing, (c) Lender has received a certificate (in form and substance reasonably satisfactory to Lender) of Commission certifying that at the time of such advance Commission has sufficient funds to complete the Project at such time as contemplated by Section 4.11, (d) Lender has received a construction manager's certificate (in form and substance reasonably satisfactory to Lender) certifying that at the time of such advance the Project has been to date completed in all material respects in accordance with the Project Completion Schedule, and (e) Commission's senior long term credit rating on its senior Turnpike Revenue Bonds is at least investment grade by at least two of Fitch, Moody's and S&P.

SECTION 8. GENERAL PROVISIONS

8.1 Future Advances. All advances of the Loans heretofore, now or at any time or times hereafter made pursuant to Sections 2.1(a), (b), (c) and (d) by Lender to Commission shall, with respect to the Loans, constitute one loan from Lender.

8.2 Notices. Unless otherwise provided in this Agreement, all notices and other communications relating to this Agreement shall be in writing and shall be delivered by hand or overnight courier service, mailed by certified or registered mail or sent by facsimile, as follows:

If to Lender:

DVRC PENNSYLVANIA TURNPIKE, LP
c/o Delaware Valley Regional Center, LLC
1055 Westlakes Drive, 3rd Floor
Berwyn, Pennsylvania 19312
Attention: Joseph Manheim
Telecopy: [redacted]

With a copy to Lender's Counsel at:

Raffaele & Puppio, LLP
19 West Third Street
Media, Pennsylvania 19603
Attention: Mike Puppio
Telecopy: [redacted]

If to Commission:

Pennsylvania Turnpike Commission
P.O. Box 67676
Harrisburg, Pennsylvania 17106-7676
Attention: Chief Financial Officer
Telecopy: [redacted]

With a copy to Commission's Counsel at:

Duane Morris LLP
30 South 17th Street
Philadelphia, Pennsylvania 19103
Attention: Thomas J. Ellis
Telecopy: [redacted]

Any party hereto may change its address or facsimile number for notices and other communications hereunder by notice to the other parties hereto. All notices and other communications given to any party hereto in accordance with the provisions of this Agreement shall be deemed to have been given when delivered in person or by courier service, upon receipt of a telecopy, or electronic mail, or five (5) days after deposit in the United States mail (certified with postage prepaid and properly addressed).

8.3 Waivers; Amendments. Neither this Agreement nor any provision hereof may be waived, amended or modified except pursuant to an agreement or agreements in writing entered into by Commission and Lender. Lender acknowledges that Commission may enter into amendments and supplements to the Indenture.

8.4 Survival. All representations and warranties made by Commission and Lender herein shall survive the execution and delivery of this Agreement and the occurrence of the Effective Date.

8.5 Limit on Interest. Notwithstanding any provision contained in this Agreement or in the Notes, the total liability of Commission for payment of interest on the Loans shall not exceed the maximum amount of such interest permitted by law to be charged, collected, or received from Commission, and if any payments by Commission include interest in excess of such a maximum amount, Lender shall apply such excess to reduction of the unpaid principal balance of the Loans.

8.6 Records. Unless otherwise provided herein, any documents, schedules, invoices or other papers delivered to Lender by or on behalf of Commission may be destroyed or otherwise disposed of by Lender one year after they are delivered to or received by Lender, unless Commission does request, in writing, the return of such documents, schedules, invoices or other papers and does make arrangements, at Commission's expense, for their return.

8.7 Headings. Section headings and the Table of Contents used herein are for convenience of reference only, are not part of this Agreement and shall not affect the construction of, or be taken into consideration in interpreting, this Agreement.

8.8 Lender Representations. Lender represents that at the time of funding Tranche 1 and at all times thereafter during the term of this Agreement, Lender shall be an "accredited investor" as that term is defined in Rule 501 promulgated under the Securities Act of 1933, as amended (the "Securities Act"). Lender further represents and warrants that it is purchasing the Notes solely for investment purposes, for its own account and not with a view to distribution, and that Lender will not sell, transfer, pledge, hypothecate or in any manner alienate the Notes without the prior express written consent of Commission, which Commission may give or withhold in its sole discretion. Lender acknowledges that the Notes will not be registered under the Securities Act. Lender further acknowledges that the Notes when issued by Commission to Lender will bear a legend that the Notes have not been registered under the Securities Act and setting forth the restrictions on transferability and sale of the Notes. Lender acknowledges that it has received copies of the Indenture, as well as all other information and documentation concerning the Notes and Commission as has been requested by it and otherwise deemed by it to be relevant to its decision to enter into this Agreement. Lender understands that the Notes are not general obligations of Commission, but rather special and limited obligations of Commission, payable and secured solely as provided in the Indenture. Lender acknowledges that it has made its own independent investigation and evaluation of the financial position and business condition of Commission.

8.9 Successors and Assigns. This Agreement shall be binding and deemed effective as set forth in Section 1.3 and following execution by Commission and Lender. This Agreement shall bind and inure to the benefit of the respective successors and assigns of each of the parties; provided however, that (a) Commission may not assign this Agreement or any rights hereunder without Lender's prior written consent and (b) Lender may not assign its rights and obligations under this Agreement to any Person without Commission's prior written consent. Any prohibited assignment shall be absolutely void. No consent to an assignment by Lender shall release Commission of its Obligations to Lender.

8.10 Interpretation. Neither this Agreement nor any uncertainty or ambiguity herein shall be construed or resolved against Lender or Commission, whether under any rule of construction or otherwise; on the contrary, this Agreement has been reviewed by all parties and shall be construed and interpreted according to the ordinary meaning of the words used so as to fairly accomplish the purposes and intentions of all parties hereto.

8.11 Governing Law. This Agreement shall be construed in accordance with and governed by the laws of the Commonwealth of Pennsylvania.

8.12 Dispute Resolution. All questions or disputes regarding any matter involving this Agreement or its breach shall be referred to the Board of Claims of the Commonwealth of Pennsylvania pursuant to 62 Pa.C.S.A. § 1701 et seq. If the Board of Claims either refuses or lacks jurisdiction, these questions or disputes shall proceed as provided in 42 Pa.C.S.A. § 7301 et seq. (Statutory Arbitration). The panel of arbitrators will consist of a representative of each of the parties and a third party chosen by the representatives, or if the representatives are unable to choose, by the American Arbitration Association.

8.13 Severability; Integration. Each provision of this Agreement shall be severable from every other provision of this Agreement for the purpose of determining the legal enforceability of any specific provision. This Agreement cannot be changed or terminated orally. All prior agreements, understandings, representations, warranties, and negotiations, between Lender and Commission, if any, are merged into this Agreement. The parties intend and agree that their respective rights, duties, powers, limitations, obligations and discretions shall be performed, carried out, discharged and exercised reasonably and in good faith.

8.14 Counterparts. This Agreement may be executed in any number of counterparts and by different parties in separate counterparts, each of which when so executed and delivered shall be deemed to be an original and all of such counterparts taken together shall constitute but one and the same instrument.

8.15 Relationship. Commission is only a borrower under this Agreement, and nothing contained in this Agreement, the Notes, the Indenture (including any amendments or supplements thereto), or any other documents, and no action taken by Lender or Commission shall be deemed to constitute Lender, Commission or any of the parties to any of the above documents as a partnership, an association, a joint venture or other entity, with the only relationship between the parties being that of borrower and lender.

[signature page follows]

IN WITNESS WHEREOF, the parties hereto have caused this Loan Agreement to be executed as of the date first hereinabove written.

LENDER:

DVRC PENNSYLVANIA TURNPIKE, LP, a Pennsylvania limited partnership

By: Delaware Valley Regional Center, LLC
its general partner

By: [redacted]
Name: Joseph Manheim
Title: President and Managing Director

COMMISSION:

PENNSYLVANIA TURNPIKE COMMISSION, an instrumentality of the Commonwealth of Pennsylvania

ATTEST:

____
Ann Louise Edmunds
Assistant Secretary-Treasurer

By: ________________________
Name: William K. Lieberman
Title: Chairman

APPROVED AS TO FORM AND LEGALITY:

____________________ 4/26/2013
Albert C. Peters II Date
General Litigation & Contracts Counsel

See Approval Memo dated March 28, 2013
Robert A. Mulle
Chief Deputy Attorney General

IN WITNESS WHEREOF, the parties hereto have caused this Loan Agreement to be executed as of the date first hereinabove written.

LENDER:

DVRC PENNSYLVANIA TURNPIKE, LP, a Pennsylvania limited partnership

By: Delaware Valley Regional Center, LLC
its general partner

By: ______________________________
Name: Joseph Manheim
Title: President and Managing Director

COMMISSION:

PENNSYLVANIA TURNPIKE COMMISSION, an instrumentality of the Commonwealth of Pennsylvania

By: [redacted]
Name: William K. Lieberman
Title: Chairman

ATTEST:

[redacted]
Ann Louise Edmunds
Assistant Secretary-Treasurer

APPROVED AS TO FORM AND LEGALITY:

[redacted] 4/26/2013
Albert C. Peters II Date
General Litigation & Contracts Counsel

See Approval Memo dated March 28, 2013
Robert A. Mulle
Chief Deputy Attorney General

Commonwealth of Pennsylvania
Office of Attorney General
March 28, 2013

RECEIVED
PENNSYLVANIA
TURNPIKE COMMISSION

MAR 2 8 2013

LEGAL
DEPARTMENT

Subject: Contract PTC-2013-5

To: Pennsylvania Turnpike Commission
Doreen McCall
Chief Counsel

From: Robert A. Mulle
Chief Deputy Attorney General
Legal Review Section

The above-referenced contract has been approved by memorandum for form and legality pursuant to the Commonwealth Attorneys Act, 71 P.S. Section 732.101 et seq.

No approval or opinion is offered as to the manner of execution if the document was submitted in proposed form. No approval or opinion is offered concerning any document referenced but not submitted or any events or other occurrences giving rise to the contract's creation or submission. Our review does not extend to compliance with the laws of other jurisdictions. To the extent, if any, that such other laws may be applicable to the making or performance of the contract in any respect, the agency may want to consult with counsel in that jurisdiction.

To the extent applicable to the referenced contract, no approval or opinion is offered as to the fiscal authority of the agency to commit funds not yet appropriated. The Office of the Budget is responsible for the fiscal review of the contracts pursuant to the Commonwealth Procurement Code, 62 Pa. C.S. Section 327.

RAM:jmn
CC:

Schedule I

Eligible Counties

Berks County

Bucks County

Chester County

Delaware County

Montgomery County

Philadelphia County

Schedule 2.4

Borrowers Optional Payment Calculation Methodology for Additional Bonds
(Representative Example)

[redacted]

Exhibit A

FORM OF PENNSYLVANIA TURNPIKE COMMISSION TURNPIKE PROMISSORY NOTE

THE SECURITIES REPRESENTED BY THIS NOTE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, AND MAY NOT BE SOLD, TRANSFERRED, PLEDGED, HYPOTHECATED OR OTHERWISE DISPOSED OF IN ANY MANNER.

Dated Date: Tranche No. ____

Maturity Date:

Registered Owner:

Principal Amount:

Pennsylvania Turnpike Commission ("Commission"), an instrumentality of the Commonwealth of Pennsylvania (the "Commonwealth"), for value received, hereby promises to pay to DVRC PENNSYLVANIA TURNPIKE, LP, as Lender, or its registered assigns ("Lender"), on the Maturity Date stated above, the Principal Amount stated above (or, if applicable, such lesser amount as shall have been actually advanced by Lender to Commission and be outstanding from time to time under the Loan Agreement, as defined below), and to pay interest on such Principal Amount at the intervals and at the rate of interest specified below, all as hereinafter provided. This Note is issuable as a fully registered Note and shall be registered on the register maintained by the Trustee for that purpose.

This Note evidences and secures Commission's obligations under the Loan Agreement dated as of ____________, 2013 (as amended, restated, amended and restated, extended, supplemented or otherwise modified from time to time, the "Loan Agreement") between Commission and Lender and is issued pursuant to, and constitutes "Additional Bonds" as defined in, the Amended and Restated Trust Indenture, dated as of March 1, 2001 (the "Restated Indenture"), between Commission and U.S. Bank National Association, Philadelphia, Pennsylvania, as Trustee (the "Trustee"), and as further supplemented by a Supplemental Trust Indenture No. ___, dated as of ____________, _________ between Commission and the Trustee (the "Supplemental Indenture," and together with the Restated Indenture and all amendments and supplements thereto, the "Indenture"). Capitalized terms used herein which are not defined shall have the meanings set forth in the Loan Agreement, the Indenture or the Supplemental Indenture, as applicable.

The Note is issued under and pursuant to an Act of the General Assembly of the Commonwealth of Pennsylvania approved May 21, 1937, P.L. 774, No 211, as amended and supplemented, inter alia, by an Act of the General Assembly of the Commonwealth approved July 18, 2007, P.L. 169, No. 44, under and pursuant to resolutions of Commission and under and pursuant to the Indenture, for the purpose of financing the Project

Commission promises to pay interest on the principal amount of this Note at the rate of [redacted] per annum, computed on the basis of a 360-day year consisting of twelve 30-day months (the "Interest Rate"). Interest shall be due and payable semi-annually in arrears to Lender on the first day of June and December of every year (each a "Payment Date") until the Principal Amount has been paid in full; provided, that if such day is not a Business Day, the Payment Date shall be the following Business Day. Interest on this Note shall be determined based on the amounts advanced and outstanding from time to time during the previous semi-annual period. All payments of principal and interest shall be made to Lender in lawful money of the United States of America by wire transfer of immediately available funds to such bank in the continental United States as Lender shall request in writing to the Trustee.

After the occurrence of an Event of Default, and so long as such Event of Default is continuing, upon notice given to Commission by Lender, the rate of interest applicable to the outstanding principal amount hereunder shall be [redacted] per annum plus the Interest Rate.

This Note is the Tranche No. ____ Note referred to in the Loan Agreement, is entitled to the benefits thereof, is subject to mandatory redemption in accordance with Section 2.7 and 4.9 of the Loan Agreement, and may not be prepaid in whole or in part. Reference is hereby made to the Loan Agreement for a statement of all of the terms and conditions under which the Principal Amount and all advances in respect thereof evidenced hereby are to be made and to be repaid.

THIS NOTE IS A LIMITED OBLIGATION OF THE COMMISSION AND SHALL NOT BE DEEMED TO BE DEBT OF THE COMMONWEALTH OR ANY SUBDIVISION THEREOF. THIS NOTE SHALL BE PAYABLE SOLELY FROM THE REVENUES (AS DEFINED IN THE INDENTURE) OF COMMISSION PLEDGED FOR THAT PURPOSE. THE FAITH AND CREDIT OF THE COMMONWEALTH ARE NOT PLEDGED TO THE PAYMENT OF THE PRINCIPAL OR REDEMPTION PRICE HEREOF OR THE INTEREST HEREON, AND THE COMMONWEALTH IS NOT DIRECTLY OR INDIRECTLY OR CONTINGENTLY OBLIGATED TO LEVY OR TO PLEDGE ANY FORM OF TAXATION WHATEVER THEREFOR, OR TO MAKE ANY APPROPRIATION FOR PAYMENT OF THIS NOTE.

The Indenture provides for the issuance, under the conditions, limitations and restrictions therein set forth, of Additional Bonds and subordinate indebtedness (each as described in the Indenture) for the purposes set forth therein.

Except as otherwise provided in the Indenture, this Note is equally ratably secured, together with all other bonds issued or to be issued in the future pursuant to the Indenture (collectively, the "Bonds") by a pledge by Commission of the Trust Estate (as defined in the Indenture), including the Revenues (as defined in the Indenture).. Any Additional Bonds issued under the Indenture will be equally and ratably secured under the Indenture with this Note and all other Bonds issued and outstanding under the Indenture. The Indenture provides the conditions, limitations and restrictions under which Additional Bonds become equally and ratably secured under the Indenture with this Note and the Bonds.

The Commission is required to fix and change tolls for the use of the Pennsylvania Turnpike System and to adjust such tolls from time to time as may be necessary in order that such tolls and other Revenues will be sufficient to pay the cost of maintaining, repairing, and operating the same, to pay the principal of and interest on this Note and all other Bonds, and to create reserves for such purposes, all in the manner provided in the Indenture.

An executed counterpart of the Indenture is on file at the office of the Commission and at the designated corporate trust offices of the Trustee. Reference is hereby made to the Indenture for the provisions, among others, with respect to collection and disposition of Revenues, the funds charged with and pledged to the payment of the interest on, the principal of and the premium, if any, on the Note, the nature and extent of the security, the terms and conditions on which this Note is issued, the rights, duties and obligations of Commission and the Trustee and the rights of the owners of this Note. By the acceptance of this Note, the registered owner hereof assents to all of the provisions of the Indenture.

The owner of this Note by the acceptance hereof specifically agrees that the Trustee shall be under no obligation to take any action with respect to any Event of Default occurring under the terms of this Note or the Indenture, other than to give notice of certain defaults as provided in the Indenture, unless requested so to do in writing by the owners of not less than a majority in principal amount of the Bonds then Outstanding under the Indenture upon receipt of satisfactory indemnity as provided in the Indenture.

The owner of this Note shall have no right to enforce the provisions of the Indenture or to institute action to enforce the covenants therein, or to take any action with respect to any event of default under the Indenture, or to institute, appear in or defend any suit or other proceeding with respect thereto, except as provided in the Indenture.

Upon the occurrence of an event of default, and on the conditions, in the manner and with the effect, set forth in the Indenture, the principal of all Bonds then outstanding under the Indenture may become or may be declared due and payable before the stated maturities thereof, together with the interest accrued thereon.

Modifications or alterations of the Indenture or of any indenture supplemental thereto may be made by Commission and the Trustee only to the extent and in the circumstances permitted by the Indenture.

All acts conditions and things required by the constitution and statues of the Commonwealth and the rules and regulations of Commission to happen, exist and be performed precedent to and in the issuance of this Note and the execution of the Indenture, and the Supplemental Indenture have happened, exist and have been performed as so required.

No recourse shall be had for the payment of the principal or redemption price of, or interest on, this Note, or for any claim based hereon or on the Indenture, against any member, director, officer or employee, past, present or future, of Commission or of any successor body, as such either directly or through Commission or any such successor body, under any constitution provision, statute or rule of law, or by the enforcement of any assessment or by any legal or equitable proceeding or otherwise.

This Note shall be governed by and construed under the laws of the Commonwealth of Pennsylvania, all rights and remedies being governed by such laws.

This Note shall not be valid or become obligatory for any purpose or be entitled to any security or benefit under the Indenture until the Certificate of Authentication hereon shall have been signed by the Trustee. This Note is one of a duly authorized issue of $200,000,000, maximum aggregate principal amount, Turnpike Promissory Notes, issued pursuant to, under authority of and in full compliance with the Constitution and laws of the Commonwealth of Pennsylvania, the Resolution of the Commission, and the Indenture and Supplemental Indenture.

[SIGNATURE PAGE AND CERTIFICATE OF AUTHENTICATION FOLLOW]

IN WITNESS WHEREOF, Commission has caused this Note to be executed in its name by the _______________ of Commission and the official seal of Commission to be affixed, imprinted, lithographed or reproduced hereon and attested by the manual or facsimile signature of its Secretary/Treasurer, or Assistant Secretary/Assistant Treasurer, and this Note to be delivered this ___ day of ________, 2013.

Attest:

PENNSYLVANIA TURNPIKE COMMISSION

____

By: ______________________________
Name:
Title:

CERTIFICATE OF AUTHENTICATION

This Note is the Note described in the within-mentioned Indenture.

U.S. BANK NATIONAL ASSOCIATION, Trustee

Authentication Date:

By: ______________________________
Authorized Officer

Exhibit A-1

INDENTURE

553143_1

Execution Copy

PENNSYLVANIA TURNPIKE COMMISSION
to
FIRST UNION NATIONAL BANK,
(formerly Fidelity Bank, National Association),
as Trustee

AMENDED AND RESTATED TRUST INDENTURE

Originally dated as of July 1, 1986;
Amended and Restated as of March 1, 2001

TABLE OF CONTENTS

THIS Amended and Restated Indenture (the "Indenture"), dated as of March 1, 2001, is made by and between the PENNSYLVANIA TURNPIKE COMMISSION, an instrumentality of the Commonwealth of Pennsylvania (hereinafter sometimes called the "Commission"), and FIRST UNION NATIONAL BANK (formerly Fidelity Bank, National Association), a national banking association duly organized and validly existing under and by virtue of the laws of the United States of America and having a corporate trust office in the City of Philadelphia, Pennsylvania (said banking association and any bank or trust company appointed as successor trustee under this Indenture being hereinafter sometimes called the "Trustee").

WITNESSETH:

WHEREAS, by an Act of the General Assembly of Pennsylvania approved May 21, 1937, P.L. 774, Act 211, the Commission was created and constituted an instrumentality of the Commonwealth, and by virtue of said Act the Commission was authorized and empowered to construct, operate and maintain a turnpike from a point at or near Middlesex in Cumberland County, Pennsylvania to a point at or near Irwin in Westmoreland County, Pennsylvania (such turnpike, including all connecting roads, tunnels and bridges and all property, rights, easements and franchises relating thereto, being hereinafter sometimes collectively called the "Original Turnpike"), and to issue turnpike revenue bonds, payable solely from revenues, to pay the cost of such construction; and

WHEREAS, by virtue of an Act of the General Assembly of Pennsylvania approved May 16, 1940, P.L. 949, the Commission was authorized and empowered to construct, operate and maintain a turnpike from a point at or near Middlesex in Cumberland County, Pennsylvania (the eastern terminus of the Original Turnpike) to a point at the City of Philadelphia (such turnpike, including all connecting roads, tunnels and bridges and all property, rights, easements and franchises relating thereto, being hereinafter sometimes collectively called the "Eastern Extension"), and to issue turnpike revenue bonds, payable solely from revenues, to pay the cost of such construction; and

WHEREAS, by virtue of several Acts of the General Assembly of Pennsylvania, the Commission was authorized and empowered (1) to construct, operate and maintain turnpike extensions and turnpike improvements at various locations, (2) to provide for the issuance at one time or from time to time, of revenue bonds for the purpose of paying the cost of such extensions and improvements to the turnpike system and refunding turnpike revenue bonds then outstanding, and (3) to fix and revise, from time to time, tolls for the use of said projects; and

WHEREAS, by virtue of an Act of the General Assembly of Pennsylvania approved September 30, 1985, P.L. 240, Act 61, the Commission was authorized and empowered (1) to construct, operate and maintain turnpike extensions and turnpike improvements at such specific locations and according to such schedule as shall be deemed feasible and approved by the Commission, all as identified in such Act, (2) to provide, by resolution, at one time or from time to time, for the issuance of turnpike revenue bonds, notes or other obligations of the Commission for the purpose of paying the cost of such extensions and improvements, (3) to provide, by resolution for the issuance of turnpike revenue refunding bonds for the purpose of refunding turnpike revenue bonds, notes or other obligations issued and then outstanding, and (4) to fix and to revise, from time to time, tolls to pay the cost of constructing, maintaining, repairing and operating the turnpike system and to pay any bonds, notes or other obligations and the interest thereon of the Commission, and all sinking fund requirements of the Commission, and other requirements provided for by any resolution authorizing the issuance of bonds, notes or other obligations by the Commission, or by any trust indenture to which the Commission is a party; and

WHEREAS, the Commission has previously issued various series of its Pennsylvania Turnpike Revenue Bonds pursuant to an Indenture of Trust dated as of July 1, 1986 between the Commission and the Trustee (the "Original Indenture"), as supplemented and amended by a First Supplemental Trust Indenture dated as of August 1, 1986, a Second Supplemental Trust Indenture dated as of November 15, 1988, a Third Supplemental Trust Indenture dated as of May 15, 1989, a Fourth Supplemental Trust Indenture dated as of November 15, 1989, a Fifth Supplemental Trust Indenture dated as of May 15, 1990, a Sixth Supplemental Trust Indenture dated as of November 15, 1990, a Seventh Supplemental Trust Indenture dated as of June 1, 1991, an Eighth Supplemental Trust Indenture dated as of July 1, 1991, a Ninth Supplemental Trust Indenture dated as of November 15, 1991, a Tenth Supplemental Trust Indenture dated as of August 1, 1992, an Eleventh Supplemental Trust Indenture dated as of June 1, 1998 and a Twelfth Supplemental Trust Indenture dated as of March 1, 2001 (the Original Indenture, as so supplemented and amended and as hereinafter supplemented and amended until such time as this Indenture becomes effective (as more fully described in the following paragraph), is referred to hereinafter as the "Prior Indenture"); and

WHEREAS, the Commission has determined that substantial changes are needed in the Prior Indenture to provide the Commission, among other things, greater flexibility in conducting its operations and in financing its capital needs; as a result, the Commission is amending and restating the provisions of the Prior Indenture by entering into this Indenture, which Indenture will become effective upon the Trustee's receipt of the necessary percentage of bondholders' consents, as more fully set forth in the Twelfth Supplemental Trust Indenture; and

WHEREAS, by virtue of said Act approved May 21, 1937, P.L. 774, as amended by Acts approved on various dates, including May 24, 1945 P.L. 972, and February 26, 1947, P.L. 17, and said Acts approved May 23, 1951, P.L. 335, August 14, 1951, P.L. 1232 and September 30, 1985, P.L. 240 (said Acts, as amended, and any successor acts, as amended, being hereinafter sometimes collectively called the "Enabling Acts"), the Commission is authorized to issue turnpike revenue bonds as hereinafter provided, to enter into this Indenture and to do or cause to be done all the acts and things herein provided or required to be done as hereinafter covenanted; and

WHEREAS, the execution and delivery of this Indenture have been duly authorized by resolutions of the Commission; and

WHEREAS, all acts, conditions and things required by the Constitution and laws of the Commonwealth and by the rules and regulations of the Commission to happen, exist and be performed precedent to and in the execution and delivery of this Indenture have happened, exist and have been performed as so required, in order to make this Indenture a valid and binding trust indenture for the security of the Bonds in accordance with its terms; and

WHEREAS, the Trustee has accepted the trusts created by this Indenture and in evidence thereof has joined in the execution hereof;

NOW, THEREFORE, THIS INDENTURE WITNESSETH, that in consideration of the premises, of the acceptance by the Trustee of the trusts hereby created, and to secure the payment of the Bonds, and the performance and observance by the Commission of all the covenants, agreements and conditions expressed or implied herein and contained in the Bonds, the Commission pledges and assigns to the Trustee and grants to the Trustee, a security interest in all right, title and interest of the Commission in and to (i) all Revenues as defined in this Indenture, (ii) all monies deposited into accounts or funds created by this Indenture and held by or on behalf of the Trustee (other than the Rebate Fund), (iii) any insurance proceeds and other moneys required to be deposited herein, (iv) all payments received by the Commission pursuant to Parity Swap Agreements, and (v) all investment earnings on all moneys held in accounts and funds established by this Indenture, other than the Rebate Fund (collectively, the "Trust Estate") for the equal and proportionate benefit and security of all Bonds, all of which, regardless of the time or times of their delivery or maturity, shall be of equal rank without preference priority or distinction as to lien or otherwise of any Bond over any other Bond, except as otherwise permitted by or provided for in this Indenture, and except that any funds held by the Trustee for the payment of specific Bonds which are deemed to have been paid and any funds deposited with the Trustee hereunder specifically to be held in escrow or otherwise to provide additional security or an additional source of payment for specified Bonds shall be held and used only to pay or provide security for the Bonds for which such deposit was made and shall not be held as security on a parity for all Bonds.

Although the Trustee is a fiduciary solely of the Owners of the Bonds, the Trustee is not a fiduciary of the other Secured Owners. Upon compliance with the provisions of this Indenture, the Parity Obligations of such other Secured Owners shall be secured by the same collateral, namely the Trust Estate, on a parity (on an equal and ratable basis) with the Bonds, except as provided herein (including as provided in Section 512).

ARTICLE I

DEFINITIONS

SECTION 101. *Definitions of Words and Terms.* In addition to words and terms elsewhere defined in this Indenture, the following words and terms as used in this Indenture shall have the following meanings unless the context clearly indicates otherwise:

"Additional Bonds" -- Bonds of any Series authorized to be issued under this Indenture.

"Annual Capital Budget" -- the budget adopted by the Commission pursuant to Section 702(b).

Annual Operating Budget" -- the budget adopted by the Commission pursuant to Section 702(a).

"Annual Debt Service" -- (a) the amount of principal and interest paid or payable with respect to Bonds in a Fiscal Year plus (b) Reimbursement Obligations paid or payable by the Commission in such Fiscal Year (but only to the extent they are not duplicative of such principal and interest), plus (c) the amounts, if any, paid or payable by the Commission in such Fiscal Year with respect to Approved Swap Agreements, minus (d) the amounts, if any, paid or payable to the Commission in such Fiscal Year with respect to Approved Swap Agreements, provided that the difference between the amounts described in clauses (c) and (d) shall be included only to the extent that such difference would not be recognized as a result of the application of the assumptions set forth below. The following assumptions shall be used to determine the Annual Debt Service becoming due in any Fiscal Year:

(1) in determining the principal amount paid or payable with respect to Bonds or Reimbursement Obligations in each Fiscal Year, payment shall be assumed to be made in accordance with any amortization schedule established for such Indebtedness, including amounts paid or payable pursuant to any mandatory redemption schedule for such Indebtedness;

(2) if any of the Indebtedness or proposed Indebtedness constitutes Balloon Indebtedness, then such amounts thereof as constitute Balloon Indebtedness shall be treated as if such Indebtedness is to be amortized in substantially equal annual installments of principal and interest over a term of 25 years from the date of issuance of such Indebtedness. Anything to the contrary herein notwithstanding, during the year preceding the final maturity date of such Indebtedness, all of the principal thereof shall be

considered to be due on such maturity date unless the Commission provides to the Trustee a certificate of a Financial Consultant certifying that, in its judgement, the Commission will be able to refinance such Balloon Indebtedness, in which event the Balloon Indebtedness shall be amortized over the term of the Indebtedness expected to refinance such Balloon Indebtedness and shall bear the interest rate specified in the certificate of the Financial Consultant;

(3) if any of the Indebtedness or proposed Indebtedness constitutes Variable Rate Indebtedness, then interest in future periods shall be based on the Assumed Variable Rate.

(4) Termination or similar payments under an Approved Swap Agreement shall not be taken into account in any calculation of Annual Debt Service.

"Applicable Long-Term Indebtedness" -- includes Bonds, Additional Bonds, Reimbursement Obligations and obligations of the Commission under Approved Swap Agreements, to the extent the same constitute Long-Term Indebtedness, and excludes Subordinated Indebtedness.

"Approved Swap Agreement" -- shall have the meaning set forth in Section 211.

"Assumed Variable Rate" -- in the case of (a) Outstanding Variable Rate Indebtedness, the average interest rate on such Indebtedness for the most recently completed 12-month period; and (b) proposed Variable Rate Indebtedness, (1) which will, in the opinion of Bond Counsel delivered at the time of the issuance thereof be excluded from gross income for federal income tax purposes, the average of the Bond Market Association Swap Index ("BMA Index") for the 12 months ending 7 days preceding the date of calculation plus 100 basis points, or (2) in the case of Bonds not described in clause (1), the London Interbank Offered Rate ("LIBOR") most closely resembling the reset period for the Variable Rate Indebtedness plus 100 basis points; provided that if the BMA Index or LIBOR shall cease to be published, the index to be used in its place shall be that index which the Commission in consultation with the Financial Consultant determines most closely replicates such index, as set forth in a certificate of a Commission Official filed with the Trustee

"Authenticating Agent" -- that Person designated and authorized to authenticate any series of Bonds or such Person designated by the Authenticating Agent to serve such function, and shall initially be the Trustee.

"Authorized Denominations" -- with respect to any Additional Bonds issued under a Supplemental Indenture, those denominations specified in such Supplemental Indenture.

"Balloon Indebtedness" -- Long-Term Indebtedness of which 25 % or more of the principal matures in the same Fiscal Year and is not required by the documents pursuant to which such Indebtedness was issued to be amortized by payment or redemption prior to that Fiscal Year, provided that such Indebtedness will not constitute Balloon Indebtedness if the Trustee is provided a certificate of a Commission Official certifying that such Indebtedness is not to be treated as Balloon Indebtedness (because, by way of example, such Indebtedness is intended to serve as "wrap around" Indebtedness).

"Bank" -- as to any particular Series of Bonds, each Person (other than a Bond Insurer) providing a letter of credit, a line of credit, a guaranty or another credit or liquidity enhancement facility as designated in the Supplemental Indenture providing for the issuance of such Bonds.

"Bank Fee" -- any commission, fee or expense payable to a Bank pursuant to a Reimbursement Agreement (but not amounts payable as reimbursement for amounts drawn under a Credit Facility or interest on such amounts).

"Bankruptcy Law" -- Title 9 of the United States Code, as amended from time to time, and any successor to or replacement of such Title and any other applicable federal or state bankruptcy, insolvency or similar law.

"Beneficial Owner" -- the beneficial owner of any Bond which is held by a nominee.

"Bond" or "Bonds" -- Bonds outstanding under the Prior Indenture and indebtedness of any kind or class, including bonds, notes, bond anticipation notes, commercial paper and other obligations, issued as Additional Bonds under Section 210, other than Additional Bonds issued as Subordinated Indebtedness.

"Bond Buyer Index" -- shall mean the Bond Buyer 20-Bond Index as published weekly in "The Bond Buyer". If such Index shall cease to be published, the Financial Consultant shall select another index which shall be reflective of the Commission's fixed borrowing cost.

"Bond Counsel" -- any attorney or firm of attorneys whose experience in matters relating to the issuance of obligations by states and their political subdivisions is nationally recognized.

"Bond Insurer" -- as to any particular maturity or any particular Series of Bonds, the Person undertaking to insure such Bonds as designated in a Supplemental Indenture providing for the issuance of such Bonds.

"Bond Owner," "Bondholder," "Holder," "Owner" or "Registered Owner" (or the lower case version of the same) -- the Person in whose name any Bond or Bonds are registered on the books maintained by the Registrar.

"Bond Register" -- the register maintained pursuant to Section 205.

"Bond Registrar" -- with respect to any series of Bonds, that Person which maintains the Bond Register or such other entity designated by the Bond Registrar to serve such function and initially shall be the Trustee.

"Book-Entry-Only System" -- a system similar to the system described herein pursuant to which Bonds are registered in book-entry form.

"Business Day" -- any day other than a Saturday or a Sunday or a day on which banking institutions are required or authorized by law or executive order to remain closed in the city in which the designated office of the Trustee is located, the Commonwealth or the City of New York.

"Chief Engineer" -- the employee of the Commission designated its "Chief Engineer" or any successor title.

"Code" -- the Internal Revenue Code of 1986, as amended, and the regulations proposed or in effect with respect thereto.

"Commonwealth" -- the Commonwealth of Pennsylvania.

"Commission Official" -- any commissioner, director, officer or employee of the Commission authorized to perform specific acts or duties by resolution duly adopted by the Commission.

"Conditional Redemption" -- shall have the meaning set forth in Section 302.

"Consultant" -- a Person who shall be independent, appointed by the Commission as needed, qualified and having a nationwide and favorable reputation for skill and experience in such work for which the Consultant was appointed. In those situations in which a Consultant is appointed to survey risks and to recommend insurance coverage, such Consultant may be a broker or agent with whom the Commission transacts business.

"Consulting Engineers" -- the engineer or engineering firm or corporation at the time employed by the Commission under the provisions of Section 707.

"Cost" -- all or any part of:

(a) the cost of construction, reconstruction, restoration, repair and rehabilitation of a Project or portion thereof (including, but not limited to, indemnity and surety bonds, permits, taxes or other municipal or governmental charges lawfully levied or assessed during construction),

(b) the cost of acquisition of all real or personal property, rights, rights-of-way, franchises, easements and interests acquired or used for such Project or portion thereof;

(c) the cost of demolishing or removing any structures on land so acquired, including the cost of acquiring any land to which the structures may be removed;

(d) any cost of borings and other preliminary investigations necessary or incident to determining the feasibility or practicability of constructing such Project and any cost necessary or desirable to satisfy conditions associated with the issuance of any permit for the construction thereof (including the costs of environmental mitigation required in connection therewith);

(e) the cost of all machinery and equipment, vehicles, materials and rolling stock;

(f) Issuance Costs;

(g) interest on Bonds and on any Reimbursement Obligation for the period prior to, during and for a period of up to one year after completion of construction as determined by the Commission, provisions for working capital, reserves for principal and interest and for extensions, enlargements, additions, replacements, renovations and improvements;

(h) the cost of architectural, engineering, environmental feasibility, financial and legal services;

(i) plans, specifications, estimates and administrative and other expenses which are necessary or incidental to the determination of the feasibility of constructing such Project or portion thereof or incidental to the obtaining of construction contracts or to the construction (including construction administration and inspection), acquisition or financing thereof and which constitute capital costs;

(j) Current Expenses, provided that, if applicable, the Trustee has received an opinion of Bond Counsel (which opinion may address either specific Current Expenses or categories of Current Expenses) to the effect that the treatment of such Current Expenses as a Cost will not adversely affect the exclusion of interest on the Bonds from gross income for federal income tax purposes;

(k) the repayment of any loan or advance for any of the foregoing; and

(l) with respect to the use of Bond proceeds, such other costs and expenses as are permitted by the Enabling Acts at the time such Bonds are issued.

"Counsel" -- an attorney or law firm (who may be counsel for the Commission) not unsatisfactory to the Trustee.

"Credit Facility" -- any letter of credit, line of credit, standby letter of credit, indemnity or surety insurance policy or agreement to purchase a debt obligation or any similar extension of credit, credit enhancement or liquidity support obtained by the Commission from a responsible financial or insurance institution, to provide for or to secure payment of principal and purchase price of, and/or interest on Bonds pursuant to the provisions of a Supplemental Indenture under which such Bonds are issued. The use of such definition is not intended to preclude the Commission from providing the credit or liquidity support with respect to one or more series of Bonds directly rather than through a financial or insurance institution.

"Current Expenses" -- the Commission's reasonable and necessary current expenses of maintenance, repair and operation of the System, including, without limiting the generality of the foregoing, all premiums for insurance and payments into any self-insurance reserve fund, all administrative and engineering expenses relating to maintenance, repair and operation of the System, fees and expenses of the Trustee and of the Paying Agents, Policy Costs, legal expenses and any other expenses required to be paid by the Commission as shown in the Annual Operating Budget for the System.

"Debt Service Fund" -- the fund created by Section 503.

"Debt Service Reserve Fund" -- the fund created by Section 503.

"Debt Service Reserve Fund Bonds" -- shall mean the Long-Term Indebtedness specified by the Commission in this or any Supplemental Indenture that is secured by the Debt Service Reserve Fund as described in Section 508.

"Debt Service Reserve Requirement" -- the amount equal to the Maximum Annual Debt Service on account of all the Debt Service Reserve Fund Bonds.

"Defeasance Securities" --

(a) Cash,

(b) Government Obligations,

(c) Government Obligations which have been stripped by the U.S. Treasury and CATS, TIGRS and similar securities,

(d) Resolution Funding Corp. strips which have been stripped by the Federal Reserve Bank of New York,

(e). Pre-refunded obligations of a state or municipality rated in the highest rating category by the Rating Agency, and

(f) Obligations issued by the following agencies which are backed by the full faith and credit of the U.S.:

(1). Farmers Home Administration
Certificates of beneficial ownership

(2). Federal Financing Bank

(3). General Services Administration
Participation certificates

(4). U.S. Maritime Administration
Guaranteed Title XI financing

(5). U.S. Department of Housing and Urban Development
Project Notes
Local Authority Bonds
New Communities Debentures - U.S. government guaranteed debentures

(6). U.S. Public Housing Notes and Bonds - U.S. government guaranteed public housing notes and bonds

"Depositary" -- a bank or trust company designated as such by the Commission to receive moneys under the provisions of this Indenture and approved by the Trustee, and shall include the Trustee.

"Depository Participants" -- any Person for which the Securities Depository holds Bonds as securities depository.

"DSRF Security" -- shall have the meaning set forth in Section 508.

"DTC" -- shall have the meaning given to such term in Section 209.

"Enabling Acts" -- shall have the meaning given to such term in the Recitals.

"Event of Bankruptcy" -- the filing of a petition in bankruptcy (or other commencement of a bankruptcy or similar proceedings) by or against the Commission as debtor, under Bankruptcy Law.

"Event of Default" -- those events specified in Section 801 hereof and such other events specified in any Supplemental Indentures.

"Financial Consultant" -- any financial advisor or firm of financial advisors of favorable national reputation for skill and experience in performing the duties for which a Financial Consultant is required to be employed pursuant to the provisions hereof and who is retained by the Commission as a Financial Consultant for the purposes hereof.

"Fiscal Year" -- the period commencing on the first day of June and ending on the last day of May of the following year.

"Fitch" – Fitch, Inc., its successors and assigns, and, if such corporation shall for any reason no longer perform the functions of a securities rating agency, "Fitch" shall be deemed to refer to any other nationally recognized rating agency designated by the Commission.

"General Reserve Fund" -- the fund created by Section 503.

"Government Obligations" --

(a) direct obligations of, or obligations the principal of and interest on which are unconditionally guaranteed as to full and timely payment by, the United States of America,

(b) obligations issued by a Person controlled or supervised by and acting as an instrumentality of the United States of America, the payment of the principal of and interest on which is fully and unconditionally guaranteed as a full faith and credit obligation of the United States of America (including any securities described in clause (a) above issued or held in book-entry form in the name of the Trustee only on the books of the Department of Treasury of the United States of America),

(c) any certificates or any other evidences of an ownership interest in obligations or specified portions thereof (which may consist of specified portions of the interest thereon) of the character described in clause (a) or (b) above, which obligations are held by a bank or trust company organized and existing under the laws of the United States of America or any state thereof in the capacity of custodian,

(d) stripped obligations of interest issued by the Resolution Funding Corporation pursuant to the Financial Institutions Reform, Recovery and Enforcement Act of 1989 ("FIRREA"), the interest on which, to the extent not paid from other specified sources, is payable when due by the Secretary of the Treasury pursuant to FIRREA, and

(e) obligations of any state or political subdivision thereof or any agency or instrumentality of such a state or political subdivision, provided that cash, obligations described in clause (a), (b), (c) or (d) above, or a combination thereof have been irrevocably pledged to and deposited into a segregated escrow account for the payment when due of the principal or redemption price of and interest on such obligations, and provided further that, at the time of purchase, such obligations are rated by the Rating Service in its highest rating category.

"Historical Debt Service Coverage Ratio" -- for any period of time, the ratio determined by dividing Net Revenues for such period by the Annual Debt Service for all Applicable Long-Term Indebtedness which is Outstanding during such period.

"Historical Pro Forma Debt Service Coverage Ratio" -- for any period of time, the ratio determined by dividing Net Revenues for such period by the Maximum Annual Debt Service for all Applicable Long-Term Indebtedness then Outstanding and the Applicable Long-Term Indebtedness proposed to be issued pursuant to Section 703(b).

"Immediate Notice" -- notice transmitted by electronic means, in writing, by telecopier or other electronic means or by telephone (promptly confirmed in writing) and received by the Person to whom it was addressed.

"Indebtedness" -- any obligation or debt incurred for money borrowed.

"Interest Payment Date" -- with respect to each series of Additional Bonds, the dates which are defined as such in the Supplemental Indenture under which such Additional Bonds are issued. However, in each case, if the date specified above is not a Business Day then the Interest Payment Date shall be the Business Day next succeeding the date specified above.

"Issuance Cost" -- costs incurred by or on behalf of the Commission in connection with the issuance of Additional Bonds including, without limitation, the following: payment of financial, legal, accounting and appraisal fees and expenses, the Commission's fees and expenses attributable to the issuance of the Bonds, the cost of printing, engraving and reproduction services, fees and expenses incurred in connection with any Credit Facility and any Approved Swap Obligation, legal fees and expenses for Bond Counsel, Commission's counsel, Trustee's counsel and Underwriter's counsel relating to the issuance of the Bonds, the initial or acceptance fee of the Trustee, and all other fees, charges and expenses incurred in connection with the issuance of the Bonds and the preparation of this Indenture.

"Letter of Representations" -- the letter of representations or similar document executed by the Commission and delivered to the Securities Depository (and any amendments thereto or successor agreements) for one or more Series of Book Entry Bonds.

"Long-Term Indebtedness -- all Indebtedness, which is not (a) Short-Term Indebtedness or (b) Subordinated Indebtedness.

"Maximum Annual Debt Service" -- at any point in time the maximum amount of Annual Debt Service on all Applicable Long-Term Indebtedness, as required by the context (e.g., whether relating to all such Applicable Long-Term Indebtedness or only specified Applicable Long-Term Indebtedness) paid or payable in the then current or any future Fiscal Year.

"Moody's" -- Moody's Investors Service, a corporation organized and existing under the laws of the State of Delaware, its successors and their assigns, and, if such corporation shall for any reason no longer perform the functions of a securities rating agency, "Moody's" shall be deemed to refer to any other nationally recognized rating agency designated by the Commission.

"Net Revenues" -- the amount by which total Revenues exceed Current Expenses for any particular period.

"Other Revenues" -- any funds received or payable to the Commission, other than Revenues, which the Commission chooses to include as security for Parity Obligations and/or Subordinated Indebtedness pursuant to a Supplemental Indenture.

"Outstanding" or "outstanding" in connection with Bonds -- all Bonds which have been authenticated and delivered under this Indenture, except:

(a) Bonds theretofore cancelled or delivered to the Trustee for cancellation under Section 208;

(b) Bonds which are deemed to be no longer Outstanding in accordance with Section 1102; and

(c) Bonds in substitution for which other Bonds have been authenticated and delivered pursuant to Article II.

In determining whether the owners of a requisite aggregate principal amount of Bonds Outstanding have concurred in any request, demand, authorization, direction, notice, consent or waiver under the provisions hereof, Bonds which are held by or on behalf of the Commission (unless all of the Outstanding Bonds are then owned by the Commission) shall be disregarded for the purpose of any such determination.

"Parity Obligations" -- includes Bonds and other obligations of the Commission owed to Secured Owners and excludes Subordinated Indebtedness.

"Parity Swap Agreement" -- shall have the meaning set forth in Section 211.

"Parity Swap Agreement Counterparty" -- the counterparty to a Parity Swap Agreement with the Commission or with the Trustee.

"Paying Agent" -- with respect to any series of Bonds, that Person appointed pursuant to Section 911 hereof to make payments to Bondholders of interest and/or principal pursuant to the terms of the Indenture, which initially shall be the Trustee.

"Permitted Investments" -- (to the extent permitted by law)

(a) Government Obligations;

(b) obligations issued or guaranteed as to full and timely payment of principal and interest by any agency or Person controlled or supervised by and acting as an instrumentality of the U.S., pursuant to authority granted by the U.S. Congress;

(c) obligations of the Governmental National Mortgage Association, Farmers Home Administration, Federal Financing Bank, Federal Housing Administration, Maritime Administration and Public Housing Authorities, provided that the full and timely payment of the principal and interest on such obligations shall be unconditionally guaranteed by the U.S.;

(d) obligations of the Federal Intermediate Credit Corporation and of the Federal National Mortgage Association;

(e) obligations of the Federal Banks for Cooperation;

(f) obligations of Federal Land Banks;

(g) obligations of Federal Home Loan Banks; provided that the obligations described in clauses (c) through (g) above shall constitute Permitted Investments only to the extent that the Rating Agency has assigned a rating to such obligations which is not lower than the highest rating assigned by such Rating Agency to any series of comparable Bonds then Outstanding;

(h) certificates of deposit of any bank, savings and loan or trust company organized under the laws of the U.S. or any state thereof, including the Trustee or any holder of the Bonds, provided that such certificates of deposit shall be fully collateralized (with a prior perfected security interest), to the extent they are not insured by the Federal Deposit Insurance Corporation, by Permitted Investments described in (a), (b), (c), (d), (e), (f) or (g) above having a market value at all times equal to the uninsured amount of such deposit;

(i) Money market funds registered under the Investment Company Act of 1940, whose shares are registered under the Securities Act of 1933, including funds for which the Trustee, its parent, its affiliates or its subsidiaries provide investment advisory or other management services, and which are rated by S&P, Moody's and Fitch in one of their two highest rating categories.

(j) investment agreements (which term, for purposes of this clause, shall not include repurchase agreements) with a Qualified Financial Institution;

(k) repurchase agreements with banks or primary government dealers reporting to the Federal Reserve Bank of New York ("Repurchasers"), including but not limited to the Trustee and any of its affiliates, provided that each such repurchase agreement results in transfer to the Trustee of legal and equitable title to, or the granting to the Trustee of a prior perfected security interest in, identified Permitted Investments described in (a), (b), (c), (d), (e), (f) or (g) above which are free and clear of any claims by third parties and are segregated in a custodial or trust account held either by the Trustee or by a third party (other than the Repurchaser) as the agent solely of, or in trust solely for the benefit of, the Trustee, provided that Government Obligations acquired pursuant to such repurchase agreements shall be valued at the lower of the then current market value of such Government Obligations or the repurchase price thereof set forth in the applicable repurchase agreement; or

(l) Bonds or notes issued by any state or municipality which are rated by S&P, Moody's and Fitch in one of their two highest rating categories.

(m) Commercial paper rated in the highest short-term, note or commercial paper Rating Category by S&P, Moody's and Fitch.

(n) Any auction rate certificates which are rated by S&P, Moody's and Fitch in one of their two highest rating categories.

(o) Corporate bonds and medium term notes rated at least "AA-" by Moody's and S&P.

(p) Asset-backed securities rated in the highest rating category by Moody's and S&P.

(q) Any other investment approved by the Commission for which confirmation is received from the Rating Agency that such investment will not adversely affect such Rating Agency's rating on such Bonds.

"Person" -- an individual, public body, a corporation, a partnership, an association, a joint stock company, a trust and any unincorporated organization.

"Pledged Bonds" -- a Bond purchased by the Trustee or Paying Agent with amounts received pursuant to a drawing under a Credit Facility and pledged to or registered in the name of a Bank which is a provider of such Credit Facility or its designee.

"Policy Costs" -- a periodic fee or charge required to be paid to maintain a DSRF Security.

"Project" -- any improvements to the System or refundings which are authorized by the Enabling Acts or which may be hereafter authorized by law.

"Projected Annual Debt Service" -- for any future period of time, shall equal the amount of Maximum Annual Debt Service on all Applicable Long-Term Indebtedness then Outstanding and on any Applicable Long-Term Indebtedness proposed to be issued.

"Projected Debt Service Coverage Ratio" -- for the two Fiscal Years following the end of any period during which interest was fully capitalized on the Applicable Long-Term Indebtedness proposed to be issued, the ratio determined by dividing Projected Net Revenues for such period by the Projected Annual Debt Service for such period.

"Projected Net Revenues" -- projected Net Revenues for the period in question, taking into account any revisions of the Tolls which have been approved by the Commission and which will be effective during such period and any additional Tolls which the Commission or the Consultant, as appropriate, estimates will be received by the Commission following the completion of any Project then being constructed or proposed to be constructed.

"Purchase Price" -- shall mean the purchase price payment described in paragraph (a) of the definition of Tender Indebtedness.

"Qualified Financial Institution" (a) any U.S. domestic institution which is a bank, trust company, national banking association or a corporation, including the Trustee and any of its affiliates, subject to registration with the Board of Governors of the Federal Reserve System under the Bank Holding Company Act of 1956, or a member of the National Association of Securities Dealers, Inc. whose unsecured obligations or uncollateralized long-term debt obligations have been assigned a rating within the two highest rating categories by the Rating Agency or which has issued a letter of credit, contract, agreement or surety bond in support of debt obligations which have been so rated; (b) an insurance company with a claims-paying ability or a corporation whose obligations are guaranteed by an insurance company (in the form of an insurance policy) or by an insurance holding company rated in the highest rating category by the Rating Agency or whose unsecured obligations or uncollateralized long-term debt obligations have been assigned a rating within the highest rating category by the Rating Agency; or (c) any banking institution whose unsecured obligations or uncollateralized long-term debt obligations have been assigned a rating within one of the two highest rating categories by the Rating Agency.

"Rate Covenant" -- the requirement to establish and maintain a schedule of Tolls sufficient to provide the funds required pursuant to Section 501.

"Rating Agency" -- Fitch, Moody's or S&P or such other nationally recognized securities rating agency as may be so designated in writing to the Trustee by a Commission Official.

"Rating Category" -- each major rating classification established by the Rating Agency, determined without regard to gradations such as " 1," "2" and "3" or "plus" and "minus."

"Rebate Fund" -- the fund created by Section 503.

"Rebate Regulations" -- the Treasury Regulations issued under Section 148(f) of the Code.

"Record Date" -- unless otherwise provided with respect to any series of Bonds in a Supplemental Indenture: (a) for Bonds on which interest is payable on the first day of a month, the fifteenth day of the immediately preceding month; or (b) for Bonds on which interest is payable on the fifteenth day of a month, the last day of the immediately preceding month. However, in each case, if the date specified above is not a Business Day, then the Record Date shall be the Business Day next preceding the date specified above.

"Reimbursement Agreement" -- an agreement between the Commission and one or more Banks pursuant to which, among other things, such Bank or Banks issue a Credit Facility with respect to Bonds of one or more Series and the Commission agrees to reimburse such Bank or Banks for any drawings made thereunder.

"Reimbursement Obligation" -- an obligation of the Commission pursuant to a Reimbursement Agreement to repay any amounts drawn under a Credit Facility and to pay interest on such drawn amounts pursuant to such Reimbursement Agreement.

"Reserve Maintenance Fund" -- the fund created by Section 503.

"Reserve Maintenance Fund Requirement" -- the amount to be deposited to the credit of the Reserve Maintenance Fund from the Revenues of the Commission pursuant to Section 507.

"Responsible Officer" -- when used with respect to the Trustee, any officer in the corporate trust department (or any successor thereto) of the Trustee, or any other officer or representative of the Trustee customarily performing functions similar to those performed by any of such officers and also means, with respect to a particular corporate trust matter, any other officer of the Trustee to whom such matter is referred because of that officer's knowledge of and familiarity with the particular subject.

"Revenue Fund" -- the fund created by Section 503.

"Revenues" -- (a) all Tolls received by or on behalf of the Commission from the System, (b) any other sources of revenues or funds of the Commission which the Commission chooses to include in the Trust Estate pursuant to a Supplemental Indenture, and (c) the interest and income earned on any fund or account where said interest or income is required to be credited to the Revenue Fund pursuant to this Indenture. As more fully provided in Section 504, in the event the Commission receives advances or prepayments or otherwise operates or participates in a system in which funds are collected prior to the actual usage of the System, such funds shall not be deemed to be Revenues until the usage occurs or the funds are earned pursuant to the agreement under which the Commission receives such funds.

"S&P" -- Standard & Poor's, a division of McGraw-Hill, Inc., a corporation organized and existing under the laws of the State of New York, its successors and their assigns, and, if such corporation shall for any reason no longer perform the functions of a securities rating agency, "S&P" shall be deemed to refer to any other nationally recognized securities rating agency designated by the Commission.

"Secured Owner" -- each Person who is a Bondholder of any Bonds, each Parity Swap Agreement Counterparty providing a Parity Swap Agreement, each Bank providing a Credit Facility and each Bond Insurer providing a bond insurance policy with respect to a Parity Obligation.

"Securities Depository" -- a Person that is registered as a clearing agency under Section 17A of the Securities Exchange Act of 1934 or whose business is confined to the performance of the functions of a clearing agency with respect to exempted securities, as defined in Section 3(a)(12) of such Act for the purposes of Section 17A thereof.

"Series" -- one or more Bonds issued at the same time, or sharing some other common term or characteristic, and designated as a separate series of Bonds.

"Short-Term Indebtedness" -- all Indebtedness which matures in less than 365 days and is designated as Short-Term Indebtedness pursuant to Section 703(a). In the event a Bank has extended a line of credit or the Commission has undertaken a commercial paper or similar program, only amounts actually borrowed under such line of credit or program and repayable in less than 365 days shall be considered Short-Term Indebtedness and the full amount of such commitment or program shall not be treated as Short-Term Indebtedness to the extent that such facility remains undrawn.

"Special Record Date" -- the date or dates specified in a Supplemental Indenture with respect to Additional Bonds issued under such Supplemental Indenture.

"Subordinated Indebtedness" -- Indebtedness incurred pursuant to Section 703(c).

"Supplemental Indenture" -- any supplemental indenture to (a) this Indenture, now or hereafter duly authorized and entered into in accordance with the provisions of Article XI hereof and (b) the Prior Indenture, including any supplemental indenture pursuant to which (and only for so long as) bonds are outstanding thereunder.

"Swap Agreement" -- shall have the meaning set forth in Section 211.

"System" -- what are commonly referred to as the "Main Line" and the "Northeast Extension" of the Commission and any other roads for which the Commission has operational responsibility and is collecting Tolls, unless the Commission identifies such roads in a writing addressed to the Trustee (other than the "Main Line" and the "Northeast Extension") as not being part of the System for the purposes of this Indenture.

"Tender Indebtedness" -- any Indebtedness or portion thereof:

(a) the terms of which include (1) an option or an obligation on the part of the Secured Owner to tender all or a portion of such Indebtedness to the Commission, the Trustee, the Paying Agent or another fiduciary or agent for payment or purchase and (2) a requirement on the part of the Commission to purchase or cause to be purchased such Indebtedness or portion thereof if properly presented; and

(b) which is rated in either (1) one of the two highest long-term Rating Categories by the Rating Agency or (2i) the highest short-term, note or commercial paper Rating Category by the Rating Agency.

"Tolls" -- all rates, rents, fees, charges, fines or other income derived by the Commission from vehicular usage of the System, and all rights to receive the same.

"Trust Estate" -- shall have the meaning set forth in the "Granting Clause" hereto.

"Trustee" -- the Trustee at the time in question, whether the initial Trustee or a successor.

"U.S." -- United States of America.

"Variable Rate Indebtedness" -- any Indebtedness the interest rate on which fluctuates from time to time subsequent to the time of incurrence. Variable Rate Indebtedness may include, without limitation, (a) "auction rate" Indebtedness, that is, Variable Rate Indebtedness (1) the interest rate applicable to which (after an initial period following the issuance thereof or the conversion thereof to such an interest rate mode) is reset from time to time through an auction or bidding system and (2) which the Commission has no obligation to repurchase in connection with the resetting of the interest rate applicable thereto except to the extent proceeds are available for such purpose either from the remarketing of such Variable Rate Indebtedness or from such other sources as identified in the Supplemental Indenture pursuant to which such Variable Rate Indebtedness was issued, (b) Tender Indebtedness, (c) commercial paper Indebtedness which is intended to be reissued and refinanced periodically, or (d) other forms of Indebtedness on which the interest fluctuates or is subject to being set or reset from time to time.

SECTION 102. *Rules of Interpretation.* For purposes of this Indenture, except as otherwise expressly provided or the context otherwise requires:

(a) The words "herein," "hereof" and "hereunder" and other similar words refer to this Indenture as a whole and not to any particular Article, Section or other subdivision.

(b) The definitions in this Article are applicable whether the terms defined are used in the singular or the plural.

(c) All accounting terms which are not defined in this Indenture have the meanings assigned to them in accordance with then applicable generally accepted accounting principles.

(d) Any pronouns used in this Indenture include both the singular and the plural and cover both genders.

(e) Any terms defined elsewhere in this Indenture have the meanings attributed to them where defined.

(f) The captions or headings herein are for convenience only and in no way define, limit or describe the scope or intent, or control or affect the meaning or construction, of any provisions or sections hereof.

(g) Any references to Section numbers are to Sections of this Indenture unless stated otherwise.

(h) Any references to "principal amount" shall mean the principal amount of any Bonds plus the accreted amount on any Bond which constitutes a capital appreciation or similar bond, as more fully provided in the Supplemental Indenture pursuant to which such capital appreciation or similar bonds are issued.

ARTICLE II

AUTHORIZATION, EXECUTION, AUTHENTICATION, REGISTRATION AND DELIVERY OF BONDS

SECTION 201. *Issuance of Bonds; Form and Terms Thereof.* Subject to the applicable provisions hereof, all Bonds shall be issued and shall contain such maturities, payment terms, interest rate provisions, redemption or prepayment features and other provisions as shall be set forth in the Supplemental Indenture providing for the issuance of such Bonds.

SECTION 202. *Limited Obligations.* The Bonds shall be limited obligations of the Commission, payable solely from the Trust Estate. The Bonds shall constitute a valid claim of the respective owners thereof against the Trust Estate, which is pledged to secure the payment of the principal of, redemption premium, if any, and interest on the Bonds, and which shall be utilized for no other purpose, except as expressly authorized in this Indenture. The Bonds shall not constitute general obligations of the Commission and under no circumstances shall the Bonds be payable from, nor shall the holders thereof have any rightful claim to, any income, revenues, funds or assets of the Commission other than those pledged hereunder as security for the payment of the Bonds.

SECTION 203. *Execution of Bonds; Payment.* The Bonds shall be signed by the manual or facsimile signatures of the Governor of the Commonwealth of Pennsylvania and the Chairman of the Commission and attested by the manual or facsimile signatures of the Secretary and Treasurer of the Commission. The Bonds may bear the seal of the Commission or a facsimile thereof affixed to or imprinted on the Bonds. In case any officer whose signature or a facsimile of whose signature shall appear on any Bond shall cease to be such officer before the delivery of such Bond, such signature or facsimile shall nevertheless be valid and sufficient for all purposes as if such officer had remained in office until such delivery.

The principal of, premium, if any, and interest on the Bonds shall be payable in any currency of the U.S. which, on the respective dates of payment thereof, is legal tender for the payment of public and private debts. The principal of all Bonds shall be payable at the designated trust office of the Trustee, and payment of the interest on each Bond shall be made on each Interest Payment Date to the Person appearing on the registration books of the Bond Registrar as of the Record Date as the registered owner thereof, by check or draft mailed to such registered owner at his address as it appears on such registration books. However, if and to the extent that the Commission defaults on the payment of interest due on an Interest Payment Date, such defaulted interest shall be paid to those Persons who are the registered owners as of the Special Record Date on a payment date established by the Trustee, notice of which shall have been mailed to those Persons who are the registered owners as of the Special Record Date on such date or dates established in the Supplemental Indenture under which such Bonds are issued.

SECTION 204. *Authentication of Bonds*. The Bonds shall bear a certificate of authentication to the effect that the Trustee certifies that such Bond is one of the Bonds described in the Indenture referred to therein, duly executed by the Trustee. The Trustee shall authenticate each Bond with the manual signature of a Responsible Officer of the Trustee, but it shall not be necessary for the same Responsible Officer to authenticate all of the Bonds of a Series. Only such authenticated Bonds shall be entitled to any right or benefit under this Indenture. Such certificate on any Bond issued hereunder shall be conclusive evidence that the Bond has been duly issued and is secured by the provisions hereof.

SECTION 205. *Registration of Transfer and Exchange of Bonds; Persons Treated as Bondholders*. The Trustee shall act as initial bond registrar (the "Bond Registrar") and in such capacity shall maintain a bond register (the "Bond Register") for the registration and transfer of Bonds. Upon surrender of any Bonds at the designated office of the Trustee, as the Bond Registrar, together with an assignment duly executed by the current Bondholder of such Bonds or such Bondholder's duly authorized attorney or legal representative in such form as shall be satisfactory to the Trustee, such Bonds may, at the option of the Bondholder, be exchanged for an equal aggregate principal amount of Bonds of the same Series and maturity, of Authorized Denominations and bearing interest at the same rate and in the same form as the Bonds surrendered for exchange, registered in the name or names designated on the assignment; provided the Trustee is not required to exchange or register the transfer of Bonds after the giving of notice calling such Bond for redemption, in whole or in part. The Commission shall execute and the Trustee shall authenticate any Bonds whose execution and authentication is necessary to provide for exchange of Bonds pursuant to this Section and the Commission may rely on a representation from the Trustee that such execution is required.

The Trustee may make a charge to any Bondholder requesting such exchange or registration in the amount of any tax or other governmental charge required to be paid with respect thereto and the Commission may charge such amount as it deems appropriate for each new Bond delivered upon such exchange or transfer, which charge or charges shall be paid before any new Bond shall be delivered.

Prior to due presentment for registration of transfer of any Bond, the Trustee shall treat the Person shown on the Bond Register as owning a Bond as the Bondholder and the Person exclusively entitled to payment of principal thereof, redemption premium, if any, and interest thereon and, except as otherwise expressly provided herein, the exercise of all other rights and powers of the owner thereof, and neither the Commission, the Trustee nor any agent of the Commission or the Trustee shall be affected by notice to the contrary.

SECTION 206. *Temporary Bonds*. Prior to the preparation of definitive Bonds of a Series, the Commission may issue temporary Bonds in registered form and in such denominations as the Commission may determine but otherwise in substantially the form provided for definitive Bonds of such Series with appropriate variations, omissions and insertions. The Commission shall promptly prepare, execute and deliver to the Trustee before the first Interest Payment Date for such Bonds, definitive Bonds and, upon presentation and surrender of Bonds in temporary form, the Trustee shall authenticate and deliver in exchange therefor definitive Bonds of the same maturity for the same aggregate principal amount. Until exchanged for definitive Bonds, Bonds in temporary form shall be entitled to the lien and benefit of this Indenture.

SECTION 207. *Mutilated, Lost or Destroyed Bonds*. If any Bond has been mutilated, lost or destroyed, the Commission shall execute, and the Trustee shall authenticate and deliver to the Bondholder, a new Bond of like date and tenor in exchange and substitution for, and upon cancellation of, such mutilated Bond or in lieu of and in substitution for such lost or destroyed Bond but only if the Bondholder has paid the reasonable expenses and charges of the Commission and the Trustee in connection therewith and, in the case of a lost or destroyed Bond, (a) filed with the Trustee evidence satisfactory to the Trustee that such Bond was lost or destroyed and (b) furnished to the Trustee and the Commission indemnity satisfactory to each. If any such Bond has matured or been called for redemption and is payable, instead of issuing a new Bond the Trustee may pay the same without issuing a replacement Bond.

If, after the delivery of such replacement Bond, the original Bond in lieu of which such replacement Bond was issued is presented for payment or registration, the Trustee shall seek to recover such replacement Bond from the Person to whom it was delivered or any Person taking therefrom and shall be entitled to recover from the security or indemnity provided therefor to the extent of any loss, damage, cost or expense incurred by the Trustee or the Commission in connection therewith.

SECTION 208. *Cancellation and Disposition of Bonds*. The Commission may deliver Bonds to the Trustee for cancellation at any time and for any reason and the Trustee is hereby authorized to cancel such Bonds. All Bonds that have been paid (whether at maturity, by acceleration or upon redemption) or delivered to the Trustee for cancellation shall not be reissued. Unless otherwise directed by the Commission, the Trustee shall treat such Bonds in accordance with its document retention policies or as may be directed by state law.

SECTION 209. *Securities Depository Provisions*. Unless otherwise provided in a Supplemental Indenture, Bonds shall be Book Entry Bonds. All Book Entry Bonds shall be registered in the name of Cede & Co., as nominee of The Depository Trust Company ("DTC") or any successor Securities Depository. The Commission and the Trustee acknowledge that they have executed and delivered a Letter of Representations with DTC. All payments of principal of, redemption premium, if any, and interest on the Book Entry Bonds and all notices with respect thereto, including notices of full or partial redemption, shall be made and given at the times and in the manner set out in the Letter of Representations. The terms and provisions of the Letter of Representations shall govern in the event of any inconsistency between the provisions of this Indenture and the Letter of Representations. The Letter of Representations may be amended without Bondholder consent.

Except to the extent provided in a Supplemental Indenture, the book-entry registration system for all of the Book Entry Bonds may be terminated and certificates delivered to and registered in the name of the Beneficial Owners, under either of the following circumstances:

(a) DTC notifies the Commission and the Trustee that it is no longer willing or able to act as Securities Depository for the Book Entry Bonds and a successor Securities Depository for the Book Entry Bonds is not appointed by the Commission prior to the effective date of such discontinuation; or

(b) The Commission determines that continuation of the book-entry system through DTC (or a successor Securities Depository) is not in the best interest of the Commission.

In the event a successor Securities Depository is appointed by the Commission, the Book Entry Bonds will be registered in the name of such successor Securities Depository or its nominee. In the event certificates are required to be issued to Beneficial Owners, the Trustee and the Commission shall be fully protected in relying upon a certificate of DTC or any DTC participant as to the identity of and the principal amount of Book Entry Bonds held by such Beneficial Owners.

The Beneficial Owners of Bonds will not receive physical delivery of certificates except as provided herein. For so long as there is a Securities Depository for Bonds, all of such Bonds shall be registered in the name of the nominee of the Securities Depository, all transfers of beneficial ownership interests in such Bonds will be made in accordance with the rules of the Securities Depository, and no investor or other party purchasing, selling or otherwise transferring beneficial ownership of such Bonds is to receive, hold or deliver any certificate. The Commission and the Trustee shall have no responsibility or liability for transfers of beneficial ownership interests in such Bonds.

The Commission and the Trustee will recognize the Securities Depository or its nominee as the Bondholder of Book Entry Bonds for all purposes, including receipt of payments, notices and voting; provided the Trustee may recognize votes by or on behalf of Beneficial Owners as if such votes were made by Bondholders of a related portion of the Bonds when such votes are received in compliance with an omnibus proxy of the Securities Depository or otherwise pursuant to the rules of the Securities Depository or the provisions of the Letter of Representations or other comparable evidence delivered to the Trustee by the Bondholders or as provided in Sections 910 and 1210 of this Indenture.

With respect to Book Entry Bonds, the Commission and the Trustee shall be entitled to treat the Person in whose name such Bond is registered as the absolute owner of such Bond for all purposes of this Indenture, and neither the Commission nor the Trustee shall have any responsibility or obligation to any Beneficial Owner of such Book Entry Bond. Without limiting the immediately preceding sentence, neither the Commission nor the Trustee shall have any responsibility or obligation with respect to (a) the accuracy of the records of any Securities Depository or any other Person with respect to any ownership interest in Book Entry Bonds, (b) the delivery to any Person, other than a Bondholder, of any notice with respect to Book Entry Bonds, including any notice of redemption or refunding, (c) the selection of the particular Bonds or portions thereof to be redeemed or refunded in the event of a partial redemption or refunding of part of the Bonds Outstanding or (d) the payment to any Person, other than a Bondholder, of any amount with respect to the principal of, redemption premium, if any, or interest on Book Entry Bonds.

SECTION 210. *Additional Bonds*. The Commission will not issue or incur any other Indebtedness having a parity lien on the Trust Estate except for Additional Bonds issued pursuant to this Section and other Parity Obligations. Additional Bonds may be issued and the Trustee shall authenticate and deliver such Additional Bonds when there have been filed with the Trustee the following:

(a) A copy certified by a Commission Official of the resolution or resolutions of the Commission authorizing (1) the execution and delivery of a Supplemental Indenture providing for, among other things, the date, rate or rates of interest on, interest payment dates, maturity dates and redemption provisions of such Additional Bonds, and (2) the issuance, sale, execution and delivery of the Additional Bonds;

(b) An original executed counterpart of the Supplemental Indenture;

(c) An opinion or opinions of Bond Counsel, addressed to the Commission and the Trustee, to the effect that (1) issuance of the Additional Bonds is permitted under this Indenture, (2) each of the Supplemental Indenture and the Additional Bonds has been duly authorized, executed and delivered and is a valid, binding and enforceable obligation of the Commission, subject to bankruptcy, equitable principles and other standard legal opinion exceptions and (3) subject to the last paragraph of this Section, interest on the Additional Bonds is not included in gross income for federal income tax purposes under the Code;

(d) A request and authorization of the Commission, signed by a Commission Official, to the Trustee to authenticate and deliver the Additional Bonds to such Person or persons named therein after confirmation of payment to the Trustee for the account of the Commission of a specified sum (which may include directions as to the disposition of such of such sum);

(e) A certificate of the Commission, signed by a Commission Official, that the Commission is not in default under this Indenture and evidence satisfactory to the Trustee that, upon issuance of the Additional Bonds, amounts will be deposited in the Funds hereunder adequate for the necessary balances therein after issuance of the Additional Bonds (including an amount sufficient to satisfy the Debt Service Reserve Requirement if the Additional Bonds constitute Debt Service Reserve Fund Bonds);

(f) A certificate of the Commission, signed by a Commission Official, identifying the Additional Bonds as Short-Term Indebtedness, Long-Term Indebtedness or Subordinated Indebtedness and demonstrating with reasonable detail that the provisions of Section 703(a), (b) or (c), as applicable, have been met for the issuance of such Additional Bonds; and

(g) Such further documents, moneys and securities as are required by the provisions of the Supplemental Indenture.

Anything in this Indenture to the contrary notwithstanding, Additional Bonds may bear interest which is included in gross income for federal income tax purposes under the Code, in which event provisions herein requiring or referencing the exclusion of interest on Bonds of gross income for federal income tax purposes may be ignored or modified, as appropriate, as set forth in an opinion of Bond Counsel.

SECTION 211. *Approved and Parity Swap Obligations.* The Commission may enter into one or more contracts having an interest rate, currency, cash-flow, or other basis desired by the Commission (a "Swap Agreement"), including, without limitation, interest rate swap agreements, currency swap agreements, forward payment conversion agreements, futures contracts, contracts providing for payments based on levels of or changes in interest rates, currency exchange rates, stock or other indices, or contracts to exchange cash flows or a series of payments, and contracts including, without limitation, interest rate floors or caps, options, puts or calls to hedge payment, currency rate, spread or similar exposure. In the event the Commission wishes the payments to be made and received by the Commission under the Swap Agreement to be taken into account in any calculation of Annual Debt Service hereunder, the Commission shall file with the Trustee the following on or before entering into the Swap Agreement (in which event, such Swap Agreement shall constitute an "Approved Swap Agreement"):

(a) A copy certified by a Commission Official of the resolution or resolutions of the Commission authorizing the execution and delivery of the Swap Agreement (no Supplemental Indenture being required unless the Commission determines it to be necessary or appropriate);

(b) An original executed counterpart of the Swap Agreement;

(c) An opinion of Bond Counsel addressed to the Commission and to the Trustee, to the effect that execution of the Swap Agreement is permitted under the laws of the Commonwealth and will not adversely affect the exclusion from gross income from interest on any Bonds for federal income tax purposes; provided that if the Swap Agreement relates to Bonds being issued and the Swap Agreement is entered into prior to the issuance of such Bonds, the portion of the opinion of Bond Counsel referring to tax-exempt status of the Bonds need not be delivered until such Bonds are issued;

(d) A certificate of the Commission, signed by a Commission Official, that the Commission is not under default under this Indenture;

(e) Evidence that the execution of the Swap Agreement will not result in a reduction or withdrawal of the rating then assigned to any Bonds by the Rating Agency;

(f) Evidence that the provisions of Section 703(d) have been met; and

(g) Such further documents as are required by the Swap Agreement or Bond Counsel.

In the event the Commission wishes to enter into an Approved Swap Agreement and to have its obligations thereunder be on parity with all Bonds and other Parity Obligations, it shall file with the Trustee the items set forth above, together with a supplemental indenture granting such parity position (in which event, such Swap Agreement shall constitute a "Parity Swap Agreement"). Upon entering into a Parity Swap Agreement, unless otherwise provided in the supplemental indenture, the Commission shall pay to the Trustee for deposit into the Interest Account the net amount payable, if any, to the Parity Swap Agreement Counterparty as if such amounts were additional amounts of interest due; and the Trustee shall pay on behalf of the Commission to the Parity Swap Agreement Counterparty, to the extent required under the Parity Swap Agreement, amounts deposited in the Interest Account. Net amounts received by the Commission or the Trustee from the counterparty pursuant to a Parity Swap Agreement shall be deposited to the credit of the Interest Account or to such other account as designated by a Commission Official.

Amounts paid by or to the Commission pursuant to Approved Swap Agreements which do not constitute Parity Swap Agreements shall not be required to be made through the Trustee as described in the preceding paragraph (but shall be taken into account in calculation of Annual Debt Service as provided in the definition of such term).

SECTION 212. *Conversions of Variable Rate Indebtedness to Fixed Rate Indebtedness*. The Commission may convert Variable Rate Indebtedness to a fixed rate if permitted pursuant to the terms thereof and if the Commission was in compliance with the Rate Covenant for the most recently completed Fiscal Year. If the Commission did not meet the Rate Covenant for such Fiscal Year, the Commission must treat the proposed conversion as if it constituted the issuance of Additional Bonds by meeting the requirements set forth in Section 703(b) (computing the Annual Debt Service with respect to such Variable Rate Indebtedness proposed to be converted as bearing interest at the Bond Buyer Index or such other rate as identified by a Financial Consultant as being more appropriate under the circumstances).

ARTICLE III

REDEMPTION OF BONDS

SECTION 301. *Redemption of Bonds.* The Bonds of any Series issued under the provisions of this Indenture shall be subject to redemption, in whole or in part, and at such times and prices as may be provided in the Supplemental Indenture pursuant to which such Bonds are issued.

If less than all of the Bonds are called for redemption, they shall be redeemed in such order of maturity as provided in the Supplemental Indenture, and by lot within any maturity (provided, however, that if an Event of Default has occurred and is continuing, any Bonds called for redemption shall be redeemed in proportion by maturity and within maturities by lot), subject to selection by the Trustee as provided below. The portion of any Bond to be redeemed shall be an Authorized Denomination or any multiple thereof and in selecting Bonds for redemption, each Bond shall be considered as representing that number of Bonds which is obtained by dividing the principal amount of such Bond by the minimum Authorized Denomination. If a portion of a Bond shall be called for redemption, a new Bond in principal amount equal to the unredeemed portion thereof shall be issued to the Bondholder upon the surrender thereof. If for any reason the principal amount of Bonds called for redemption would result in a redemption of Bonds less than the Authorized Denomination, the Trustee, to the extent possible within the principal amount of Bonds to be redeemed, is hereby authorized to adjust the selection of Bonds for such purpose in order to minimize any such redemption. Notwithstanding the foregoing, the Securities Depository for Book Entry Bonds shall select the Bonds for redemption within particular maturities according to its stated procedures.

SECTION 302. *Notice of Redemption.*

(a) When Bonds (or portions thereof) are to be redeemed, the Commission shall give or cause to be given notice of the redemption of the Bonds to the Trustee no later than 15 days prior to the last date on which notice of such redemption can be given or such shorter time as may be acceptable to the Trustee. In the case of an optional redemption, the notice may state (1) that it is conditioned upon the deposit of moneys, in an amount equal to the amount necessary to effect the redemption, with the Trustee no later than the redemption date or (2) that the Commission retains the right to rescind such notice at any time prior to the scheduled redemption date if the Commission delivers a certificate of a Commission Official to the Trustee instructing the Trustee to rescind the redemption notice (in either case, a "Conditional Redemption"), and such notice and optional redemption shall be of no effect if such moneys are not so deposited or if the notice is rescinded as described in subsection (d) of this Section.

The Trustee, at the expense of the Commission, shall send notice of any redemption, identifying the Bonds to be redeemed, the redemption date and the method and place of payment and the information required by subsection (b) of this Section, by first class mail to each holder of a Bond called for redemption to the holder's address listed on the Bond Register. Such notice shall be sent by the Trustee by first class mail between 30 and 60 days prior to the scheduled redemption date unless a different time period is provided in the Supplemental Indenture for such Bonds. With respect to Book Entry Bonds, if the Trustee sends notice of redemption to the Securities Depository pursuant to the Letter of Representations, the Trustee shall not be required to give the notice set forth in the immediately preceding sentence. If notice is given as stated in this paragraph (a), failure of any Bondholder to receive such notice, or any defect in the notice, shall not affect the redemption or the validity of the proceedings for the redemption of the Bonds.

(b) In addition to the foregoing, the redemption notice shall contain with respect to each Bond being redeemed, (1) the CUSIP number, (2) the date of issue, (3) the interest rate, (4) the maturity date, and (5) any other descriptive information determined by the Trustee to be needed to identify the Bonds. If a redemption is a Conditional Redemption, the notice shall so state. The Trustee also shall send each notice of redemption to (i) any Rating Service then rating the Bonds to be redeemed; (ii) all of the registered clearing agencies known to the Trustee to be in the business of holding substantial amounts of bonds of a type similar to the Bonds; and (iii) one or more national information services that disseminate notices of redemption of bonds such as the Bonds, such services to be identified by the Trustee.

(c) On or before the date fixed for redemption, subject to the provisions of subsections (a) and (d) of this Section, moneys shall be deposited with the Trustee to pay the principal of, redemption premium, if any, and interest accrued to the redemption date on the Bonds called for redemption. Upon the deposit of such moneys, unless the Commission has given notice of rescission as described in subsection (d) of this Section, the Bonds shall cease to bear interest on the redemption date and shall no longer be entitled to the benefits of this Indenture (other than for payment and transfer and exchange) and shall no longer be considered Outstanding.

(d) Any Conditional Redemption may be rescinded in whole or in part at any time prior to the redemption date if the Commission delivers a certificate of a Commission Official to the Trustee instructing the Trustee to resci the redemption notice. The Trustee shall give prompt notice of such rescission to the affected Bondholders. Any Bonds subject to Conditional Redemption where redemption has been rescinded shall remain Outstanding, and the rescission sha not constitute an Event of Default. Further, in the case of a Conditional

Redemption, the failure of the Commission to make funds available in part or in whole on or before the redemption date shall not constitute an Event of Default.

SECTION 303. *Purchase of Bonds at Any Time.* The Trustee, upon the written request of the Commission, shall purchase Bonds as specified by the Commission in the open market at a price not exceeding the price specified by the Commission. Such purchase of Bonds shall be made with funds available under this Indenture or provided by the Commission in such written request. Upon purchase by the Trustee, such Bonds shall be treated as delivered for cancellation pursuant to Section 208. Nothing in this Indenture shall prevent the Commission from purchasing Bonds on the open market without the involvement of the Trustee and delivering such Bonds to the Trustee for cancellation pursuant to Section 208. Bonds purchased pursuant to this Section which are subject to a mandatory sinking fund redemption schedule may be credited against future mandatory sinking fund redemption payments. The principal amount of Bonds to be redeemed by optional redemption under this Indenture may be reduced by the principal amount of Bonds purchased by the Commission and delivered to the Trustee for cancellation at least fifteen (15) days prior to the last date on which the notice of Redemption can be mailed.

SECTION 304. *Costs of Redemptions.* The payment of the necessary costs and expenses of such redemptions, including, without limiting the generality of the foregoing, all reasonable legal fees, costs of advertisements, printing costs, brokerage charges and charges of the Trustee, if any, incident to such redemption, shall be payable by the Commission from moneys in the General Reserve Fund or from such other source as is identified in a certificate of a Commission Official.

ARTICLE IV

CONSTRUCTION FUND

SECTION 401. *Construction Fund.* There is hereby created a special fund known as the "Construction Fund", which shall be held in trust by the Trustee. Money shall be deposited to the Construction Fund pursuant to the provisions of Article II and from any other sources identified by the Commission.

Payment of the costs of the construction portion of any Project shall be made from the Construction Fund. A special account shall be created and identified for each such construction project, although funds, at the written direction of the Commission, may be transferred from one such account in the Construction Fund to another account in such Fund.

SECTION 402. *Payments From Construction Fund.* Before any payment shall be made from the Construction Fund, the Commission shall file with the Trustee a requisition, signed by the Chief Engineer (or his designee) and a Commission Official stating in respect of each payment to be made:

(a) the name of the Person, firm or corporation to whom payment is due,

(b) the amount to be paid, and

(c) the purpose for which the obligation to be paid was incurred;

(d) each item is a proper charge against the Construction Fund and has not been paid, and

(e) such requisition contains no item representing payment on account of any retainage which the Commission is at the date of such certificate not entitled to release.

Upon receipt of each requisition, the Trustee shall transfer from the Construction Fund to the Commission funds equal to the total of the amounts to be paid as set forth in such requisition and the Commission covenants to apply such funds to the payments described in the requisition.

SECTION 403. *Trustee to Retain Requisitions.* All requisitions received by the Trustee pursuant to Section 402 may be relied upon by and shall be retained in the possession of the Trustee for a period of five (5) years, subject at all times to the inspection of the Commission, its agents and representatives, and any other Person authorized by a certificate of a Commission Official.

SECTION 404. *Transfer of Excess Moneys in Construction Fund.* If at any time a Commission Official shall file with the Trustee a certificate stating that the cost of a Project has been finally determined and that the funds remaining in the account established for such Project exceed the remaining costs of the Project, then an amount equal to such excess shall be transferred to such fund or account as directed in the certificate, provided the same is accompanied by an opinion of Bond Counsel to the effect that such transfer or and/or application will not adversely effect the tax-exempt status of the interest of the applicable Bonds.

ARTICLE V

TOLLS, REVENUES AND FUNDS

SECTION 501. *Rate Covenant.*

(a) The Commission covenants that at all times it will establish and maintain schedules of Tolls for traffic over the System so that the Net Revenues of the System in each Fiscal Year will at all times be at least sufficient to provide funds in an amount not less than

(1) the greater of:

(i) one hundred thirty percent (130%) of the Annual Debt Service for such Fiscal Year on account of all Applicable Long-Term Indebtedness then outstanding under the provisions of this Indenture; or

(ii) one hundred percent (100%) of the Maximum Annual Debt Service on all Applicable Long-Term Indebtedness, plus (A) the amount of required transfers from the Revenue Fund to the credit of the Reserve Maintenance Fund pursuant to the Annual Capital Budget, and (B) an amount sufficient to restore any deficiency in the Debt Service Reserve Fund within an eighteen (18) month period;

plus

(2) the amount of any Short-Term Indebtedness outstanding pursuant to Section 703(a) for more than 365 consecutive days.

In addition, the amount of Net Revenues in excess of the sum of the amounts set forth in clauses (1) and (2), together with Other Revenues pledged to the payment of Subordinated Indebtedness, shall be sufficient to pay the Annual Debt Service for any Subordinated Indebtedness.

The foregoing covenant is referred to herein as the "Rate Covenant".

(b) The Commission's failure to meet the Rate Covenant shall not constitute an Event of Default under this Indenture if (1) no Event of Default occurred under Sections 801(a) or (b) as a result of such failure and (2) the Commission promptly after determining that the Rate Covenant was not met retains a Consultant at the expense of the Commission to make written recommendations as to appropriate revisions to the schedules of Tolls necessary or appropriate to meet the Rate Covenant and advises the Trustee in writing of such retention. Anything in this Indenture to the contrary notwithstanding, if the Commission shall comply with the recommendations of the Consultant in respect of Tolls, it will not constitute an Event of Default under the provisions of this Indenture if the Commission fails to meet the Rate Covenant during the succeeding Fiscal Year as long as no Event of Default has occurred under Sections 801(a) or (b). If the Commission does not comply with the recommendations of the Consultant in respect of Tolls, the Trustee may, and upon the request of the holders of not less than twenty-five per centum (25%) in principal amount of the Bonds then outstanding and upon being indemnified to its satisfaction shall, institute and prosecute in a court of competent jurisdiction any appropriate action to compel the Commission to revise the schedules of Tolls. The Commission covenants that it will adopt and charge Tolls in compliance with any final order or decree entered in any such proceeding.

In the event that the Consultant shall fail to file with the Commission such recommendations in writing within sixty (60) days after its retention by the Commission, the Trustee may designate and appoint a different Consultant at the expense of the Commission to make recommendations as to an adjustment of the schedules of Tolls, which recommendations shall be reported in writing to the Commission and to the Trustee within sixty (60) days after such retention. Such written report shall for all purposes be considered to be the equivalent of and substitute for the recommendations of the Consultant retained by the Commission.

In preparing its recommendations, the Consultant may rely upon written estimates of Revenues prepared by the other Consultants of the Commission. Copies of such written estimates signed by such Consultants shall be attached to such recommendations. The Commission covenants that promptly after receipt of such recommendations and the adoption of any revised schedules of Tolls, certified copies thereof will be filed with the Trustee.

SECTION 502. *Uniformity of Tolls.*

(a) Classifications. The Commission covenants that Tolls will be classified in a reasonable way to cover all traffic, so that the Tolls may be uniform in application to all traffic falling within any reasonable class regardless of the status or character of any Person participating in the traffic; provided that the foregoing shall not be interpreted to restrict the Commission's right, in its discretion in connection with its management of the System, to establish and maintain flexible Toll schedules including, but not limited to, provisions for, utilizing or otherwise taking into account, peak and nonpeak pricing, introductory pricing, weight, method of payment, frequency, carpooling, electronic and other Toll collection technologies, traffic management systems, and similar classifications.

Any change in classification which results in a reduced Toll or any new classification shall be reviewed by the Commission with a Consultant before implementing the same unless the same is temporary (e.g., having a duration of less than one year). In addition, in the event the Commission did not meet the Rate Covenant for the preceding Fiscal Year, any classification resulting in a reduced Toll or a new classification shall be subject to a Consultant approving the same before it is implemented. In all events, the Commission shall not make a change in classification or any new classification which would cause the Commission to fail to meet the Rate Covenant.

(b) Free Passage or Reduced Tolls. The Commission shall not grant free passage or reduced tolls within a class, except, in its discretion, it may do so:

(1) Through the use of commutation or other tickets or privileges based upon frequency or volume,

(2) For operational or safety reasons including, but not limited to, reasons arising out of a work stoppage, work slowdown or work action,

(3) To members, officers and employees of the Commission in the discharge of their official duties,

(4) For use by the Army, Air Force, Navy, Coast Guard, Marine Corps or militia or any branch thereof in time of war or other emergency,

(5) For use by the Pennsylvania State Police or by consultants, contractors or agents of the Commission where the Toll ultimately will be repaid directly or indirectly by the Commission.

Any reduced Toll or grant of free passage shall be reviewed by the Commission with a Consultant before implementing the same unless the same is temporary (e.g., having a duration of less than one year). In addition, in the event the Commission did not meet the Rate Covenant for the preceding Fiscal Year, any reduced Toll or free passage shall be subject to a Consultant approving the same before it is implemented by the Commission unless the circumstances require immediate implementation, in which event the Commission shall obtain such approval promptly following implementation. In all events, the Commission shall not reduce Tolls or grant free passage if it would cause the Commission to fail to meet the Rate Covenant.

(c) The Commission's covenant as to uniformity of tolls shall not be construed as requiring that Tolls for any given class of traffic shall be identical in amount throughout the entire System for trips of approximately identical lengths. The Commission may fix and place in effect schedules of Tolls for any given class of traffic wherein the Tolls charged for travel on a given section of the System shall be different from the Tolls charged on another section of the System notwithstanding the fact that both of said sections shall be of identical or approximately identical length.

SECTION 503. *Creation of Funds.* In addition to the Construction Fund created pursuant to Section 401 and any other funds created by Supplemental Indentures, the following funds are hereby created and amounts deposited therein shall be held in trust by the Trustee until applied as hereinafter directed:

(a) Revenue Fund;

(b) Debt Service Fund;

(c) Debt Service Reserve Fund;

(d) Reserve Maintenance Fund;

(e) General Reserve Fund; and

(f) Rebate Fund.

SECTION 504. *Revenue Fund; Agreements With Other Turnpikes.*

(a) The Commission covenants that all Revenues will be deposited daily, as far as practicable, with the Trustee or in the name of the Trustee with a Depositary or Depositaries, to the credit of the Revenue Fund.

(b) To the extent now or hereafter authorized by law, the Commission may enter into agreements with any commission, authority or other similar legal body operating a turnpike, whether or not connected to the System, (1) with respect to the establishment of combined schedules of Tolls and/or (2) for the collection and application of Tolls charged for trips over all or a portion of both turnpikes combined, which on the basis of the Revenues to be received by any such agreement will result in the receipt by the Commission of its allocable portion of such Tolls (less fees and expenses associated with such arrangement). To the extent now or hereafter authorized by law, the Commission also may enter into agreements with other Persons with respect to the collection of Tolls or advances or prepayment of Tolls charged for trips over all or a portion of the System, which on the basis of the Revenues to be received by any such agreement will result in the receipt by the Commission of the appropriate Tolls for such trips. Unless approved by a Consultant, no agreement establishing a combined schedule of Tolls shall restrict the ability of the Commission to implement an increase in its Tolls at least annually.

Amounts received by the Commission from such other commission, authority or other similar legal body or Person, in accordance with such agreements, shall be deposited in the Revenue Fund when they constitute Revenues. Such amounts may be held with one of the depositaries noted in Subsection 504(a) until they constitute Revenues. Amounts received by the Commission and deposited in the Revenue Fund which are payable by the Commission to such other commission, authority or other similar legal body or Person, in accordance with any such agreements, shall be withdrawn by the Trustee from the Revenue Fund upon delivery to the Trustee of a certificate of a Commission Official that such withdrawal is required pursuant to the terms of an agreement entered into pursuant to this Section and shall be paid by the Trustee in accordance with directions contained in such certificate. Any agreement entered into pursuant to this Section shall be made available to the Trustee upon its request.

(c) Except as otherwise provided in this Section, transfers from the Revenue Fund shall be made to the following funds and in the following order of priority:

(1) Rebate Fund;

(2) Operating Account;

(3) Debt Service Fund;

(4) Reserve Maintenance Fund;

(5) Debt Service Reserve Fund; and

(6) General Reserve Fund (after retaining such funds in the Revenue Fund as are identified in the certificate described in Section 509).

SECTION 505. *Operating Account*. The Commission shall establish an account known as the "Operating Account" which shall be held by the Commission in the name of the Commission outside of the Indenture until applied as hereinafter directed. The Trustee shall transfer from the Revenue Fund on or before the last Business Day of each month to the credit of the Operating Account an amount equal to (a) the amount shown by the Annual Operating Budget to be necessary to pay Current Expenses for the ensuing month and (b) an amount certified by a

Commission Official as being reasonably necessary to pay Current Expenses which are expected for such month, after taking into account the amount on deposit in the Operating Account (including the amount described in clause (a), it being recognized that the Annual Operating Budget may have to be amended accordingly.

In making payments from the Operating Account, the Commission shall be deemed to be certifying that obligations in the stated amounts have been incurred by the Commission and that each item thereof was properly incurred in maintaining, repairing and operating the System, and has not been paid previously.

SECTION 506. *Debt Service Fund*. There are hereby created two separate accounts in the Debt Service Fund to be known as the "Interest Account" and the "Principal Account."

The Trustee and the Commission may create such additional accounts in the Debt Service Fund pursuant to a Supplemental Indenture as they deem necessary or appropriate, including, but not limited to, (a) an account into which drawings on a Credit Facility are to be deposited and from which principal (including redemption price) and Purchase Price of and interest on the Series of Bonds secured by such Credit Facility are to be paid (and upon such payment, amounts on deposit in the Principal and Interest Accounts for such Bonds shall be used to repay the provider of the Credit Facility for such payments), and (b) an account into which payments to the Commission to any Parity Swap Counterparty are to be deposited and from which payments to such Parity Swap Counterparty are to be paid.

On or before the last Business Day preceding each Interest Payment Date or principal (or sinking fund redemption) payment date or such other day as set forth in a Supplemental Indenture, after making the deposits to the Operating Account pursuant to Section 505 or identified in a certificate of a Commission Official, the Trustee shall withdraw from the Revenue Fund and deposit to the applicable Account in the Debt Service Fund (or to a Series Credit Facility Fund in lieu of either of the foregoing) the amounts due on any Parity Obligation.

The moneys in the Interest and Principal Accounts shall be held by the Trustee in trust for the benefit of the Bonds, to the extent the foregoing are payable from such accounts, and, to said extent and pending application, shall be subject to a lien and charge in favor of the Owners of the Bonds until paid out or transferred as hereinafter provided. There shall be withdrawn from the Interest Account (and any available capitalized interest) and the Principal Account from time to time and set aside or deposited with the Trustee sufficient money for paying the interest on and the principal of and premium on the Bonds as the same shall become due, except to the extent such interest, principal or other amounts are payable from a fund or account other than the Debt Service Fund as provided in any Supplemental Indenture.

If at the time the Trustee is required to make a withdrawal from the Debt Service Fund the moneys therein shall not be sufficient for such purpose, the Trustee shall withdraw the amount of such deficiency from the moneys on deposit in the following funds or accounts and transfer the same to the Debt Service Fund in the following order: the Debt Service Reserve Fund, the General Reserve Fund, and the Reserve Maintenance Fund.

SECTION 507. *Reserve Maintenance Fund.* In each Fiscal Year, after first having made the deposits provided by Sections 504, 505 and 506 hereof, the Trustee shall transfer from the Revenue Fund on or before the last Business Day of each month to the credit of the Reserve Maintenance Fund the amount shown in the Annual Capital Budget for the ensuing month.

Except as provided in Sections 506 and 707, or except in case of an emergency, as characterized in a certificate signed by a Commission Official stating that the moneys to the credit of the Operating Account are insufficient to meet such emergency, moneys in the Reserve Maintenance Fund shall be disbursed to pay current capital expenditures shown in the Annual Capital Budget for the System, plus the cost of unusual or extraordinary maintenance (as determined solely by the Commission) and shall be disbursed only for such purposes, except to the extent hereinafter provided. Such purposes shall include, but not be limited to, paying the cost of constructing, improving and reconstructing improvements and betterments to all parts of the System now or hereafter open to vehicular traffic, including, without limitation, additional lanes, tunnels, interchanges, toll plazas, bridges and connecting roads, transit interface facilities and any other improvements deemed necessary or desirable by the Commission.

Payments from the Reserve Maintenance Fund, except the transfers which the Trustee is authorized to make in this Section, shall be made pursuant to a requisition process which follows the process described in Section 403 for payments from the Construction Fund.

The Trustee shall transfer any moneys from the Reserve Maintenance Fund to the credit of the General Reserve Fund from time to time upon the receipt of a certificate of a Commission Official certifying that the amount so to be transferred is not required for the purposes for which the Reserve Maintenance Fund has been created.

SECTION 508. *Debt Service Reserve Fund.* A special account within the Debt Service Reserve Fund may be created with respect to each series of Debt Service Reserve Fund Bonds issued under this Indenture and any Supplemental Indenture.

In each Fiscal Year, after first having made the deposits provided by Sections 505 through 507, the Trustee shall transfer from the Revenue Fund on or before the last day of each month to the credit of the Debt Service Reserve Fund (a) the amount, if any, required to make the amount on deposit in the Debt Service Reserve Fund equal to the Debt Service Reserve Requirement which restoration, as implied by the Rate Covenant contained in Section 501, is intended to occur within eighteen (18) months; and (b) the amount set forth in a Supplemental Indenture if an amount different from the Debt Service Reserve Requirement is required.

To the extent accounts are created in the Debt Service Reserve Fund for Debt Service Reserve Fund Bonds, the funds and DSRF Security, as hereinafter defined, held therein shall be available to make payments required under the Indenture for the benefit of all Debt Service Reserve Fund Bonds.

Moneys held in the Debt Service Reserve Fund shall be used for the purpose of paying interest on, maturing principal and mandatory sinking fund redemption price of Debt Service Reserve Fund Bonds whenever and to the extent that the moneys held for the credit of the Debt Service Fund shall be insufficient for such purpose. If at any time the moneys and the principal amount of any DSRF Security held in the Debt Service Reserve Fund shall exceed the Debt Service Reserve Requirement, the Commission shall direct whether such excess moneys shall be transferred by the Trustee to the credit of the General Reserve Fund or used to reduce the principal amount of any DSRF Security.

In the event the Trustee shall be required to withdraw funds from the Debt Service Reserve Fund to restore a deficiency in the Debt Service Fund arising with respect to Debt Service Reserve Fund Bonds, the amount of such deficiency shall be allocated pro rata among such Bonds.

In lieu of the deposit of moneys into the Debt Service Reserve Fund, the Commission may cause to be provided a surety bond, an insurance policy, a letter of credit or similar financial instrument satisfactory to the Rating Agency (as evidenced by a letter from the Rating Agency confirming that the DSRF Security will not result in the rating on any outstanding Bonds being downgraded) (each, a "DSRF Security") payable to the Trustee for the benefit of the Bondholders in an amount equal to the difference between the Debt Service Reserve Requirement and the amounts then on deposit in the Debt Service Reserve Fund. The DSRF Security shall be payable (upon the giving of notice as required thereunder) on any Interest Payment Date on which moneys will be required to be withdrawn from the Debt Service Reserve Fund and applied to the payment of the principal of or interest on any Bonds to the extent that such withdrawals cannot be made by amounts on deposit in the Debt Service Reserve Fund.

If a disbursement is made pursuant to a DSRF Security, the Commission shall be obligated either (a) to reinstate the maximum limits of such DSRF Security or (b) to deposit into the Debt Service Reserve Fund, funds in the amount of the disbursement made under such DSRF Security, or a combination of such alternatives, as shall provide that the amount credited to the Debt Service Reserve Fund equals the Debt Service Reserve Requirement within a time period of eighteen (18) months.

If the DSRF Security shall cease to have a rating described in the second preceding paragraph, the Commission shall use reasonable efforts to replace such DSRF Security with one having the required rating, but shall not be obligated to pay, or commit to pay, increased fees, expenses or interest in connection with such replacement or to deposit Revenues in the Debt Service Reserve Fund in lieu of replacing such DSRF Security with another.

SECTION 509. *General Reserve Fund.* After first having made the deposits provided by Sections 505 through 508, the Trustee shall transfer from the Revenue Fund on or before the last Business Day of each year (or more frequently if requested by a Commission Official) to the credit of the General Reserve Fund any funds which a Commission Official determines to be in excess of the amount required to be reserved therein for future transfers to the Debt Service Fund.

Moneys in the General Reserve Fund may be expended by the Commission to restore deficiencies in any funds or accounts created under this Indenture and, absent any such deficiency, for any of the following purposes, with no one item having priority over any of the others:

(a) To purchase or redeem Bonds;

(b) To secure and pay the principal or redemption price of and interest on any Subordinated Indebtedness;

(c) To make payments into the Construction Fund;

(d) To fund improvements, extensions and replacements of the System; or

(e) To further any corporate purpose.

The Trustee is authorized to apply monies on deposit in the General Reserve Fund for any of such purposes upon receipt of a requisition signed by a Commission Official, stating in respect of each payment to be made:

(a) the name of the Person, firm or corporation, to whom payment is to be made or, if the payment is to be made to a fund or account held by the Trustee under this Indenture or to a fund or account held by the Commission and not subject to the Indenture, the name of such fund or account,

(b) the amount to be paid, and

(c) the purpose for which the payment is to be made.

SECTION 510. *Rebate Fund.* The Commission covenants to calculate and to pay directly to the government of the United States of America all amounts due for payment of "arbitrage rebate" under Section 148(f) of the Code with respect to any Bonds. Nevertheless, the Commission in the future may deposit with the Trustee or direct the Trustee to deposit in the Rebate Fund amounts held in any Fund hereunder for any or all Series of Bonds (which direction shall specify the procedures for collection and payment of amounts due in respect of arbitrage rebate) if (a) required under any amendments to Section 148(f) of the Code or (b) the Commission otherwise determines that the funding of the Rebate Fund is necessary or appropriate. The Rebate Fund is a trust fund but the amounts therein do not constitute part of the Trust Estate. Amounts on deposit in the Rebate Fund may be used solely to make payments to the United States of America under Section 148 of the Code and to pay costs related to the calculation of the amounts due. Upon satisfaction of the Commission's covenants described above, any amounts remaining in the Rebate Fund shall be deposited in the General Reserve Fund.

SECTION 511. *Moneys Set Aside for Principal and Interest Held in Trust.* All moneys which the Trustee shall have set aside (or deposited with any paying agent) for the purpose of paying any of the Bonds hereby secured, either at the maturity thereof or upon call for redemption, shall be held in trust for the respective holders of such Bonds. However, any moneys which shall be so held or deposited by the Trustee, and which shall remain unclaimed by the holders of such Bonds for the period of five years after the date on which such Bonds shall have become payable, shall be paid to the Commission upon its written request or to such officer, board or body as may then be entitled by law to receive the same; thereafter the holders of such Bonds shall look only to the Commission or to such officer, board or body, as the case may be, for payment and then only to the extent of the amounts so received without any interest thereon, and the Trustee shall have no responsibility with respect to such moneys.

SECTION 512. *Additional Security.* Except as otherwise provided or permitted herein, the Trust Estate securing all Bonds issued under the terms of this Indenture shall be shared on a parity with other Parity Obligations on an equal and ratable basis. The Commission may, however, in its discretion, provide additional security or credit enhancement for specified Parity Obligations with no obligation to provide such additional security or credit enhancement to other Parity Obligations, except that no additional security or credit enhancement shall be provided unless there shall have been first delivered to the Trustee an opinion of Bond Counsel that the exclusion from gross income of interest on any Bonds for federal income tax purposes will not be adversely affected thereby. Moreover, the Commission may provide in a Supplemental Indenture that Bonds issued thereunder are not secured, or are secured only in part or only under certain circumstances, by the Trust Estate.

ARTICLE VI

DEPOSITARIES AND INVESTMENTS OF MONEYS

SECTION 601. *Depositary*. Except as otherwise provided herein, all moneys received by the Commission under the provisions of this Indenture shall be deposited with the Trustee or with one or more Depositaries. All moneys deposited under the provisions of this Indenture with the Trustee or any other Depositary shall be held in trust, credited to the particular fund or account to which such moneys belong and applied only in accordance with the provisions of this Indenture.

No moneys shall be deposited with any Depositary, other than the Trustee, in an amount exceeding fifty per centum (50%) of the amount which an officer of such Depositary shall certify to the Commission as the combined capital and surplus of such Depositary.

All moneys deposited with the Trustee or any other Depositary hereunder shall, to the extent not insured, be secured in the manner required or permitted by applicable law.

SECTION 602. *Investment of Moneys*. Moneys held in any of the funds or accounts hereunder may be retained uninvested, if deemed necessary by the Commission, as trust funds and secured as provided in Section 601 or may be invested in Permitted Investments. All investments shall be made by the Trustee upon the oral request of the Commission, which is confirmed in writing by a Commission Official specifying the account or fund from which moneys are to be invested and designating the specific Permitted Investments to be acquired.

All investments made pursuant to this Section shall be subject to withdrawal or shall mature or be subject to repurchase or redemption by the holder, not later than the earlier of (a) the date or dates set forth for similar investments in the applicable Supplemental Indenture or (b) the date on which the moneys may reasonably be expected to be needed for the purpose of this Indenture.

Investments acquired with the moneys in any fund or account shall be a part of such fund or account and, for the purposes of determining the amount in such fund or account, shall be valued at their then fair market value. The interest or income received on an investment shall remain in the fund or account to which the investment is credited except to the extent otherwise provided in the applicable Supplemental Indenture.

The Trustee shall withdraw, redeem or sell all or a portion of any investment upon receipt of the written direction from the Commission or upon a determination by the Trustee that moneys in such fund or account are to be applied or paid by the Trustee pursuant to the provisions of this Indenture, and the proceeds thereof shall be deposited by the Trustee in the appropriate fund or account. Neither the Trustee nor the Commission shall be liable or responsible for any depreciation in the value of the Permitted Investments or for any losses incurred upon any unauthorized disposition thereof.

Each fund held under the Indenture shall be valued by the Trustee at least once annually within thirty days after the end of each Fiscal Year.

ARTICLE VII

PARTICULAR COVENANTS

SECTION 701. *Payment of Principal, Interest and Premium.* The Commission covenants that it will promptly pay the principal of, premium, if any, and the interest on every Bond issued under the provisions of this Indenture at the places, on the dates and in the manner provided herein and in said Bonds. Except as otherwise provided in this Indenture, the principal, interest and premium are payable solely from Revenues, which Revenues are hereby pledged to the payment thereof in the manner and to the extent provided herein. Neither the general credit of the Commission nor the general credit nor the taxing power of the Commonwealth or any political subdivision, agency or instrumentality thereof is pledged for the payment of the Bonds.

SECTION 702. *Annual Operating Budget; Capital Budget.*

(a) Annual Operating Budget. The Commission covenants that on or before the 31st day of May (or such other date as is consistent with the Commission's policies then in effect) in each Fiscal Year it will adopt a budget for the ensuing Fiscal Year (the "Annual Operating Budget"). Copies of each Annual Operating Budget shall be provided to the Trustee. Prior to adopting the Operating Budget, the Commission shall provide a draft of such budget to the Consulting Engineer sufficiently in advance of the adoption of such Annual Operating Budget in order for the Consulting Engineer to provide comments before such adoption. The Commission further covenants that it will prepare each such Annual Operating Budget on the basis of monthly requirements, so that it will be possible to determine the Current Expenses for each month during the Fiscal Year.

If for any reason the Commission shall not have adopted the Annual Operating Budget before the first day of any Fiscal Year, the budget for the preceding Fiscal Year, shall, until the adoption of the Annual Operating Budget, be deemed to be in force and shall be treated as the Annual Operating Budget under the provisions of this Article.

The Commission may adopt an amended or supplemental Annual Operating Budget at any time for the remainder of the then current Fiscal Year. Copies of any such amended or supplemental Annual Operating Budget shall be provided to the Trustee.

(b) Capital Budget.. The Commission further covenants that it will adopt a capital budget (the "Annual Capital Budget) on or before May 31st of each Fiscal Year. The Annual Capital Budget will detail the Commission's planned capital expenditures over a period of up to 10 years and the portion of capital expenditures expected to be funded from the Reserve Maintenance Fund. The Annual Capital Budget shall include the expected beginning balance in the Reserve Maintenance Fund, the amounts to be transferred by the Trustee to the Reserve Maintenance Fund from the General Reserve Fund, the amount of bond proceeds expected to become available during the Fiscal Year, the amounts expected to be transferred monthly by the Trustee from the Revenue Fund, and the desired year-end balance in the Reserve Maintenance Fund. Prior to adopting the Annual Capital Budget, the Commission shall provide a draft of the capital budget to the Consulting Engineer a sufficient time in advance of the Commission's adoption of the Annual Capital Budget in order for the Consulting Engineer to provide comments before the date of such adoption. The Commission may adopt amendments or supplements to the Annual Capital Budget at any time. Copies of the Annual Capital Budget shall be provided to the Trustee.

SECTION 703. *Limitations on Issuance of Additional Bonds and Execution of Approved Swaps.*

(a) Short-Term Indebtedness. The Commission agrees that it will not issue any Additional Bonds constituting Short-Term Indebtedness unless (1) immediately after the incurrence of such Short-Term Indebtedness, the outstanding principal amount of all Short-Term Indebtedness issued pursuant to this subsection does not exceed 30% of the Revenues for the most recent Fiscal Year for which audited financial statements are available; and (2) for a period of not fewer than seven consecutive days within each Fiscal Year, commencing with the Fiscal Year following the issuance of such Short-Term Indebtedness, the aggregate principal amount of all outstanding Short-Term Indebtedness described in this subsection is reduced to less than 5% of the Revenues for the immediately preceding Fiscal Year for which audited financial statements are available. Short-Term Indebtedness issued pursuant to this subsection will be on a parity with other Additional Bonds.

(b) Long-Term Indebtedness. The Commission agrees that it will not issue any Additional Bonds constituting Long-Term Indebtedness unless prior to or contemporaneously with the incurrence thereof, the provisions of Section 210 are met and there is delivered to the Trustee:

(1) a certificate of a Commission Official certifying that the Historical Pro Forma Debt Service Coverage Ratio for the most recent Fiscal Year preceding the delivery of such certificate for which audited financial statements are available was not less than 1.75; or

(2) a report of a Consultant to the effect that (i) the Net Revenues of the Commission during the preceding Fiscal Year were at least 130% of the Maximum Annual Debt Service on all Applicable Long-Term

Indebtedness then Outstanding and on any Applicable Long-Term Indebtedness proposed to be issued (which report may assume any revisions of the Tolls which have been approved by the Commission subsequent to the beginning of such Fiscal Year were in effect for the entire Fiscal Year, and (ii) the Projected Debt Service Coverage Ratio is not less than 1.30; or

(3) if the Long-Term Indebtedness is being incurred solely for the purposes of refunding, repurchasing or refinancing (whether in advance or otherwise) any outstanding Long-Term Indebtedness, a certificate of a Commission Official certifying the Maximum Annual Debt Service on all Applicable Long-Term Indebtedness prior to the issuance of the proposed Long-Term Indebtedness is greater than the Maximum Annual Debt Service on all Applicable Long-Term Indebtedness after the issuance of such proposed Long-Term Indebtedness.

(c) Subordinated Indebtedness. The Commission may incur Indebtedness (hereinafter referred to as "Subordinated Indebtedness") without limit which is subordinated and junior in all respects to payment of all Bonds and other Parity Obligations incurred hereunder so that the same is payable as to principal and interest once all other payments have been made hereunder from the amounts on deposit to the credit of the General Reserve Fund as long as prior to or contemporaneously with the incurrence thereof, there is delivered to the Trustee:

(1) a certificate of a Commission Official certifying that the Rate Covenant would have been met during the preceding Fiscal Year taking into account the Maximum Annual Debt Service on such Subordinated Indebtedness, and

(2) the other items listed in Section 210 (as the same may be modified to reflect the fact that such Indebtedness is Subordinated Indebtedness).

Such Subordinated Indebtedness and the payment thereof may be secured by a lien and pledge (a) subordinate to that of the Bonds on the Revenues or (b) prior to, on a parity with or subordinate to, the Bonds on Other Revenues, in which event the Commission and the Trustee may establish such other accounts under the Indenture as they deem necessary or appropriate.

(d) Approved Swap Agreements. The Commission agrees that it will not enter into any Approved Swap Agreement unless prior to or contemporaneously with the incurrence thereof, the provisions of Section 211 are met and there is delivered to the Trustee one of the certificates or reports required in subsection (b) above, which takes into account the expected payments by and to the Commission pursuant to such Approved Swap Agreement in calculating Annual Debt Service.

SECTION 704. *Use and Operation of System.* The Commission covenants that

(a) it will maintain and operate the System in an efficient and economical manner,

(b) it will maintain the System in good repair and will make all necessary repairs, renewals and replacements, to the extent funds are available therefor hereunder, and

(c) it will comply with laws and all rules, regulations, orders and directions of any legislative, executive, administrative or judicial body applicable to the System, subject to the right of the Commission to contest the same in good faith and by appropriate legal proceedings.

SECTION 705. *Inspection of the System.* The Commission shall make arrangements for the System to be inspected at least once every three years by engaging one or more Consultants to conduct the actual inspections and to prepare a report. Such report shall state (a) whether the System has been maintained in good repair, working order and condition since the last inspection report pursuant to this Section and (b) any recommendations which such Consultants may have as to revisions or additions to the Commission's Annual Capital Budget. Copies of such reports shall be filed with the Trustee.

SECTION 706. *Construction of Projects.* The Commission covenants that:

(a) it will proceed with diligence to construct any Projects in conformity with law and all requirements of all governmental authorities having jurisdiction thereover.

(b) before entering into any construction contract it will secure the approval of the plans and specifications for such contract by a certified engineer or architect, who may be an employee of the Commission, and that it will require each Person, firm or corporation with whom it may contract in connection with the construction of any Project to furnish (1i) a performance bond for 100% of the contract amount, and (2) a payment bond for 100% of the contract amount. Each of such bonds shall be executed by one or more responsible surety companies authorized to do business in the Commonwealth. Any proceeds received from such bonds first shall be applied toward the completion of the applicable Project and second shall be deposited in the General Reserve Fund.

(c) construction contracts for labor and/or materials also shall provide that payments thereunder shall not be made by the Commission in excess of 95% of current estimates except that once the work is at least 50% complete, such retainage may be reduced by the Chief Engineer or another Commission Official to the extent such officer deems such reduction to be necessary or appropriate.

(d) the Commission shall involve the Consulting Engineer or another Consultant to assist in quality assurance matters in connection with design and/or construction of any Project or portion thereof to the extent the Commission determines necessary or appropriate. For purposes of this subsection, "quality assurance" shall be defined to mean those activities, from inception to completion of a Project, which are necessary to ensure that the processes are in place to produce a quality product.

SECTION 707. *Employment of Consulting Engineers*. The Commission covenants to employ an independent engineer or engineering firm or corporation having a national reputation for skill and experience in such work to perform any functions of the Consulting Engineer hereunder.

SECTION 708. *Insurance*. The Commission covenants that it will keep the System and its use and operation thereof insured (including through self-insurance) at all times in such amounts, subject to such exceptions and deductibles and against such risks, as are customary for similar organizations. All insurance policies shall be carried with a responsible insurance company or companies authorized to do business in the Commonwealth or shall be provided under a self-insurance program; any self-insurance program shall be actuarially sound in the written opinion of an accredited actuary, which opinion shall be filed with the Trustee at least annually. At any time and from time to time, the Commission may elect to terminate self-insurance of a given type. Upon making such election, the Commission shall, to the extent then deemed necessary by a Consultant, obtain and maintain comparable commercial insurance.

On July 1, 2003 and every three years thereafter (except with respect to self-insurance, which shall be annually), the Commission shall cause a Consultant to certify to the Trustee that (a) it has reviewed the adequacy of the Commission's insurance, listing the types and amounts of insurance, and (b) it finds such coverage to be reasonable and customary for similar organizations. If the Consultant concludes that coverage other than that which is currently carried by the Commission should be carried, the Commission shall obtain such insurance coverage unless it determines in good faith that it is unreasonable or uneconomical to obtain such coverage and certifies the same in writing to the Trustee.

All insurance policies maintained by the Commission shall be available at reasonable times for inspection by the Trustee, its agents and representatives.

The Commission covenants that it will take actions as it deems necessary to demand, collect and sue for any proceeds that may become due and payable to it under any policy

SECTION 709. *Damage or Destruction.* Immediately after any damage to or destruction of any part of the System which materially adversely affects the Revenues of the Commission, the Commission will promptly take action to repair, reconstruct or replace the damaged or destroyed property or to otherwise ameliorate the adverse impact on Revenues.

SECTION 710. *Annual Audit.* The Commission covenants that it will cause an annual audit to be made of its books and accounts of each Fiscal Year by an independent certified public accountant. A copy of such audit shall be filed with the Trustee promptly after the receipt by the Commission for such purpose.

SECTION 711. *Encumbrance of Revenues; Sale, Lease or Other Disposition of Property.* The Commission covenants that so long as any Bonds are Outstanding under this Indenture,

(a) (1) it will not create or suffer to be created any lien or charge upon any Revenues, except the lien and charge of the Bonds secured hereby and any Subordinated Indebtedness permitted pursuant to the provisions hereof; and (2) from such Revenues or other funds available hereunder, it will pay or cause to be discharged, or will make adequate provision to pay or discharge, within ninety (90) days after the same shall accrue, all lawful claims and demands for labor, materials or supplies which, if unpaid, might by law become a lien upon any Revenues; provided, however, that the Commission shall not be required to pay or discharge, or make provision for such payment or discharge of, any such lien or charge so long as the validity thereof shall be contested in good faith and by appropriate legal proceedings.

(b) the Commission will not sell or otherwise dispose of any real estate or personal property comprising a portion of the System unless the Commission determines

(1) such property (i) has become obsolete or worn out or is reasonably expected to become so within one year after the date of such disposition, (ii) is no longer used or useful in the operation of the System or in the generation of Revenues or (iii) is to be or has been replaced by other property; or

(2) by resolution that such action will not materially adversely affect the Net Revenues of the Commission.

The Commission shall have the discretion to deposit the proceeds of such sale or disposition in a fund or account held under the Indenture or a Commission account held outside the Indenture, as it deems appropriate. In the event the Commission did not meet the Rate Covenant during the preceding Fiscal

Year, however, then the Commission shall notify the Trustee of the sale or disposition of any property which generated Net Revenues in excess of one percent of the Commission's Net Revenues during the prior Fiscal Year and all proceeds from such sale or disposition shall be deposited in the Revenue Fund.

(c) the Commission will not lease any real estate or personal property comprising a portion of the System unless the Commission determines by resolution that such action will not materially adversely affect the Net Revenues of the Commission. The rental and other proceeds from any lease shall not be required to be deposited in the Revenue Fund unless the effect of such lease is to reduce Tolls.

Without intending to limit the foregoing, the Commission also may enter into contracts or other forms of agreement for the use of any real estate comprising a portion of the System including, but not limited to, rights of way for telephone, telegraph, optic fiber and other forms of communication, electric, gas transmission and other lines or facilities for utilities, and other uses which do not materially adversely affect the operation of the System and the payments received in connection with the same shall be deposited in such accounts (which may be outside the Indenture) as the Commission shall determine.

SECTION 712. *Tax Covenants.*

(a) The Commission covenants that it will neither make nor direct the Trustee to make any investment or other use of the proceeds of any Series of Bonds issued hereunder that would cause such Series of Bonds to be "arbitrage bonds", as that term is defined in Section 148(a) of the Code, and that it will comply with the requirements of the Code throughout the term of such Series of Bonds. The Trustee covenants that in those instances where it exercises discretion over the investment of funds, it shall not knowingly make any investment inconsistent with the foregoing covenants.

(b) Notwithstanding the foregoing, the Commission hereby reserves the right to elect to issue one or more Series of Additional Bonds, the interest on which is not exempt from federal income taxation. If such election is made prior to the issuance of such Additional Bonds, then the covenants contained in this Section shall not apply to such Series of Bonds.

(c) The Commission covenants that it (1) will take, or use its best efforts to require to be taken, all actions that may be required of the Commission for the interest on the Bonds to be and remain not included in gross income for federal income tax purposes and (2) will not take or authorize to be taken any actions within its control that would adversely affect that status under the provisions of the Code.

SECTION 713. *Security Agreement; Financing Statements.* In addition to the assignment by the Commission of its rights in the Trust Estate to the Trustee, the Commission hereby acknowledges that in order to more fully protect, perfect and preserve the rights of the Trustee and the Bondholders in the Trust Estate, the Commission grants to the Trustee a security interest in the Trust Estate and the proceeds thereof. The Commission agrees to cooperate with the Trustee in filing financing statements, and continuations thereof, in such manner and in such places as may be required by law in order to perfect such security interest. In the event that the Trustee becomes aware of a change in law which might affect such filing, the Trustee, at the expense of the Commission, may obtain an opinion of Counsel setting forth what actions, if any, the Commission or the Trustee should take in order to protect, perfect and preserve such security interest. The Commission shall cooperate with the Trustee in taking such actions, including the execution of any necessary financing statements and continuations thereof.

SECTION 714. *Further Instruments and Action.* The Commission covenants that it will, from time to time, execute and deliver such further instruments and take such further action as may be required to carry out the purposes of this Indenture.

ARTICLE VIII

EVENTS OF DEFAULT AND REMEDIES

SECTION 801. *Events of Default*. Each of the following is an "Event of Default" hereunder:

(a) Default in the payment of any installment of principal, redemption premium, if any, interest or other amount due on any Bond when the same becomes due and payable;

(b) Default in the payment by the Commission of any other Parity Obligation;

(c) Subject to the provisions of Section 807, default in the performance or breach of any covenant, warranty or representation of the Commission contained in this Indenture (other than a default under subsections (a) and (b) of this Section);

(d) The occurrence of any Event of Default under any Supplemental Indenture; or

(e) (1) The occurrence of an Event of Bankruptcy of the Commission; (2) the appointment of a receiver, liquidator, assignee, custodian, trustee, sequestrator or other similar official of the Commission or of any substantial portion of its property, which appointment shall not have been rescinded or stayed within ninety (90) days after taking effect; or (3) the ordering of the winding up or liquidation of the affairs of the Commission.

SECTION 802. *Remedies Upon Default*.

(a) If an Event of Default under Section 801 occurs and is continuing, the Trustee may, and upon the written request to the Trustee by the holder or holders of not less than a majority in aggregate principal amount of the Bonds then Outstanding shall, subject to the requirements of Section 902(e), by written notice to the Commission, declare the principal of and interest on the Bonds to the date of acceleration to be immediately due and payable.

(b) At any time after such a declaration of acceleration has been made and before the entry of a judgment or decree for payment of the money due, the Trustee may, or the holders of not less than a majority in aggregate principal amount of the Bonds then Outstanding, may by written notice to the Commission and the Trustee, and subject to the requirements of Section 902(e), direct the Trustee to rescind and annul such declaration and its consequences if:

(1) there has been paid to or deposited with the Trustee by or for the account of the Commission, or provision satisfactory to the Trustee has been made for the payment of a sum sufficient to pay: (i) all overdue installments of interest on the Bonds; (ii) the principal of and redemption premium, if any, on any Bonds which have become due other than by such declaration of acceleration and interest thereon; (iii) all amounts due on other Parity Obligations; (iv) to the extent lawful, interest upon overdue installments of interest and redemption premium, if any; and (v) all sums paid or advanced by the Trustee hereunder, together with the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and Counsel prior to the date of notice of rescission; and

(2) all Events of Default, other than those described in Sections 801(a) and (b), if any, which have occasioned such acceleration, have been cured or waived.

(c) No such rescission and annulment shall affect any subsequent default or impair any consequent right.

SECTION 803. *Additional Remedies.*

(a) The Trustee, upon the occurrence of an Event of Default may, and upon the written request of the holders of not less than a majority in aggregate principal amount of the Bonds Outstanding and subject, to the requirements of Section 902(e), shall proceed to protect and enforce its rights and the rights of the holders of the Bonds under this Indenture by a suit or suits in equity or at law, either for the specific performance of any covenant or agreement contained in this Indenture or in aid of the execution of any power herein granted, or for the enforcement of any other appropriate legal or equitable remedy, and the Trustee in reliance upon the advice of Counsel may deem most effective to protect and enforce any of the rights or interests of the Bondholders under the Bonds or this Indenture.

(b) Without limiting the generality of the foregoing, the Trustee shall at all times have the power to institute and maintain such proceedings as it may deem expedient: (1) to prevent any impairment of the Trust Estate by any acts which may be unlawful or in violation of this Indenture, and (2) to protect its interests and the interests of the Bondholders in the Trust Estate and in the issues, profits, revenues and other income arising therefrom, including the power to maintain proceedings to restrain the enforcement of or compliance with any governmental enactment, rule or order which may be unconstitutional or otherwise invalid, if the enforcement of, or compliance with, such enactment, rule or order would impair the Trust Estate or be prejudicial to the interests of the Bondholders or the Trustee.

SECTION 804. *Marshaling of Assets.*

Upon the occurrence of an Event of Default, all moneys in all Funds (other than moneys in the Rebate Fund) shall be available to be utilized by the Trustee in accordance with this Article. The rights of the Trustee under Section 905 shall be applicable. During the continuance of any such Event of Default, all provisions of this Indenture relating to the utilization of Funds, including but not limited to those set out in Article V, shall be superseded by this Article. Subsequent to the curing or waiver of any such Event of Default, the provisions of this Indenture relating to utilization of Funds, including the provisions of Article V, shall be reinstated.

SECTION 805. *Trustee May File Proofs of Claim.*

(a) In case of the pendency of any receivership, insolvency, liquidation, bankruptcy, reorganization, arrangement, adjustment, composition or other judicial proceeding under the Bankruptcy Law relating to the Commission, any other obligor upon the Bonds or any property of the Commission, the Trustee (whether or not the principal of the Bonds shall then be due and payable by acceleration or otherwise, and whether or not the Trustee shall have made any demand upon the Commission for the payment of overdue principal, redemption premium, if any, and interest) shall be entitled and empowered, by intervention in such proceeding or other means:

(1) to file and prove a claim for the whole amount of the principal, redemption premium, if any, and interest owing and unpaid in respect of the Bonds then Outstanding or for breach of this Indenture and to file such other papers or documents as may be necessary or advisable in order to have the claims of the Trustee (including any claim for the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and Counsel) and of the holders allowed in such proceeding; and

(2) to collect and receive any moneys or other property payable or deliverable on any such claims and to distribute the same;

and any receiver, assignee, trustee, liquidator, sequestrator or similar official in any such judicial proceeding is hereby authorized by each holder to make such payments to the Trustee and, in the event that the Trustee shall consent to the making of such payments directly to the holders, to pay to the Trustee any amount due it for the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and Counsel, and any other amounts due the Trustee under Section 905.

(b) No provision of this Indenture empowers the Trustee to authorize or consent to or accept or adopt on behalf of any Bondholders any plan of reorganization, arrangement, adjustment or composition affecting any of the Bonds or the rights of any holder thereof, or to authorize the Trustee to vote in respect of the claim of any holder in any proceeding described in subsection (a) of this Section.

SECTION 806. *Possession of Bonds Not Required.* All rights under this Indenture and the Bonds may be enforced by the Trustee without possession of any Bonds or the production of them at trial or other proceedings. Any proceedings instituted by the Trustee may be brought in its name for itself or as representative of the Bondholders without the necessity of joining Bondholders as parties, and any recovery resulting from such proceedings shall, subject to Section 808, be for the ratable benefit of the Bondholders.

SECTION 807. *Notice and Opportunity to Cure Certain Defaults.* No default under Section 801(c) shall constitute an Event of Default until written notice of such default shall have been given to the Commission by the Trustee or by the holders of at least 25% in aggregate principal amount of the Bonds Outstanding, and the Commission shall have had thirty (30) days after receipt of such notice to correct such default or cause such default to be corrected, and shall have failed to do so. In the event, however, that the default is such that it cannot be corrected within such thirty (30) day period, it shall not constitute an Event of Default if corrective action is instituted by the Commission within such period and diligently pursued (as determined by the Trustee) until the default is corrected.

SECTION 808. *Priority of Payment Following Event of Default.*

Any portion of the Trust Estate held or received by the Trustee, by any receiver or by any Bond Owner pursuant to any right given or action taken under the provisions of this Article, after payment of the costs and expenses of the proceedings resulting in the collection of such moneys and of the fees, expenses and liabilities incurred by the Trustee and the transfer to Secured Owners (other than Owners of the Bonds) of amounts to which they are entitled by virtue of their parity position, shall be deposited and applied as follows:

(a) If the principal of all the Bonds then Outstanding and the interest accrued thereon has been declared to be due and payable immediately pursuant to Section 802(a) (or, but for any legal prohibition on such declaration of acceleration, such principal and interest would have been declared to be due and payable immediately pursuant to such Section or the provisions of any applicable Reimbursement Agreement) and such declaration has not been rescinded and annulled, there shall be deposited into the Debt Service Fund moneys sufficient to pay the amounts described in clauses (1), (2) and (3) below, and all such moneys shall be applied, as promptly as practicable (but subject to the provisions of the last paragraph of this Section), proportionately to

(1) the payment to the persons entitled thereto of all payments of interest then due on the Bonds with interest on overdue installments, if lawful, at their respective rates from the respective dates upon which they became due, in the order of maturity of the installments of such interest and, if the amount available shall not be sufficient to pay in full any particular installment of interest, then to the payment ratably, according to the amounts due on such installment;

(2) the payment to the persons entitled thereto of the unpaid principal of any of the Bonds which shall have become due (or which but for any legal prohibition on such declaration of acceleration would have become due) with interest on such Bonds at their respective rates from the respective dates upon which they became due and, if the amount available shall not be sufficient to pay in full the Bonds due on any particular date, together with such interest, then to the payment ratably, according to the amount of principal and interest due on such date, in each case to the persons entitled thereto, without any discrimination or privilege;

(3) the payment of any other amounts then owing hereunder; and, after said deposit into the Debt Service Fund, there shall be paid the Subordinated Indebtedness issued or incurred by the Commission pursuant to Section 703(c).

(b) If the principal of and interest on all Bonds then Outstanding and has not been declared to be due and payable immediately pursuant to Section 802(a) (or deemed to be due and payable as contemplated in paragraph (a) above) or if such a declaration has been rescinded and annulled, then there shall be deposited into the Debt Service Fund moneys sufficient to pay the amounts described in clauses (1), (2) and (3) below, and all such moneys shall be applied, as promptly as practicable (but subject to the provisions of the last paragraph of this Section),

(1) first, to the payment to the persons entitled thereto of all installments of interest then due on the Bonds , with interest on overdue installments, if lawful, at their respective rates from the respective dates upon which they became due, in the order of maturity and, if the amount available shall not be sufficient to pay in full any particular installment of interest, then to the payment ratably, according to the amounts due on such installment;

(2) second, to the payment to the persons entitled thereto of the unpaid principal of any of the Bonds which shall have become due with interest on such Bonds at their respective rates from the respective dates upon which they became due and, if the amount available shall not be sufficient to pay in full the Bonds due on any particular date, together with

such interest, then to the payment ratably, according to the amount of principal and interest due on such date, in each case to the persons entitled thereto, without any discrimination or privilege; and

(3) third, to the payment of any other amounts then owing hereunder, and, after said deposit into the Debt Service Fund, there shall be paid the Subordinated Indebtedness issued or incurred by the Commission pursuant to Section 703(c).

Whenever moneys are to be applied pursuant to the provisions of this Section, such moneys shall be applied at such times, and from time to time, as the Trustee shall determine, having due regard to the amount of such moneys available for application and the likelihood of additional moneys becoming available for such application in the future. Whenever the Trustee shall apply such funds, it shall fix the date (which shall be an Interest Payment Date unless it shall deem another date more suitable) upon which such application is to be made and upon such date interest on the amounts of principal and interest to be paid on such date shall cease to accrue. The Trustee shall give notice of the deposit with it of any such moneys and of the fixing of any such date by mail to all Owners of Bonds with respect to which the Event of Default occurred and shall not be required to make payment to any Bond Owner until such Bonds shall be presented to the Trustee for appropriate endorsement or for cancellation if fully paid.

SECTION 809. *Bondholders May Direct Proceedings.* The owners of a majority in aggregate principal amount of the Bonds Outstanding shall, subject to the requirements of Section 902(e), have the right, by an instrument or instruments in writing executed and delivered to the Trustee, to direct the method and place of conducting all remedial proceedings by the Trustee hereunder, provided that such direction shall not be in conflict with any rule of law or this Indenture and that the Trustee shall have the right to decline to follow any such direction which in the opinion of the Trustee would be unduly prejudicial to the rights of Bondholders not parties to such direction or would subject the Trustee to personal liability or expense. Notwithstanding the foregoing, the Trustee shall have the right to select and retain Counsel of its choosing to represent it in any such proceedings. The Trustee may take any other action which is not inconsistent with any direction under this Section.

SECTION 810. *Limitations on Rights of Bondholders.*

(a) No Bondholder shall have any right to pursue any other remedy under this Indenture or the Bonds unless: (1) an Event of Default shall have occurred and is continuing; (2) the owners of not less than a majority in aggregate principal amount of all Bonds then Outstanding have requested the Trustee, in writing, to exercise the powers hereinabove granted or to pursue such remedy in its or their name or names; (3) the Trustee has been offered indemnity satisfactory to it against costs, expenses and liabilities reasonably anticipated to be incurred; (4) the Trustee has declined to comply with such request, or has failed to do so, within sixty (60) days after its receipt of such written request and offer of indemnity; and (5) no direction inconsistent with such request has been given to the Trustee during such 60-day period by the holders of a majority in aggregate principal amount of the Bonds Outstanding.

(b) The provisions of subsection (a) of this Section are conditions precedent to the exercise by any Bondholder of any remedy hereunder. The exercise of such rights is further subject to the provisions of Sections 809, 811 and 814. No one or more Bondholders shall have any right in any manner whatever to enforce any right under this Indenture, except in the manner herein provided. All proceedings at law or in equity with respect to an Event of Default shall be instituted and maintained in the manner herein provided for the equal and ratable benefit of the Bondholders of all Bonds Outstanding.

SECTION 811. *Unconditional Right of Bondholder to Receive Payment.* Notwithstanding any other provision of this Indenture, any Bondholder shall have the absolute and unconditional right to receive payment of principal of, redemption premium, if any, and interest on the Bonds on and after the due date thereof, and to institute suit for the enforcement of any such payment.

SECTION 812. *Restoration of Rights and Remedies.* If the Trustee or any Bondholder has instituted any proceeding to enforce any right or remedy under this Indenture, and any such proceeding has been discontinued or abandoned for any reason, or has been determined adversely to the Trustee or such Bondholder, then the Commission, the Trustee and the Bondholders, subject to any determination in such proceeding, shall be restored to their former positions hereunder, and all rights and remedies of the Trustee and the Bondholders shall continue as though no such proceeding had been instituted.

SECTION 813. *Rights and Remedies Cumulative.* No right or remedy herein conferred upon or reserved to the Trustee is intended to be exclusive of any other right or remedy, but each such right or remedy shall, to the extent permitted by law, be cumulative of and in addition to every other right or remedy given hereunder or now or hereafter existing at law, in equity or otherwise. The assertion or employment of any right or remedy hereunder shall not prevent the concurrent assertion or employment of any other appropriate right or remedy.

SECTION 814. *Delay or Omission Not Waiver.* No delay or omission by the Trustee or any Bondholder to exercise any right or remedy accruing upon any Event of Default shall impair any such right or remedy or constitute a waiver of such Event of Default. Every right and remedy given by this Article or by law to the Trustee or the Bondholders may be exercised from time to time, and as often as may as deemed expedient, by the Trustee or the Bondholders, as the case may be.

SECTION 815. *Waiver of Defaults.*

(a) The holders of a majority in aggregate principal amount of the Outstanding Bonds may, by written notice to the Trustee and subject to the requirements of Section 8.02(e), waive any existing default or Event of Default and its consequences, except an Event of Default under Section 8.01(a) or (b). Upon any such waiver, the default or Event of Default shall be deemed cured and shall cease to exist for all purposes. No waiver of any default or Event of Default shall extend to or effect any subsequent default or Event of Default or shall impair any right or remedy consequent thereto.

(b) Notwithstanding any provision of this Indenture, in no event shall any Person, other than all of the affected Bondholders, have the ability to waive any Event of Default under this Indenture if such event results or may result, in the opinion of Bond Counsel, in interest on any of the Bonds becoming includable in gross income for federal income tax purposes if the interest on such Bonds was not includable in gross income for federal income tax purposes prior to such event.

SECTION 816. *Notice of Events of Default.* If an Event of Default occurs of which the Trustee has or is deemed to have notice under Section 902(h), the Trustee shall give Immediate Notice thereof to the Commission. Within 90 days thereafter (unless such Event of Default has been cured or waived), the Trustee shall give notice of such Event of Default to each Bondholder then Outstanding, provided, however, that except in the instance of an Event of Default under Section 801(a) or (b), the Trustee may withhold such notice if and so long as the Trustee in good faith determines that the withholding of such notice does not materially adversely affect the interests of Bondholders, and provided, further, that notice to Bondholders of any Event of Default under Section 801(c) shall be subject to the provisions of Section 807 and shall not be given until the grace period has expired.

ARTICLE IX

THE TRUSTEE

SECTION 901. *Duties and Responsibilities of the Trustee.*

(a) Prior to the occurrence of an Event of Default of which it has or is deemed to have notice hereunder, and after the curing or waiver of any Event of Default which may have occurred:

(1) the Trustee undertakes to perform such duties and only such duties as are specifically set forth in this Indenture, and no implied covenants or obligations shall be read into this Indenture against the Trustee; and

(2) in the absence of bad faith on its part, the Trustee may conclusively rely, as to the truth of the statements and the correctness of the opinions expressed therein, upon certificates or opinions furnished to the Trustee that conform to the requirements of this Indenture; but the Trustee is under a duty to examine such certificates and opinions to determine whether they conform to the requirements of this Indenture.

(b) In case an Event of Default of which the Trustee has or is deemed to have notice hereunder has occurred and is continuing, the Trustee shall exercise such of the rights and powers vested in it by this Indenture, and use the same degree of care and skill in their exercise, as a prudent Person would exercise or use in the conduct of such Person's own affairs.

(c) No provision of this Indenture shall be construed to relieve the Trustee from liability for its own grossly negligent action, its own grossly negligent failure to act, or its own willful misconduct, except that:

(1) this subsection shall not be construed to limit the effect of subsection (a) of this Section;

(2) the Trustee is not liable for any error of judgment made in good faith by a Responsible Officer, unless it is proven that the Trustee was grossly negligent in ascertaining the pertinent facts;

(3) the Trustee is not liable with respect to any action it takes or omits to be taken by it in good faith in accordance with the direction of the Bondholders under any provision of this Indenture relating to the time, method and place of conducting any proceeding for any remedy available to

the Trustee, or exercising any trust or power conferred upon the Trustee under this Indenture; and

(4) no provision of this Indenture shall require the Trustee to expend or risk its own funds or otherwise incur any liability in the performance of any of its duties hereunder, or in the exercise of any of its rights or powers, if it has reasonable grounds for believing that the repayment of such funds or adequate indemnity against such risk or liability is not reasonably assured to it.

(d) The Trustee shall maintain records of all investments and disbursements of proceeds in the funds and accounts established pursuant to this Indenture through the date ending six (6) years following the date on which all the Bonds have been retired.

(e) Whether or not expressly so provided, every provision of this Indenture relating to the conduct or affecting the liability of or affording protection to the Trustee is subject to the provisions of this Section.

SECTION 902. *Certain Rights of the Trustee*. Except as otherwise provided in Section 901:

(a) the Trustee may rely and is protected in acting or refraining from acting upon any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, approval, bond, debenture or other paper or document believed by it to be genuine and to have been signed or presented by the proper party or parties;

(b) any request, direction, order or demand of the Commission under this Indenture shall be sufficiently evidenced by a certificate of a Commission Official (unless other evidence thereof is specifically prescribed) and any resolution of the Commission may be sufficiently evidenced by a copy thereof certified by a Commission Official, as appropriate;

(c) whenever in the administration of this Indenture the Trustee deems it desirable that a matter be proved or established prior to taking, suffering or omitting any action hereunder, the Trustee (unless other evidence thereof is specifically prescribed) may, in the absence of bad faith on its part, rely upon a certificate of a Commission Official;

(d) the Trustee may consult with Counsel and the written advice of such Counsel or an opinion of Counsel shall be full and complete authorization and protection for any action taken, suffered or omitted by it in good faith and in accordance with such advice or opinion;

(e) the Trustee is under no obligation to exercise any of the rights or powers vested in it by this Indenture at the request or direction of any of the Bondholders unless such holders have offered to the Trustee security or indemnity satisfactory to the Trustee as to its terms, coverage, duration, amount and otherwise with respect to the costs, expenses and liabilities which may be incurred by it in compliance with such request or direction principal amount;

(f) the Trustee is not required to make any inquiry or investigation into the facts or matters stated in any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, approval, bond, debenture or other paper or document but the Trustee, in its discretion, may make such further inquiry or investigation into such facts or matters as it may deem necessary or advisable and, if the Trustee determines to make such further inquiry or investigation, it is entitled to examine the books, records and premises of the Commission, in person or by agent or attorney;

(g) the Trustee may execute any of its trusts or powers or perform any duties under this Indenture either directly or by or through agents or attorneys, and may in all cases pay, subject to reimbursement as provided in Section 905, such reasonable compensation as it deems proper to all such agents and attorneys reasonably employed or retained by it, and the Trustee shall not be responsible for any misconduct or negligence of any agent or attorney appointed with due care by it;

(h) the Trustee is not required to take notice or deemed to have notice of any default or Event of Default hereunder, except Events of Default under Section 801(a) and (b), unless a Responsible Officer of the Trustee has actual knowledge thereof or has received notice in writing of such default or Event of Default from the Commission or the holders of at least 25% in aggregate principal amount of the Outstanding Bonds, and in the absence of any such notice, the Trustee may conclusively assume that no such default or Event of Default exists;

(i) the Trustee is not required to give any bond or surety with respect to the performance of its duties or the exercise of its powers under this Indenture;

(j) in the event the Trustee receives inconsistent or conflicting requests and indemnity from two or more groups of Bondholders, each representing less than a majority in aggregate principal amount of the Bonds Outstanding, pursuant to the provisions of this Indenture, the Trustee, in its sole discretion, may determine what action, if any, shall be taken;

(k) the Trustee's immunities and protections from liability and its right to indemnification in connection with the performance of its duties under this Indenture shall extend to the Trustee's officers, directors, agents, attorneys and employees. Such immunities and protections and right to indemnification, together with the Trustee's right to compensation, shall survive the Trustee's resignation or removal, the defeasance or discharge of this Indenture and final payment of the Bonds;

(l) the permissive right of the Trustee to take the actions permitted by this Indenture shall not be construed as an obligation or duty to do so; and

(m) except for information provided by the Trustee concerning the Trustee, the Trustee shall have no responsibility for any information in any offering memorandum or other disclosure material distributed with respect to the Bonds, and the Trustee shall have no responsibility for compliance with any state or federal securities laws in connection with the Bonds.

SECTION 903. *Trustee Not Responsible for Recitals*. The recitals contained in this Indenture and in the Bonds (other than the certificate of authentication on the Bonds) are statements of the Commission and the Trustee assumes no responsibility for their correctness. The Trustee makes no representations as to the value, condition or sufficiency of any assets pledged or assigned as security for the Bonds, the right, title or interest of the Commission therein, the security provided thereby or by this Indenture, the technical or financial feasibility of any Project, the compliance of the Project with the Act, or the tax-exempt status of any Bonds. The Trustee is not accountable for the use or application by the Commission of any of the proceeds of the Bonds, or for the use or application of any moneys paid over by the Trustee in accordance with any provision of this Indenture.

SECTION 904. *Trustee May Own Bonds*. The Trustee, in its commercial banking or in any other capacity, may in good faith buy, sell, own, hold and deal in any of the Bonds and may join in any action which any Bondholder may be entitled to take with like effect as if it were not Trustee. The Trustee, in its commercial banking or in any other capacity, may also engage in or be interested in any financial or other transaction with the Commission and may act as depository, trustee or agent for any committee of Bondholders secured hereby or other obligations of the Commission as freely as if it were not Trustee. The provisions of this Section shall extend to affiliates of the Trustee.

SECTION 905. *Compensation and Expenses of the Trustee*. The Commission covenants and agrees:

(a) to pay to the Trustee compensation for all services rendered by it hereunder and under the other agreements relating to the Bonds to which the Trustee is a party in accordance with terms agreed to from time to time and, subsequent to default, in accordance with the Trustee's then-current fee schedule for default administration (the entirety of which compensation shall not be limited by any provision of law regarding compensation of a trustee of an express trust);

(b) to reimburse the Trustee upon its request for all reasonable expenses, disbursements and advances incurred or made by the Trustee in accordance with any provision of this Indenture, any other agreement relating to the Bonds to which it is a party or in complying with any request by the Commission or the Rating Agency, including the reasonable compensation, expenses and disbursements of its agents and Counsel, except any such expense, disbursement or advance attributable to the Trustee's gross negligence or bad faith; and

(c) to indemnify, defend and hold the Trustee harmless from and against any loss, liability or expense incurred without gross negligence or bad faith on its part, arising out of or in connection with the acceptance or administration of the office of Trustee under this Indenture, including the costs of defending itself against any claim or liability in connection with the exercise or performance of any of its powers or duties hereunder.

In the event the Trustee incurs expenses or renders services in any proceedings under Bankruptcy Law relating to the Commission, the expenses so incurred and compensation for services so rendered are intended to constitute expenses of administration under Bankruptcy Law.

As security for the performance of the obligations of the Commission under this Section, the Trustee shall have a lien prior to the lien securing the Bonds, which it may exercise through a right of setoff, upon all property or funds held or collected by the Trustee pursuant to this Indenture (other than moneys in the Rebate Fund). The obligations of the Commission to make the payments described in this Section shall survive discharge of this Indenture, the resignation or removal of the Trustee and payment in full of the Bonds.

SECTION 906. *Qualifications of Trustee.* There shall at all times be a trustee hereunder which shall be a corporation or banking association organized and doing business under the laws of the United States of America or of any state, authorized under such laws to exercise corporate trust powers, which has a combined capital and surplus of at least $50,000,000, or is an affiliate of, or has a contractual relationship with, a corporation or banking association meeting such capital and surplus requirement which guarantees the obligations and liabilities of the proposed trustee, and which is subject to supervision or examination by federal or state banking authority. If such corporation or banking association publishes reports of condition at least annually, pursuant to law or the requirements of such banking authority, then for purposes of this Section, the combined capital and surplus of such corporation or banking association shall be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published. If at any time the Trustee shall cease to be eligible in accordance with the provisions of this Section, it shall resign promptly in the manner and with the effect specified in this Article.

SECTION 907. *Resignation or Removal of Trustee; Appointment of Successor Trustee.*

(a) No resignation or removal of the Trustee and no appointment of a successor Trustee pursuant to this Article shall become effective until the acceptance of appointment by the successor Trustee under Section 908.

(b) The Trustee may resign at any time by giving written notice to the Commission. Upon receiving such notice of resignation, the Commission shall promptly appoint a successor Trustee by an instrument in writing. If an instrument of acceptance has not been delivered to the resigning Trustee within 30 days after the giving of such notice of resignation, the resigning Trustee or any Bondholder may petition a court of competent jurisdiction for the appointment of a successor Trustee.

(c) Prior to the occurrence and continuance of an Event of Default hereunder, or after the curing or waiver of any such Event of Default, the Commission or the holders of a majority in aggregate principal amount of the Outstanding Bonds, may remove the Trustee and shall appoint a successor Trustee. In the event there shall have occurred and be continuing an Event of Default hereunder, the holders of a majority in aggregate principal amount of the Outstanding Bonds may remove the Trustee and shall appoint a successor Trustee. In each instance, such removal and appointment shall be accomplished by an instrument or concurrent instruments in writing signed by the Commission or such holders, as the case may be, and delivered to the Trustee, the Commission, the holders of the Outstanding Bonds and the Successor Trustee.

(d) If at any time: (1) the Trustee shall cease to be eligible and qualified under Section 906 and shall fail or refuse to resign after written request to do so by the Commission or the holder of any Bond, or (2) the Trustee shall become incapable of acting or shall be adjudged insolvent, or a receiver of the Trustee or its property shall be appointed, or any public officer shall take charge or control of the Trustee, its property or affairs for the purpose of rehabilitation, conservation or liquidation, then in either such case (i) the Commission may remove the Trustee and appoint a successor Trustee in accordance with the provisions of subsection (c) of this Section; or (ii) any holder of a Bond then Outstanding may, on behalf of the holders of all Outstanding Bonds, petition a court of competent jurisdiction for removal of the Trustee and appointment of a successor Trustee.

(e) The Commission shall give written notice of each resignation or removal of the Trustee and each appointment of a successor Trustee to each holder of Bonds then Outstanding as listed in the Bond Register. Each such notice shall include the name and address of the applicable corporate trust office of the successor Trustee.

SECTION 908. *Acceptance of Appointment by Successor Trustee.*

(a) Every successor Trustee appointed hereunder shall execute, acknowledge and deliver to the Commission and the predecessor Trustee an instrument accepting its appointment. The resignation or removal of the retiring Trustee shall thereupon become effective, and the successor Trustee shall, without further act, deed or conveyance become vested with all the estates, properties, rights, powers and duties of the predecessor Trustee. Upon the request of the Commission or the successor Trustee, the predecessor Trustee shall execute and deliver an instrument transferring to the successor Trustee all the estates, properties, rights, powers and duties of the predecessor Trustee under this Indenture, and shall duly assign, transfer, deliver and pay over to the successor Trustee all of the Trust Estate and moneys and other property then held under this Indenture, subject, however, to the lien provided for in Section 905. The successor Trustee shall promptly give written notice of its appointment to the holders of all Bonds Outstanding in the manner prescribed herein, unless such notice has previously been given.

(b) No successor Trustee shall accept appointment as provided in this Section unless, as of the date of such acceptance, it is eligible and qualified under the provisions of Section 906.

SECTION 909. *Merger, Succession or Consolidation of Trustee.* Any corporation or association: (a) into which the Trustee is merged or with which it is consolidated; (b) resulting from any merger or consolidation to which the Trustee is a party; or (c) succeeding to all or substantially all of the corporate trust business of the Trustee, shall be the successor Trustee without the execution or filing of any document or the taking of any further action; provided, however, the Trustee shall give written notice to the Commission at least sixty (60) days prior to the effective date of the proposed merger, consolidation or transaction. Any such successor must be eligible and qualified under the provisions of Section 906.

SECTION 910. *Notices to Bondholders; Waiver.* Where this Indenture provides for notice to Bondholders of any event, such notice shall be sufficiently given (unless otherwise herein expressly provided) if in writing and mailed, first-class postage prepaid, to each Bondholder affected by each event, at his or her address as it appears on the Bond Register, not later than the latest date, and not earlier than the earliest date, prescribed for the first giving of such notice. In any case where notice to Bondholders is given by mail, neither the failure to mail such notice, nor any default in any notice so mailed to any particular Bondholder shall affect the sufficiency of such notice with respect to other Bondholders. Where this Indenture provides for notice in any manner, such notice may be waived in writing by the Person entitled to received such notice, either before or after the event, and such waiver shall be the equivalent of such notice. Waivers of notice by Bondholders shall be filed with the Trustee, but such filing shall not be a condition precedent to the validity of any action taken in reliance upon such waiver.

For so long as the Bonds are registered solely in the name of the Securities Depository or its nominee, where this Indenture provides for notice to the Bondholders of the existence of, or during the continuance of, any Event of Default, the Trustee, at the expense of the Commission, shall: (a) establish a record date (the "Record Date") for determination of the Persons entitled to receive such notice; (b) request a securities position listing from the Securities Depository showing the Depository Participants holding positions in the Bonds affected by such notice as of the Record Date for such notice; (c) mail, first class postage prepaid, copies of the notice as provided above to each Depository Participant identified in the securities position listing as holding a position in the Bonds as of the Record Date for the notice, to each nationally recognized municipal securities information repository (within the meaning of Rule 15c2-12 of the United States Securities and Exchange Commission under the Securities Exchange Act of 1934), and to any Person identified to the Trustee as a nonobjecting beneficial owner pursuant to the immediately following clause; (d) request that the Depository Participant retransmit the notice to all Persons for which it served as nominee on the Record Date, including nonobjecting beneficial owners, or retransmit the notice to objecting beneficial owners and provide a listing of nonobjecting beneficial owners for whom the Depository Participant served as nominee on the Record Date to the Trustee, (e) provide on behalf of the Commission and not as its agent, an undertaking to pay to any Depository Participant or other nominee (other than the Securities Depository) the reasonable costs of transmitting the notice to Persons for whom the Depository Participant acts as nominee; and (f) provide as many copies of the notice as may be requested by any nominee owner of the Bonds. Any default in performance of the duties required by this paragraph shall not affect the sufficiency of notice to the Bondholders given in accordance with the first paragraph of this Section, nor the validity of any action taken under this Indenture in reliance on such notice to Bondholders.

Where this Indenture provides for notice to the Bondholders of any event, the form of the notice shall prominently include a title block, separate from the body of the notice, which shall include the following information: (a) the complete title of the Bonds; (b) the complete name of the Commission; (c) the entire nine-digit CUSIP number of each affected maturity of the Bonds (which may be appended to such notice); (d) the Record Date, and (e) a summary that is no more than the maximum number of characters permitted by the Securities Depository.

Any notice required or permitted by this Indenture to be given to the Securities Depository shall be given to it in the manner provided by this Section for giving notice to Bondholders, and also shall be given in such electronic format as reasonably requested by the Securities Depository) and shall be sent to: The Depository Trust Company, Proxy Department, 55 Water Street, 50th Floor, New York, New York 10041-0099, (telecopy: (212) 855-5181), or such other address as may be specified by the Securities Depository in writing to the Trustee.

SECTION 911. *Paying Agents and Authenticating Agents.* The Commission may appoint at its expense one or more Paying Agents and Authenticating Agents to act as agent of the Trustee in performing any of the duties and obligations imposed under this Indenture or any Supplemental Indenture, and separate appointments may be made for the Bonds of each series. The Trustee may be appointed to serve in any such capacity.

Each Paying Agent and Authenticating Agent shall signify its acceptance of the duties and obligations imposed upon it by this Indenture or any Supplemental Indenture by executing and delivering to the Commission and to the Trustee a written acceptance thereof.

The Commission, in its discretion, may discharge any Paying Agent and/or Authenticating Agent, subject to the provisions of Section 1202.

ARTICLE X

SUPPLEMENTAL INDENTURES

SECTION 1001. *Supplemental Indentures Without Bondholders' Consent.* The Commission and the Trustee may from time to time and at any time enter into Supplemental Indentures, without the consent of or notice to any Bondholder, to effect any one or more of the following:

(a) cure any ambiguity, defect or omission or correct or supplement any provision herein or in any Supplemental Indenture;

(b) grant to or confer upon the Trustee for the benefit of the Bondholders any additional rights, remedies, powers, authority or security that may lawfully be granted to or conferred upon the Bondholders or the Trustee which are not contrary to or inconsistent with this Indenture as then in effect or to subject to the pledge and lien of this Indenture additional revenues, properties or collateral including Defeasance Obligations;

(c) add to the covenants and agreements of the Commission in this Indenture other covenants and agreements thereafter to be observed by the Commission or to surrender any right or power herein reserved to or conferred upon the Commission which are not contrary to or inconsistent with this Indenture as then in effect;

(d) permit the appointment of a co-trustee under this Indenture;

(e) modify, alter, supplement or amend this Indenture in such manner as shall permit the qualification of this Indenture, if required, under the Trust Indenture Act of 1939, the Securities Act of 1933 or any similar federal statute hereafter in effect;

(f) make any other change herein that is determined by the Trustee not to be materially adverse to the interests of the Bondholders;

(g) implement the issuance of Additional Bonds permitted hereunder; or

(h) if all Bonds in a Series are Book Entry Bonds, amend, modify, alter or replace any Letter of Representations as provided in Section 209 or other provisions relating to Book Entry Bonds.

The Trustee shall not be obligated to enter into any such Supplemental Indenture which adversely affects the Trustee's own rights, duties or immunities under this Indenture.

SECTION 1002. *Supplemental Indentures Requiring Bondholders' Consent.* The Commission and the Trustee, at any time and from time to time, may execute and deliver a Supplemental Indenture for the purpose of making any modification or amendment to this Indenture, but only with the written consent, given as provided in Section 1003, of the holders of at least a majority in aggregate principal amount of the Bonds Outstanding at the time such consent is given, and in case less than all of the Bonds then Outstanding are affected by the modification or amendment, of the holders of at least a majority in aggregate principal amount of the Bonds so affected and Outstanding at the time such consent is given; provided, however, that if such modification or amendment will, by its terms, not take effect so long as any Bonds so affected remain Outstanding, the consent of the holders of such Bonds shall not be required and such Bonds shall not be deemed to be Outstanding for the purpose of any calculation of Outstanding Bonds under this Section. Notwithstanding the foregoing, no modification or amendment contained in any such Supplemental Indenture shall permit any of the following, without the consent of each Bondholder whose rights are affected thereby:

(a) a change in the terms of stated maturity or redemption of any Bond or of any installment of interest thereon;

(b) a reduction in the principal amount of or redemption premium on any Bond or in the rate of interest thereon or a change in the coin or currency in which such Bond is payable;

(c) the creation of a lien on or a pledge of any part of the Trust Estate which has priority over or parity with (to the extent not permitted hereunder) the lien or pledge granted to the Bondholders hereunder (but this provision shall not apply to the release of any part of the Trust Estate as opposed to the creation of a prior or parity lien or pledge);

(d) the granting of a preference or priority of any Bond or Bonds over any other Bond or Bonds, except to the extent permitted herein;

(e) a reduction in the aggregate principal amount of Bonds of which the consent of the Bondholders is required to effect any such modification or amendment; or

(f) a change in the provisions of this Section.

Notwithstanding the foregoing, the holder of any Bond may extend the time for payment of the principal of or interest on such Bond; provided, however, that upon the occurrence of an Event of Default, funds available hereunder for the payment of the principal of and interest on the Bonds shall not be applied to any payment so extended until all principal and interest payments which have not been extended have first been paid in full. Notice of any Supplemental Indenture executed pursuant to this Section shall be given to the Bondholders promptly following the execution thereof.

SECTION 1003. *Consents of Bondholders and Opinions.* Each Supplemental Indenture executed and delivered pursuant to the provisions of Section 1002 shall take effect only when and as provided in this Section 1003. A copy of such Supplemental Indenture (or brief summary thereof or reference thereto in form approved by the Trustee), together with a request to Bondholders for their consent thereto in form satisfactory to the Trustee, shall be sent by the Trustee to Bondholders, at the expense of the Commission, by first class mail, postage prepaid, provided that a failure to mail such request shall not affect the validity of the Supplemental Indenture when consented to as provided hereinafter. Such Supplemental Indenture shall not be effective unless and until there shall have been filed with the Trustee (a) the written consents of Bondholders of the percentage of Bonds specified in Section 1002 given as provided in Section 1210, and (b) the opinion of Counsel described in Section 1006. Any such consent shall be binding upon the Bondholder giving such consent and upon any subsequent holder of such Bonds and of any Bonds issued in exchange therefor or in lieu thereof (whether or not such subsequent Bondholder has notice thereof), unless such consent is revoked in writing by the Bondholder giving such consent or a subsequent holder of such Bonds by filing such revocation with the Trustee prior to the date the Trustee receives the material required in subsections (a) and (b) of this Section.

Notwithstanding anything else herein, if a Supplemental Indenture is to become effective under Section 1002 on the same date as the date of issuance of Additional Bonds, the consents of the underwriters or purchasers of such Additional Bonds shall be counted for purposes of Section 1002 and this Section.

SECTION 1004. *Exclusion of Certain Bonds for the Purpose of Consent, etc.* Bonds which are to be disregarded under the last sentence of the definition of "Outstanding" shall not be deemed Outstanding for the purpose of consent or other action or any calculation of Outstanding Bonds provided for in this Article. At the time of any consent or other action taken under this Article or elsewhere in this Indenture, the Commission shall furnish the Trustee a certificate of a Commission Official, upon which the Trustee may rely, describing all Bonds so to be excluded.

SECTION 1005. *Notation on Bonds.* Bonds authenticated and delivered after the effective date of any action taken as provided in this Article may, and, if the Commission so determines, shall bear a notation by endorsement or otherwise in form approved by the Trustee as to such action and, upon demand of the holder of any Outstanding Bond at such effective date and presentation of such Bond for the purpose at the office of the Trustee, or upon any transfer of any Bond Outstanding at such effective date, suitable notation shall be made on such Bond or upon any Bond issued upon any such transfer by the Trustee as to any such action.

If the Commission shall so determine, new Bonds so modified as in the opinion of the Trustee and the Commission to conform to such action shall be prepared, authenticated and delivered, and upon demand of the holder of any Bond then Outstanding shall be exchanged, without cost to such Bondholder for Bonds then Outstanding, upon surrender of such Bonds or Bonds of an equal aggregate principal amount and of the same series, maturity and interest rate, in any Authorized Denomination.

SECTION 1006. *Delivery of Counsel's Opinion with Respect to Supplemental Indentures.* Subject to the provisions of Section 901, the Trustee in executing a supplemental indenture may rely, and shall be fully protected in relying, on an opinion of Counsel acceptable to it stating that (a) the execution of such Supplemental Indenture is authorized or permitted by this Indenture and (b) all conditions precedent to the execution and delivery of such Supplemental Indenture have been complied with, and an opinion of Bond Counsel that the execution and performance of such Supplemental Indenture shall not, in and of itself, adversely affect the federal income tax status of any Bonds, the interest on which is not included in gross income for federal income tax purposes.

SECTION 1007. *Effect of Supplemental Indentures.* Upon the execution and delivery of any Supplemental Indenture under this Article, this Indenture shall be modified in accordance therewith, and such Supplemental Indenture shall form a part of this Indenture for all purposes; and every holder of any Bond theretofore or thereafter authenticated and delivered hereunder shall be bound thereby.

ARTICLE XI

DISCHARGE AND DEFEASANCE

SECTION 1101. *Discharge.* If

(a) the principal of any Bonds and the interest due or to become due thereon, together with any redemption premium required by redemption of any of the Bonds prior to maturity, shall be paid, or is caused to be paid, or is provided for under Section 1102, at the times and in the manner to which reference is made in the Bonds, according to the true intent and meaning thereof, or the outstanding Bonds shall have been paid and discharged in accordance with this Article, and

(b) all of the covenants, agreements, obligations, terms and conditions of the Commission under this Indenture shall have been kept, performed and observed and there shall have been paid to the Trustee, the Bond Registrar and the Paying Agents all sums of money due or to become due to them in accordance with the terms and provisions hereof, then the right, title and interest of the Trustee in the Trust Estate shall thereupon cease and the Trustee, on request of the Commission and at the expense of the Commission, shall release this Indenture and the Trust Estate and shall execute such documents to evidence such release as may be reasonably required by the Commission and shall turn over to the Commission, or to such other Person as may be entitled to receive the same, all balances remaining in any Funds hereunder except for amounts required to pay such Bonds or held pursuant to Section 511.

SECTION 1102. *Defeasance; Deposit of Funds for Payment of Bonds.*

If the Commission deposits with the Trustee moneys or Defeasance Obligations which, together with the earnings thereon, are sufficient to pay the principal amount of and redemption premium on any particular Bond or Bonds becoming due, either at maturity, by means of mandatory sinking fund redemption or by call for optional redemption or otherwise, together with all interest accruing thereon to the due date or Redemption Date, and pays or makes provision for payment of all fees, costs and expenses of the Commission and the Trustee due or to become due with respect to such Bonds, all liability of the Commission with respect to such Bond or Bonds shall cease, such Bond or Bonds shall be deemed not to be Outstanding hereunder and the holder or holders of such Bond or Bonds shall be restricted exclusively to the moneys or Defeasance Obligations so deposited, together with any earnings thereon, for any claim of whatsoever nature with respect to such Bond or Bonds, and the Trustee shall hold such moneys, Defeasance Obligations and earnings in trust for such holder or holders. In determining the sufficiency of the moneys and Defeasance Obligations deposited pursuant to this Section, the Trustee shall receive, at the expense of the Commission, and may rely upon: (a) a verification report of a firm of nationally recognized independent certified public accountants or other qualified firm acceptable to the Commission and the Trustee; provided, however, that the Trustee may waive the requirement for the provision of such verification report if the Bonds which are being defeased will be paid and cancelled within 90 days and the Trustee can calculate the interest to be paid on such Bonds to and including such payment or redemption date; and (b) an opinion of Bond Counsel to the effect that (1) all conditions set forth in this Article have been satisfied and (2) that defeasance of any Bonds will not cause interest on the Bonds to be includable in gross income for federal income tax purposes. Upon such defeasance, all rights of the Commission, including its right to provide for optional redemption or prepayment of any Bonds on dates other than planned pursuant to such defeasance shall cease unless specifically retained by filing a written notification thereof with the Trustee at the time the Defeasance Obligations are deposited with the Trustee.

At such times as a Bonds shall be deemed to be paid hereunder, as aforesaid, it shall no longer be secured by or entitled to the benefits of this Indenture, except for the purposes of any such payment from such money or Defeasance Obligations.

SECTION 1103. *Notice of Defeasance.*

(a) In case any of the Bonds, for the payment of which moneys or Defeasance Obligations have been deposited with the Trustee pursuant to Section 1102, are to be redeemed on any date prior to their maturity, the Commission shall give to the Trustee in form satisfactory to it irrevocable instructions to give notice of redemption of such Bonds on the redemption date for such Bonds.

(b) In addition to the foregoing notice, in the event such Bonds to be redeemed are not by their terms subject to redemption within the next succeeding 60 days, the Trustee shall give further notice to the Bondholders that the deposit required by Section 1102 has been made with the Trustee and that said Bonds are deemed to have been paid in accordance with this Article and stating the maturity or redemption date or dates upon which moneys are to be available for the payment of the principal of and redemption premium, if any, on said Bonds; such further notice shall be given promptly following the making of the deposit required by Section 1102; and such further notice also shall be given in the manner set forth in Section 302; but no defect in said further notice nor any failure to give all or any portion of such further notice shall in any manner defeat the effectiveness of the deposit.

(c) If the Commission has retained any rights pursuant to Section 1102, notice thereof shall be sent to Bondholders of such Bonds as soon as practicable and not later than any notice required by subsections (a) or (b) of this Section.

ARTICLE XII

MISCELLANEOUS PROVISIONS

SECTION 1201. *Successorship of Commission.* In the event of the dissolution of the Commission, all of the covenants, stipulations, obligations and agreements contained in this Indenture by or on behalf of or for the benefit of the Commission shall bind or inure to the benefit of the successor or successors of the Commission from time to time and any officer, board, commission, authority, agency or instrumentality to whom or to which any power or duty affecting such covenants, stipulations, obligations and agreements shall be transferred by or in accordance with law. The word "Commission" as used in this Indenture shall include such successor or successors.

SECTION 1202. *Successorship of Paying Agents.* Any commercial bank, national banking association or trust company with or into which any Paying Agent may be merged or consolidated, or to which the assets and business of such Paying Agent may be sold, shall be deemed the successor of such Paying Agent for the purposes of this Indenture. If the position of any Paying Agent shall become vacant for any reason, the Commission shall, within thirty (30) days thereafter, appoint a commercial bank, national banking association or trust company as Paying Agent to fill such vacancy; provided, however, that if the Commission shall fail to appoint such Paying Agent within said period, the Trustee shall make such appointment.

SECTION 1203. *Notices.* Except as otherwise provided herein, all notices, certificates or other communications hereunder shall be in writing and shall be deemed given upon receipt, by hand delivery, mail, overnight delivery, telecopy or other electronic means addressed as follows:

Commission:	Pennsylvania Turnpike Commission Route 283 & Eisenhower Boulevard Highspire, PA 17034 Attention: J. Blair Fishburn Deputy Executive Director
Trustee:	First Union National Bank 123 South Broad Street 11th Floor P.O. Box 7558 Philadelphia, PA 19109 Attention: John H. Clapham Vice President

In case by reason of the suspension of regular mail service, it shall be impracticable to give notice by first class mail of any event to any Bondholder or the Commission when such notice is required to be given pursuant to any provisions of this Indenture, then any manner of giving such notice as shall be satisfactory to the Trustee shall be deemed to be sufficient giving of such notice. The Commission and the Trustee may, by notice pursuant to this Section, designate any different addresses to which subsequent notices, certificates or other communications shall be sent. A duplicate copy of each notice, approval, consent, request, complaint, demand or other communication given hereunder by the Commission or the Trustee to any one of the others shall also be given to the others. For purposes of this Section and the definition of Immediate Notice, "electronic means" shall mean telecopy or facsimile transmission or other similar electronic means of communication which produces evidence of transmission. Notwithstanding the foregoing, notices to the Trustee shall be effective only upon receipt.

SECTION 1204. *Holidays.* If the date for making any payment or the last date for performance of any act or the exercising of any right, as provided in this Indenture, is not a Business Day, such payment may be made or act performed or right exercised on the next succeeding Business Day with the same force and effect as if done on the nominal date provided in this Indenture and no interest shall accrue on the payment so deferred during the intervening period.

SECTION 1205. *Counterparts.* This Indenture may be executed in any number of counterparts, each of which when so executed and delivered shall constitute an original, but all of which, when taken together, shall constitute but one and the same instrument, and shall become effective when copies hereof shall be delivered to each of the parties hereto, which copies, when taken together, bear the signatures of each of the parties hereto.

SECTION 1206. *Applicable Law.* This Indenture shall be governed in all respects including validity, interpretation and effect by, and shall be enforceable in accordance with, the laws of the United States of America and of the Commonwealth.

SECTION 1207. *Limitation of Liability of Officials of the Commission.* No covenant, stipulation, obligation or agreement contained herein shall be deemed to be a covenant, stipulation, obligation or agreement of any present or future member, agent or employee of the Commission in his individual capacity, and neither the members of the Commission nor any official executing the Bonds shall be liable personally on the Bonds or be subject to any personal liability or accountability by reason of the issuance thereof. Notwithstanding anything to the contrary contained herein, the Trustee, the Bondholders and any other party entitled to seek payment from the Commission under or to enforce this Indenture and the Bonds will be entitled to look solely to the Trust Estate, and such collateral, if any, as may now or hereafter be given to secure the payment of the obligations of the Commission under this Indenture and the Bonds, and no other property or assets of the Commission or any officer or director of the Commission shall be subject to levy, execution or other enforcement procedure for the satisfaction of the remedies hereunder, or for any payment required to be made under this Indenture and the Bonds, or for the performance of any of the covenants or warranties contained herein.

SECTION 1208. *Successors and Assigns*. All the covenants, promises and agreements in this Indenture contained by or on behalf of the Commission, or by or on behalf of the Trustee, shall bind and inure to the benefit of their respective successors and assigns, whether so expressed or not.

SECTION 1209. *Form of Documents Delivered to Trustee*. In any case where several matters are required to be certified by, or covered by an opinion of, any specified Person, it is not necessary that all such matters be certified by, or covered by the opinion of, only one such Person, or that they be so certified or covered by only one document, but one such Person may certify or give an opinion with respect to some matters and one or more other such persons as to other matters, and any such Person may certify or give an opinion as to such matters in one or several documents.

Any certificate of a Commission Official or the Commission may be based, insofar as it relates to legal matters, upon a certificate or opinion of, or representations by, Counsel, unless such official or officer knows, or in the exercise of reasonable care should know, that the certificate or opinion or representations with respect to the matters upon which his or her certificate or opinion is based are erroneous. Any opinion of Counsel may be based, insofar as it relates to factual matters, upon a certificate or opinion of, or representations by, a Commission Official stating that the information with respect to such factual matters is in the possession of the Commission, unless such Counsel knows, or in the exercise of reasonable care should know, that the certificate or opinion or representations with respect to such matters are erroneous.

Where any Person is required to make, give or execute two or more applications, requests, consents, certificates, statements, opinions or other instruments under this Indenture, they may, but need not, be consolidated and form one instrument.

SECTION 1210. *Consent of Holders*. Any consent, request, direction, approval, objection or other instrument required by this Indenture to be signed and executed by the Bondholders may be in any number of concurrent writings of similar tenor and must be signed or executed by such Bondholders in person or by an agent appointed in writing. Proof of the execution of any such consent, request, direction, approval, objection or other instrument or of the writing appointing any such agent and of the ownership of Bonds, if made in the following manner, shall be sufficient for any of the purposes of this Indenture, and shall be conclusive in favor of the Trustee with regard to any action taken by it under such request or other instrument, namely:

(a) The fact and date of the execution by any Person of any such writing may be proved by the certificate of any officer in any jurisdiction who by law has power to take acknowledgments within such jurisdiction that the Person signing such writing acknowledged the execution thereof, or by an affidavit of any witness to such execution.

(b) The Trustee may establish a record date for the purpose of identifying Bondholders entitled to issue any such consent, request, direction, approval or instrument.

IN WITNESS WHEREOF, the Pennsylvania Turnpike Commission has caused this Indenture to be executed by its Chairman and its official seal to be impressed hereon and attested by its Secretary and Treasurer, and First Union National Bank (formerly, Fidelity Bank, National Association) has caused this Indenture to be executed on its behalf by its President or a Vice President and its corporate seal to be impressed hereon and attested by its Secretary or an Assistant Secretary, all as of the day and year first above written.

PENNSYLVANIA TURNPIKE COMMISSION

By [redacted]
Chairman

(Seal)

ATTEST:

[redacted]

FIRST UNION NATIONAL BANK, (formerly FIDELITY BANK, NATIONAL ASSOCIATION)

By________________________
Vice President

(Seal)

ATTEST:

____

553143_1

IN WITNESS WHEREOF, the Pennsylvania Turnpike Commission has caused this Indenture to be executed by its Chairman and its official seal to be impressed hereon and attested by its Secretary and Treasurer, and First Union National Bank (formerly, Fidelity Bank, National Association) has caused this Indenture to be executed on its behalf by its President or a Vice President and its corporate seal to be impressed hereon and attested by its Secretary or an Assistant Secretary, all as of the day and year first above written.

PENNSYLVANIA TURNPIKE COMMISSION

By____________________________
Chairman

(Seal)

ATTEST:

____

FIRST UNION NATIONAL BANK, (formerly FIDELITY BANK, NATIONAL ASSOCIATION)

[redacted]

By____
Vice President

(Seal)

ATTEST:

[redacted]

Exhibit B

FORM OF BORROWING REQUEST

[__________], 20[___]

(PENNSYLVANIA TURNPIKE COMMISSION)

To: DVRC PENNSYLVANIA TURNPIKE, LP
c/o Delaware Valley Regional Center, LLC
1055 Westlakes Drive, 3rd Floor
Berwyn, Pennsylvania 19312
Attention: Joseph Manheim
Telecopy: [redacted]

With a copy to:

Raffaele & Puppio, LLP
19 West Third Street
Media, Pennsylvania 19603
Attention: Mike Puppio
Telecopy: [redacted]

Re: Loan Agreement dated as of ___________, 2013

Ladies and Gentlemen:

This Borrowing Request is delivered to you pursuant to Section 2.1 of that certain Loan Agreement, dated as of ___________, 2013 (as amended, modified, waived, supplemented or restated from time to time, the "Loan Agreement"), by and between PENNSYLVANIA TURNPIKE COMMISSION, as borrower (in such capacity, "Commission") and DVRC PENNSYLVANIA TURNPIKE, LP, as lender. Capitalized terms used but not defined herein shall have the meanings provided in the Loan Agreement.

Pursuant to Section 2.1 of the Loan Agreement:

1. In connection with the Tranche [1][2][3][4] Loan made pursuant to Section 2.1[(a)][(b)][(c)][(d)] of the Loan Agreement, Commission hereby requests an advance in the principal amount of $[__________].

2. Commission hereby requests that such advance be made on the following date: [__________], 20[___].

3. Commission hereby requests that such advance be made to the following account: [______________________________].

Attached to this Borrowing Request as Exhibit A is evidence of Qualifying Expenditures made or a plan for Qualifying Expenditures to be made or reimbursed with the proceeds of such advance.

IN WITNESS WHEREOF, the undersigned have executed this Borrowing Request as of the date first written above.

PENNSYLVANIA TURNPIKE COMMISSION

By: ______________________________
Name:
Title:

Exhibit C

ECONOMIC IMPACT STUDY

Economic Impact of Constructing the Pennsylvania Turnpike/ I-95 Interchange Project, Located in Bucks County, PA, as Part of an EB-5 Regional Center in the Delaware Valley, PA and NJ

Prepared for:

Delaware Valley Regional Center, LLC

Prepared by:

Michael K. Evans

Evans, Carroll & Associates, Inc.

2785 NW 26th St., Boca Raton, FL 33434

[redacted]

February 10, 2013

Table of Contents

1. Executive Summary

• Delaware Valley Regional Center, LLC (hereinafter referred to as, the "regional center" or "Delaware Valley Regional Center") is engaged in raising financing for the construction of the Pennsylvania Turnpike / I-95 Interchange Project, located in Bucks County, PA. The PA Turnpike / I-95 Interchange Project provides new free-flow connections between I-276 and I-95, widening of the PA Turnpike from a four-lane to a six-lane highway east of I-95, and a new Open Road Toll (ORT) / conventional gateway toll plaza (to serve as the Pennsylvania Turnpike Commission's eastern toll system terminus) and an all-electronic tolling (AET) facility on the Pennsylvania side of the Delaware River Bridge. In addition, approximately 3 miles of I-95 is to be widened to accommodate the ramps and merge lanes resulting from interchange flyover construction. When combined, these features will allow the completion of I-95 and the redesignation of I-95 in PA and NJ.

• The project is being advanced into design and construction in a staged manner to match anticipated availability of funding and to achieve mobility benefits for the region as early as possible. Accordingly, the Interchange Project has been separated into three operationally independent stages as follows:

  - Stage 1 – Reconfigures the PA Turnpike toll system and re-routes I-95 onto the PA Turnpike by building the main movements of the interchange along with associated highway widening of the PA Turnpike and I-95.
  - Stage 2 – Constructs the remaining movements of the I-276 / I-95 interchange and the remaining highway widening.
  - Stage 3 – Constructs a new parallel bridge structure across the Delaware River and rehabilitates/retrofits the existing structure.

• Initial construction for advance overhead bridge replacements began in Fall 2010 and Stage 1 construction is projected to be complete in 2018. Based on detailed traffic forecasts and analyses, the improvements in Stages 2 and 3 of the project are not needed from a highway level of service standpoint until after 2030, which is beyond the long-range planning horizon. Hence, they are not included in this report.

• The economic impact analysis results in this report are based on the RIMS II input/output model data for the nine counties in the Delaware Valley Region, which are Philadelphia, Bucks, Montgomery, Delaware, and Chester counties in PA and Burlington, Camden, Gloucester, and Mercer counties in NJ.

• Jacobs Engineering has provided detailed construction estimates for Stage 1 of this project, which are reproduced later in this report. The summary statistics show a total expenditure of $416.62 million, of which $335.38 million are hard costs, $26.66 million are purchases of manufactured goods, $40.62 million are professional services related to architecture and engineering, $11.46 million are financial and legal services, and $2.50 million are utilities.

• These figures require several adjustments before they can be entered into the RIMS II model. First, the 7% contingency allowances must be removed. Second, the input/output data are based on 2010 inputs, so the actual figures, which include a 2% annual inflation factor starting in 2012, need to be rebased to 2010 dollars. After taking these two adjustments into account, the summary figures are:

Hard costs of $288.97 million * 16.000 = 4624 jobs
Purchases of machinery of $22.97 million * 7.15 = 164 jobs
Professional services and fees of $35.00 million * 14.0726 = 492 jobs
Legal services of $4.93 million * 15.1024 = 74 jobs
Electrical utilities of $2.15 million* 6.3463 = 14 jobs

• **Combining these jobs would indicate a total of 5,368 permanent new jobs created by this project (see Table A). Based on the 2000 Census data, this interchange is located in a Targeted Employment Area. As a result, each EB-5 immigrant would invest $500,000, which means up to 536 EB-5 immigrants could invest up to an aggregate amount of $268 million in EB-5 funds in this project.**

• The timing issue arises because the project is not expected to be finished until 2018, while some of the initial I-829 petitions may be filed in 2016 or 2017. As a result, the funds will be raised in several tranches. A detailed table included later in this report shows the quarterly timeline for construction expenditures and employment.

2. Tabulation of Principal Results

The results for the employment multipliers for the construction of the Pennsylvania Turnpike / I-95 interchange are summarized in Table A. The RIMS II final demand multipliers include the direct as well as the indirect and induced effects for all components of construction except for the purchases of machinery and equipment (Mchy & Eqpt). All figures in Table A represent permanent new jobs created.

Table A. Summary of Employment and Revenue by Activity			
Activity	Expenditures/ Revenues ($ million)	Final Demand Multiplier	Total Jobs
Activity			
Construction	288.97	16.0006	4623.7
Architect and Engineering Services	35.00	14.0726	492.5
Legal Services	4.93	15.1024	74.5
Purchases of Mchy & Eqpt *	22.97	7.152	164.3
Utilities	2.15	6.3643	13.7
Total	354.02		5368.6

* Indirect and induced jobs only
All figures calculated from unrounded numbers

Table B-1 shows the 4-digit NAICS codes used in this report and the definitions from the NAICS code manual. Table B-2 contains print screen images of the exact multipliers used in this study taken from Table 1-5 of the RIMS II input/output multiplier tables.

Table B-1. 4-Digit NAICS Codes Used

Table B-1. 4-Digit NAICS Codes Used	
2211	**Electric Power Generation, Transmission and Distribution**
2373	**Highway, Street, and Bridge Construction**
4238	**Machinery, Equipment, and Supplies Merchant Wholesalers**
5411	**Legal Services**
5413	**Architectural, Engineering, and Related Services**

Please note that the wholesale trade sector includes only indirect and induced jobs, so the multiplier shown in Table B-2 is calculated as Col (3) divided by (Col (6) - 1)/Col (6).

Table B-2. Print Screen of RIMS II Multipliers

	(1)	(2)	(3)	(4)	(5)	(6)
2211A0 Electric power generation, transmission, and distribution	**1.6404**	**0.3924**	**6.3643**	**1.0555**	**1.8609**	**3.3823**
230000 Construction	**2.2728**	**0.7132**	**16.0006**	**1.2295**	**1.9802**	**2.2028**
420000 Wholesale trade	**1.9960**	**0.5906**	**11.5637**	**1.2738**	**1.9487**	**2.6210**
541100 Legal services	**2.2434**	**0.8980**	**15.1024**	**1.4948**	**1.6237**	**2.6244**
541300 Architectural, engineering, and related services	**2.1842**	**0.7024**	**14.0726**	**1.3381**	**1.9916**	**2.7962**

Region Definition: Burlington, NJ; Camden, NJ; Gloucester, NJ; Mercer, NJ; Bucks, PA; Chester, PA; Delaware, PA; Montgomery, PA; Philadelphia, PA

*Includes Government enterprises.

1. Each entry in column 1 represents the total dollar change in output that occurs in all industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.
2. Each entry in column 2 represents the total dollar change in earnings of households employed by all industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.
3. Each entry in column 3 represents the total change in number of jobs that occurs in all industries for each additional 1 million dollars of output delivered to final demand by the industry corresponding to the entry. Because the employment multipliers are based on 2010 data, the output delivered to final demand should be in 2010 dollars.
4. Each entry in column 4 represents the total dollar change in value added that occurs in all industries for each additional dollar of output delivered to final demand by the industry corresponding to the entry.
5. Each entry in column 5 represents the total dollar change in earnings of households employed by all industries for each additional dollar of earnings paid directly to households employed by the industry corresponding to the entry.
6. Each entry in column 6 represents the total change in number of jobs in all industries for each additional job in the industry corresponding to the entry.

NOTE.--Multipliers are based on the 2002 Benchmark Input-Output Table for the Nation and 2010 regional data. Industry List A identifies the industries corresponding to the entries.

SOURCE.--Regional Input-Output Modeling System (RIMS II), Regional Product Division, Bureau of Economic Analysis.

At the time when the I-829 petitions would be submitted, the economic impact as measured by household earnings, demand for business services, utilities, maintenance and repair, and new supplier and vendor relationships is summarized in Table C. Table C. Summary of Economic Impact

Table C. Summary of Economic Impact

All figures in thousands of dollars	
Household Income from	
Construction	$206,122
Architect and Engineering Services	$24,588
Legal Services	$4,427
Purchases of Mchy & Eqpt *	$6,599
Utilities	$844
Total these 5 categories	$242,580

Demand (output) for:	
Utilities	$8,399
Maintenance and repair construction	$3,014
Supplier/vendor links with manufacturers	$77,718
Professional and business support services	$112,690
Total these 4 categories	$201,821
* indirect and induced effects only	

Household Earnings (Labor Income)

The jobs created by the construction of the Turnpike interchange will subsequently create new sources of household income. The household income for the total jobs created by construction and related services is about $242.6 million.

This income calculation comes from the RIMS II input-output model, which measures the average income per job by industry. The model calculations are based on the types of jobs that will be created within the regional center, with indirect/induced impacts allocated based on the types of commodity inputs required by the businesses that would potentially locate in the regional center.

The details used to calculate these figures are given throughout this report. Separate tables are provided for the total number of jobs created, the average earnings per new worker, and the total increase in earnings for construction of the Turnpike interchange In each case, the RIMS II input/output model has been used to calculate the number of jobs in each major industrial classification, the average earnings per employee, and hence total earnings. The number of jobs by industrial classification is based on calculations imbedded in the RIMS II model for each of the activities as summarized in Table A and documented in detail throughout this report. Further details are given in the tables in Section 9).

Demand for Business Services, Utilities, Maintenance and Construction, and New Supplier/Vendor Relationships Created with Manufacturers

The total economic impact of the regional center from the supplier purchases and business relationships for the Turnpike interchange will create approximately $201.8 million in additional economic activity across the region. These supplier purchases are calculated from the indirect increase in output generated by the RIMS II model. It should be noted that some of these supplier industries might potentially locate within the regional center, and their economic output is included in this total.

The estimate of supplier purchases is based on the commodity data in the RIMS II input-output model. This data specifies the amount and type of commodity input needed to maintain specific types of business operations. The model estimates the supplier purchases based on the types of jobs and number of jobs that will be created within the regional center. In addition, the model allocates the supplier purchases to businesses within the region, based on trade flow data from the U.S. Bureau of Economic Analysis.

Utilities include services such as electricity, natural gas, and water and sewer facilities. The economic impact on utility services totals about $8.4 million.

Maintenance and repair services include some construction activity after the project is completed. The regional center would create an economic impact of about $3.0 million within these sectors in the region. These are permanent, ongoing repairs and do not include the original construction. Because the construction will be new, the economic impact for maintenance is minimal on an ongoing basis.

New supplier/vendor relationships with manufacturers would create an economic impact of about $77.7 million. This output represents purchases of locally manufactured goods for construction.

The regional center will also create demand for various types of business services, including professional and scientific services, management of companies, administrative services, and building support and waste management services. The impact of this activity totals about $112.7 million. This represents payments to architects and engineers and other professional services for the construction activities.

The figures given in Table C represent only a brief summary of the detailed calculations that have been undertaken and are reported in tabular format throughout this report. The figure for utility output, for example, represents the sum of utility output for each of the categories of economic activity listed in Table A. For repair and maintenance construction this figure represents the amount spent times the input/output coefficient showing the total amount of output per $1 million of construction expenditures. The same methodology applies to all the other figures given in Table C. Detailed figures may be found in the tables in Section 9, which provides estimates of employment, output, and earnings for each of the five categories of construction-related expenditures.

3. Introduction and Scope of Work

Delaware Valley Regional Center is engaged in raising financing for the construction of the Pennsylvania Turnpike / I-95 Interchange Project, located in Bucks County, PA. The PA Turnpike / I-95 Interchange Project provides new free-flow connections between I-276 and I-95, widening of the PA Turnpike from a four-lane to a six-lane highway east of I-95, and a new ORT / conventional gateway toll plaza (to serve as the PTC's eastern toll system terminus) and an all-electronic tolling facility on the Pennsylvania side of the Delaware River Bridge. In addition, approximately 3 miles of I-95 is to be widened to accommodate the ramps and merge lanes resulting from interchange flyover construction.

This report contains the economic impact of these construction expenditures, including professional services, purchase of machinery and equipment, and utilities. All of the impact calculations are based on the 9-county area comprising Delaware Valley Regional Center, as listed below.

Section 4 contains a brief discussion of the RIMS II model and its multipliers, followed by a more detailed explanation of how the indirect jobs are calculated in a regional input/output model in Section 5.

Section 6 presents summary economic statistics for the nine counties in the Delaware Valley region and compares them to the statistics for the overall U.S. economy. Table 6-1 shows the key economic parameters for employment by major industrial classification, income distribution, and levels of income and poverty rates, for Bucks and Montgomery Counties, PA and compares them with the U.S. statistics. Table 6-2 offers similar information for Philadelphia, Delaware, and Chester Counties, PA. Table 6-3 contains similar information for Burlington and Camden Counties, NJ, and Table 6-4 shows the same type of information for Gloucester and Mercer Counties, NJ.

Table 6-5 shows the labor force, employment, and unemployment statistics for Pennsylvania and New Jersey, these 9 counties and the total area. Table 6-6 shows the level and growth rate for population for these same areas, and Table 6-7 shows similar information for personal income. Finally, Table 6-8 shows the commuting patterns for the counties in this group. Section 7 shows the location of the turnpike and I-95 interchange. It also shows maps of the area, and the TEA analysis for this location.

All of the jobs from this project are from construction. Tolls will be collected electronically so it is not expected that any new employees would be added in that category. While there will undoubtedly be an increase in employment due to the improved transportation facilities, they are not included in this analysis. The construction jobs are divided into five separate NAICS categories, based on the cost estimates submitted by Jacobs Engineering. These are (a) hard construction costs, (b) architectural, engineering, and related fees, (c) legal fees, (d) utility costs, and (e) the wholesale margin for purchases of machinery and equipment purchased outside the Delaware Valley region. Separate sets of tables are provided for each of these 5 categories showing the increase in employment, output, and earnings, and the level of output and earnings per new employee, for the 20 major industrial classifications in the RIMS II model. Section (10) then contains the summary tables for the entire project.

4. Brief Guide to RIMS II Input/Output Model

The following material has been condensed from the RIMS II User Handbook.

Introduction and General Comments

Effective planning for public- and private-sector projects and programs at the State and local levels requires a systematic analysis of the economic impacts of these projects and programs on affected regions. In turn, systematic analysis of economic impacts must account for the inter-industry relationships within regions because these relationships largely determine how regional economies are likely to respond to project and program changes. Thus, regional input-output (I-O) multipliers, which account for inter-industry relationships within regions, are useful tools for conducting regional economic impact analysis.

In the 1970s, the Bureau of Economic Analysis (BEA) developed a method for estimating regional I-O multipliers known as RIMS (Regional Industrial Multiplier System), which was based on the work of Garnick and Drake. In the 1980s, BEA completed an enhancement of RIMS, known as RIMS II (Regional Input-Output Modeling System), and published a handbook for RIMS II users. In 1992, BEA published a second edition of the handbook in which the multipliers were based on more recent data and improved methodology. In 1997, BEA published a third edition of the handbook that provides more detail on the use of the multipliers and the data sources and methods for estimating them.

RIMS II is based on an accounting framework called an I-O table. For each industry, an I-O table shows the industrial distribution of inputs purchased and outputs sold. A typical I-O table in RIMS II is derived mainly from two data sources: BEA's national I-O table, which shows the input and output structure of nearly 500 U.S. industries, and BEA's regional economic accounts, which are used to adjust the national I-O table to show a region's industrial structure and trading patterns.

Using RIMS II for impact analysis has several advantages. RIMS II multipliers can be estimated for any region composed of one or more counties and for any industry, or group of industries, in the national I-O table. The accessibility of the main data sources for RIMS II keeps the cost of estimating regional multipliers relatively low. Empirical tests show that estimates based on relatively expensive surveys and RIMS II-based estimates are similar in magnitude.

BEA's RIMS multipliers can be a cost-effective way for analysts to estimate the economic impacts of changes in a regional economy. However, it is important to keep in mind that, like all economic impact models, RIMS II provides approximate order-of-magnitude estimates of impacts. RIMS multipliers are best suited for estimating the impacts of small changes on a regional economy. For some applications, users may want to supplement RIMS estimates with information they gather from the region undergoing the potential change. To use the multipliers for impact analysis effectively, users must provide geographically and industrially detailed information on the initial changes in output, earnings, or employment that are associated with the project or program under study. The multipliers can then be used to estimate the total impact of the project or program on regional output, earnings, and employment.

RIMS II is widely used in both the public and private sector. In the public sector, for example, the Department of Defense uses RIMS II to estimate the regional impacts of military base closings. State transportation departments use RIMS II to estimate the regional impacts of airport construction and expansion. In the private-sector, analysts and consultants use RIMS II to estimate the regional impacts of a variety of projects, such as the development of shopping malls and sports stadiums.

RIMS II Methodology

RIMS II uses BEA's benchmark and annual I-O tables for the nation. Since a particular region may not contain all the industries found at the national level, some direct input requirements cannot be supplied by that region's industries. Input requirements that are not produced in a study region are identified using BEA's regional economic accounts.

The RIMS II method for estimating regional I-O multipliers can be viewed as a three-step process. In the first step, the producer portion of the national I-O table is made region-specific by using six-digit NAICS location quotients (LQs). The LQs estimate the extent to which input requirements are supplied by firms within the region. RIMS II uses LQs based on two types of data: BEA's personal income data (by place of residence) are used to calculate LQs in the service industries; and BEA's wage-and-salary data (by place of work) are used to calculate LQs in the non-service industries.

In the second step, the household row and the household column from the national I-O table are made region-specific. The household row coefficients, which are derived from the value-added row of the national I-O table, are adjusted to reflect regional earnings leakages resulting from individuals working in the region but residing outside the region. The household column coefficients, which are based on the personal consumption expenditure column of the national I-O table, are adjusted to account for regional consumption leakages stemming from personal taxes and savings. In the last step, the Leontief inversion approach is used to estimate multipliers. This inversion approach produces output, earnings, and employment multipliers, which can be used to trace the impacts of changes in final demand on directly and indirectly affected industries.

Advantages of RIMS II

There are numerous advantages to using RIMS II. First, the accessibility of the main data sources makes it possible to estimate regional multipliers without conducting relatively expensive surveys. Second, the level of industrial detail used in RIMS II helps avoid aggregation errors, which often occur when industries are combined. Third, RIMS II multipliers can be compared across areas because they are based on a consistent set of estimating procedures nationwide. Fourth, RIMS II multipliers are updated to reflect the most recent local-area wage-and-salary and personal income data.

Overview of Different Multipliers

RIMS II provides users with five types of multipliers: final demand multipliers for output, for earnings, and for employment; and direct-effect multipliers for earnings and for employment. These multipliers measure the economic impact of a change in final demand, in earnings, or in employment on a region's economy.

The final demand multipliers for output are the basic multipliers from which all other RIMS II multipliers are derived. In this table, each column entry indicates the change in output in each row industry that results from a $1 change in final demand in the column industry. The impact on each row industry is calculated by multiplying the final demand change in the column industry by the multipliers for each row. The total impact on regional output is calculated by multiplying the final demand change in the column industry by the sum of all the multipliers for each row except the household row.

RIMS II provides two types of multipliers for estimating the impacts of changes on earnings: final demand multipliers and direct effect multipliers. These multipliers are derived from the table of final demand output multipliers.

The final demand multipliers for earnings can be used if data on final demand changes are available. In the final demand earnings multiplier table, each column entry indicates the change in earnings in each row industry that results from a $1 change in final demand in the column industry. The impact on each row industry is calculated by multiplying the final demand change in the column industry by the multipliers for each row. The total impact on regional earnings is calculated by multiplying the final demand change in the column industry by the sum of all the multipliers for each row.

Employment Multipliers

RIMS II provides two types of multipliers for estimating the impacts of changes on employment: final demand multipliers and direct effect multipliers. These multipliers are derived from the table of final demand output multipliers.

The final demand multipliers for employment can be used if the data on final demand changes are available. In the final demand employment multiplier table, each column entry indicates the change in employment in each row industry that results from a $1 million change in final demand in the column industry. The impact on each row industry is calculated by multiplying the final demand change in the column industry by the multipliers for each row. The total impact on regional employment is calculated by multiplying the final demand change in the column industry by the sum of all the multipliers for each row.

The direct effect multipliers for employment can be used if the data on the initial changes in employment by industry are available. In the direct effect employment multiplier table, each entry indicates the total change in employment in the region that results from a change of one job in the row industry. The total impact on regional employment is calculated by multiplying the initial change in employment in the row industry by the multiplier for the row.

Choosing a Multiplier

The choice of multiplier for estimating the impact of a project on output, earnings, and employment depends on the availability of estimates of the initial changes in final demand, earnings, and employment. If the estimates of the initial changes in all three measures are available, the RIMS II user can select any of the RIMS II multipliers. In theory, all the impact estimates should be consistent. If the available estimates are limited to initial changes in final demand, the user can select a final demand multiplier for impact estimation. If the available estimates are limited to initial changes in earnings or employment, the user can select a direct effect multiplier.

5. Methodology for Calculating Indirect Job Gains in Regional Input/Output Models

In addition to the explanation of the RIMS II model given directly above, some USCIS adjudicators have asked for further clarification about how that model is used to determine the increase in the number of indirect jobs. That is an important issue because, unlike the direct job count, which can be verified by USCIS from various payroll and withholding documents, the calculation of indirect jobs cannot be verified directly but depends on mathematical calculations.

The general concept is based on the coefficients in the input/output model itself (the same methodology applies to RIMS II, IMPLAN, or any other generally recognized and accepted input/output model). In any given year, the government calculates how much input is used for a given production of output. The detailed figures are taken from the Economic Censuses taken once every five years; the figures are then updated from various annual supplements.

Basically the process has two steps, each of which is described next in greater detail. The first is to determine the amount of output, and hence the number of jobs, required to produce a given amount (say $1 million) of the final product or service. These are national coefficients. The second is to determine what proportion of those goods and services are purchased within the local region (the regional purchase coefficients, or RPCs).

In the case of a manufacturing process, the national coefficients are based on production functions: how much coke per ton of steel, how much steel per motor vehicle, how much flour for a loaf of bread, and so on. However, most of the jobs are created in the service sector, where Commerce Department data are used to determine, for example, how much restaurants spend on laundry services, how much airlines spend for attorneys, and so on. These figures are based on information contained in the various Economic Censuses. The national coefficients would also determine, for example, how many architects and engineers would be hired for a construction project of a given scope and size, and how many new employees at financial institutions would be required to handle the additional cash flow generated by the new business. Both of these are discussed below in greater detail.

Even after these coefficients are determined, however, the regional purchase coefficients (RPC) must still be estimated. If, for example, a trucking firm spends 1% of its revenue on accountants, how much of that money is spent on local firms, and how much is spent outside the region?

That answer depends on various factors. The most important is the amount of the good or service produced within the region. If a trucking firm, for example, were located in a small county with no accountants, obviously it would not spend any of that money locally. That sets a lower limit but is not generally the case. Instead, a balancing algorithm is used.

Suppose, for example, that all the firms producing, distributing, or selling goods and services in a given county spent $10 million on accounting services. Also, suppose that total billings of all accountants in the county were $20 million. In that case, local accountants could handle all the local business, plus business from neighboring counties. If, on the other hand, total accountant billings in the county were only $5 million, local firms could not spend more than half of the money on local accountants.

Of course, it is possible that there are adequate resources in the county but local firms choose to use companies outside the county; perhaps prices or service is better. No input/output model can account for such anomalies. On the other hand, given transportation costs, it would be highly unusual for a firm to be located in a given location and not serve the nearby businesses, instead choosing only those clients who were farther away.

The RIMS II model – and other regional input/output models – assigns regional purchase coefficients (RPCs) in all cases where the local industry purchases goods and services from local firms. This matrix could have as many as 406 * 406 = 164,836 elements, although in practice many of them are zero. Large counties with a wide variety of businesses have more non-zero elements than small counties with relatively few businesses.

In general, the RPCs tend to be close to zero for most manufactured goods, and close to unity for most services. While there are many exceptions to this rule, most firms will use financial, professional, business, and health care services that are located in that county or contiguous areas.

To take just one example of many, consider the number of new jobs created by architects and engineers for a new construction project of any given size. Most construction cost manuals, such as those published by R. S. Means, indicate that those costs are usually about 5% to 9% of the total job. According to the input/output model files, the figures are 9.2% for commercial construction and 4.5% for industrial construction.

These figures can be compared with the proportions of architects and engineers in Dallas, Tarrant, Collin, and Denton counties, based on the RIMS II data that are used to determine the economic multipliers in the specific group. For this nine-county group, the input/output model shows proportions of 8.4% for commercial and 4.3% for industrial construction, indicating that 91% of the architects and engineers for commercial jobs and 95% for industrial jobs are hired locally. These figures are fairly typical of other locations and regions; except for "signature" buildings designed by famous names, most architects and engineers live in the same region as the buildings that are being constructed.

To summarize to this point, the number of indirect jobs as a proportion of direct jobs depends on (a) the national relationships, and (b) the regional purchase coefficients. In our presentation for the businesses in this report, we provide further discussion of those industries with the largest number of indirect jobs. However, there are a few industries that produce relatively large numbers of jobs in almost all cases, and these can be generally discussed at this stage in order to avoid repeating this information several times. The industries discussed here include banking, real estate, legal and accounting, architects and engineers, other professional services, employment services, other business services, restaurants, and government. In all of these cases, the vast majority of workers are hired locally. Our comments for the rest of this section are based on the assumption of a $10 million investment; the results are linear.

Banking and credit: On an aggregate basis, for every $10 million in deposits, very broadly defined (M3), there is about 1 new banking employee. As a rough rule of thumb, the size of M3 is roughly equal to the size of GDP. Hence we would expect about 1 new banking employee for every $10 million increase in output, as calculated from the RIMS II model.

Real estate: Additional real estate employees are based on two factors. One is the leasing activity of the new building, and the other is the increase in residential real estate activity as people get new jobs, either within the area or by moving into the area. On a lease basis, a $10 million investment is likely to result in a building of 80,000 square feet. If it leases for $40/square foot, that would be $3.2 million in annual lease payments, and with a 6% commission would generate $192,000 in revenues, which would account for about 2 new real estate employees (the figure would be less for industrial buildings). The increase in employment would also result in some real estate activity as workers moved into better housing in the same location, or moved in from other areas. In a normal year, there are about 7 million sales of new and existing homes for a labor force of about 140 million, or 5%. Hence if the total increase in employment were 200, that would imply 10 real estate transactions; if they average $200,000 at a 6% commission, that would be $12,000 per home or a total of $120,000, which would support approximately 3 new real estate jobs.

Legal & Accounting: Each of these accounts for about 1% of total employment; so if there were a total increase of 200 jobs, we would expect an average of 4 new employees in this classification.

Architects & Engineers: almost all of these jobs stem from the new construction activity. This category has already been discussed above; for a $10 million construction project, which would create about 80 new construction jobs, we would expect about 7 new jobs in architects and engineers for a commercial project and 3 to 4 new jobs for an industrial project.

Other professional services: This category includes employees in consulting, scientific research and development, advertising, and management, as well as several other smaller, specialized categories. In general, consulting, management, and the all other category each account for about 1% of total employment, and R&D and advertising account for about ½% of total employment, for a total of about 4% of total employment. This figure will vary widely depending on the degree to which consultants and R&D are used by the new business.

Employment services: On a national average basis, 1 out of every 45 people is employed by this industry. Here again, the figures will vary widely depending on (a) the proportion of people who are hired through employment agencies, and (b) the proportion of the work that is outsourced to employment services.

Business support services include office management, travel arrangement, security, credit bureaus, telemarketing, and back-office jobs that are outsourced, such as direct mail, copying, and duplicating services. The back-office services would vary widely depending on the type of new business; retail stores, for example, would print and distribute more advertising brochures than a manufacturing operation. On a national average basis, these jobs account for about 2% of total employment.

Building support services, which includes janitorial services, lawn maintenance, and waste management. For an office building of 80,000 square feet, the cost would be approximately $2/sq ft per year for maintenance, or $160,000, which would support about 4 new jobs; here again, the figure would be lower for industrial buildings.

Restaurants: This category reflects business meals. Of course the number of business meals depends greatly on the type of business; lawyers, accountants, and consultants will have more business meals than manufacturing plants or water treatment facilities. On a national average basis, Commerce Department figures show that total restaurant sales in 2007 were $580 billion, while consumer expenditures at restaurants were $500 billion. However, that figure also includes tips, which are not included in restaurant sales. After subtracting 15% for tips, that indicates about $425 billion in food and beverage purchases by consumers, indicating about $155 billion for business expenses. With a labor force of approximately 140 million, that is equivalent to about $1,100 per employee. Hence if 200 new jobs were created, business meal expenses would rise an average of $221,000, which would imply about 4.5 new indirect jobs in the restaurant industry. These figures are likely to be somewhat higher when direct jobs are created for office buildings and hotels.

Government: The increase in public sector employees represents the amount funded by increased real estate taxes. For a construction project with $10 million in hard costs, the total value is likely to be between $15 and $20 million when one includes furniture, fixtures, equipment, and land values. Using a national average property tax rate of 1%, that would raise $150,000 to $200,000, which would create 3 to 4 new jobs in the public sector.

6. Economic Summary and Economic Impact for the 9 Counties in the Delaware Valley Region

The material in this section is organized in the following manner. Table 6-1 shows the key economic parameters for employment by major industrial classification, income distribution, and levels of income and poverty rates, for Bucks and Montgomery Counties, PA and compares them with the U.S. statistics. Table 6-2 offers similar information for Philadelphia, Delaware, and Chester Counties, PA. Table 6-3 contains similar information for Burlington and Camden Counties, NJ, and Table 6-4 shows the same type of information for Gloucester and Mercer Counties, NJ.

Table 6-5 shows the labor force, employment, and unemployment statistics for Pennsylvania and New Jersey, these 9 counties and the total area. Table 6-6 shows the level and growth rate for population for these same areas, and Table 6-7 shows similar information for personal income. Finally, Table 6-8 shows the commuting patterns for the counties in this group.

Table 6-1. Key Economic Parameters for Bucks County and Montgomery County, and Comparison with the U.S. Economy

Category	Bucks	%	Montgomery	%	U.S.	%
EMPLOYMENT STATUS						
Population 16 years and over	499,646	100.0%	639,810	100.0%	243,832,923	100.0%
In labor force	350,666	70.2%	444,233	69.4%	156,966,769	64.4%
Civilian labor force	350,379	70.1%	443,967	69.4%	155,917,013	63.9%
Employed	318,956	63.8%	411,517	64.3%	139,033,928	57.0%
Unemployed	31,423	6.3%	32,450	5.1%	16,883,085	6.9%
Armed Forces	287	0.1%	266	0.0%	1,049,756	0.4%
Not in labor force	148,980	29.8%	195,577	30.6%	86,866,154	35.6%
OCCUPATION						
Civilian employed population 16+	318,956	100.0%	411,517	100.0%	139,033,928	100.0%
Management & professional	133,081	41.7%	199,633	48.5%	49,975,620	35.9%
Service occupations	45,871	14.4%	49,922	12.1%	25,059,153	18.0%
Sales and office occupations	84,437	26.5%	103,307	25.1%	34,711,455	25.0%
Construction, maintenance, repair	24,645	7.7%	27,242	6.6%	12,697,304	9.1%
Production & transportation	30,922	9.7%	31,413	7.6%	16,590,396	11.9%

INDUSTRY						
Civilian employed population 16+	318,956	100.0%	411,517	100.0%	139,033,928	100.0%
Agriculture & mining	825	0.3%	1,750	0.4%	2,646,975	1.9%
Construction	20,568	6.4%	23,472	5.7%	8,686,813	6.2%
Manufacturing	38,083	11.9%	47,202	11.5%	14,439,691	10.4%
Wholesale trade	10,065	3.2%	12,669	3.1%	3,941,066	2.8%
Retail trade	43,713	13.7%	43,224	10.5%	16,203,408	11.7%
Transportation & utilities	12,667	4.0%	14,631	3.6%	6,843,579	4.9%
Information	6,685	2.1%	9,183	2.2%	3,015,521	2.2%
Finance, insurance, & real estate	22,448	7.0%	41,825	10.2%	9,275,465	6.7%
Professional & administrative	37,907	11.9%	58,720	14.3%	14,710,089	10.6%
Educational services & health care	76,720	24.1%	102,572	24.9%	32,311,107	23.2%
Arts, entertain, hotel, food svcs	25,541	8.0%	26,997	6.6%	12,859,572	9.2%
Other private services	13,820	4.3%	17,919	4.4%	6,913,449	5.0%
Public administration	9,914	3.1%	11,353	2.8%	7,187,193	5.2%
INCOME AND BENEFITS						
Total households	227,393	100.0%	308,233	100.0%	114,567,419	100.0%
Less than $10,000	7,380	3.2%	9,945	3.2%	8,757,190	7.6%
$10,000 to $14,999	8,067	3.5%	10,182	3.3%	6,668,865	5.8%
$15,000 to $24,999	16,668	7.3%	20,636	6.7%	13,165,380	11.5%
$25,000 to $34,999	19,759	8.7%	24,170	7.8%	12,323,322	10.8%
$35,000 to $49,999	25,895	11.4%	34,042	11.0%	16,312,385	14.2%
$50,000 to $74,999	42,349	18.6%	54,075	17.5%	20,940,859	18.3%
$75,000 to $99,999	31,596	13.9%	44,377	14.4%	13,526,500	11.8%
$100,000 to $149,999	42,199	18.6%	56,539	18.3%	13,544,839	11.8%
$150,000 to $199,999	16,973	7.5%	26,694	8.7%	4,809,998	4.2%
$200,000 or more	16,507	7.3%	27,573	8.9%	4,518,081	3.9%
Median household income (dollars)	70,999	141.9%	75,448	150.8%	50,046	
Mean household income (dollars)	91,799	134.5%	99,641	146.0%	68,259	
Families	161,805	100.0%	214,358	100.0%	76,089,045	100.0%
Less than $10,000	2,712	1.7%	3,669	1.7%	3,824,251	5.0%
$10,000 to $14,999	2,046	1.3%	2,517	1.2%	2,660,781	3.5%
$15,000 to $24,999	7,290	4.5%	8,408	3.9%	6,770,812	8.9%
$25,000 to $34,999	9,696	6.0%	11,080	5.2%	7,332,318	9.6%
$35,000 to $49,999	15,664	9.7%	20,630	9.6%	10,578,051	13.9%
$50,000 to $74,999	30,984	19.1%	35,511	16.6%	14,990,631	19.7%
$75,000 to $99,999	25,697	15.9%	33,476	15.6%	10,638,931	14.0%
$100,000 to $149,999	36,824	22.8%	49,981	23.3%	11,261,766	14.8%

$150,000 to $199,999	15,666	9.7%	24,371	11.4%	4,130,868	5.4%
$200,000 or more	15,226	9.4%	24,715	11.5%	3,900,636	5.1%
Median family income (dollars)	85,816	141.6%	94,289	155.6%	60,609	
Mean family income (dollars)	107,231	135.2%	118,070	148.8%	79,338	
Per capita income (dollars)	34,534	132.5%	38,792	148.9%	26,059	
Median earnings for workers	36,604	126.7%	41,154	142.4%	28,899	
Median earnings for male full-time	61,100	131.4%	61,776	132.9%	46,500	
Median earnings for female full-time	46,169	126.3%	47,836	130.9%	36,551	
PERCENTAGE BELOW POVERTY LEVEL						
All families	4.10%	36.3%	3.60%	31.9%	11.30%	
All people	6.20%	40.5%	5.50%	35.9%	15.30%	

Percentages in black are proportions of that category. Percentages in red are relative to the U.S. average.

As is the case for most of the nine-county region, both Bucks County and Montgomery County have higher percentages of their workforce in management and professional occupations – 41.7% and 48.5%, respectively – versus 35.9% for the U.S. overall. Bucks County also has an atypically high proportion of its workforce in the manufacturing (11.9%) and retail trade (13.7%) sectors, the highest percentages in the six-county area. Almost 25% of the workforce in Montgomery County is in the educational and health care sectors, slightly above the national average (23%).

Bucks County is an affluent area, as seen by the median household income ($71,000, compared to $50,000 for the U.S.) and low percentage of families under the poverty line (4%, versus 11% for the U.S.). The figures for Montgomery County are even more affluent, with median income over $75,000 and only 1.7% of all families below the poverty line.

Table 6-2. Key Economic Parameters for Philadelphia, Delaware, and Chester Counties, and Comparison with the U.S. Economy

Category	Phila-delphia	%	Delaware	%	Chester	%
EMPLOYMENT STATUS						
Population 16 years and over	1,227,006	100.0%	446,449	100.0%	390,766	100.0%
In labor force	709,875	57.9%	294,367	65.9%	270,007	69.1%
Civilian labor force	709,503	57.8%	294,184	65.9%	269,707	69.0%

Employed	597,521	48.7%	265,831	59.5%	252,993	64.7%
Unemployed	111,982	9.1%	28,353	6.4%	16,714	4.3%
Armed Forces	372	0.0%	183	0.0%	300	0.1%
Not in labor force	517,131	42.1%	152,082	34.1%	120,759	30.9%
OCCUPATION						
Civilian employed population 16+	597,521	100.0%	265,831	100.0%	252,993	100.0%
Management & professional	209,333	35.0%	112,927	42.5%	121,563	48.0%
Service occupations	139,698	23.4%	42,703	16.1%	33,382	13.2%
Sales and office occupations	148,715	24.9%	66,812	25.1%	60,430	23.9%
Construction, maintenance, repair	32,929	5.5%	19,764	7.4%	17,932	7.1%
Production & transportation	66,846	11.2%	23,625	8.9%	19,686	7.8%
INDUSTRY						
Civilian employed population 16+	597,521	100.0%	265,831	100.0%	252,993	100.0%
Agriculture & mining	1,065	0.2%	932	0.4%	6,745	2.7%
Construction	21,677	3.6%	14,480	5.4%	12,814	5.1%
Manufacturing	42,841	7.2%	22,333	8.4%	33,512	13.2%
Wholesale trade	11,982	2.0%	5,459	2.1%	7,384	2.9%
Retail trade	60,638	10.1%	26,050	9.8%	28,157	11.1%
Transportation & utilities	30,368	5.1%	13,653	5.1%	8,482	3.4%
Information	11,409	1.9%	6,174	2.3%	4,615	1.8%
Finance, insurance, & real estate	36,268	6.1%	22,735	8.6%	24,447	9.7%
Professional & administrative	70,778	11.8%	29,857	11.2%	36,113	14.3%
Educational services & health care	182,275	30.5%	80,923	30.4%	57,072	22.6%
Arts, entertain, hotel, food svcs	58,846	9.8%	21,599	8.1%	17,876	7.1%
Other private services	30,753	5.1%	13,044	4.9%	10,254	4.1%
Public administration	38,621	6.5%	8,592	3.2%	5,522	2.2%
INCOME AND BENEFITS						
Total households	575,413	100.0%	206,516	100.0%	184,160	100.0%
Less than $10,000	96,956	16.8%	10,365	5.0%	5,078	2.8%
$10,000 to $14,999	48,163	8.4%	9,981	4.8%	4,424	2.4%
$15,000 to $24,999	79,464	13.8%	17,562	8.5%	12,513	6.8%
$25,000 to $34,999	66,536	11.6%	22,684	11.0%	13,172	7.2%
$35,000 to $49,999	77,014	13.4%	28,175	13.6%	17,086	9.3%
$50,000 to $74,999	93,245	16.2%	36,070	17.5%	29,786	16.2%
$75,000 to $99,999	49,165	8.5%	25,810	12.5%	24,985	13.6%
$100,000 to $149,999	39,492	6.9%	30,658	14.8%	38,880	21.1%
$150,000 to $199,999	14,013	2.4%	13,374	6.5%	18,628	10.1%

$200,000 or more	11,365	2.0%	11,837	5.7%	19,608	10.6%
Median household income (dollars)	34,400	68.7%	59,125	118.1%	84,284	168.4%
Mean household income (dollars)	49,307	72.2%	79,614	116.6%	107,732	157.8%
Families	309,009	100.0%	136,891	100.0%	129,847	100.0%
Less than $10,000	34,386	11.1%	4,634	3.4%	2,246	1.7%
$10,000 to $14,999	18,658	6.0%	3,282	2.4%	1,171	0.9%
$15,000 to $24,999	39,918	12.9%	6,713	4.9%	5,525	4.3%
$25,000 to $34,999	34,583	11.2%	11,186	8.2%	6,953	5.4%
$35,000 to $49,999	45,344	14.7%	18,287	13.4%	9,588	7.4%
$50,000 to $74,999	57,451	18.6%	24,852	18.2%	18,755	14.4%
$75,000 to $99,999	31,617	10.2%	20,000	14.6%	18,920	14.6%
$100,000 to $149,999	29,002	9.4%	25,595	18.7%	32,154	24.8%
$150,000 to $199,999	9,733	3.1%	11,869	8.7%	16,879	13.0%
$200,000 or more	8,317	2.7%	10,473	7.7%	17,656	13.6%
Median family income (dollars)	43,147	71.2%	74,333	122.6%	101,397	167.3%
Mean family income (dollars)	58,626	73.9%	94,445	119.0%	125,416	158.1%
Per capita income (dollars)	20,170	77.4%	30,232	116.0%	40,138	154.0%
Median earnings for workers	26,720	92.5%	32,216	111.5%	40,844	141.3%
Median earnings for male full-time	40,498	87.1%	52,206	112.3%	68,529	147.4%
Median earnings for female full-time	35,802	98.0%	40,799	111.6%	50,705	138.7%
PERCENTAGE BELOW POVERTY LEVEL						
All families	21.30%	188.5%	7.30%	64.6%	3.6%	31.9%
All people	26.70%	174.5%	9.70%	63.4%	6.2%	40.5%

Philadelphia County in many ways is the prototypical inner-city county. Its poverty levels are nearly double the national average – 21% of families live below the poverty line, compared to 11% nationally – and its median household income is approximately two-thirds of national levels ($34K vs. $50K). However, Philadelphia County has seen somewhat of a resurgence in recent years, as seen in its high annual growth rate of personal income (see Table 6-7) of 4.2% from 2000 to 2010, the highest in the region.

Delaware and Chester Counties are both western suburbs of Philadelphia, and while they have some of the trappings of upscale bedroom suburbs, they differ in the sense that Chester County is similar to Montgomery and Bucks Counties in terms of income and poverty levels, but Delaware County is not nearly as well off, with substantial pockets of poverty. Even so, median family income is 126% of the national average and the poverty rate for all families is only 65% of that average; it is just that the lower income brackets have a higher proportion than is usually associated with a suburban county near a major city.

Table 6-3. Key Economic Parameters for Burlington and Camden Counties, NJ, and Comparison with the U.S. Economy

Category	Burlington	%	Camden	%	U.S.	%
EMPLOYMENT STATUS						
Population 16 years and over	358,184	100.0%	404,253	100.0%	243,832,923	100.0%
In labor force	243,686	68.0%	275,596	68.2%	156,966,769	64.4%
Civilian labor force	240,461	67.1%	275,136	68.1%	155,917,013	63.9%
Employed	218,844	61.1%	238,746	59.1%	139,033,928	57.0%
Unemployed	21,617	6.0%	36,390	9.0%	16,883,085	6.9%
Armed Forces	3,225	0.9%	460	0.1%	1,049,756	0.4%
Not in labor force	114,498	32.0%	128,657	31.8%	86,866,154	35.6%
OCCUPATION						
Civilian employed population 16+	218,844	100.0%	238,746	100.0%	139,033,928	100.0%
Management & professional	93,834	42.9%	87,733	36.7%	49,975,620	35.9%
Service occupations	30,726	14.0%	42,849	17.9%	25,059,153	18.0%
Sales and office occupations	60,108	27.5%	65,135	27.3%	34,711,455	25.0%
Construction, maintenance, repair	15,846	7.2%	17,476	7.3%	12,697,304	9.1%
Production & transportation	18,330	8.4%	25,553	10.7%	16,590,396	11.9%
INDUSTRY						
Civilian employed population 16+	218,844	100.0%	238,746	100.0%	139,033,928	100.0%
Agriculture & mining	882	0.4%	473	0.2%	2,646,975	1.9%
Construction	11,393	5.2%	12,733	5.3%	8,686,813	6.2%
Manufacturing	18,488	8.4%	16,372	6.9%	14,439,691	10.4%
Wholesale trade	7,951	3.6%	7,763	3.3%	3,941,066	2.8%
Retail trade	24,035	11.0%	28,212	11.8%	16,203,408	11.7%
Transportation & utilities	11,788	5.4%	13,560	5.7%	6,843,579	4.9%
Information	4,439	2.0%	4,424	1.9%	3,015,521	2.2%
Finance, insurance, & real estate	18,360	8.4%	16,998	7.1%	9,275,465	6.7%
Professional & administrative	25,635	11.7%	28,238	11.8%	14,710,089	10.6%
Educational services & health care	53,075	24.3%	68,154	28.5%	32,311,107	23.2%
Arts, entertain, hotel, food svcs	13,912	6.4%	19,928	8.3%	12,859,572	9.2%
Other private services	10,274	4.7%	11,225	4.7%	6,913,449	5.0%
Public administration	18,612	8.5%	10,666	4.5%	7,187,193	5.2%
INCOME AND BENEFITS						
Total households	163,961	100.0%	189,895	100.0%	114,567,419	100.0%

Less than $10,000	5,249	3.2%	12,181	6.4%	8,757,190	7.6%
$10,000 to $14,999	4,370	2.7%	10,790	5.7%	6,668,865	5.8%
$15,000 to $24,999	9,578	5.8%	17,233	9.1%	13,165,380	11.5%
$25,000 to $34,999	12,471	7.6%	19,027	10.0%	12,323,322	10.8%
$35,000 to $49,999	20,634	12.6%	24,141	12.7%	16,312,385	14.2%
$50,000 to $74,999	30,322	18.5%	34,487	18.2%	20,940,859	18.3%
$75,000 to $99,999	23,909	14.6%	26,033	13.7%	13,526,500	11.8%
$100,000 to $149,999	29,471	18.0%	27,739	14.6%	13,544,839	11.8%
$150,000 to $199,999	15,685	9.6%	9,815	5.2%	4,809,998	4.2%
$200,000 or more	12,272	7.5%	8,449	4.4%	4,518,081	3.9%
Median household income (dollars)	74,329	148.5%	57,352	114.6%	50,046	
Mean household income (dollars)	95,028	139.2%	74,571	109.2%	68,259	
Families	114,809	100.0%	125,354	100.0%	76,089,045	100.0%
Less than $10,000	2,359	2.1%	6,471	5.2%	3,824,251	5.0%
$10,000 to $14,999	1,285	1.1%	5,390	4.3%	2,660,781	3.5%
$15,000 to $24,999	3,721	3.2%	7,251	5.8%	6,770,812	8.9%
$25,000 to $34,999	6,833	6.0%	9,662	7.7%	7,332,318	9.6%
$35,000 to $49,999	11,119	9.7%	14,534	11.6%	10,578,051	13.9%
$50,000 to $74,999	18,816	16.4%	22,597	18.0%	14,990,631	19.7%
$75,000 to $99,999	18,464	16.1%	21,112	16.8%	10,638,931	14.0%
$100,000 to $149,999	25,677	22.4%	22,435	17.9%	11,261,766	14.8%
$150,000 to $199,999	15,132	13.2%	8,346	6.7%	4,130,868	5.4%
$200,000 or more	11,403	9.9%	7,556	6.0%	3,900,636	5.1%
Median family income (dollars)	91,897	151.6%	70,844	116.9%	60,609	
Mean family income (dollars)	111,905	141.0%	86,674	109.2%	79,338	
Per capita income (dollars)	35,605	136.6%	28,284	108.5%	26,059	
Median earnings for workers	41,615	144.0%	32,314	111.8%	28,899	
Median earnings for male full-time	61,541	132.3%	49,807	107.1%	46,500	
Median earnings for female full-time	47,208	129.2%	41,529	113.6%	36,551	
PERCENTAGE BELOW POVERTY LEVEL						
All families	4.0%	35.4%	11.1%	98.2%	11.3%	
All people	5.1%	33.3%	12.4%	81.0%	15.3%	

Percentages in black are proportions of that category. Percentages in red are relative to the U.S. average. Source: American Fact Finder

Burlington County is a relatively affluent county, with the highest median earnings for workers ($41,615) and the lowest percentage of people below the poverty line (33.3%) in the six-county area. By contrast, Camden County is only slightly above the U.S. averages on the various income metrics; for example, median earnings for workers is $32,314, just 11.8% higher than the U.S. average. Camden County also has significant lower-income pockets, as seen in the percentage of families below the poverty line (11.1%) – just shy of the U.S. average of 11.3%.

Along the same lines, Burlington County has a strong professional workforce, with nearly 43% of its workforce in management and professional occupations – compared to 36% for the U.S. overall. Camden County, by contrast, is well in line with the national average of professional workers at 37%; interestingly, they are below national averages in the traditionally blue-collar industries – construction (5% vs. 6% for the U.S.) and manufacturing (7% vs. 10% for the U.S.).

Table 6-4. Key Economic Parameters for Gloucester and Mercer Counties, NJ, and Comparison with the U.S. Economy

Category	Gloucester NJ	%	Mercer NJ	%	U.S.	%
EMPLOYMENT STATUS						
Population 16 years and over	225,870	100.0%	294,382	100.0%	243,832,923	100.0%
In labor force	157,799	69.9%	196,675	66.8%	156,966,769	64.4%
Civilian labor force	157,712	69.8%	196,541	66.8%	155,917,013	63.9%
Employed	140,392	62.2%	175,496	59.6%	139,033,928	57.0%
Unemployed	17,320	7.7%	21,045	7.1%	16,883,085	6.9%
Armed Forces	87	0.0%	134	0.0%	1,049,756	0.4%
Not in labor force	68,071	30.1%	97,707	33.2%	86,866,154	35.6%
OCCUPATION						
Civilian employed population 16+	140,392	100.0%	175,496	100.0%	139,033,928	100.0%
Management & professional	57,820	41.2%	75,579	43.1%	49,975,620	35.9%
Service occupations	19,378	13.8%	32,160	18.3%	25,059,153	18.0%
Sales and office occupations	37,253	26.5%	42,685	24.3%	34,711,455	25.0%
Construction, maintenance, repair	11,594	8.3%	9,119	5.2%	12,697,304	9.1%
Production & transportation	14,347	10.2%	15,953	9.1%	16,590,396	11.9%
INDUSTRY						
Civilian employed population 16+	140,392	100.0%	175,496	100.0%	139,033,928	100.0%
Agriculture & mining	400	0.3%	1,041	0.6%	2,646,975	1.9%
Construction	8,065	5.7%	6,524	3.7%	8,686,813	6.2%
Manufacturing	13,392	9.5%	16,492	9.4%	14,439,691	10.4%
Wholesale trade	6,085	4.3%	4,788	2.7%	3,941,066	2.8%
Retail trade	18,181	13.0%	15,887	9.1%	16,203,408	11.7%

Transportation & utilities	8,567	6.1%	7,626	4.3%	6,843,579	4.9%
Information	2,455	1.7%	4,102	2.3%	3,015,521	2.2%
Finance, insurance, & real estate	10,326	7.4%	15,125	8.6%	9,275,465	6.7%
Professional & administrative	15,812	11.3%	22,924	13.1%	14,710,089	10.6%
Educational services & health care	37,053	26.4%	45,499	25.9%	32,311,107	23.2%
Arts, entertain, hotel, food svcs	8,958	6.4%	12,747	7.3%	12,859,572	9.2%
Other private services	5,680	4.0%	7,923	4.5%	6,913,449	5.0%
Public administration	5,418	3.9%	14,818	8.4%	7,187,193	5.2%
INCOME AND BENEFITS						
Total households	104,782	100.0%	131,500	100.0%	114,567,419	100.0%
Less than $10,000	5,129	4.9%	7,333	5.6%	8,757,190	7.6%
$10,000 to $14,999	4,137	3.9%	5,520	4.2%	6,668,865	5.8%
$15,000 to $24,999	8,151	7.8%	10,704	8.1%	13,165,380	11.5%
$25,000 to $34,999	7,484	7.1%	11,208	8.5%	12,323,322	10.8%
$35,000 to $49,999	11,291	10.8%	13,068	9.9%	16,312,385	14.2%
$50,000 to $74,999	19,752	18.9%	21,588	16.4%	20,940,859	18.3%
$75,000 to $99,999	17,235	16.4%	15,667	11.9%	13,526,500	11.8%
$100,000 to $149,999	16,959	16.2%	22,827	17.4%	13,544,839	11.8%
$150,000 to $199,999	8,685	8.3%	11,002	8.4%	4,809,998	4.2%
$200,000 or more	5,959	5.7%	12,583	9.6%	4,518,081	3.9%
Median household income (dollars)	70,514	140.9%	70,956	141.8%	50,046	
Mean household income (dollars)	83,765	122.7%	95,784	140.3%	68,259	
Families	74,830	100.0%	89,638	100.0%	76,089,045	100.0%
Less than $10,000	1,034	1.4%	2,675	3.0%	3,824,251	5.0%
$10,000 to $14,999	1,706	2.3%	2,891	3.2%	2,660,781	3.5%
$15,000 to $24,999	3,387	4.5%	5,261	5.9%	6,770,812	8.9%
$25,000 to $34,999	4,839	6.5%	6,243	7.0%	7,332,318	9.6%
$35,000 to $49,999	7,143	9.5%	7,625	8.5%	10,578,051	13.9%
$50,000 to $74,999	15,287	20.4%	14,180	15.8%	14,990,631	19.7%
$75,000 to $99,999	13,026	17.4%	11,560	12.9%	10,638,931	14.0%
$100,000 to $149,999	14,559	19.5%	18,675	20.8%	11,261,766	14.8%
$150,000 to $199,999	8,111	10.8%	8,937	10.0%	4,130,868	5.4%
$200,000 or more	5,738	7.7%	11,591	12.9%	3,900,636	5.1%
Median family income (dollars)	81,179	133.9%	85,547	141.1%	60,609	
Mean family income (dollars)	97,298	122.6%	112,578	141.9%	79,338	
Per capita income (dollars)	30,952	118.8%	34,884	133.9%	26,059	
Median earnings for workers	39,496	136.7%	34,666	120.0%	28,899	

Median earnings for male full-time	61,734	132.8%	56,664	121.9%	46,500
Median earnings for female full-time	47,727	130.6%	46,970	128.5%	36,551
PERCENTAGE BELOW POVERTY LEVEL					
All families	4.6%	40.7%	8.4%	74.3%	11.30%
All people	6.3%	41.2%	12.1%	79.1%	15.30%

Gloucester County is another typical suburban New Jersey County, but Mercer County, while largely suburban, also includes Trenton, which has a significant poverty belt inside the city. Thus, while median household income is virtually the same for both counties at 141% of the national average, the poverty rate for all families is only 41% of that average for Gloucester County while it is 74% for Mercer County. Employment distribution by major sector is fairly similar except for the concentration of public sector workers in Mercer County.

Table 6-5. Labor Market Statistics, 2002-2011, for the States of Pennsylvania and New Jersey, 9 Counties, and the Total Area

	Labor Force	Employed	Unemployed	Un Rate, %
	Pennsylvania			
2002	6,217,776	5,869,224	348,552	5.6
2003	6,144,967	5,795,701	349,266	5.7
2004	6,196,796	5,859,561	337,235	5.4
2005	6,270,439	5,958,238	312,201	5.0
2006	6,307,658	6,021,084	286,574	4.5
2007	6,330,354	6,054,127	276,227	4.4
2008	6,448,158	6,102,990	345,168	5.4
2009	6,404,345	5,895,057	509,288	8.0
2010	6,389,595	5,848,673	540,922	8.5
2011	6,385,714	5,878,897	506,817	7.9
	Bucks			
2002	339,055	322,686	16,369	4.8
2003	335,459	319,668	15,791	4.7
2004	337,270	321,722	15,548	4.6
2005	342,318	328,136	14,182	4.1
2006	346,776	333,432	13,344	3.8
2007	346,689	333,593	13,096	3.8
2008	353,257	336,453	16,804	4.8
2009	344,157	319,326	24,831	7.2

2010	340,939	314,812	26,127	7.7
2011	339,394	314,627	24,767	7.3
	Chester			
2002	245,856	235,820	10,036	4.1
2003	246,405	236,234	10,171	4.1
2004	249,758	240,360	9,398	3.8
2005	257,078	247,695	9,383	3.6
2006	263,942	255,221	8,721	3.3
2007	266,714	258,441	8,273	3.1
2008	274,054	263,203	10,851	4.0
2009	268,355	251,797	16,558	6.2
2010	265,802	248,538	17,264	6.5
2011	264,539	248,392	16,147	6.1
	Delaware			
2002	281,155	266,989	14,166	5.0
2003	277,681	263,292	14,389	5.2
2004	277,219	263,188	14,031	5.1
2005	280,099	267,240	12,859	4.6
2006	282,925	270,911	12,014	4.2
2007	282,573	271,161	11,412	4.0
2008	287,333	272,881	14,452	5.0
2009	280,297	259,229	21,068	7.5
2010	279,474	256,314	23,160	8.3
2011	278,454	256,164	22,290	8.0
	Montgomery			
2002	421,985	402,500	19,485	4.6
2003	418,742	399,592	19,150	4.6
2004	418,389	400,787	17,602	4.2
2005	423,851	407,379	16,472	3.9
2006	427,788	412,613	15,175	3.5
2007	429,225	414,442	14,783	3.4
2008	437,734	418,669	19,065	4.4
2009	425,422	396,757	28,665	6.7
2010	431,269	400,406	30,863	7.2
2011	429,051	400,171	28,880	6.7
	Philadelphia			

2002	635,169	588,534	46,635	7.3
2003	622,633	575,718	46,915	7.5
2004	618,298	573,062	45,236	7.3
2005	619,024	577,458	41,566	6.7
2006	617,097	579,072	38,025	6.2
2007	619,189	581,773	37,416	6.0
2008	630,419	585,384	45,035	7.1
2009	652,728	589,784	62,944	9.6
2010	643,996	574,150	69,846	10.8
2011	643,473	573,813	69,660	10.8
	New Jersey			
2002	4,370,809	4,117,265	253,544	5.8
2003	4,363,896	4,108,397	255,499	5.9
2004	4,358,908	4,144,223	214,685	4.9
2005	4,404,451	4,207,738	196,713	4.5
2006	4,465,067	4,257,899	207,168	4.6
2007	4,456,306	4,264,617	191,689	4.3
2008	4,509,110	4,262,281	246,829	5.5
2009	4,546,443	4,138,364	408,079	9.0
2010	4,554,076	4,116,640	437,436	9.6
2011	4,556,186	4,131,832	424,354	9.3
	Burlington			
2002	229,819	218,687	11,132	4.8
2003	231,581	220,392	11,189	4.8
2004	234,913	225,194	9,719	4.1
2005	238,628	229,450	9,178	3.8
2006	241,428	231,495	9,933	4.1
2007	238,407	229,200	9,207	3.9
2008	239,683	227,607	12,076	5.0
2009	241,779	221,574	20,205	8.4
2010	242,714	220,586	22,128	9.1
2011	241,524	220,072	21,452	8.9
	Camden			
2002	258,453	243,273	15,180	5.9
2003	257,596	241,996	15,600	6.1
2004	259,763	246,125	13,638	5.3
2005	263,493	250,888	12,605	4.8

2006	266,465	252,578	13,887	5.2
2007	263,437	250,631	12,806	4.9
2008	267,510	251,322	16,188	6.1
2009	271,234	244,619	26,615	9.8
2010	269,200	240,128	29,072	10.8
2011	267,945	239,569	28,376	10.6
	Gloucester			
2002	139,764	132,427	7,337	5.2
2003	141,488	133,835	7,653	5.4
2004	144,820	137,963	6,857	4.7
2005	148,526	142,036	6,490	4.4
2006	153,159	145,989	7,170	4.7
2007	154,397	147,699	6,698	4.3
2008	156,735	148,199	8,536	5.4
2009	159,727	145,097	14,630	9.2
2010	158,983	142,796	16,187	10.2
2011	157,955	142,463	15,492	9.8
	Mercer			
2002	186,732	176,865	9,867	5.3
2003	187,579	177,867	9,712	5.2
2004	189,464	181,352	8,112	4.3
2005	194,292	186,707	7,585	3.9
2006	196,436	188,092	8,344	4.2
2007	196,996	189,403	7,593	3.9
2008	202,287	192,465	9,822	4.9
2009	205,381	189,935	15,446	7.5
2010	206,868	190,536	16,332	7.9
2011	208,203	192,143	16,060	7.7
	9 counties			
2002	2,737,988	2,587,781	150,207	5.5
2003	2,719,164	2,568,594	150,570	5.5
2004	2,729,894	2,589,753	140,141	5.1
2005	2,767,309	2,636,989	130,320	4.7
2006	2,796,016	2,669,403	126,613	4.5
2007	2,797,627	2,676,343	121,284	4.3
2008	2,849,012	2,696,183	152,829	5.4
2009	2,849,080	2,618,118	230,962	8.1

2010	2,839,245	2,588,266	250,979	8.8
2011	2,830,538	2,587,414	243,124	8.6

The 9-county region was a little more recession-resistant in the latest economic downturn, at least relative to the rest of the country. While the six-county region had the same unemployment rate (4.6%) as the rest of the U.S. in 2006-07, its unemployment rate peaked at 8.8% in 2010, versus 9.6% for the U.S. Montgomery County has had the lowest unemployment rate in the area, each year since 2006. Philadelphia County and Camden County had the highest unemployment rates in the area in 2010 (10.8%), largely driven by the lower-income areas of those cities. There were over 243,000 unemployed people in this 9-county area in 2011.

Table 6-6A. Level and Growth Rate of Population, State of Pennsylvania, 5 PA Counties, and Total Pennsylvania Area

	Pennsylvania	Bucks	Chester	Delaware	Montgomery	Philadelphia	5 counties
2011	12,742,886	626,854	503,897	559,494	804,210	1,536,471	4,030,926
2010	12,717,722	625,618	500,438	559,488	800,482	1,528,074	4,014,100
2009	12,666,858	624,648	496,291	558,094	795,494	1,514,694	3,989,221
2008	12,612,285	623,297	491,473	556,246	789,250	1,499,731	3,959,997
2007	12,563,937	621,336	486,156	554,916	785,170	1,493,309	3,940,887
2006	12,510,809	619,544	479,137	553,806	781,519	1,488,710	3,922,716
2005	12,449,990	616,302	470,506	552,153	779,401	1,490,861	3,909,223
2004	12,410,722	613,763	462,902	551,508	776,493	1,492,882	3,897,548
2003	12,374,658	610,174	455,111	552,111	772,666	1,493,802	3,883,864
2002	12,331,031	607,157	447,842	551,929	766,056	1,498,493	3,871,477
2011/10	0.20%	0.20%	0.69%	0.00%	0.47%	0.55%	0.42%
2010/09	0.40%	0.16%	0.84%	0.25%	0.63%	0.88%	0.62%
2009/08	0.43%	0.22%	0.98%	0.33%	0.79%	1.00%	0.74%
2008/07	0.38%	0.32%	1.09%	0.24%	0.52%	0.43%	0.48%
2007/06	0.42%	0.29%	1.46%	0.20%	0.47%	0.31%	0.46%
2006/05	0.49%	0.53%	1.83%	0.30%	0.27%	-0.14%	0.35%
2005/04	0.32%	0.41%	1.64%	0.12%	0.37%	-0.14%	0.30%
2004/03	0.29%	0.59%	1.71%	-0.11%	0.50%	-0.06%	0.35%
2003/02	0.35%	0.50%	1.62%	0.03%	0.86%	-0.31%	0.32%
2011/02	0.37%	0.36%	1.32%	0.15%	0.54%	0.28%	0.45%

Table 6-6B. Level and Growth Rate of Population, State of New Jersey, 4 NJ Counties, Total NJ Area, and Total 9-County Bi-State Area

	New Jersey	Burlington	Camden	Gloucester	Mercer	4 counties	9 counties
2011	8,821,155	449,576	513,241	289,104	367,063	1,618,984	5,649,910
2010	8,799,593	449,119	513,601	288,557	366,933	1,618,210	5,632,310
2009	8,755,602	447,391	513,668	287,362	365,388	1,613,809	5,603,030
2008	8,711,090	446,831	513,853	286,072	364,119	1,610,875	5,570,872
2007	8,677,885	447,560	513,546	284,086	363,088	1,608,280	5,549,167
2006	8,661,679	448,373	513,195	280,015	362,840	1,604,423	5,527,139
2005	8,651,974	447,245	511,982	275,122	362,015	1,596,364	5,505,587
2004	8,634,561	446,548	510,137	271,714	361,248	1,589,647	5,487,195
2003	8,601,402	442,434	508,563	267,445	358,724	1,577,166	5,461,030
2002	8,552,643	436,445	507,899	262,909	355,935	1,563,188	5,434,665
2011/10	0.25%	0.10%	-0.07%	0.19%	0.04%	0.05%	0.31%
2010/09	0.50%	0.39%	-0.01%	0.42%	0.42%	0.27%	0.52%
2009/08	0.51%	0.13%	-0.04%	0.45%	0.35%	0.18%	0.58%
2008/07	0.38%	-0.16%	0.06%	0.70%	0.28%	0.16%	0.39%
2007/06	0.19%	-0.18%	0.07%	1.45%	0.07%	0.24%	0.40%
2006/05	0.11%	0.25%	0.24%	1.78%	0.23%	0.50%	0.39%
2005/04	0.20%	0.16%	0.36%	1.25%	0.21%	0.42%	0.34%
2004/03	0.39%	0.93%	0.31%	1.60%	0.70%	0.79%	0.48%
2003/02	0.57%	1.37%	0.13%	1.73%	0.78%	0.89%	0.49%
2011/02	0.34%	0.33%	0.12%	1.06%	0.34%	0.39%	0.43%

Population in the 9-county region grew at a sluggish 0.43% over the past decade, as compared to 0.93% across the nation. Philadelphia County had the slowest growth rate (0.1%), although the population has started to increase again in recent years – actually exhibiting the fastest growth rates among the 9 counties in the past three years. By contrast, Bucks County, once considered an inviting suburban location for both Philadelphia and New York City residents, grew more slowly than the 9-county region over the past decade.

Table 6-7A. Level and Growth Rate of Personal Income (Billion $), State of Pennsylvania, 5 PA Counties, and Total Pennsylvania Area

	Pennsylvania	Bucks	Chester	Delaware	Montgomery	Philadelphia	5 counties
2011	538.91	34.23	29.97	27.86	52.05	59.99	204.09
2010	514.35	33.14	28.69	26.83	49.85	57.13	195.63

2009	496.66	32.25	27.67	26.27	48.07	53.83	188.09
2008	512.99	33.23	29.53	27.58	50.99	54.26	195.59
2007	489.08	31.74	28.24	26.53	48.89	50.67	186.07
2006	462.70	30.40	26.88	25.72	46.15	47.57	176.72
2005	432.25	28.17	24.23	23.78	42.24	44.94	163.36
2004	417.79	27.11	23.09	22.56	40.87	43.46	157.09
2003	399.55	25.52	22.19	21.39	38.27	42.20	149.56
2002	387.66	24.53	21.16	20.87	37.17	40.73	144.46
2011/10	4.77%	3.31%	4.45%	3.85%	4.41%	4.99%	4.32%
2010/09	3.56%	2.74%	3.68%	2.14%	3.70%	6.15%	4.01%
2009/08	-3.18%	-2.95%	-6.28%	-4.75%	-5.72%	-0.81%	-3.83%
2008/07	4.89%	4.71%	4.56%	3.94%	4.28%	7.09%	5.11%
2007/06	5.70%	4.41%	5.04%	3.15%	5.94%	6.53%	5.29%
2006/05	7.05%	7.92%	10.96%	8.18%	9.26%	5.83%	8.18%
2005/04	3.46%	3.90%	4.95%	5.37%	3.36%	3.41%	3.99%
2004/03	4.57%	6.24%	4.05%	5.51%	6.79%	3.00%	5.04%
2003/02	3.07%	4.02%	4.85%	2.47%	2.97%	3.60%	3.53%
2011/02	3.72%	3.77%	3.94%	3.26%	3.81%	4.39%	3.91%

Table 6-7B. Level and Growth Rate of Personal Income (Billion $), State of New Jersey, 4 NJ Counties, Total NJ Area, and Total 9-County Bi-State Area

	New Jersey	Burlington	Camden	Gloucester	Mercer	4 counties	9 counties
2011	462.49	21.72	22.12	12.21	19.98	76.04	280.13
2010	443.74	21.02	21.43	11.72	19.11	73.28	268.91
2009	430.96	20.67	21.15	11.44	18.52	71.78	259.87
2008	454.21	21.30	21.58	11.56	19.59	74.02	269.61
2007	436.12	20.33	20.68	10.82	19.09	70.92	256.99
2006	411.43	19.44	19.85	10.23	18.27	67.79	244.51
2005	379.65	18.20	18.58	9.49	16.61	62.88	226.23
2004	365.26	17.65	17.83	8.96	16.05	60.48	217.58
2003	347.69	16.79	17.18	8.38	15.45	57.80	207.36
2002	341.56	16.25	16.52	8.07	15.03	55.87	200.34
2011/10	4.23%	3.36%	3.21%	4.20%	4.56%	3.76%	4.17%

2010/09	2.97%	1.66%	1.36%	2.41%	3.19%	2.08%	3.48%
2009/08	-5.12%	-2.95%	-2.00%	-1.01%	-5.44%	-3.03%	-3.61%
2008/07	4.15%	4.79%	4.36%	6.78%	2.61%	4.38%	4.91%
2007/06	6.00%	4.55%	4.18%	5.81%	4.49%	4.62%	5.10%
2006/05	8.37%	6.85%	6.79%	7.76%	10.02%	7.81%	8.08%
2005/04	3.94%	3.12%	4.22%	5.96%	3.47%	3.96%	3.98%
2004/03	5.05%	5.07%	3.82%	6.88%	3.88%	4.65%	4.93%
2003/02	1.80%	3.36%	3.95%	3.80%	2.80%	3.44%	3.50%
2011/02	3.42%	3.28%	3.29%	4.70%	3.21%	3.48%	3.79%

The 9-county region was fairly hard-hit by the recent recession, although the decline in personal income was slightly less than the national plunge in 2009. Montgomery and Chester Counties suffered the largest declines in income in 2009, at 5.7% and 6.3% respectively, while income in Bucks County was down a more modest 3.0%. The rebound in the region was just over 4% in 2010 and 2011, a rate that is expected to continue for the next few years.

We now turn to the commuting patterns for these counties in order to establish the list of counties that should be included in the multiplier analysis. In general, the regional multipliers are optimized when the areas included represent 90% to 95% of the total workforce. If the figure is below 90%, the multipliers are likely to be understated; if it is above 95%, they are likely to be overstated. As shown below in Table 6-8, all of the counties in this group are within or slightly below the target range of 90 to 95%.

Table 6-8. Commuting Patterns for the 9 Counties

	Bucks	Ches-ter	Dela-ware	Montgomery	Phila-delphia	Burlington	Cam-den	Glou-cester	Mer-cer
Total Workforce	241603	215465	216059	446812	660050	183084	196187	89555	200235
Residing in:									
Bucks Co. PA	168090	3036	2754	48414	31892	4250	2039	362	20812
Chester Co PA	1133	137678	17870	25673	10568	426	539	411	222
Delaware Co. PA	2060	18504	137988	28144	48151	1306	2287	1251	345
Montgomery Co. PA	23722	25006	11758	245619	54576	1559	1844	405	1298
Philadelphia Co. PA	23248	7810	21802	59970	429667	5087	7196	1502	1676
Burlington Co. NJ	4526	584	1771	3053	17661	116422	26164	2849	17158
Camden Co. NJ	1989	867	3232	3910	32961	31765	123735	15234	2472
Gloucester Co NJ	745	726	3179	1991	13778	7564	22737	56676	764
Mercer Co NJ	3865	64	244	704	1548	3765	588	136	112449

Total 9 counties	229378	194275	200598	417478	640802	172144	187129	78826	157196
% 9 counties	94.9	90.2	92.8	93.4	97.1	94.0	95.4	88.0	78.5

Most counties are in the 90% to 95% range. Philadelphia is higher, and Gloucester and Mercer are lower. Bucks County, where the interchange will be built, is at 94.9%, just below the optimal upper margin.

7. Location of Turnpike Interchange and TEA Analysis

The Pennsylvania Turnpike/Interstate 95 Interchange Project will provide a direct link between the Pennsylvania Turnpike and Interstate 95 for the first time. The two highways meet in Bristol Township, approximately five miles north of Philadelphia.

Designation as a Targeted Employment Area (TEA) requires that the geographical area of a project is either (a) in a rural area or (b) has an unemployment rate of 150 percent or more of the national rate. Since Bristol is firmly part of the Philadelphia Metropolitan area (and thus not rural), we examine whether or not the area could be TEA eligible because of a high unemployment rate. The following letter from the Center for Workforce Innovation of the State of Pennsylvania certifies that this project is located in a TEA.

pennsylvania
DEPARTMENT OF LABOR & INDUSTRY
CENTER FOR WORKFORCE INFORMATION & ANALYSIS

February 7, 2013

Kate Kalmykov
Greenberg Traurig, LLP
200 Park Ave.
Florham Park, NJ 07932-0677

Dear Ms. Kalmykov:

In response to your request of January 25, 2013, we reviewed labor force data for your designated portion of Philadelphia and Bucks Counties containing Philadelphia city and 9 contiguous census tracts. According to data required by the Immigration and Naturalization Service Rule for Employment Creation Visas, the unemployment rate of 13.3 percent for the designated area in the 2007-2011 5-Year American Community Survey period exceeds 150 percent of the national average rate of 8.7 percent and qualifies as a high unemployment area.

Enclosed is the Center for Workforce Information & Analysis' official determination as well as supporting material defining the tracts contained within the designated area.

If you have any questions regarding the determination, please feel free to contact me at [redacted] or Walter Nichols at [redacted]

Sincerely,

[redacted]

Sue Mukherjee
Director

Area: Philadelphia/Bucks TEA
Date of Request: January 25, 2013

PA Department of Labor & Industry
Center for Workforce Information & Analysis

Designation of High Unemployment Area
Immigration Act of 1990 – Alien Entrepreneur

Authorization

Through letter on June 14, 1994, Governor Robert P. Casey delegated authority to the Department of Labor & Industry to certify areas of high unemployment for purposes of the Immigration Act of 1990, Public Law 101-649 implementing regulations at 8 C.F.R. 204.6. Through letter on June 15, 1994, the Immigration and Naturalization Service was so notified of such authorization.

Final regulations published at 8 C.F.R. 204.6 (i) require certification of high unemployment areas when such area's rate of unemployment is at least 150 percent of the United States' rate of unemployment during the most recent calendar year.

Geographic Boundaries of Area

This certification request pertains to Philadelphia City and 9 contiguous census tracts in Bucks County as listed in the enclosure. 2007-2011 American Community Survey (ACS) Population: 1,245,374.

Methodology of Estimates

Estimates for each geographic area were taken directly from the 2007-2011 ACS 5-Year averages developed by the U.S. Census Bureau.

2007-2011 ACS 5-Year Average Labor Force Statistics

	United States	Phila./Bucks County Portion
Civilian Labor Force	155,321,000	740,456
Employment	141,832,000	642,343
Unemployment	13,488,000	98,113
Rate	8.7%	13.3%

Certification

The 2007-2011 5-Year Average unemployment rate (13.3%) for the designated portion of Philadelphia and Bucks Counties exceeds 150 percent of the comparable United States unemployment rate of 8.7 percent. Based on these data, the designated area qualifies as a high unemployment area.

Center for Workforce Information & Analysis
February 7, 2013

Designated Area of Philadelphia/Bucks Counties*

	Civilian Labor Force	Employment	Unemployment	Rate
2007-2011 5-Yr. Avg.	740.5	642.3	98.1	13.3%

Philadelphia County

	Civilian Labor Force	Employment	Unemployment	Rate
2007-2011 5-Yr. Avg.	715.6	619.4	96.2	13.4%

Bucks County

	Civilian Labor Force	Employment	Unemployment	Rate
2007-2011 5-Yr. Avg.	343.8	320.9	22.9	6.7%

Philadelphia Metropolitan Statistical Area

	Civilian Labor Force	Employment	Unemployment	Rate
2007-2011 5-Yr. Avg.	3,099.1	2,823.9	275.2	8.9%

Data are in thousands.
Note: All portion data are extracted from the 2007-2011 American Community Survey (ACS) 5-Year Estimates. This survey is conducted by the U.S. Census Bureau and is publically available through the bureau's American Factfinder (http://factfinder2.census.gov/) website.

Center for Workforce Information & Analysis
February 5, 2013

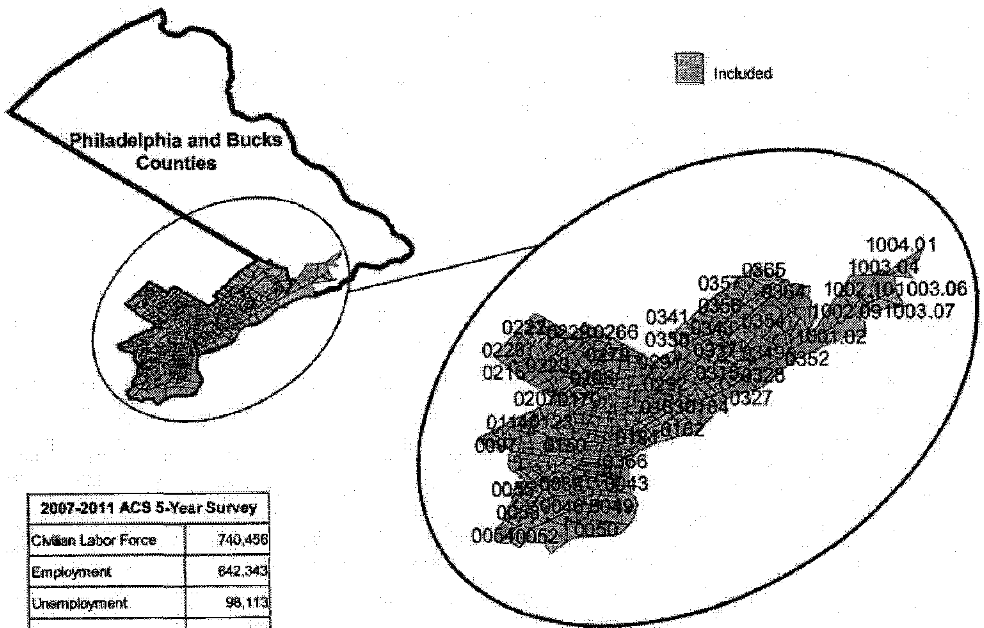
Philadelphia/Bucks County Targeted Employment Area

#	County	Tract	2007-2011 ACS Population	2007-2011 Civilian Labor Force (collected from five-year American Community Survey)			
				Labor Force	Employment	Unemployment	Rate
1	Philadelphia	—	1,210,107	715,619	619,412	96,207	13.44
2	Bucks	1001.02	2,276	1,520	1,392	128	8.42
3	Bucks	1001.03	1,950	1,389	1,310	79	5.68
4	Bucks	1001.05	2,783	1,770	1,540	230	12.99
5	Bucks	1002.09	7,770	5,584	5,297	287	5.13
6	Bucks	1002.10	6,559	4,770	4,474	296	6.20
7	Bucks	1003.04	1,910	1,321	1,231	90	6.81
8	Bucks	1003.06	2,846	2,052	1,865	187	9.11
9	Bucks	1003.07	4,092	2,884	2,620	264	9.15
10	Bucks	1004.01	5,081	3,547	3,202	345	9.72
	Total		1,245,374	740,456	642,343	98,113	13.25

Source: American Community Survey (ACS) 2007-2011 5-year estimate, U.S. Census Bureau.

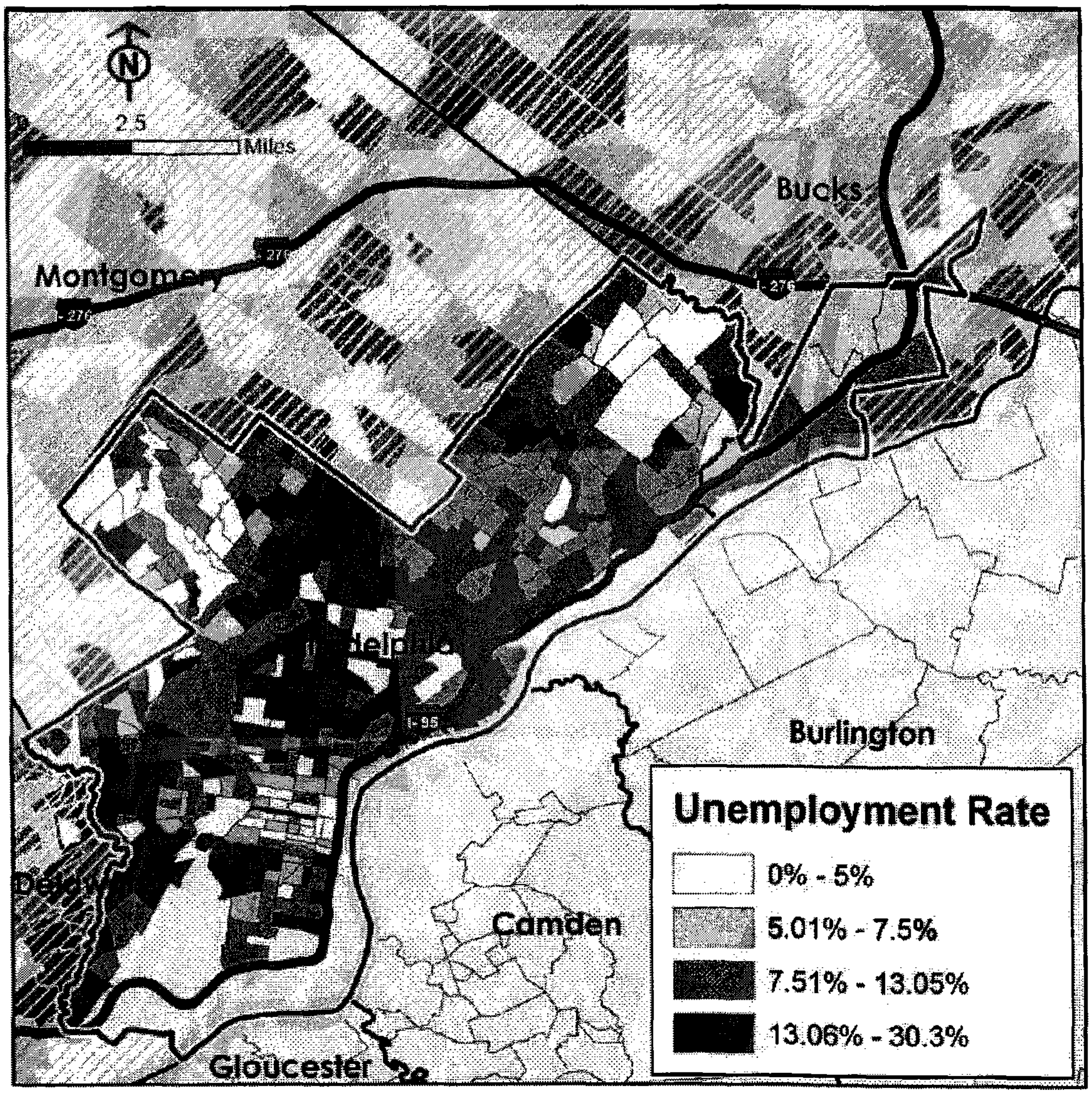
Center for Workforce Information & Analysis
February 5, 2013

Philadelphia-Bucks Targeted Employment Area



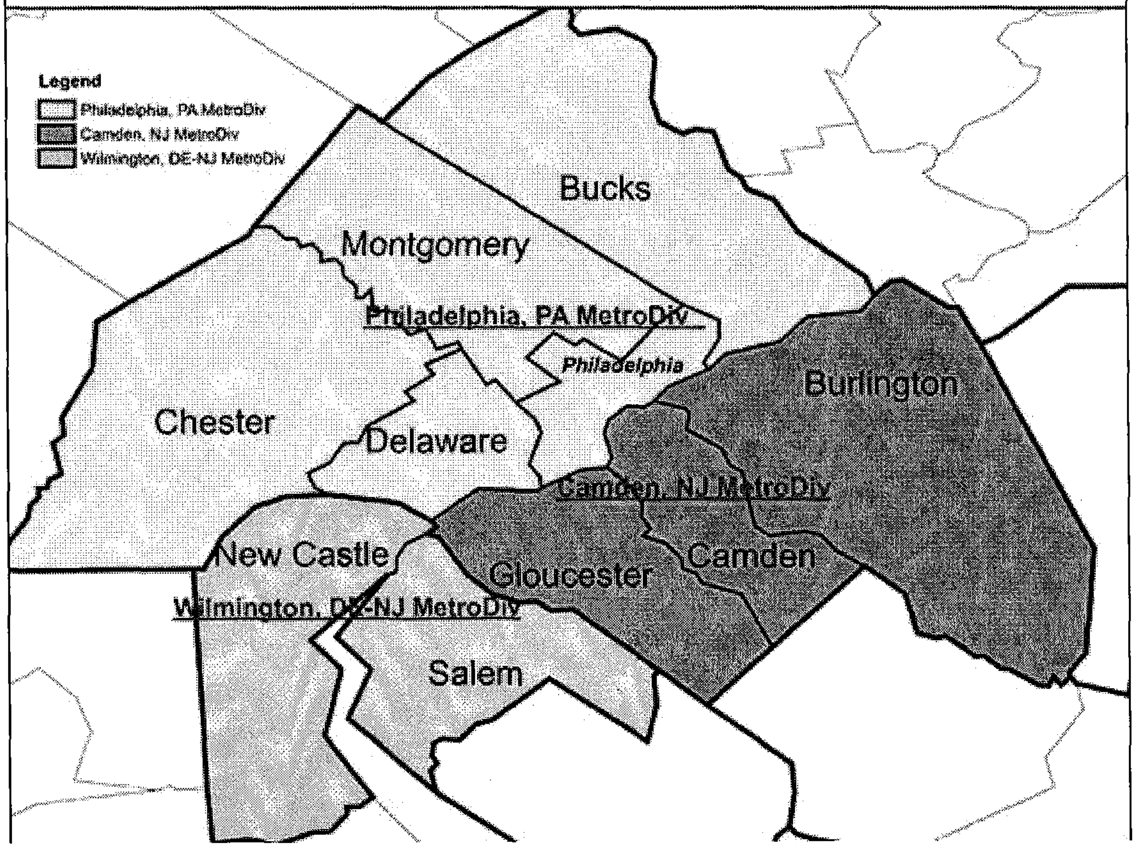
2007-2011 ACS 5-Year Survey	
Civilian Labor Force	740,456
Employment	642,343
Unemployment	98,113
Rate	13.3%

Figure 1: Pennsylvania Unemployment Rates (2011) by Census Tract, Project Region Meeting TEA Designation Criteria



Note: TEA Region is outlined in thick red and white.

Philadelphia-Area Metropolitan Divisions (MetroDivs)
Effective January 1, 2004



8. Economic Impact of Construction Jobs

The construction cost figures as prepared by Jacobs Engineering are shown first; these are taken from a single table. The first half of the table shows the quarterly expenditures by each of the 10 major contracts, with the totals shown at the bottom of the table. These expenditures are used, after adjustment for contingencies and inflation described below, to determine the construction expenditures by quarter. The second half of the table shows the breakdown by the five major NAICS codes used in the model: hard construction costs; manufacturing (i.e., the wholesale trade markup on purchased machinery and equipment); professional services, which are architectural, engineering, and related services; financial and legal services, of which the half representing legal services are modeled but financial charges are not included; and utilities. In terms of the RIMS II model, the figures used are the totals for each category, adjusted for contingencies and inflation.

Other, more detailed documents submitted with this application show that the contingency allowances are 7%, so that proportion is extracted from the totals shown here. The developer has stated there was no cost inflation from 2010 (the year of the input/output data) to 2011, and after that, a 2% annual increase is expected. Hence the figures for 2013 are divided by 1.0404; for 2014, by 1.0612, and so on.

After the adjustments for contingencies and inflation have been made, the inputs into the RIMS II model for each category are as follows:

Hard construction costs = $288.97 million
Purchases of machinery = $22.97 million
Professional services and fees = $35.00 million
Legal services = $4.93 million
Electrical utilities = $2.15 million

PA Turnpike / I-95 Interchange Project
Anticipated Cost to Construct Stage 1* (in Millions)

		2012	2013	2014	2015	2016	2017	2018	Total
1	Contract S-2	$ 3.04	$ 6.18						$ 9.22
	Quarter 1		$ 2.50						$ 2.50
	Quarter 2		$ 2.50						$ 2.50
	Quarter 3	$ 1.50	$ 1.18						$ 2.68
	Quarter 4	$ 1.54							$ 1.54
2	Contract ENV-1	$ 0.40							$ 0.40
	Quarter 1								$ -
	Quarter 2	$ 0.15							$ 0.15
	Quarter 3	$ 0.15							$ 0.15
	Quarter 4	$ 0.10							$ 0.10
3	Contract ITS - ADV	$ 0.61	$ 3.45						$ 4.06
	Quarter 1		$ 0.75						$ 0.75
	Quarter 2		$ 1.00						$ 1.00
	Quarter 3	$ 0.10	$ 1.00						$ 1.10
	Quarter 4	$ 0.50	$ 0.70						$ 1.20
4	Contract S-3	$ 2.13	$ 6.38						$ 8.51
	Quarter 1		$ 1.20						$ 1.20
	Quarter 2		$ 2.50						$ 2.50
	Quarter 3	$ 1.00	$ 2.50						$ 3.50
	Quarter 4	$ 1.13	$ 0.18						$ 1.31
5	Contract B-1		$ 17.50	$ 39.38	$ 26.25	$ 4.38			$ 87.52
	Quarter 1			$ 8.50	$ 6.00	$ 4.38			$ 18.88
	Quarter 2		$ 0.50	$ 11.00	$ 7.50				$ 19.00
	Quarter 3		$ 8.50	$ 11.00	$ 7.50				$ 27.00
	Quarter 4		$ 8.50	$ 8.88	$ 5.25				$ 22.63
6	Contract ENV-2		$ 1.82						$ 1.82
	Quarter 1								$ -
	Quarter 2								$ -
	Quarter 3		$ 1.20						$ 1.20
	Quarter 4		$ 0.62						$ 0.62
7	Contract D-10			$ 56.38	$ 56.38	$ 48.32			$ 161.07
	Quarter 1			$ 10.00	$ 10.00	$ 10.00			$ 30.00
	Quarter 2			$ 18.00	$ 18.00	$ 14.00			$ 50.00
	Quarter 3			$ 18.00	$ 18.00	$ 14.00			$ 50.00
	Quarter 4			$ 10.38	$ 10.38	$ 10.32			$ 31.08
8	Contract ITS - MAIN			$ 1.31	$ 2.62	$ 2.62	$ 2.18	$ -	$ 8.73
	Quarter 1				$ 0.60	$ 0.60	$ 0.40		$ 1.60
	Quarter 2				$ 0.71	$ 0.71	$ 0.60		$ 2.02
	Quarter 3			$ 0.71	$ 0.71	$ 0.71	$ 0.60		$ 2.73
	Quarter 4			$ 0.60	$ 0.60	$ 0.60	$ 0.58		$ 2.38
9#	Contract E-1								$ -
	Quarter 1								$ -
	Quarter 2								$ -
	Quarter 3								$ -
	Quarter 4								$ -
10	Contract D-20				$ 33.83	$ 40.59	$ 40.59	$ 20.30	$ 135.30
	Quarter 1				$ 6.00	$ 8.00	$ 8.00	$ 9.00	$ 31.00
	Quarter 2				$ 10.00	$ 11.00	$ 11.00	$ 11.30	$ 43.30
	Quarter 3				$ 10.00	$ 11.00	$ 11.00		$ 32.00
	Quarter 4				$ 7.83	$ 10.59	$ 10.59		$ 29.01
	Total	$ 6.18	$ 35.32	$ 97.07	$ 119.08	$ 95.91	$ 42.77	$ 20.30	$ 416.62
	Quarter 1	$ -	$ 4.45	$ 18.50	$ 22.60	$ 22.98	$ 8.40	$ 9.00	$ 85.93
	Quarter 2	$ 0.15	$ 6.50	$ 29.00	$ 36.21	$ 25.71	$ 11.60	$ 11.30	$ 120.47
	Quarter 3	$ 2.75	$ 14.38	$ 29.71	$ 36.21	$ 25.71	$ 11.60	$ -	$ 120.36
	Quarter 4	$ 3.27	$ 10.00	$ 19.86	$ 24.06	$ 21.51	$ 11.17	$ -	$ 89.87

Construction	Manufacture	Prof. Services	Finance, Insurance, Real Estate and Legal Services	Utilities	Total
7.42	$ 0.59	$ 0.90	$ 0.25	$ 0.06	$ 9.22
2.01	$ 0.16	$ 0.24	$ 0.07	$ 0.02	
2.01	$ 0.16	$ 0.24	$ 0.07	$ 0.02	
2.16	$ 0.17	$ 0.26	$ 0.07	$ 0.02	
1.24	$ 0.10	$ 0.15	$ 0.04	$ 0.01	
0.32	$ 0.03	$ 0.04	$ 0.01	$ 0.00	$ 0.40
-	$ -	$ -	$ -	$ -	
0.12	$ 0.01	$ 0.01	$ 0.00	$ 0.00	
0.12	$ 0.01	$ 0.01	$ 0.00	$ 0.00	
0.08	$ 0.01	$ 0.01	$ 0.00	$ 0.00	
3.26	$ 0.26	$ 0.40	$ 0.11	$ 0.02	$ 4.05
0.60	$ 0.05	$ 0.07	$ 0.02	$ 0.00	
0.81	$ 0.06	$ 0.10	$ 0.03	$ 0.01	
0.89	$ 0.07	$ 0.11	$ 0.03	$ 0.01	
0.97	$ 0.08	$ 0.12	$ 0.03	$ 0.01	
6.85	$ 0.54	$ 0.83	$ 0.23	$ 0.05	$ 8.51
0.97	$ 0.08	$ 0.12	$ 0.03	$ 0.01	
2.01	$ 0.16	$ 0.24	$ 0.07	$ 0.02	
2.82	$ 0.22	$ 0.34	$ 0.10	$ 0.02	
1.05	$ 0.08	$ 0.13	$ 0.04	$ 0.01	
70.45	$ 5.60	$ 8.53	$ 2.41	$ 0.53	$ 87.52
15.20	$ 1.21	$ 1.84	$ 0.52	$ 0.11	
15.30	$ 1.22	$ 1.85	$ 0.52	$ 0.11	
21.74	$ 1.73	$ 2.63	$ 0.74	$ 0.16	
18.22	$ 1.45	$ 2.21	$ 0.62	$ 0.14	
1.46	$ 0.12	$ 0.18	$ 0.05	$ 0.01	$ 1.82
-	$ -	$ -	$ -	$ -	
-	$ -	$ -	$ -	$ -	
0.97	$ 0.08	$ 0.12	$ 0.03	$ 0.01	
0.50	$ 0.04	$ 0.06	$ 0.02	$ 0.00	
129.66	$ 10.31	$ 15.70	$ 4.43	$ 0.97	$ 161.07
24.15	$ 1.92	$ 2.93	$ 0.83	$ 0.18	
40.25	$ 3.20	$ 4.88	$ 1.38	$ 0.30	
40.25	$ 3.20	$ 4.88	$ 1.38	$ 0.30	
25.02	$ 1.99	$ 3.03	$ 0.85	$ 0.19	
7.03	$ 0.56	$ 0.85	$ 0.24	$ 0.05	$ 8.73
1.29	$ 0.10	$ 0.16	$ 0.04	$ 0.01	
1.63	$ 0.13	$ 0.20	$ 0.06	$ 0.01	
2.20	$ 0.17	$ 0.27	$ 0.08	$ 0.02	
1.92	$ 0.15	$ 0.23	$ 0.07	$ 0.01	
-	$ -	$ -	$ -	$ -	$ -
-	$ -	$ -	$ -	$ -	
-	$ -	$ -	$ -	$ -	
-	$ -	$ -	$ -	$ -	
-	$ -	$ -	$ -	$ -	
108.92	$ 8.66	$ 13.19	$ 3.72	$ 0.81	$ 135.30
24.96	$ 1.98	$ 3.02	$ 0.85	$ 0.19	
34.86	$ 2.77	$ 4.22	$ 1.19	$ 0.26	
25.78	$ 2.05	$ 3.12	$ 0.88	$ 0.19	
23.35	$ 1.86	$ 2.83	$ 0.80	$ 0.17	
335.38	$ 26.66	$ 40.62	$ 11.46	$ 2.50	$ 416.62

Before turning to the results, we assess the issue of reliability and conformity to industry standards for these costs. There are no directly comparable figures for Pennsylvania Turnpike Interchanges; this is not like a standard hotel, apartment building, or shopping center, where comparable statistics are readily available. Nonetheless, the project managers have prepared a detailed analysis of costs, including probabilities based on the future fluctuations in key materials and labor inputs. An excerpt of their methodology is included here. Further details are available from the Pennsylvania Turnpike Commission.

The PA Turnpike / I-95 Interchange Project provides new free-flow connections between I-276 and I-95, widening of the PA Turnpike from a four-lane to a six-lane highway east of I-95, and a new ORT / conventional gateway toll plaza (to serve as the PTC's eastern toll system terminus) and an all-electronic tolling (AET) facility on the Pennsylvania side of the PA Turnpike/I-95 Interchange of the Delaware River Bridge. In addition, approximately 3 miles of I-95 is to be widened to accommodate the ramps and merge lanes resulting from interchange flyover construction. When combined, these features will allow the completion of I-95 and the redesignation of I-95 in PA and NJ.

The total project cost estimate includes all of the costs required to complete the Post-NEPA FEIS re-evaluations, environmental mitigation, design, right-of-way activities, public outreach, construction, overall project and construction management, specific management plans, contingencies, and utility relocations. All costs have been calculated in accordance with state-of-the-practice estimation methods. Quantities were calculated from the approved line and grade or detailed design plans and provided by the section design teams. Unit costs were then developed based on a number of factors – statewide yearly average bids, local average bids, usage of a particular item, or a combination thereof using sound engineering judgment.

In February 2010, a Cost Estimate Review (CER) Team from FHWA conducted a three day workshop together with PennDOT, PTC and their Design Management (DM) and Construction Management (CM) consultants. The objective of the review was to verify the accuracy and reasonableness of the current project total cost estimate, schedule, and to develop a probability range for the cost estimate that represents the project's current stage of development.

For a few years until that time and continuing to present, construction bids in Pennsylvania have been trending lower than the estimated costs that were anticipated in the earlier project cost estimates. Construction material costs such as steel, cement, and fuel decreased resulting in lower bids for major bid items such as structural steel, roadway excavation, foreign borrow, and concrete and asphalt pavement.

9. Economic Impact of Construction Expenditure by NAICS Category

This section contains 5 sets of tables, with 2 tables in each set. Each set of tables shows the detailed industry results for the 20 major classifications of the RIMS II model. The five NAICS categories, which were listed in the previous section, are hard construction costs, wholesale markup for purchases of machinery and equipment, architectural and engineering services, legal services, and utility costs. Please note that in all these tables, output and earnings are given in thousands of 2010 dollars.

Table 9-1. Increase in Employment, Output, and Earnings, Hard Construction Costs for Turnpike Interchange

Industry Group	Employment	Output	Earnings
Agriculture, forestry, fishing,	7.8	636	144
Mining	8.4	1,560	347
Utilities	9.6	5,230	1,040
Construction	2116.4	291,368	104,954
Manufacturing	250.9	70,653	13,090
Wholesale trade	99.1	22,482	6,820
Retail trade	443.5	34,156	11,357
Transportation and warehousing	92.7	12,801	4,277
Information	58.7	18,754	3,786
Finance and insurance	199.3	38,000	10,836
Real estate and rental and leasing	223.2	46,409	3,612
Professional and scientific services	227.5	37,248	15,575
Management of companies	34.1	9,131	3,468
Admin and waste mgmt services	200.3	11,385	4,797
Educational services	40.7	3,265	1,300
Health care and social assistance	261.3	26,499	12,166
Arts, entertainment, and recreation	46.9	2,745	982
Accommodation	17.5	1,734	520
Food services and drinking places	143.9	7,947	2,456
Other services	114.0	14,824	4,335
Household	27.7	0	260
Total	4623.7	656,829	206,122

Table 9-1 shows there will be a total of 4,623 jobs created by the hard construction cost activity; since the project will take well over two years, direct jobs can be counted for EB-5 purposes. The total increase in output will be about $656.8 million, and the total increase in earnings will be about $206.1 million. Table 9-2 shows that output per employee for all new workers would be about $142,100, with average annual earnings of about $44,600.

Table 9-2. Output and Earnings per New Employee, Hard Construction Costs for Turnpike Interchange

Industry Group	Employment	Output/Empl	Earnings/Empl
Agriculture, forestry, fishing,	7.8	81.8	18.6
Mining	8.4	185.6	41.2
Utilities	9.6	546.8	108.8
Construction	2116.4	137.7	49.6
Manufacturing	250.9	281.6	52.2
Wholesale trade	99.1	226.8	68.8
Retail trade	443.5	77.0	25.6
Transportation and warehousing	92.7	138.0	46.1
Information	58.7	319.2	64.4
Finance and insurance	199.3	190.6	54.4
Real estate and rental and leasing	223.2	207.9	16.2
Professional and scientific services	227.5	163.7	68.5
Management of companies	34.1	268.0	101.8
Admin and waste mgmt services	200.3	56.9	24.0
Educational services	40.7	80.1	31.9
Health care and social assistance	261.3	101.4	46.6
Arts, entertainment, and recreation	46.9	58.6	21.0
Accommodation	17.5	98.8	29.7
Food services and drinking places	143.9	55.2	17.1
Other services	114.0	130.0	38.0
Household	27.7	0.0	9.4
Total	4623.7	142.1	44.6

The next two tables show similar results for the $35.00 million in architectural, engineering, and related services.

Table 9-3. Increase in Employment, Output, and Earnings, Architectural, Engineering, and Related Services

Industry Group	Employment	Output	Earnings
Agriculture, forestry, fishing,	0.8	67	14
Mining	0.1	18	4
Utilities	1.0	553	109
Construction	2.5	340	123
Manufacturing	13.3	3,931	690
Wholesale trade	7.1	1,603	487
Retail trade	32.6	2,510	837
Transportation and warehousing	10.5	1,316	480
Information	8.5	2,650	553
Finance and insurance	28.0	5,537	1,558
Real estate and rental and leasing	32.8	5,943	455
Professional and scientific services	215.7	40,852	14,882
Management of companies	4.6	1,239	473
Admin and waste mgmt services	47.1	2,524	1,131
Educational services	5.0	399	158
Health care and social assistance	31.0	3,147	1,442
Arts, entertainment, and recreation	6.8	396	144
Accommodation	3.4	336	98
Food services and drinking places	25.5	1,407	438
Other services	12.9	1,684	487
Household	3.3	0	32
Total	492.5	76,447	24,588

Table 9-3 shows there would be a total of 492 jobs created by architectural, engineering, and related services. The total increase in output would be about $76.5 million, and the total increase in earnings would be about $24.6 million. Table 9-4 shows that output per employee for all new workers would be about $155,200, with average annual earnings of about $49,900.

Table 9-4. Output and Earnings per New Employee, Architectural, Engineering, and Related Services

Industry Group	Employment	Output/Empl	Earnings/Empl

Agriculture, forestry, fishing,	0.8	80.9	17.0
Mining	0.1	192.3	38.5
Utilities	1.0	544.8	106.9
Construction	2.5	137.4	49.6
Manufacturing	13.3	296.5	52.0
Wholesale trade	7.1	226.5	68.7
Retail trade	32.6	77.0	25.7
Transportation and warehousing	10.5	125.3	45.7
Information	8.5	311.9	65.1
Finance and insurance	28.0	197.4	55.5
Real estate and rental and leasing	32.8	181.4	13.9
Professional and scientific services	215.7	189.4	69.0
Management of companies	4.6	267.4	102.0
Admin and waste mgmt services	47.1	53.5	24.0
Educational services	5.0	80.5	31.8
Health care and social assistance	31.0	101.4	46.5
Arts, entertainment, and recreation	6.8	58.2	21.1
Accommodation	3.4	99.1	28.9
Food services and drinking places	25.5	55.1	17.1
Other services	12.9	130.6	37.7
Household	3.3	0.0	9.5
Total	492.5	155.2	49.9

The next two tables show similar results for the $4.93 million in legal services.

Table 9-5. Increase in Employment, Output, and Earnings, Legal Services

Industry Group	Employment	Output	Earnings
Agriculture, forestry, fishing,	0.1	11	2
Mining	0.0	2	0
Utilities	0.2	89	18
Construction	0.3	47	17
Manufacturing	1.8	555	94
Wholesale trade	1.1	247	75
Retail trade	5.7	441	147
Transportation and warehousing	1.5	193	70
Information	1.5	468	96

Finance and insurance	4.3	833	237
Real estate and rental and leasing	6.8	1,123	89
Professional and scientific services	31.4	5,382	2,933
Management of companies	0.6	170	65
Admin and waste mgmt services	4.9	300	120
Educational services	0.9	70	28
Health care and social assistance	5.6	565	259
Arts, entertainment, and recreation	1.1	65	24
Accommodation	0.4	43	12
Food services and drinking places	3.4	186	58
Other services	2.1	270	78
Household	0.6	0	5
Total	74.5	11,060	4,427

Table 9-5 shows there would be a total of 74 jobs created by the expenditures on legal services. The total increase in output would be about $11.1 million, and the total increase in earnings would be about $4.4 million. Table 9-6 shows that output per employee for all new workers would be about $148,500, with average annual earnings of about $59,500.

Table 9-6. Output and Earnings per New Employee, Legal Services

Industry Group	Employment	Output/Empl	Earnings/Empl
Agriculture, forestry, fishing,	0.1	79.3	17.2
Mining	0.0	190.5	47.6
Utilities	0.2	541.9	107.8
Construction	0.3	138.1	49.4
Manufacturing	1.8	302.9	51.4
Wholesale trade	1.1	226.8	68.8
Retail trade	5.7	77.0	25.7
Transportation and warehousing	1.5	125.9	45.4
Information	1.5	311.9	63.8
Finance and insurance	4.3	193.4	55.0
Real estate and rental and leasing	6.8	164.3	13.0
Professional and scientific services	31.4	171.1	93.3
Management of companies	0.6	267.4	101.6
Admin and waste mgmt services	4.9	61.7	24.7
Educational services	0.9	80.2	31.9
Health care and social assistance	5.6	101.4	46.5
Arts, entertainment, and recreation	1.1	58.3	21.2

Accommodation	0.4	99.8	28.7
Food services and drinking places	3.4	55.1	17.2
Other services	2.1	131.3	37.8
Household	0.6	0.0	9.1
Total	74.5	148.5	59.5

The next two tables show similar results for the $2.15 million in purchases from utilities.

Table 9-7. Increase in Employment, Output, and Earnings, Utility Purchases

Industry Group	Employment	Output	Earnings
Agriculture, forestry, fishing,	0.0	2	0
Mining	0.0	6	1
Utilities	4.1	2,168	457
Construction	0.4	61	22
Manufacturing	0.4	147	24
Wholesale trade	0.3	59	18
Retail trade	1.1	88	29
Transportation and warehousing	0.5	109	28
Information	0.3	77	17
Finance and insurance	0.9	176	49
Real estate and rental and leasing	0.9	183	13
Professional and scientific services	0.9	135	64
Management of companies	0.1	24	9
Admin and waste mgmt services	0.8	47	19
Educational services	0.2	14	6
Health care and social assistance	1.1	108	49
Arts, entertainment, and recreation	0.2	12	5
Accommodation	0.1	8	2
Food services and drinking places	0.9	49	15
Other services	0.4	53	15
Household	0.1	0	1
Total	13.7	3,527	844

Table 9-7 shows there would be a total of about 14 jobs created by the expenditures on utility services. The total increase in output would be about $3.5

million, and the total increase in earnings would be about $0.8 million. Table 9-8 shows that output per employee for all new workers would be about $257,800, with average annual earnings of about $61,700.

Table 9-8. Output and Earnings per New Employee, Utility Purchases

Industry Group	Employment	Output/Empl	Earnings/Empl
Agriculture, forestry, fishing,	0.0	77.5	15.5
Mining	0.0	201.6	38.8
Utilities	4.1	531.5	112.0
Construction	0.4	137.9	49.7
Manufacturing	0.4	336.5	54.2
Wholesale trade	0.3	226.7	68.9
Retail trade	1.1	77.0	25.5
Transportation and warehousing	0.5	213.3	55.0
Information	0.3	292.7	63.4
Finance and insurance	0.9	193.2	54.3
Real estate and rental and leasing	0.9	203.9	14.1
Professional and scientific services	0.9	153.3	72.3
Management of companies	0.1	267.8	101.9
Admin and waste mgmt services	0.8	60.3	24.3
Educational services	0.2	81.1	31.9
Health care and social assistance	1.1	101.5	46.4
Arts, entertainment, and recreation	0.2	59.4	21.5
Accommodation	0.1	100.5	29.1
Food services and drinking places	0.9	55.0	17.2
Other services	0.4	131.8	38.3
Household	0.1	0.0	9.5
Total	13.7	257.8	61.7

The final two tables in this section show the indirect and induced effects of the purchase of machinery and equipment. It is assumed these items are not manufactured in the region, but they are purchased here, so the wholesale margins can be included in the EB-5 job count.

Table 9-9. Increase in Employment, Output, and Earnings, Wholesale Margins for Purchases of Machinery and Equipment

Industry Group	Employment	Output	Earnings
Agriculture, forestry, fishing,	0.4	34	7

Mining	0.0	9	2
Utilities	0.7	358	71
Construction	1.2	168	60
Manufacturing	8.6	2,433	434
Wholesale trade	6.7	1,516	459
Retail trade	18.1	1,397	466
Transportation and warehousing	11.9	1,387	528
Information	5.3	1,576	338
Finance and insurance	13.7	2,706	763
Real estate and rental and leasing	18.0	3,301	255
Professional and scientific services	12.9	1,911	845
Management of companies	4.7	1,259	478
Admin and waste mgmt services	18.8	1,082	453
Educational services	2.7	221	87
Health care and social assistance	17.1	1,734	795
Arts, entertainment, and recreation	3.5	207	76
Accommodation	1.1	110	32
Food services and drinking places	9.8	540	168
Other services	6.9	926	266
Household	1.8	0	16
Total	164.3	22,874	6,599

Table 9-9 shows there would be a total of about 164 jobs indirect and induced jobs created by the expenditures on machinery and equipment. The indirect and induced increase in output would be about $22.9 million, and the indirect and induced increase in earnings would be about $6.6 million. Table 9-10 shows that output per employee for all new workers would be about $139,200, with average annual earnings of about $40,200.

Table 9-10. Output and Earnings per New Employee, Wholesale Margins for Purchases of Machinery and Equipment

Industry Group	Employment	Output/Empl	Earnings/Empl
Agriculture, forestry, fishing,	0.4	76.9	15.4
Mining	0.0	222.2	55.6
Utilities	0.7	545.5	108.4
Construction	1.2	137.0	48.8

Manufacturing	8.6	283.2	50.5
Wholesale trade	6.7	226.7	68.7
Retail trade	18.1	77.0	25.7
Transportation and warehousing	11.9	116.3	44.3
Information	5.3	294.8	63.2
Finance and insurance	13.7	197.2	55.6
Real estate and rental and leasing	18.0	182.9	14.1
Professional and scientific services	12.9	147.6	65.3
Management of companies	4.7	267.4	101.5
Admin and waste mgmt services	18.8	57.6	24.1
Educational services	2.7	80.3	31.8
Health care and social assistance	17.1	101.4	46.5
Arts, entertainment, and recreation	3.5	59.2	21.7
Accommodation	1.1	99.0	28.9
Food services and drinking places	9.8	55.1	17.1
Other services	6.9	133.4	38.4
Household	1.8	0.0	8.8
Total	164.3	139.2	40.2

10. Summary Statistics for the Turnpike Interchange Project, and Quarterly Tables for Expenditures and Employment

Table 10-1 shows the combined impacts of all components of construction activity for the Turnpike Interchange project. The entries in each cell are simply the summation of these tables in the previous section, and are presented here for ease of exposition. Here again, figures for output and earnings are in thousands of 2010 dollars. These tables are followed by the quarterly estimates for construction costs and employment.

Table 10-1. Increase in Employment, Output, and Earnings, All Components of Construction Activity for the Turnpike Interchange Project

Industry Group	Employment	Output	Earnings
Agriculture, forestry, fishing,	9.2	750	168
Mining	8.6	1,595	354
Utilities	15.5	8,399	1,695
Construction	2120.8	291,984	105,175
Manufacturing	275.0	77,718	14,332
Wholesale trade	114.2	25,907	7,858
Retail trade	501.1	38,591	12,835
Transportation and warehousing	117.2	15,807	5,382
Information	74.4	23,525	4,789
Finance and insurance	246.3	47,251	13,443
Real estate and rental and leasing	281.8	56,958	4,424
Professional and scientific services	488.5	85,528	34,300
Management of companies	44.1	11,824	4,492
Admin and waste mgmt services	271.8	15,338	6,519
Educational services	49.5	3,969	1,578
Health care and social assistance	316.1	32,053	14,711
Arts, entertainment, and recreation	58.5	3,425	1,230
Accommodation	22.6	2,231	665
Food services and drinking places	183.5	10,129	3,135
Other services	136.3	17,757	5,181
Household	33.5	0	314
Total	5368.6	770,736	242,580

Table 10-1 shows about 5,368 permanent new jobs would be created by the construction of the Turnpike Interchange project. Output would rise by about $770.7 million, and household earnings would increase by about $242.6 million per year. Table 10-2 shows the average output per employee and earnings per employee for all new jobs created in each major industrial classification. For the entire project, the average output per new worker is $143,600 while the average earnings per employee are $45,200.

Table 10-2. Output and Earnings Per New Worker, All Components of Construction Activity for the Turnpike Interchange Project

Industry Group	Employment	Output/Empl	Earnings/Empl
Agriculture, forestry, fishing,	9.2	81.4	18.3
Mining	8.6	185.9	41.3
Utilities	15.5	542.5	109.5
Construction	2120.8	137.7	49.6
Manufacturing	275.0	282.6	52.1
Wholesale trade	114.2	226.8	68.8
Retail trade	501.1	77.0	25.6
Transportation and warehousing	117.2	134.9	45.9
Information	74.4	316.4	64.4
Finance and insurance	246.3	191.8	54.6
Real estate and rental and leasing	281.8	202.1	15.7
Professional and scientific services	488.5	175.1	70.2
Management of companies	44.1	267.9	101.8
Admin and waste mgmt services	271.8	56.4	24.0
Educational services	49.5	80.2	31.9
Health care and social assistance	316.1	101.4	46.5
Arts, entertainment, and recreation	58.5	58.6	21.0
Accommodation	22.6	98.9	29.5
Food services and drinking places	183.5	55.2	17.1
Other services	136.3	130.3	38.0
Household	33.5	0.0	9.4
Total	5368.6	143.6	45.2

We now turn to the quarterly pattern of construction and employment. The quarterly numbers for total construction, including soft costs, purchases of machinery and equipment, and direct utility expenditures, have been given above in Table 8-1.

First, the 7% contingency allowance is subtracted. Then, the figures are deflated by a factor equal to 2% per year to convert them to 2010 dollars. These construction figures are then multiplied by the ratio of total employment, as shown above in Table 10-1, divided by total expenditures to obtain the quarterly employment numbers.

Table 10-3. Quarterly and Cumulative Expenditures and Employment

Quarter	Mil $ Current	Less 7% Contingency	Deflator	Mil 2010 $	Employment Quarterly	Employment Cumulative
2012.1	0		1.021	0.00	0	0
2012.2	0.15	0.14	1.026	0.14	2.1	2.1
2012.3	2.75	2.56	1.031	2.48	37.6	39.7
2012.4	3.27	3.04	1.036	2.93	44.5	84.2
2013.1	4.43	4.12	1.041	3.96	60.0	144.2
2013.2	6.50	6.05	1.047	5.78	87.6	231.8
2013.3	14.38	13.37	1.052	12.71	192.8	424.6
2013.4	10.00	9.30	1.057	8.80	133.4	558.0
2014.1	18.50	17.21	1.062	16.19	245.6	803.6
2014.2	29.00	26.97	1.068	25.26	383.1	1186.6
2014.3	29.71	27.63	1.073	25.75	390.5	1577.1
2014.4	19.86	18.47	1.078	17.13	259.7	1836.8
2015.1	22.60	21.02	1.084	19.39	294.1	2130.9
2015.2	36.21	33.68	1.089	30.92	468.8	2599.8
2015.3	36.21	33.68	1.095	30.76	466.5	3066.3
2015.4	24.06	22.38	1.100	20.34	308.4	3374.7
2016.1	22.98	21.37	1.106	19.33	293.1	3667.9
2016.2	25.71	23.91	1.111	21.52	326.3	3994.2
2016.3	25.71	23.91	1.117	21.41	324.7	4318.9
2016.4	21.57	20.06	1.122	17.87	271.1	4589.9
2017.1	8.40	7.81	1.128	6.93	105.0	4695.0
2017.2	11.60	10.79	1.134	9.52	144.3	4839.3
2017.3	11.60	10.79	1.139	9.47	143.6	4982.9
2017.4	11.17	10.39	1.145	9.07	137.6	5120.5
2018.1	9.00	8.37	1.151	7.27	110.3	5230.8
2018.2	11.30	10.51	1.156	9.09	137.8	5368.6
TOTAL	416.67	387.50		354.02	5368.6	

This table can also be used to determine the timing for raising the EB-5 funds. That will in part depend on when this regional center application is approved, but for purposes of exposition, assume for the moment it is approved on January 1, 2014. In that case, the first I-526 petitions would be filed on or about July 2014, and would be approved on or about January 2015. In that case, the I-829 petitions would then be filed on or about January 2017, at which point there would still be six quarters of construction work remaining. Based on these figures, there would be 4,590 jobs created through the end of 2016, which means 459 EB-5 investors could raise up to $229.5 million at the outset. Also based on these figures, another 250 jobs would be created in the next two quarters, 280 more jobs in the two quarters after that, and 248 more jobs in the final two quarters. On that basis, then, the program could raise an additional $12.5 million, $14 million, and $12 million in successive two-quarter intervals, for a total raise of $268 million over the total time span of Stage 1 of this project.

Appendix: Resume of Dr. Michael K. Evans

mevans@evanscarrollecon.com

CURRENT AND PREVIOUS POSITIONS

- Chairman, *Evans, Carroll & Associates, Inc.*, 1980-present (previously Evans Economics)

Economic consulting firm specializing in EB-5 immigration analysis, economic impact studies of development projects and new construction, models of state and local tax receipts, impact of current and proposed government legislation, and construction of econometric models for individual industries and companies.

- Chief Economist, *American Economics Group*, 2000-present.

Built a comprehensive state modeling system that provides economic analysis for a variety of consulting projects (see below).

- Clinical Professor of Economics, Department of Managerial Economics and Decision Sciences (MEDS), Kellogg Graduate School of Management, Northwestern University, 1996-99.

Taught courses in macroeconomics and business forecasting. Wrote textbooks for both courses.

- Winner of Blue Chip Economic Indicator Award for most accurate macroeconomic forecasts during the past four years, November 1999

- Founder and President, *Chase Econometric Associates*, 1970-1980

- Assistant and Associate Professor of Economics, Wharton School, University of Pennsylvania, 1964-69. Co-developer of the original Wharton Model.

- Visiting Professor, Radford University, (Radford, VA), 1987

Chairman of Institute for International Economic Competitiveness

- Visiting Lecturer, Hebrew University (Jerusalem), 1966-67

Built econometric model of the Israeli economy

Ph. D. in Economics, Brown University. Dissertation, "A Postwar Quarterly Model of the United States Economy, 1948-1962". A. B. in Mathematical Economics, Brown University

PREVIOUS ACTIVITIES AND EDUCATION

- Contributing Editor, *Industry Week*

Wrote a column in each issue on economic and financial trends as they impact the manufacturing sector.

- Editor, *The Evans Report*

Weekly newsletter discussing economic trends and financial markets. Pioneered the concept of the Monthly Tracking Model to incorporate recent economic releases into the overall economic forecast, including methods to predict these economic data.

- Consultant, *National Printing Equipment and Supply Association*

Prepares quarterly forecasts of shipments of printing equipment and graphic arts supplies by product line, based on an econometric model constructed for NPES. Also prepares analysis and forecasts of exports and imports by principal product line.

- Consultant, *APICS -- The Educational Society for Resource Management*,

In 1993, designed and developed the *APICS Business Outlook Index*, which uses survey data collected by the Evans Group to measure current production, production plans, shipments, employment, new orders, unfilled orders, inventory stocks, and the comparison of the actual to desired inventory/sales ratio to predict short-term changes in manufacturing sector activity. The results of this survey appeared every month in *APICS: The Performance Advantage*

- Consultant, *American Hardware Manufacturing Association*

Wrote a separate weekly edition of the Evans Report analyzing recent trends in the hardware and housing industries, including forecasts of the hardware industry based on an econometric model developed for AHMA.

- Board of Economists, *Los Angeles Times*

Wrote column every 6 weeks (5 other economists on the Board)

- Columnist, *United Press International*

Wrote twice-weekly column, "Dollars and Trends"

- Consultant, Senate Finance Committee,

Built the first large-scale supply-side model of the U. S. economy

- Consultant, Environmental Protection Agency and Council on Environmental Quality

Estimated inflationary impact of government regulations

- Consultant, National Aeronautics and Space Administration

Estimate impact of R&D spending on productivity growth

- Consultant, U. S. Treasury

Estimated impact of investment tax credit and accelerated depreciation on capital spending by industry

- Consultant, U. S. Department of Agriculture

Built large-scale econometric model of agricultural sector of U. S. economy

- Consultant, Organization of Economic Cooperation and Development

Built econometric model of the French economy

SAMPLE OF RECENT CONSULTING PROJECTS

A. Economic Impact of EB-5 Immigrant Investor Programs and New Markets Tax Credits

For more information on these projects, see www.evanseb5.com

Key to symbols: N, new regional center, E, extension of existing center

List is current as of November 5, 2010. Totals to date are 136 new regional centers, 72 extensions, and 7 new markets tax credits, for a total of 215 projects

N● Calculated the economic impact of the construction and operation of an assisted living center in Santa Ana, CA

N• Calculated the economic impact of the construction and operation of several BBQ restaurants in South Florida.

N• Calculated the economic impact of the drilling oil wells in 8 counties in Texas and Louisiana.

N• Calculated the economic impact of operating coal mines for metallurgical coal in West Virginia.

N• Calculated the economic impact of operating gold mines in Alaska.

N• Calculated the economic impact of constructing and operating a mixed-use commercial center in Flushing, NY

N• Calculated the economic impact of constructing and operating two hotels, one in downtown San Diego, and one in Escondido, CA

N• Calculated the economic impact of expanding and operating an auto racing track in Palm Beach, FL

N• Calculated the economic impact of building and operating mobile housing villages for disaster relief.

N• Calculated the economic impact of operating an "incubator" for research on medical devices, preparations, and services in Houston, TX.

N• Calculated the economic impact of constructing and operating a mixed-use commercial center in Denver, CO.

N• Calculated the economic impact of constructing and operating a charter school in Miami/Dade County, FL

E• Calculated the economic impact of constructing and operating a hotel in Manhattan, NY

N• Calculated the economic impact of constructing and operating hotels, assisted living centers, and mixed-use commercial buildings in 8 counties in Southern California

N• Calculated the economic impact of constructing and operating a charter school in Broward County, FL
N• Calculated the economic impact of renovating a former public housing project in Chicago, IL

N• Calculated the economic impact of starting a high-tech company for optical displays in Orlando and Gainesville, FL

N• Calculated the economic impact of constructing and operating luxury hotels in four Southern California counties

E• Calculated the economic impact of expanding a manufacturing company in Ann Arbor, MI

N• Calculated the economic impact of reconverting an old mill building into offices and other commercial uses in Bristol County, MA

N• Calculated the economic impact of a film and TV production studio in Los Angeles, CA

N• Calculated the economic impact of constructing and operating various residential and commercial buildings in 35 Texas counties.

N• Calculated the economic impact of constructing and operating the world's tallest residential structure in Chicago, IL

N• Calculated the economic impact of constructing and operating a mixed-use commercial and residential building in Seattle, WA

N• Calculated the economic impact of constructing and operating a hotel in Cleveland, OH

N• Calculated the economic impact of a research facility in Jupiter, FL

N• Calculated the economic impact of constructing and operating an assisted living center in Horry County, SC

N• Calculated the economic impact of constructing and operating a chain pharmacy in Chicago, IL

E• Calculated the economic impact of constructing and operating a high-end hotel and resort in Aspen, CO

N• Calculated the economic impact of constructing and operating an assisted living center in Dallas, TX

E• Calculated the economic impact of constructing and operating an medical assistance company in Bronx, NY

E• Calculated the economic impact of constructing and operating a mixed-use commercial building in Queens, NY

E• Calculated the economic impact of operating a livery service in Queens, NY

N• Calculated the economic impact of constructing and operating residential properties in Southern California

N• Calculated the economic impact of operating a film and TV production studio in Los Angeles, CA

N• Calculated the economic impact of drilling oil wells in Montana

N• Calculated the economic impact of constructing and operating various residential and commercial buildings for 43 counties in Texas

E• Calculated the economic impact of constructing and operating a restaurant and dinner theater in Guam

N• Constructed an input/output model for the Commonwealth of the Northern Mariana Islands, and used it to calculated the economic impact of constructing and operating a restaurant in Saipan.

E• Calculated the economic impact of constructing and operating a new hotel in Miami, FL

E• Calculated the economic impact of constructing and operating a resort and wellness center in South Florida

N• Calculated the economic impact of expanding and operating a ski resort in Vermont.

N• Calculated the economic impact of constructing and operating residential and commercial buildings in 20 counties in South Central Texas

N• Calculated the economic impact of constructing and operating a hotel near the Newark, NJ airport

E• Calculated the economic impact of constructing and operating a company to process health insurance benefits in South Florida

E• Calculated the economic impact of constructing and operating a veterinary hospital in Palm Beach County, FL

N• Calculated the economic impact of constructing and operating various residential and commercial buildings for all counties in MA, CT, RI, and NH
N• Calculated the economic impact of constructing and operating a residential construction company in Maryland

N• Calculated the economic impact of constructing and operating various residential and commercial buildings for the entire state of Oklahoma

N• Calculated the economic impact of constructing and operating a company for manufacturing dental implants in Cuyahoga County, OH

N• Calculated the economic impact of constructing and operating a mixed-use commercial facility in Brooklyn, NY

N• Calculated the economic impact of constructing and operating an office building for financial services in downtown Manhattan, NY

N• Calculated the economic impact of constructing and operating a mixed-use facility in Southern California

N• Calculated the economic impact of constructing and operating a retail shopping center in Tampa, FL

N• Calculated the economic impact of constructing and operating a retail shopping center in Tampa, FL

N• Calculated the economic impact of constructing and operating a mixed-use commercial building in Seattle, WA

N• Calculated the economic impact of constructing and operating a charter school in Arizona

N• Calculated the economic impact of constructing and operating a resort in northeastern Utah

N• Calculated the economic impact of operating an online video game company

N• Calculated the economic impact of constructing and operating a hotel in New York City

N• Calculated the economic impact of constructing and operating a fashion mall in South Florida

E• Calculated the economic impact of construction and operation of a new automobile assembly plant in Petersburg, VA

N• Calculated the economic impact of operating a call center for the U.S. government in Muskogee, OK

N• Calculated the economic impact of developing a mixed-use commercial and residential center in Scottsdale, AZ

N• Calculated the economic impact of constructing and operating a "Green Box" facility in New Jersey to process waste material on a pollution-free basis.

N• Calculated the economic impact of constructing and operating a "Green Box" facility in Washington State to process waste material on a pollution-free basis.

E• Calculated the economic impact of constructing and operating a new hotel in Coral Gables, FL

E• Calculated the economic impact of developing a new residential community in Brevard County, and retail stores and restaurants in St. Lucie County, FL

N • Calculated the economic impact of a new business to store and process field crops in Madison, MS

N• Calculated the economic impact of operating food service establishments and assisted living centers in 40 counties in Texas.

E• Calculated the economic impact of developing a mixed-use commercial center in Miami, FL

N• Calculated the economic impact of renovating a theater in New York City to show film highlights of previous Broadway hits.

N• Calculated the economic impact of renovating and operating distressed buildings in the San Francisco Bay area.

E• Calculated the economic impact of a mixed-use commercial center in Montgomery County, TX

E• Calculated the economic impact of expanding a manufacturing facility to produce more energy-efficient lighting in Sarasota, FL

N• Calculated the economic impact of developing facilities for amateur sporting events in northern GA

N• Calculated the economic impact of developing a mixed-use commercial center in Missoula, MT

N• Calculated the economic impact of operating call centers in Las Vegas, NV, and other western Nevada counties

E• Calculated the economic impact of constructing and operating a proton cancer treatment center in Boca Raton, FL

E• Calculated the economic impact of constructing and operating a "Green Box" facility in Detroit to process waste material on a pollution-free basis.

E• Calculated the economic impact of renovating and expanding commercial property in Lower Manhattan

N• Calculated the economic impact of constructing student housing and retail stores in Davie, FL

E• Calculated the economic impact of constructing residential housing near Harvard University

E• Calculated the economic impact of developing mixed-use commercial centers in Broward County, FL

E• Calculated the economic impact of renovating a Dallas apartment building

E• Calculated the economic impact of renovating and operating a nursing home in Las Vegas, NV

E• Calculated the economic impact of constructing a hotel and shopping center in Miami, FL

E• Calculated the economic impact of developing a design center in Miami/Dade county, FL

E• Calculated the economic impact of developing and operating a chain of children's playrooms and party facilities in South Florida

E• Calculated the economic impact of developing a new stadium for the Nets basketball team, to be located in Brooklyn, NY

E• Calculated the economic impact of developing a Marriott hotel in Washington, D.C.

E• Calculated the economic impact of developing and operating a casino for foreign patrons in Las Vegas, NV

E• Calculated the economic impact of operating a series of yogurt fast-food restaurants in South Florida

E• Calculated the economic impact of constructing steel homes and commercial buildings in South Florida

N• Calculated the economic impact of construction and operation of a farm distillery in Vermont

N• Calculated the economic impact of purchase and renovation of deeply discounted residential properties in South Florida

N• Calculated the economic impact of a hotel to be built near LaGuardia Airport in Queens, NY

N• Calculated the economic impact for several mixed-use commercial and residential properties for a regional center covering southern Wisconsin and northern Illinois.

N• Calculated the economic impact for mixed-use commercial project in Flushing, NY

E• Calculated the economic impact for major new hotel near the Washington, D. C. conference center

N• Calculated the economic impact of an assisted living center in suburban Atlanta, GA

N• Calculated the economic impact of an office tower in mid-town Manhattan for the diamond trade

N• Calculated the economic impact of three mixed-use commercial and residential projects in Santa Clara County, CA

N• Calculated the economic impact of six mixed-use commercial and residential projects in Los Angeles, Orange, Riverside, and San Bernardino counties

N• Calculated the economic impact of operating a chain of pizza restaurants in southern Florida.

N• Calculated the economic impact of constructing and operating an assisted living facility in Atlanta, GA

E• Calculated the economic impact of constructing and operating an expansion of University Hospital in Cleveland, OH

E• Calculated the economic impact of a wastewater treatment plant in Victorville, CA

N• Calculated the economic impact of drilling for geothermal energy and constructing and operating power plants in several counties in Nevada

E• Calculated the economic impact of a vacation club operation in Orlando, FL

E• Calculated the economic impact of constructing and operating an extended-stay hotel in Boston, MA

E• Calculated the economic impact of constructing and operating an assisted living facility in Walton County, FL

N• Calculated the economic impact of manufacturing and constructing residential and commercial steel modular buildings in Lee County, FL

E• Calculated the economic impact of a chain of yogurt and juice stores and restaurants in southern Florida

E• Calculated the economic impact of two mixed-use commercial developments in Orange County, CA.

E• Calculated a Targeted Employment Area by census tracts for six counties in the Houston, TX metropolitan area

E• Calculated the expansion of new hybrid car manufacturing facility from Mississippi to Tennessee and Virginia.

E• Calculated the economic impact of construction and operation of a skilled nursing facility in Las Vegas, NV.

N• Calculated the economic impact of construction and operation of a proton cancer treatment center and medical offices buildings in Los Angeles County, CA.

E• Determined the economic impact of improving facilities at the Port of Baltimore in order to attract more shipping from the Panama Canal when the locks are widened.

N• Calculated the economic impact of a major hotel and resort area in Ft. Lauderdale, FL.

N• Calculated the economic impact of building steel homes in South Florida, including the local manufacture of steel fabricated parts.

E• Calculated the economic impact of constructing and operating a hotel at Times Square in New York City.

N• Calculated the economic impact of a mixed-used residential and commercial project in Atlanta, GA.

E• Calculated the economic impact of expanding and opening new restaurants in Dallas, TX. In a separate project, calculated the economic impact of renovating, refurbishing, and operating a boutique hotel in Dallas, TX.

E• Calculated the economic impact of building and operating low-income housing in Boston, MA.

N• Calculated the economic impact of constructing and operating assisted living facilities in eight rural Texas counties.

N• Calculated the economic impact of a mixed-use commercial project in Riverside County, CA.

E• Calculated the economic impact of opening a manufacturing plant for "green" motor vehicles in the Detroit, MI area.

E• Calculated the economic impact of constructing and operating hotels and restaurants in Columbus, MS.

E• Calculated the economic impact of operating restaurants in the Hotel W in Hollywood, CA.

N• Calculated the economic impact of a mixed-use commercial project in McCook, IL (suburban Chicago).

N• Calculated the economic impact of constructing and operating a water-based amusement facility in San Diego, CA.

N• Calculated the economic impact of a mixed-use commercial facility in suburban Cincinnati, OH (project is in KY).

E• Calculated the economic impact of constructing and operating a casino, hotel, and restaurant in Las Vegas, NV.

N• Calculated the economic impact of a new academic institution for alternative energy in Santa Clarita, CA.

N• Calculated the economic impact of several mixed-used projects in San Francisco, Alameda County, Santa Clara County, and Fresno County.

N• Calculated the economic impact of a super energy store and solar farm in Riverside County, CA.

N• Calculated the economic impact of a prostate cancer treatment center in South Carolina.

E• Calculated the economic impact of refurbishing and expanding retail space at the George Washington Bridge in New York City.

E• Calculated the economic impact of building Atlantic Yards, new stadium for the New York Nets, in Brooklyn, NY

N• Calculated the economic impact of an assisted living center and several mixed-use commercial facilities in the Reno, NV area.

E• Calculated the economic impact of buying residential properties at deep discount prices, refurbishing and selling them, in South Florida.

N• Calculated the economic impact for a fractional-ownership marina in Port Charlotte, FL, plus office space, retail stores, restaurants, and a home brokerage office.

N• Calculated the economic impact of construction and operation of four retirement homes in Vermont.

E• Calculated the economic impact of an upscale retail shopping center in Vail, CO. and a medical office building in Edwards, CO (both in Eagle County).

E• Calculated economic impact of a wind turbine manufacturing plant in Larimer County, CO

N• Calculated economic impact of a hotel, retail stores, restaurants, office buildings, and bank facilities in Pasadena, CA

N• Calculated economic impact of a luxury hotel and condominiums in Destin, FL

N• Calculated economic impact of constructing and operating a mixed-use commercial project in Jupiter, FL

E• Determined whether 17 possible restaurant locations in Miami/Dade and Broward Counties qualified as Targeted Employment Areas.

E• Determined the economic impact of opening and operating a slot-machine casino in Hanover, MD, as part of a proposed EB-5 regional center for the Baltimore metropolitan area.

N• Calculated the economic impact of renovating and expanding a restaurant on Martha's Vineyard, MA, as part of an EB-5 regional center in that state.

N• Determined the economic impact of assembling and installing solar panels for residences in the state of LA.
E• Determined a Targeted Employment Area for Dallas, TX as part of a proposed EB-5 regional center for the Dallas area.

N• Calculated the economic impact for various mixed used projects for a proposed regional center for the entire State of Texas, including shopping centers, office buildings, restaurants, assisted living centers, medical technology facilities, and other personal and business services.

N• Calculated the economic impact for the construction and operation of several fast-food restaurants in 10 counties in central California.

N• Calculated the economic impact for the renovation and expansion of a shopping mall in Greenville, SC.

E• Calculated the economic impact of buying existing apartment buildings at deep discount prices, renovating and operating them, in 21 counties in FL.

N• Calculated the economic impact of building and operating an institute for proton cancer therapy for a proposed EB-5 regional center in Brooklyn, NY.

N• Calculated the economic impact of building and operating a mixed-use facility with medical offices, hotels, and apartments for a proposed EB-5 regional center in Queens, NY.

E• Determined a Targeted Employment Area for Philadelphia, PA as part of a proposed EB-5 regional center for the Philadelphia area.

N• Calculated the economic impact of a proposed office building and mixed-use facility for an EB-5 regional center in Dallas, Texas

N• Calculated the economic impact for various mixed-use projects for a proposed EB-5 regional center in the greater New York City area, including an extended stay hotel, urgent care center, financial lending firm for alternative assets, retail stores, apartments, office space, warehouses, industrial "flex" space, entertainment centers, restaurants, conference and convention centers, nursing home and assisted living facilities, medical offices, medical technology facilities, and high-tech manufacturing.

N• Calculated the economic impact of "green" hotels in 10 counties in Central California.

N• Calculated the economic impact of generic projects in manufacturing, financial services, health services, hotels, and restaurants for a proposed regional center for the state of Florida.

E• Calculated the economic impact of 12 different types of economic activity for an expansion of the Palm Beach Regional Center to five contiguous counties.

N• Calculated the economic impact of a new auto parts plant in Alabama to supply parts to Kia automobiles.

N• Calculated the economic impact of opening fast-food restaurants in Miami/Dade and Broward counties in FL.
N• Calculated the economic impact of a mixed-use commercial center in Flushing, Queens County, NY.

E• Calculated the economic impact of revitalizing and renovating part of the Brooklyn Navy Yard for "green" manufacturing facilities.

E• Calculated the economic impact of 12 different types of economic activity for various counties in Charlotte and Sarasota counties, FL

E• Calculated the economic impact of four new manufacturing and distribution companies in Palm Beach County, FL.

N• Calculated the economic impact of developing a resort area and building residences in rural Tennessee.

N• Calculated the economic impact of developing and operating a resort area in Southern Arizona.

N• Calculated the economic impact of revitalizing the depressed East Side of Cleveland, Ohio, with new commercial and industrial buildings.

N• Determined the nationwide economic impact of a $1 billion investment in Mississippi for a new hybrid motor vehicle plant.

N• Determined the economic impact of expanding a shipyard in Southeastern Louisiana.

N• Calculated the economic impact of a new shopping center in Buena Vista, California, and two other generic shopping centers in Los Angeles and San Bernardino counties.

E• Calculated the economic impact of enhancing resort areas in eight rural counties in Colorado.

N• Calculated the economic impact of the rehabilitation of Fitzsimons Village in Aurora, Colorado, by adding an office building with medical labs, hotel, shopping center, and residences.

E• Determined the economic impact of a mixed-use commercial center for the Kansas City metropolitan area.

N• Calculated the number of jobs created for a film production company in New York City.

N• Calculated economic impact of small-scale rooftop solar panels in various counties in California.

N• Calculated economic impact of 7 different types of proposed businesses for a proposed regional center in the Bay Area of California.

N• Determined the economic impact of a new biological research park, office building, and logistics center in Wooster, Ohio.

E• Calculated the economic effect of a mixed-use urban renewal project in Cleveland, Ohio.

N• Calculated economic impact of dairy farm and cheese processing plant in Northern California.

N• Determined economic impact of a shipyard, food processing plant, and semiconductor plant for a proposed regional center in Louisiana and Mississippi.

N• Calculated the economic impact of a new gaming casino in Natchez, Mississippi.

N• Developed an Input/output Model for Guam, which was then used to calculate the economic impact of several generic projects.

N• Calculated the economic impact of a retail shopping center in suburban Los Angeles County.

N• Prepared an economic impact analysis for the "timber to homes" project for a proposed regional center in Colorado.

N• Calculated the economic impact for a proposed regional center in Baltimore, Maryland that would include the rebuilding of depressed areas in East Baltimore and along the riverfront.

N• Prepared the economic analysis for a proposed EB-5 regional center for the entire state of Florida that included impact calculations for 14 different types of industries.

N• Prepared the economic analysis for a proposed EB-5 regional center in the San Francisco Bay area that included calculations for 10 different types of industries.

N• Prepared economic impact calculations for proposed EB-5 regional centers in New York City and Northeastern New Jersey.

• Calculated the economic impact of a rehabilitated office building in Albuquerque, New Mexico, including the increase in high quality jobs. NEW MARKETS

• Calculated the economic impact of a rehabilitated skilled nursing center in East Los Angeles, California, including the impact on nearby census tracts. NEW MARKETS

N• Calculated the economic impact of development of warehouse and light industrial manufacturing space in Las Vegas, Nevada.

N• Calculated the economic impact of rehabilitation and expansion of a vacation and health spa in Sharon Springs, New York

N• Calculated economic impact of revitalizing an old resort hotel and adding new facilities for Lake Geneva, WI.

• Calculated the employment and tax effects for a portfolio of projects undertaken under the New Market capital program. NEW MARKETS

E• Calculated generic employment changes for proposed EB-5 project for an Inland Port in Palm Beach County, FL

N• Calculated the economic impact of construction of El Monte Village in El Monte, CA.

• Calculated the economic impact of moving the Social Security Administration building in Birmingham, AL, and revitalizing the surrounding neighborhood. NEW MARKETS

• Calculated the economic impact of rehabbing and expanding the Everett Mall in Everett, WA. NEW MARKETS

• Determined the economic impact of building a new medical center in Charleston, SC NEW MARKETS

N• Calculated economic impact of expanding Sugarbush resort in VT. Study included expansion of existing facilities and addition of new facilities.

• Calculated economic impact for new market tax credit program in Portsmouth, N.H. Study included both overall economic impact, and the increase in employment and income and the decrease in the unemployment rate and incidence of poverty in individual census tracts. NEW MARKETS

N• Calculated the economic benefits of EB-5 programs for foreign investors for a mixed-use construction project, including a hotel, retail stores, apartments, and a sports stadium in the Washington, D. C. metropolitan area

N• Calculated the economic benefits of EB-5 programs for a mixed-used retail shopping center in the New York City metropolitan area.

N• Calculated the economic benefits of EB-5 programs for foreign investors for proposed shopping centers in five separate counties in Southern California, including differential impacts of building the shopping centers in different counties.

B. Projects for State and Local Governments

• Constructed an econometric model for the State of New York and determined the change in employment, labor income, and tax revenues for 43 different tax changes proposed by the Governor's office.

• Constructed a detailed econometric model for the State of Pennsylvania to determine the economic impact of the complete panoply of state taxes levied; the model contains over 1,000 equations. In cooperation with American Economics Group, the model was developed to simulate the effect of changes in any state tax rate on households and businesses by income deciles, household status, age of individuals, size of households, and many other demographic variables. The change in business taxes can also be simulated for detailed industry classifications.

• Determined whether the Washington, D.C. water and sewer authority should accept a high bid for a new waste disposal system. Decision to reject has saved the authority over $200 million, as construction prices turned down sharply as predicted.

• Built an econometric model to determine the "tax gap" caused by Internet sales for the state of Minnesota.

• Determined appropriate levels of shelter grants individual counties in New York State, and for utility allowances in New York City. Reviewed and prepared testimony in ongoing court cases in these areas.

• Calculated the economic impact of the revitalization of downtown Milwaukee, Wisconsin.

C. Economic Impact of Casino Gaming

• Built an econometric model to predict the growth of the gaming industry over the next decade, and the economic impact of that industry on employment and tax revenues at the Federal and state levels.

• Estimated the economic impact of Indian casino gaming nationally and for the State of Wisconsin.

• Determined the economic impact of the Oneida Indian gaming casino on the Green Bay metropolitan area.

• Estimated the negative economic impact on the Milwaukee area if a new Indian gaming casino were to be built in Kenosha, Wisconsin.

D. Economic Impact of Smoking Bans and Higher Taxes

• Testified on economic impact of smoking bans in Canada; certified as an expert witness by the Court.

• Examined the impact of smoking bans on restaurant sales in several different locations in the U.S. to determine how much sales changed when these bans were imposed, and the differential effects depending on whether these bans were partial or total.

• Determined the cross-border effects on retail sales from differential rates in cigarette, gasoline, and alcohol excise taxes

• Determined the economic impact of higher cigarette taxes on minority group employment.

• Estimated the economic impact and loss of Federal and state tax revenues when higher cigarette prices lead to increased smuggling.

E. Consulting Projects for Travel and Tourism

• Built an econometric model to predict tourism trips and revenues for the major regions of the U.S. economy.

• Constructed econometric models to predict tourism in Las Vegas and Orlando.

• Using the IMPLAN model, predicted economic impact of tourism and travel expenditures for all counties in Pennsylvania.

F. Other Private Sector Consulting Projects

• Calculated the revenue gain at the Federal, state and local level generated by domestic manufacturing of Airbus parts and equipment.

• Calculated the economic impact of proposed EPA bans on fluoropolymer production.

• Estimated the size and economic importance of the fluoropolymer industry, and calculated economic impact of shutting down domestic production.

• Built an econometric model to examine how U.S. tax and regulatory policies help determine whether the gold mining industry would invest in the U.S. or other countries. Testified before Congress to help defeat legislation inimical to the mining industry.

• Built an econometric model to predict consumer bankruptcies, based on recent growth in consumer credit outstanding, the overall economic environment, and recent changes in credit regulations

• Estimated the economic impact of the ethanol subsidy on the U.S. economy and Farm Belt States, including the impact on the balance of payments, employment, and tax receipts. Testified before Congress to help pass legislation to extent subsidies to the ethanol industry.

• Built an econometric model to determine the impact of updating and improving the system of locks on the Upper Mississippi River on corn prices and exports, farm income, and the overall economy.

BOOKS PUBLISHED

Macroeconomics for Managers, Blackwell, 2003

Practical Business Forecasting, Blackwell, 2002

Economic Impact of the Demand for Ethanol, Diane Publishing Company, 1998

How to Make Your Shrinking Salary Support You in Style for the Rest of Your Life, Random House, 1991

The Truth About Supply-Side Economics. Basic Books, 1983.

A Supply-Side Model of the U. S. Economy, mimeo (prepared for Senate Finance Committee), 1980.

An Econometric Model of the French Economy: A Short-Term Forecasting Model. O.E.C.D, March 1969.

Econometric Gaming (with L. R. Klein and M. J. Hartley). Random House, 1969.

Macroeconomic Activity: Theory, Forecasting and Control. Harper & Row, 1969.

The Wharton Econometric Forecasting Model (with L.R. Klein), Economics Research Unit, Wharton School: University of Pennsylvania Press, 1967. Enlarged edition, 1968.

Over 30 articles in major academic journals and publications (list on request).

Exhibit D

FORM OF GENERAL CERTIFICATE

PENNSYLVANIA TURNPIKE COMMISSION

The undersigned officer of the Pennsylvania Turnpike Commission (the "Commission"), hereby certifies that on this April 26, 2013 that pursuant to Section 7.1(a)(iii) of the Loan Agreement dated April 26, 2013 (the "Loan Agreement") between Commission and DVRC Pennsylvania Turnpike, L.P. (the "Lender"), that he is the Chief Financial Officer and further certifies, to the best of his knowledge and belief after reasonable investigation, do hereby certify that:

1. The Commission is a duly constituted instrumentality of the Commonwealth of Pennsylvania.

2. The Loan Agreement and the other documents and certificates executed and delivered in connection therewith, have been duly authorized, executed, acknowledged and delivered by the Commission. The signatures of said officers thereon are their respective signatures.

3. The Loan Agreement has been executed and delivered in accordance with a resolution adopted by the Commission on March 19, 2013, attached hereto as Exhibit "A", which resolution is in full force and effect on the date hereof and has not been amended, modified or repealed since the date of adoption.

4. The Loan Agreement constitutes the legal, valid and binding obligations of the Commission enforceable against the Commission in accordance with its terms, except that such enforceability may be limited by bankruptcy, insolvency, reorganization, moratorium or other similar laws heretofore or hereafter enacted affecting creditors' rights generally to the extent constitutionally applicable and to the application of general equitable principles and the exercise of judicial discretion in appropriate cases whether such enforcement is sought in proceedings in equity or at law.

[signature page follows]

IN WITNESS WHEREOF, I have hereunto set my hand as Chief Financial Officer of the Commission as of the date first above written.

Name: Nikolaus Grieshaber
Title: Chief Financial Officer

Exhibit "A"

Resolution

Exhibit D-1

FORM OF GENERAL CERTIFICATE

PENNSYLVANIA TURNPIKE COMMISSION

The undersigned officer of the Pennsylvania Turnpike Commission (the "Commission"), hereby certifies that on this _____________, 2013 that pursuant to Section 7.1(b)(v) of the Loan Agreement dated ____________, 2013 (the "Loan Agreement") between Commission and DVRC Pennsylvania Turnpike, L.P. (the "Lender"), that he is the _______________ and further certifies, to the best of his knowledge and belief after reasonable investigation, do hereby certify that:

1. The Commission is a duly constituted instrumentality of the Commonwealth of Pennsylvania.

2. Supplemental Trust Indenture No. __, the Tranche __ Promissory Note issued pursuant to Supplemental Trust Indenture No. __ (collectively, the "Documents") and the other documents and certificates executed and delivered in connection therewith, have been duly authorized, executed, acknowledged and delivered by the Commission. The signatures of said officers thereon are their respective genuine signatures.

3. The Documents have been executed and delivered in accordance with a resolution adopted by the Commission on March 19, 2013 and _________, which resolutions are in full force and effect on the date hereof and have not been amended, modified or repealed since the date of adoption.

4. The Documents constitute the legal, valid and binding obligations of the Commission enforceable against the Commission in accordance with its terms, except that such enforceability is subject to bankruptcy, insolvency, reorganization, moratorium and other similar laws heretofore or hereafter enacted affecting creditors' rights generally to the extent constitutionally applicable and to the application of general equitable principles and the exercise of judicial discretion in appropriate cases whether such enforcement is sough in proceedings in equity or at law.

[signature page follows]

IN WITNESS WHEREOF, I have hereunto set my hand as [______________] of the Commission as of the date first above written.

____

Name:

Title:

Exhibit E

FORM OF OFFICER'S CERTIFICATE

PENNSYLVANIA TURNPIKE COMMISSION

This Certificate is furnished pursuant to [Section 7.1(a)] [Section 7.1(b)] of that certain Loan Agreement, dated as of _______________ (the "Loan Agreement"), by and between PENNSYLVANIA TURNPIKE COMMISSION, an instrumentality of the Commonwealth of Pennsylvania created by the State legislature (the "Commission"), and DVRC PENNSYLVANIA TURNPIKE, LP, a Pennsylvania limited partnership. Capitalized terms used herein, unless otherwise defined herein, shall have the meanings ascribed thereto in the Loan Agreement.

In connection therewith, the undersigned does hereby certify on behalf of the Commission in his capacity as an officer thereof, and not in any personal capacity, as follows:

1. [As of the date hereof][1] [At the time of and immediately after giving effect to the initial advance of the Tranche [1][2][3][4] Loan under the Loan Agreement][2], no Event of Default or Potential Event of Default shall have occurred and be continuing;

2. The representations and warranties of the Commission set forth in the Loan Agreement and the Loan Documents to which the Commission is a party are true and correct [in all material respects][3] on and as of the date hereof; and

3. As of the date hereof, Commission has obtained all permits and approvals required at the present stage of the Project, together with all other licenses, permits, approvals, consents and authorizations required by any Governmental Authority at the present stage of the Project (such authorizations shall include, without limitation, any authorization required by any Governmental Authority claiming jurisdiction over building, riparian and/or environmental matters).

[signature page follows]

[1] Use this language if executing on the Effective Date.

[2] Use this language if executing on the relevant Close-Out Date.

[3] Delete this language if executing on the Effective Date.

IN WITNESS WHEREOF, the undersigned has executed this Officer's Certificate as of the date first above written.

Name:
Title: [officer]

Exhibit F

PROJECT COMPLETION SCHEDULE

PA Turnpike / I-95 Interchange Project
Anticipated Cost to Construct Stage 1* (in Millions)

		2012	2013	2014	2015	2016	2017	2018	Total	Construction	Manufacture	Prof. Services	Finance, Insurance, Real Estate and Legal Services	Utilities	Total
										80.50%	6.40%	9.75%	2.75%	0.60%	100%
1	**Contract S-2**	$ 3.04	$ 6.18						$ 9.22	$ 7.42	$ 0.59	$ 0.90	$ 0.25	$ 0.06	$ 9.22
	Quarter 1		$ 2.50						$ 2.50	$ 2.01	$ 0.16	$ 0.24	$ 0.07	$ 0.02	
	Quarter 2		$ 2.50						$ 2.50	$ 2.01	$ 0.16	$ 0.24	$ 0.07	$ 0.02	
	Quarter 3	$ 1.50	$ 1.18						$ 2.68	$ 2.16	$ 0.17	$ 0.26	$ 0.07	$ 0.02	
	Quarter 4	$ 1.54							$ 1.54	$ 1.24	$ 0.10	$ 0.15	$ 0.04	$ 0.01	
2	***Contract ENV-1***	$ 0.40							$ 0.40	$ 0.32	$ 0.03	$ 0.04	$ 0.01	$ 0.00	$ 0.40
	Quarter 1								$ [illegible]	$ -	$ -	$ -	$ -	$ -	
	Quarter 2	$ 0.15							$ 0.15	$ 0.12	$ 0.01	$ 0.01	$ 0.00	$ 0.00	
	Quarter 3	$ 0.15							$ 0.15	$ 0.12	$ 0.01	$ 0.01	$ 0.00	$ 0.00	
	Quarter 4	$ 0.10							$ 0.10	$ 0.08	$ 0.01	$ 0.01	$ 0.00	$ 0.00	
3	**Contract ITS - ADV**	$ 0.61	$ 3.45						$ [illegible]	$ 3.26	$ 0.26	$ 0.40	$ 0.11	$ 0.02	$ 4.05
	Quarter 1		$ 0.75						$ 0.75	$ 0.60	$ 0.05	$ 0.07	$ 0.02	$ 0.00	
	Quarter 2		$ 1.00						$ 1.00	$ 0.81	$ 0.06	$ 0.10	$ 0.03	$ 0.01	
	Quarter 3	$ 0.10	$ 1.00						$ 1.10	$ 0.89	$ 0.07	$ 0.11	$ 0.03	$ 0.01	
	Quarter 4	$ 0.50	$ 0.70						$ 1.20	$ 0.97	$ 0.08	$ 0.12	$ 0.03	$ 0.01	
4	**Contract S-3**	$ 2.13	$ 6.38						$ 8.51	$ 6.85	$ 0.54	$ 0.83	$ 0.23	$ 0.05	$ 8.51
	Quarter 1		$ 1.20						$ 1.20	$ 0.97	$ 0.08	$ 0.12	$ 0.03	$ 0.01	
	Quarter 2		$ 2.50						$ 2.50	$ 2.01	$ 0.16	$ 0.24	$ 0.07	$ 0.02	
	Quarter 3	$ 1.00	$ 2.50						$ 3.50	$ 2.82	$ 0.22	$ 0.34	$ 0.10	$ 0.02	
	Quarter 4	$ 1.13	$ 0.18						$ 1.31	$ 1.05	$ 0.08	$ 0.13	$ 0.04	$ 0.01	
5	**Contract B-1**		$ 17.50	$ 39.38	$ 26.26	$ 4.38			$ 87.52	$ 70.45	$ 5.60	$ 8.53	$ 2.41	$ 0.53	$ 87.52
	Quarter 1			$ 8.50	$ 6.00	$ 4.38			$ 18.88	$ 15.20	$ 1.21	$ 1.84	$ 0.52	$ 0.11	
	Quarter 2		$ 0.50	$ 11.00	$ 7.50				$ 19.00	$ 15.30	$ 1.22	$ 1.85	$ 0.52	$ 0.11	
	Quarter 3		$ 8.50	$ 11.00	$ 7.50				$ 27.00	$ 21.74	$ 1.73	$ 2.63	$ 0.74	$ 0.16	
	Quarter 4		$ 8.50	$ 8.88	$ 5.25				$ 22.63	$ 18.22	$ 1.45	$ 2.21	$ 0.62	$ 0.14	
6	**Contract ENV-2**		$ 1.82						$ 1.82	$ 1.46	$ 0.12	$ 0.18	$ 0.05	$ 0.01	$ 1.82
	Quarter 1								$ [illegible]	$ -	$ -	$ -	$ -	$ -	
	Quarter 2								$ [illegible]	$ -	$ -	$ -	$ -	$ -	
	Quarter 3		$ 1.20						$ 1.20	$ 0.97	$ 0.08	$ 0.12	$ 0.03	$ 0.01	
	Quarter 4		$ 0.62						$ 0.62	$ 0.50	$ 0.04	$ 0.06	$ 0.02	$ 0.00	
7	**Contract D-10**			$ 56.38	$ 56.38	$ 48.32			$ 161.07	$ 129.66	$ 10.31	$ 15.70	$ 4.43	$ 0.97	$ 161.07
	Quarter 1			$ 10.00	$ 10.00	$ 10.00			$ 30.00	$ 24.15	$ 1.92	$ 2.93	$ 0.83	$ 0.18	
	Quarter 2			$ 18.00	$ 18.00	$ 14.00			$ 50.00	$ 40.25	$ 3.20	$ 4.88	$ 1.38	$ 0.30	
	Quarter 3			$ 18.00	$ 18.00	$ 14.00			$ 50.00	$ 40.25	$ 3.20	$ 4.88	$ 1.38	$ 0.30	
	Quarter 4			$ *10.38*	$ *10.38*	$ *10.32*			$ [illegible]	$ 25.02	$ 1.99	$ 3.03	$ 0.85	$ 0.19	
8	**Contract ITS - MAIN**			$ 1.31	$ 2.62	$ 2.62	$ 2.18	$ -	$ 8.73	$ 7.03	$ 0.56	$ 0.85	$ 0.24	$ 0.05	$ 8.73
	Quarter 1				$ 0.60	$ 0.60	$ 0.40		$ 1.60	$ 1.29	$ 0.10	$ 0.16	$ 0.04	$ 0.01	
	Quarter 2				$ 0.71	$ 0.71	$ 0.60		$ 2.02	$ 1.63	$ 0.13	$ 0.20	$ 0.06	$ 0.01	
	Quarter 3			$ 0.71	$ 0.71	$ 0.71	$ 0.60		$ 2.73	$ 2.20	$ 0.17	$ 0.27	$ 0.08	$ 0.02	
	Quarter 4			$ 0.60	$ 0.60	$ 0.60	$ 0.58		$ 2.38	$ 1.92	$ 0.15	$ 0.23	$ 0.07	$ 0.01	
9#	Contract E-1								$ [illegible]	$ -	$ -	$ -	$ -	$ -	$ -
	Quarter 1								$ [illegible]	$ -	$ -	$ -	$ -	$ -	
	Quarter 2								$ [illegible]	$ -	$ -	$ -	$ -	$ -	
	Quarter 3								$ [illegible]	$ -	$ -	$ -	$ -	$ -	
	Quarter 4								$ [illegible]	$ -	$ -	$ -	$ -	$ -	
10	**Contract D-20**				$ 33.83	$ 40.59	$ 40.59	$ 20.30	$ [illegible]	$ 108.92	$ 8.66	$ 13.19	$ 3.72	$ 0.91	$ 135.30
	Quarter 1				$ 6.00	$ 8.00	$ 8.00	$ 9.00	$ 31.00	$ 24.96	$ 1.98	$ 3.02	$ 0.85	$ 0.19	
	Quarter 2				$ 10.00	$ 11.00	$ 11.00	$ 11.30	$ 43.30	$ 34.86	$ 2.77	$ 4.22	$ 1.19	$ 0.26	
	Quarter 3				$ 10.00	$ 11.00	$ 11.00		$ 32.00	$ 25.76	$ 2.05	$ 3.12	$ 0.88	$ 0.19	
	Quarter 4				$ *7.83*	$ *10.59*	$ *10.59*		$ [illegible]	$ 23.35	$ 1.86	$ 2.83	$ 0.80	$ 0.17	
	Total	$ 6.18	$ 36.32	$ 97.07	$ 119.08	$ 95.91	$ 42.77	$ 20.30	$ 416.62	$ 336.38	$ 26.66	$ 40.62	$ 11.46	$ 2.60	$ 416.62
	Quarter 1	$ -	$ 4.45	$ 18.50	$ 22.60	$ 22.98	$ 8.40	$ 9.00	$ [illegible]						
	Quarter 2	$ 0.15	$ 6.50	$ 29.00	$ 36.21	$ 25.71	$ 11.60	$ 11.30	$ 120.47						
	Quarter 3	$ 2.75	$ 14.38	$ 29.71	$ 36.21	$ 25.71	$ 11.60	$ -	$ [illegible]						
	Quarter 4	$ 3.27	$ 10.00	$ 19.86	$ 24.06	$ 21.51	$ 11.17	$ -	$ [illegible]						

The above costs include the final construction costs (YOE) from the latest cost estimate for each section, as well as construction and design contingency, change order contingency, final right-of-way, final design and construction engineering.

	Construction	Manufacture	Prof. Services	Finance, Insurance, Real Estate and Legal Services	Utilities	
	85%	10%	95%	80%	50%	^ Regional Share
$ 336.7	$ 285.1	$ 2.7	$ 38.6	$ 9.2	$ 1.2	^ Regional Totals

^ Region defined as 9-County DVRPC Region in PA and NJ

NOTES

- * Stage 1 completes the I-95 connection and re-designates the interstates
- 1 Richlieu Road Bridge over PA Turnpike Mainline
- 2 I-95 Wetland Mitigation Site
- 3 I-95 ITS Advanced ITS
- 4 Ford Road Bridge over I-95
- 5 I-95 B Mainline and Delaware River Toll Plazas
- 6 Mill Creek Stream Mitigation
- 7 I-95 Interchange Mainline Turnpike Reconstruction from I-95 through Interchange 358
- 8 I-95 ITS Mainline Contract
- 9# I-95 E Route 13 Ramps and At-Grade Interchange (costs for this contract included in D10 totals for FY 2015 and 2016)
- 10 I-95 D Interchange Flyovers and I-95 South Reconstruction

*Stage 1 is the first of three defined stages of the project. It completes and redesignates I-95, provides required capacity improvements and converts the tolling system.

Feb-13