

EAST COCALICO TOWNSHIP

Lancaster County, Pennsylvania

RESOLUTION NO. 2013-08

A RESOLUTION OF THE BOARD OF SUPERVISORS OF EAST COCALICO TOWNSHIP APPROVING AMENDMENTS TO THE TRANSPORTATION CAPITAL IMPROVEMENTS PLAN.

WHEREAS, by Act 209 of 1990, which amended the Pennsylvania Municipalities Planning Code ("MPC") to include Article V-A, Municipal Capital Improvement, the General Assembly provided specific statutory authority for municipalities to impose transportation impact fees; and

WHEREAS, the General Assembly has amended MPC Article V-A from time to time; and

WHEREAS, in accordance with the authority granted by Act 209, as amended, and following the procedures set forth in Act 209, as amended, the Board of Supervisors of this Township appointed the East Cocalico Township Transportation Impact Fee Advisory Committee (the "Advisory Committee"), which Advisory Committee undertook the actions required by the MPC to enable the Board of Supervisors to enact an ordinance imposing transportation impact fees including, but not limited to, the adoption of the Land Use Assumptions Report, the adoption of a Transportation Capital Improvements Plan, and the adoption of a Transportation Capital Improvements Plan; and

WHEREAS, the Advisory Committee and the Board of Supervisors took all actions required by Act 209 and the Board of Supervisors enacted Ordinance No. 2011-1, the East Cocalico Township Impact Fee Ordinance, codified as Chapter 203, Transportation Impact Fees, of the Code of Ordinances on April 6, 2011; and

WHEREAS, as authorized by Act 209, the Advisory Committee has worked with the Township Transportation Engineer, Rettew Associates, Inc., to prepare an update to the Transportation Capital Improvements Plan; and

WHEREAS, the Advisory Committee has reviewed the amendments to the Transportation Capital Improvements Plan and authorized transmission of the proposed amendments to the Transportation Capital Improvements Plan set forth in this Resolution to the Board of Supervisors in accordance with MPC Section 504-A(e)(3) by its Resolution No. 2013-02; and

WHEREAS, the Board of Supervisors desires to so amend the Transportation Capital Improvements Plan.

NOW, THEREFORE, BE AND IT IS HEREBY RESOLVED by the Board of Supervisors of East Cocalico Township as follows:

Section 1. The foregoing background recitals are incorporated herein and constitute part of this Resolution.

Section 2. The East Cocalico Township Transportation Capital Improvements Plan, as adopted by the Board of Supervisors by Resolution No. 2011-5 on March 16, 2011, shall be amended as follows:

- A. Within Table 1, East Cocalico Impact Fee Ordinance Capital Improvement Plan Project Summary, delete the existing information relating to Project Codes identified in Exhibit "A" and insert the information relating to Project Codes attached hereto as Exhibit "A" and incorporated herein.
- B. Delete the existing information for Project Codes identified in Exhibit "B" and substitute the revised detailed description for the Project Codes attached hereto as Exhibit "B" and incorporated herein.

Section 3. In the event any provision, section, sentence, clause, or part of this Resolution shall be held to be invalid, illegal, or unconstitutional by a court of competent jurisdiction, such invalidity, illegality, or unconstitutionality shall not affect or impair the remaining provisions, sections, sentences, clauses, or parts of this Resolution, it being the intent of the Board of Supervisors that the remainder of the Resolution shall be and shall remain in full force and effect.

Section 4. This Resolution shall take effect and be in force immediately.

DULY ADOPTED this 7th day of August, 2013, by the Board of Supervisors of East Cocalico Township in lawful session duly assembled.

TOWNSHIP OF EAST COCALICO
Lancaster County, Pennsylvania

Attest: Noelle B. Fortna
Noelle B. Fortna
Board of Supervisors Secretary

By: Douglas B. Mackley
Douglas B. Mackley
Board of Supervisors Chairman

[TOWNSHIP SEAL]

EXHIBIT "A"

EAST COCALICO TOWNSHIP IMPACT FEE ORDINANCE CAPITAL IMPROVEMENT PLAN PROJECTS SUMMARY
TABLE 1

Map Number	Project Code	Intersection or Roadway Segment	Improvement Project Description	Construction Year	Total Project Cost (dollars)	State/ Federal Funding (dollars)	Other Funding (dollars)	Western District Impact Fee (dollars)	Eastern District Impact Fee (dollars)	Southern District Impact Fee (dollars)
-	S01	Denver Road Bridge (T-901)	Widen to 12' lanes with 6' shoulders (upgrade to community collector)	2014	\$1,394,458.10	\$0.00	\$0.00	\$1,394,458.10	\$0.00	\$0.00
-	I03	Church Street (SR 1051) & Reamstown Road (T-700)	Install a traffic signal.	2024	\$556,237.16	\$0.00	\$183,558.26	\$0.00	\$0.00	\$372,678.90
1	I04A	Church Street (SR 1051) & Route 272	Construct a westbound left turn lane and right turn lane, remove/install two signal poles, curb	2019	\$859,521.90	\$0.00	\$429,760.95	\$0.00	\$0.00	\$429,760.95
1	I04B	Church Street (SR 1051) & Route 272	Construct a Eastbound left turn lane and right turn lane, remove/install two signal poles, curb	2019	\$797,319.67	\$0.00	\$398,659.83	\$398,659.83	\$0.00	\$0.00
-	S05	Route 897, west of Route 272	Widen to 12' lanes with 6' shoulders.	2034	\$3,419,553.76	\$3,419,553.76	\$0.00	\$0.00	\$0.00	\$0.00
-	I06	Colonel George Howard Boulevard (SR 1040) & Leshar Road (T-949)	Project not feasible- Will interfere with future interchange projects	2034	\$210,311.70	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
-	I07	Colonel George Howard Boulevard (SR 1040) & Route 222 southbound Ramps	Construct a clover-leaf interchange.	2027	\$8,332,895.74	\$8,332,895.74	\$0.00	\$0.00	\$0.00	\$0.00
-	I08	Colonel George Howard Boulevard (SR 1040) & Route 222 northbound Ramps	Construct a clover-leaf interchange.	2027	\$8,332,895.74	\$8,332,895.74	\$0.00	\$0.00	\$0.00	\$0.00
2	I09A	Colonel George Howard Boulevard (SR 1040) & Pepperidge Farm Boulevard (T-902)	Construct a 2nd northbound left turn lane (Left-Left-Thru-Right configuration).	2019	\$188,954.04	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2	I09B	Colonel George Howard Boulevard (SR 1040) & Pepperidge Farm Boulevard (T-902)	I09B Deleted- Work roled into I09A "Construct a northbound right turn lane."	2034	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2	I09C	Colonel George Howard Boulevard (SR 1040) & Pepperidge Farm Boulevard (T-902)	Construct dual southbound left turn lanes. Maintain existing SB RT Lane and Thru lane.	2019	\$551,868.90	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2	I09D	Colonel George Howard Boulevard (SR 1040) & Pepperidge Farm Boulevard (T-902)	I09D Deleted- Work roled into I09C "Construct a southbound right turn lane."	2034	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
-	I10	Colonel George Howard Boulevard (SR 1040) & Reamstown Road (T-700)	Install a traffic signal.	2027	\$440,885.66	\$220,442.83	\$0.00	\$0.00	\$218,238.40	\$2,204.43
3	I11A	Colonel George Howard Boulevard (SR 1040) / Denver Road (T-901) & Route 272	Construct a 2nd westbound left turn lane on Col Howard Blvd.	2027	\$401,463.59	\$401,463.59	\$0.00	\$0.00	\$0.00	\$0.00
3	I11B	Colonel George Howard Boulevard (SR 1040) / Denver Road (T-901) & Route 272	Prohibit left turns and thru movements exiting the eastbound approach. Project I30 is required prerequisite or concurrently.	2034	\$771,052.41	\$385,526.21	\$0.00	\$3,855.26	\$377,815.68	\$3,855.26
3	I11C	Colonel George Howard Boulevard (SR 1040) / Denver Road (T-901) & Route 272	Construct a 2nd northbound right turn lane.	2029	\$130,352.11	\$65,176.06	\$0.00	\$651.76	\$63,872.53	\$651.76
3	I11D	Colonel George Howard Boulevard (SR 1040) / Denver Road (T-901) & Route 272	Construct a 2nd westbound right turn lane.	2029	\$153,610.63	\$76,805.31	\$0.00	\$768.05	\$75,269.21	\$768.05
-	I13	Route 272 & Hill Road (T-846)	Install a traffic signal.	2016	\$293,762.52	\$0.00	\$96,941.63	\$131,869.99	\$64,950.89	\$0.00
-	I14	Route 272 & Muddy Creek Road (T-816)	Install a traffic signal.	2017	\$406,410.65	\$0.00	\$406,410.65	\$0.00	\$0.00	\$0.00
-	I15A	Route 272 & Route 897	Construct a 2nd northbound left turn lane on SR 272	2034	\$642,663.03	\$642,663.03	\$0.00	\$0.00	\$0.00	\$0.00
-	I15B	Route 272 & Route 897	Construct a 2nd westbound left turn lane on SR 897.	2034	\$385,583.70	\$385,583.70	\$0.00	\$0.00	\$0.00	\$0.00
-	I15C	Route 272 & Route 897	Construct an eastbound right turn lane on SR 897.	2034	\$277,117.93	\$277,117.93	\$0.00	\$0.00	\$0.00	\$0.00

EXHIBIT "A" - (continued)

EAST COCALICO TOWNSHIP IMPACT FEE ORDINANCE CAPITAL IMPROVEMENT PLAN PROJECTS SUMMARY
TABLE 1

Map Number	Project Code	Intersection or Roadway Segment	Improvement Project Description	Construction Year	Total Project Cost (dollars)	State/ Federal Funding (dollars)	Other Funding (dollars)	Western District Impact Fee (dollars)	Eastern District Impact Fee (dollars)	Southern District Impact Fee (dollars)
4	I18	Route 272 & Pepperidge Farm Driveway	Realign and Signalize with Route 272 & Hill Road (T-846).	2029	\$1,621,883.32	\$0.00	\$0.00	\$0.00	\$1,621,883.32	\$0.00
5	I22	Muddy Creek Road (SR 1059) & Trost Road (T-953)	Project Deleted. Not feasible- PENNDOT will not permit installation of All-Way Stop Control	2034	\$858,331.71	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2	S22	Colonel George Howard Boulevard (SR 1040)	Construct additional 3rd thru lanes (triple thrus in each direction between Route 272 and the first Route 222 ramp). Tie into SR 222 Interchange work (I07 and I08).	2027	\$4,645,885.90	\$3,716,708.72	\$0.00	\$0.00	\$380,962.64	\$548,214.54
-	I23	Muddy Creek Road (SR 1059) & Stone Hill Road (T-862)	Install all-way stop control.	2034	\$3,044.63	\$1,522.31	\$0.00	\$0.00	\$1,522.31	\$0.00
-	S24	Route 897, east of Route 272	Construct additional thru lanes.	2034	\$8,721,472.13	\$8,721,472.13	\$0.00	\$0.00	\$0.00	\$0.00
-	I25	Stevens Road (SR 1045) & Wabash Road (T-669) / Indiantown Road (West Cocalico Township)	Install a traffic signal.	2024	\$526,229.06	\$0.00	\$526,229.06	\$0.00	\$0.00	\$0.00
-	I26	Stevens Road (SR 1045) / Line Road (SR 1045) & Sevens Road (SR 1030) / south Main Street (West Cocalico Township)	Install a traffic signal.	2024	\$526,229.06	\$0.00	\$526,229.06	\$0.00	\$0.00	\$0.00
-	S26	Route 272, south of Colonel George Howard Boulevard (SR 1040)	Construct additional thru lanes.	2034	\$25,507,861.27	\$25,507,861.27	\$0.00	\$0.00	\$0.00	\$0.00
-	S26	Route 272, south of Colonel George Howard Boulevard (SR 1040)	Construct additional thru lanes.	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
-	S27	Route 272, north of Colonel George Howard Boulevard (SR 1040)	Construct additional thru lanes.	2034	\$9,365,814.08	\$9,365,814.08	\$0.00	\$0.00	\$0.00	\$0.00
-	S27	Route 272, north of Colonel George Howard Boulevard (SR 1040)	Construct additional thru lanes.	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
-	S28	Church Street (SR 1051), between Route 272 & Red Run Road (SR 1044)	Widen to 11' lanes with 4' shoulders.	2034	\$1,042,602.54	\$1,042,602.54	\$0.00	\$0.00	\$0.00	\$0.00
-	S29	Church Street (SR 1051), between Red Run Road (SR 1044) & Napierville	Widen to 12' lanes with 4' shoulders.	2034	\$849,743.50	\$849,743.50	\$0.00	\$0.00	\$0.00	\$0.00
6	I30	Route 272 & Denver Road (T-90)	Construct a new eastbound approach with dual left turn lanes and a shared right turn lane. Install a traffic signal. Construct a northbound left turn lane.	2034	\$1,055,896.50	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Subtotal 2010 Existing					\$35,280,086	\$34,873,675	\$406,411	\$0	\$0	\$0
Subtotal 2034 Base					\$28,996,293	\$27,943,835	\$1,052,458	\$0	\$0	\$0
Subtotal Developer Projects					\$740,823	\$0	\$0	\$0	\$0	\$0
Subtotal PennDOT Project					\$4,462,156	\$4,462,156	\$0	\$0	\$0	\$0
Subtotal 2034 Projected					\$12,074,425	\$4,466,181	\$1,515,331	\$1,930,263	\$2,804,515	\$1,358,134
Consultant					\$79,100	-	-	\$1,230.73	\$2,704.29	\$1,249.65
Subtotal								\$1,931,494	\$2,807,219	\$1,359,384
10 Percent Contingency								\$193,149	\$280,722	\$135,938
Total Fee								\$2,124,643	\$3,087,941	\$1,495,322
Total of New Trip Ends								940	2,073	956
Trips At Existing \$1,000 Fee (Approved but not constructed)								0	0	0
Adjusted Total Fee								\$2,124,643	\$3,087,941	\$1,495,322
Adjusted Total of New Trip Ends								940	2,073	956
Calculated Fee Per Trip								\$2,260	\$1,490	\$1,564
Current Fee by Ordinance								\$1,512	\$1,507	\$1,510

Legend

	2010 Existing Mitigation
	2034 Base Mitigation
	Selected Project
	Candidate Project
	Developer Project
	PennDOT Project

EXHIBIT "B"

PROJECT CODE: I13

TRANSPORTATION DISTRICT:

Eastern/Western District

LOCATION:

Route 272 & Hill Road (T-846)

DEFICIENCY:

The current intersection is deficient with 2010 existing traffic volumes.

PROPOSED IMPROVEMENTS:

Install a traffic signal.

ESTIMATED COST SUMMARY:

(Current Year 2010 Dollars)

Construction	187,500
Utility Relocation	0
Right-of-Way	0
Engineering	21,563
Inspection	15,000
Admin & Planning	2,813
TOTAL	\$226,875

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year

2016

Projected Construction Cost

\$293,763

Inflation Rate: 3.76%

PROPOSED FUNDING:

State/Federal	0%	\$0
Other	33%	\$96,942
Impact Fees	67%	\$196,821

PROJECT SCHEDULE:

	Year
Secure Funding	2014
Acquire ROW	2015
Compete Engineering	2015
Begin Construction	2016

TRANSPORTATION DISTRICT COST:

Western District	67%	\$131,870
Eastern District	33%	\$64,951
Southern District	0%	\$0

REMARKS:

EXHIBIT "B" - (continued)

EAST COCALICO TOWNSHIP CAPITAL IMPROVEMENT PLAN - COST ESTIMATE SHEET

Project Number		I13	Done By: BDE		Checked: MJR	
Description			Cost	Unit	Quantity	Total
Construction Items						
Traffic Signals						
New Signal (4-way)			\$200,000.00	Each	0	\$0.00
New Signal (3-way)			\$150,000.00	Each	1	\$150,000.00
Signal Modifications			\$20,000.00	Each	0	\$0.00
Emergency Vehicle Preemption Only			\$10,000.00	Each	0	\$0.00
Pavement						
1.5" Pavement Overlay and Milling			\$7.00	Square Yard	0	\$0.00
New Pavement - Arterial Roads			\$46.00	Square Yard	0	\$0.00
New Pavement - Collector Roads			\$40.00	Square Yard	0	\$0.00
New Pavement - Local Commercial Roads			\$34.00	Square Yard	0	\$0.00
New Pavement - Local Residential Roads			\$29.00	Square Yard	0	\$0.00
4" PBD			\$7.25	Linear Foot	0	\$0.00
Excavation						
Excavation (Borrow)			\$12.00	Cubic Yard	0	\$0.00
Drainage						
Inlet/Manhole			\$2,400.00	Each	0	\$0.00
Pipe and Trenching			\$55.00	Linear Foot	0	\$0.00
Culvert			\$700.00	Linear Foot	0	\$0.00
Pavement Markings						
4" Pavement Markings			\$2.00	Linear Foot	0	\$0.00
8" Pavement Markings			\$8.00	Linear Foot	0	\$0.00
Miscellaneous						
Guide Rail			\$18.00	Linear Foot	0	\$0.00
Concrete Curb			\$35.00	Linear Foot	0	\$0.00
Bituminous Wedge Curb			\$7.00	Linear Foot	0	\$0.00
Other Miscellaneous						
Post Mounted Signs			\$200.00	Each	0	\$0.00
Other						\$0.00
Construction Subtotal:						\$150,000.00
Mobilization		5.0%	Of Construction Total		\$7,500.00	
Maintenance and Protection of Traffic		5.0%	Of Construction Total		\$7,500.00	
Contingency		15.0%	Of Construction Total		\$22,500.00	
Total Construction:						\$187,500.00
Utility Relocation						
Utility Pole Relocation			\$3,300.00	Each	0	\$0.00
Electric Service			\$2,000.00	Each	0	\$0.00
Water/ Gas Valves			\$250.00	Each	0	\$0.00
Fire Hydrant Relocation			\$1,000.00	Each	0	\$0.00
High Tension Electric Poles			\$130,000.00	Each	0	\$0.00
Sanitary Manhole			\$2,400.00	Each	0	\$0.00
Other			\$5,000.00	Project	0	\$0.00
Utility Subtotal:						\$0.00
Contingency		15.0%	Of Utility Subtotal		\$0.00	
Total Utility Relocation:						\$0.00
Right-of-Way						
Right-of-Way - Urban			\$150,000.00	Acres	0	\$0.00
Right-of-Way - Rural			\$120,000.00	Acres	0	\$0.00
Construction Easement (75% of ROW)				Acres	0	\$0.00
Structures			\$180,000.00	Each	0	\$0.00
Right-of-Way Subtotal:						\$0.00
Contingency		15.0%	Of Right-of-Way Subtotal		\$0.00	
Total Right-of-Way:						\$0.00
Engineering		11.5%	Of Construction Total		\$21,562.50	
Construction Inspection		8.0%	Of Construction Total		\$15,000.00	
Administration and Planning		1.5%	Of Construction Total		\$2,812.50	
Total Project Cost:						\$226,875.00

EXHIBIT "B" - (continued)

PROJECT CODE: I14

TRANSPORTATION DISTRICT:

Eastern/Western District

LOCATION:

Route 272 & Muddy Creek Road (T-816)

DEFICIENCY:

The current intersection is deficient with 2010 existing traffic volumes.

PROPOSED IMPROVEMENTS:

Install a traffic signal.

ESTIMATED COST SUMMARY:

(Current Year 2010 Dollars)

Construction	250,000
Utility Relocation	0
Right-of-Way	0
Engineering	28,750
Inspection	20,000
Admin & Planning	3,750
TOTAL	\$302,500

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year

2017

Projected Construction Cost

\$406,411

Inflation Rate: 3.76%

PROPOSED FUNDING:

State/Federal

0%

\$0

Other

100.0%

\$406,411

Impact Fees

0.0%

\$0

PROJECT SCHEDULE:

Secure Funding

Year

2015

Acquire ROW

2016

Compete Engineering

2016

Begin Construction

2017

TRANSPORTATION DISTRICT COST:

Western District

62.5%

\$0

Eastern District

37.5%

\$0

Southern District

0.0%

\$0

REMARKS:

EXHIBIT "B" - (continued)

EAST COCALICO TOWNSHIP CAPITAL IMPROVEMENT PLAN - COST ESTIMATE SHEET

Project Number		I14	Done By: BDE		Checked: MJR	
Description			Cost	Unit	Quantity	Total
Construction Items						
Traffic Signals						
New Signal (4-way)			\$200,000.00	Each	1	\$200,000.00
New Signal (3-way)			\$150,000.00	Each	0	\$0.00
Signal Modifications			\$20,000.00	Each	0	\$0.00
Emergency Vehicle Preemption Only			\$10,000.00	Each	0	\$0.00
Pavement						
1.5" Pavement Overlay and Milling			\$7.00	Square Yard	0	\$0.00
New Pavement - Arterial Roads			\$46.00	Square Yard	0	\$0.00
New Pavement - Collector Roads			\$40.00	Square Yard	0	\$0.00
New Pavement - Local Commercial Roads			\$34.00	Square Yard	0	\$0.00
New Pavement - Local Residential Roads			\$29.00	Square Yard	0	\$0.00
4" PBD			\$7.25	Linear Foot	0	\$0.00
Excavation						
Excavation (Borrow)			\$12.00	Cubic Yard	0	\$0.00
Drainage						
Inlet/Manhole			\$2,400.00	Each	0	\$0.00
Pipe and Trenching			\$55.00	Linear Foot	0	\$0.00
Culvert			\$700.00	Linear Foot	0	\$0.00
Pavement Markings						
4" Pavement Markings			\$2.00	Linear Foot	0	\$0.00
8" Pavement Markings			\$8.00	Linear Foot	0	\$0.00
Miscellaneous						
Guide Rail			\$18.00	Linear Foot	0	\$0.00
Concrete Curb			\$35.00	Linear Foot	0	\$0.00
Bituminous Wedge Curb			\$7.00	Linear Foot	0	\$0.00
Other Miscellaneous						
Post Mounted Signs			\$200.00	Each	0	\$0.00
Other						\$0.00
Construction Subtotal:						\$200,000.00
Mobilization		5.0%	Of Construction Total		\$10,000.00	
Maintenance and Protection of Traffic		5.0%	Of Construction Total		\$10,000.00	
Contingency		15.0%	Of Construction Total		\$30,000.00	
Total Construction:						\$250,000.00
Utility Relocation						
Utility Pole Relocation			\$3,300.00	Each	0	\$0.00
Electric Service			\$2,000.00	Each	0	\$0.00
Water/ Gas Valves			\$250.00	Each	0	\$0.00
Fire Hydrant Relocation			\$1,000.00	Each	0	\$0.00
High Tension Electric Poles			\$130,000.00	Each	0	\$0.00
Sanitary Manhole			\$2,400.00	Each	0	\$0.00
Other			\$5,000.00	Project	0	\$0.00
Utility Subtotal:						\$0.00
Contingency		15.0%	Of Utility Subtotal		\$0.00	
Total Utility Relocation:						\$0.00
Right-of-Way						
Right-of-Way - Urban			\$150,000.00	Acres	0	\$0.00
Right-of-Way - Rural			\$120,000.00	Acres	0	\$0.00
Construction Easement (75% of ROW)				Acres	0	\$0.00
Structures			\$180,000.00	Each	0	\$0.00
Right-of-Way Subtotal:						\$0.00
Contingency		15.0%	Of Right-of-Way Subtotal		\$0.00	
Total Right-of-Way:						\$0.00
Engineering		11.5%	Of Construction Total		\$28,750.00	
Construction Inspection		8.0%	Of Construction Total		\$20,000.00	
Administration and Planning		1.5%	Of Construction Total		\$3,750.00	
Total Project Cost:						\$302,500.00

EXHIBIT "B" - (continued)

PROJECT CODE: S26

TRANSPORTATION DISTRICT:

Western/Southern District

LOCATION:

Route 272, south of Colonel George Howard Boulevard (SR 1040)

DEFICIENCY:

The current roadway segment is deficient with 2010 existing traffic volumes

PROPOSED IMPROVEMENTS:

Construct additional thru lanes.

ESTIMATED COST SUMMARY:

(Current Year 2010 Dollars)

Construction	5,688,353
Utility Relocation	519,340
Right-of-Way	2,735,116
Engineering	654,161
Inspection	455,068
Admin & Planning	85,325
TOTAL	\$10,137,362

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year

2034

Inflation Rate: 3.76%

Projected Construction Cost

\$25,507,861

PROPOSED FUNDING:

State/Federal	100%	\$25,507,861
Other	0%	\$0
Impact Fees	0%	\$0

PROJECT SCHEDULE:

	Year
Secure Funding	2032
Acquire ROW	2033
Compete Engineering	2033
Begin Construction	2034

TRANSPORTATION DISTRICT COST:

Western District	50%	\$0
Eastern District	0%	\$0
Southern District	50%	\$0

REMARKS:

EXHIBIT "B" - (continued)

EAST COCALICO TOWNSHIP CAPITAL IMPROVEMENT PLAN - COST ESTIMATE SHEET

Project Number		S26	Done By: BDE		Checked: MJR	
Description			Cost	Unit	Quantity	Total
Construction Items						
Traffic Signals						
New Signal (4-way)			\$200,000.00	Each	4	\$800,000.00
New Signal (3-way)			\$150,000.00	Each	0	\$0.00
Signal Modifications			\$20,000.00	Each	0	\$0.00
Emergency Vehicle Preemption Only			\$10,000.00	Each	0	\$0.00
Pavement						
1.5" Pavement Overlay and Milling			\$7.00	Square Yard	0	\$0.00
New Pavement - Arterial Roads			\$46.00	Square Yard	50667	\$2,330,682.00
New Pavement - Collector Roads			\$40.00	Square Yard	0	\$0.00
New Pavement - Local Commercial Roads			\$34.00	Square Yard	0	\$0.00
New Pavement - Local Residential Roads			\$29.00	Square Yard	0	\$0.00
4" PBD			\$7.25	Linear Foot	38000	\$275,500.00
Excavation						
Excavation (Borrow)			\$12.00	Cubic Yard	0	\$0.00
Drainage						
Inlet/Manhole			\$2,400.00	Each	7	\$16,800.00
Pipe and Trenching			\$55.00	Linear Foot	0	\$0.00
Culvert			\$700.00	Linear Foot	24	\$16,800.00
Pavement Markings						
4" Pavement Markings			\$2.00	Linear Foot	76000	\$152,000.00
8" Pavement Markings			\$8.00	Linear Foot	0	\$0.00
Miscellaneous						
Guide Rail			\$18.00	Linear Foot	1800	\$32,400.00
Concrete Curb			\$35.00	Linear Foot	0	\$0.00
Bituminous Wedge Curb			\$7.00	Linear Foot	0	\$0.00
Other Miscellaneous						
Post Mounted Signs			\$200.00	Each	128	\$25,600.00
Widen Bridge Structure			\$3,850.00	SY	234	\$900,900.00
Construction Subtotal:						\$4,550,682.00
Mobilization		5.0%	Of Construction Total		\$227,534.10	
Maintenance and Protection of Traffic		5.0%	Of Construction Total		\$227,534.10	
Contingency		15.0%	Of Construction Total		\$682,602.30	
Total Construction:						\$5,688,352.50
Utility Relocation						
Utility Pole Relocation			\$3,300.00	Each	122	\$402,600.00
Electric Service			\$2,000.00	Each	0	\$0.00
Water/ Gas Valves			\$250.00	Each	0	\$0.00
Fire Hydrant Relocation			\$1,000.00	Each	19	\$19,000.00
High Tension Electric Poles			\$130,000.00	Each	0	\$0.00
Sanitary Manhole			\$2,400.00	Each	0	\$0.00
Other			\$5,000.00	Project	6	\$30,000.00
Utility Subtotal:						\$451,600.00
Contingency		15.0%	Of Utility Subtotal		\$67,740.00	
Total Utility Relocation:						\$519,340.00
Right-of-Way						
Right-of-Way - Urban			\$150,000.00	Acres	0	\$0.00
Right-of-Way - Rural			\$120,000.00	Acres	10.46838843	\$1,256,206.61
Construction Easement (75% of ROW)				Acres	0	\$942,154.96
Structures			\$180,000.00	Each	1	\$180,000.00
Right-of-Way Subtotal:						\$2,378,361.57
Contingency		15.0%	Of Right-of-Way Subtotal		\$356,754.24	
Total Right-of-Way:						\$2,735,115.81
Engineering		11.5%	Of Construction Total		\$654,160.54	
Construction Inspection		8.0%	Of Construction Total		\$455,068.20	
Administration and Planning		1.5%	Of Construction Total		\$85,325.29	
Total Project Cost:						\$10,137,362.33

EXHIBIT "B" - (continued)

PROJECT CODE: S27

TRANSPORTATION DISTRICT:

Eastern/Western District

LOCATION:

Route 272, north of Colonel George Howard Boulevard (SR 1040)

DEFICIENCY:

The current roadway segment is deficient with 2010 existing traffic volumes

PROPOSED IMPROVEMENTS:

Construct additional thru lanes.

ESTIMATED COST SUMMARY:

(Current Year 2010 Dollars)

Construction	2,034,898
Utility Relocation	195,500
Right-of-Way	1,064,446
Engineering	234,013
Inspection	162,792
Admin & Planning	30,523
TOTAL	\$3,722,172

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year

2034

Inflation Rate: 3.76%

Projected Construction Cost

\$9,365,814

PROPOSED FUNDING:

State/Federal	100%	\$9,365,814
Other	0%	\$0
Impact Fees	0%	\$0

PROJECT SCHEDULE:

	Year
Secure Funding	2032
Acquire ROW	2033
Compete Engineering	2033
Begin Construction	2034

TRANSPORTATION DISTRICT COST:

Western District	50%	\$0
Eastern District	50%	\$0
Southern District	0%	\$0

REMARKS:

EXHIBIT "B" - (continued)

EAST COCALICO TOWNSHIP CAPITAL IMPROVEMENT PLAN - COST ESTIMATE SHEET

Project Number		S27	Done By: BDE		Checked: MJR	
Description			Cost	Unit	Quantity	Total
Construction Items						
Traffic Signals						
New Signal (4-way)			\$200,000.00	Each	2	\$400,000.00
New Signal (3-way)			\$150,000.00	Each	0	\$0.00
Signal Modifications			\$20,000.00	Each	0	\$0.00
Emergency Vehicle Preemption Only			\$10,000.00	Each	0	\$0.00
Pavement						
1.5" Pavement Overlay and Milling			\$7.00	Square Yard	0	\$0.00
New Pavement - Arterial Roads			\$46.00	Square Yard	21333	\$981,318.00
New Pavement - Collector Roads			\$40.00	Square Yard	0	\$0.00
New Pavement - Local Commercial Roads			\$34.00	Square Yard	0	\$0.00
New Pavement - Local Residential Roads			\$29.00	Square Yard	0	\$0.00
4" PBD			\$7.25	Linear Foot	16000	\$116,000.00
Excavation						
Excavation (Borrow)			\$12.00	Cubic Yard	0	\$0.00
Drainage						
Inlet/Manhole			\$2,400.00	Each	7	\$16,800.00
Pipe and Trenching			\$55.00	Linear Foot	0	\$0.00
Culvert			\$700.00	Linear Foot	0	\$0.00
Pavement Markings						
4" Pavement Markings			\$2.00	Linear Foot	32000	\$64,000.00
8" Pavement Markings			\$8.00	Linear Foot	0	\$0.00
Miscellaneous						
Guide Rail			\$18.00	Linear Foot	1900	\$34,200.00
Concrete Curb			\$35.00	Linear Foot	0	\$0.00
Bituminous Wedge Curb			\$7.00	Linear Foot	0	\$0.00
Other Miscellaneous						
Post Mounted Signs			\$200.00	Each	78	\$15,600.00
						\$0.00
Construction Subtotal:						\$1,627,918.00
Mobilization			5.0%	Of Construction Total		\$81,395.90
Maintenance and Protection of Traffic			5.0%	Of Construction Total		\$81,395.90
Contingency			15.0%	Of Construction Total		\$244,187.70
Total Construction:						\$2,034,897.50
Utility Relocation						
Utility Pole Relocation			\$3,300.00	Each	50	\$165,000.00
Electric Service			\$2,000.00	Each	0	\$0.00
Water/ Gas Valves			\$250.00	Each	0	\$0.00
Fire Hydrant Relocation			\$1,000.00	Each	5	\$5,000.00
High Tension Electric Poles			\$130,000.00	Each	0	\$0.00
Sanitary Manhole			\$2,400.00	Each	0	\$0.00
Other			\$5,000.00	Project	0	\$0.00
Utility Subtotal:						\$170,000.00
Contingency			15.0%	Of Utility Subtotal		\$25,500.00
Total Utility Relocation:						\$195,500.00
Right-of-Way						
Right-of-Way - Urban			\$150,000.00	Acres	0	\$0.00
Right-of-Way - Rural			\$120,000.00	Acres	4.407644628	\$528,917.36
Construction Easement (75% of ROW)				Acres	0	\$396,688.02
Structures			\$180,000.00	Each	0	\$0.00
Right-of-Way Subtotal:						\$925,605.37
Contingency			15.0%	Of Right-of-Way Subtotal		\$138,840.81
Total Right-of-Way:						\$1,064,446.18
Engineering			11.5%	Of Construction Total		\$234,013.21
Construction Inspection			8.0%	Of Construction Total		\$162,791.80
Administration and Planning			1.5%	Of Construction Total		\$30,523.46
Total Project Cost:						\$3,722,172.15

EXHIBIT "B" - (continued)

PROJECT CODE: I06

TRANSPORTATION DISTRICT:

Eastern/Southern District

LOCATION:

Colonel George Howard Boulevard (SR 1040) & Leshar Road (T-949)

DEFICIENCY:

The current intersection geometry is deficient with 2034 base traffic volumes.

PROPOSED IMPROVEMENTS:

Project not feasible- Will interfere with future interchange projects

Channelize the southbound right turn movement.

ESTIMATED COST SUMMARY:

(Current Year 2010 Dollars)

Construction	41,571
Utility Relocation	0
Right-of-Way	33,281
Engineering	4,781
Inspection	3,326
Admin & Planning	624
TOTAL	\$83,582

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year

2034

Projected Construction Cost

\$210,312

Inflation Rate: 3.76%

PROPOSED FUNDING:

State/Federal	0%	\$0
Other	0%	\$0
Impact Fees	0%	\$0

PROJECT SCHEDULE:

	Year
Secure Funding	2032
Acquire ROW	2033
Compete Engineering	2033
Begin Construction	2034

TRANSPORTATION DISTRICT COST:

Western District	0%	\$0
Eastern District	50%	\$0
Southern District	50%	\$0

REMARKS:

EXHIBIT "B" - (continued)

EAST COCALICO TOWNSHIP CAPITAL IMPROVEMENT PLAN - COST ESTIMATE SHEET

Project Number		I06	Done By: BDE		Checked: MJR	
Description			Cost	Unit	Quantity	Total
Construction Items						
Traffic Signals						
New Signal (4-way)			\$200,000.00	Each	0	\$0.00
New Signal (3-way)			\$150,000.00	Each	0	\$0.00
Signal Modifications			\$20,000.00	Each	0	\$0.00
Emergency Vehicle Preemption Only			\$10,000.00	Each	0	\$0.00
Pavement						
1.5" Pavement Overlay and Milling			\$7.00	Square Yard	0	\$0.00
New Pavement - Arterial Roads			\$46.00	Square Yard	467	\$21,482.00
New Pavement - Collector Roads			\$40.00	Square Yard	0	\$0.00
New Pavement - Local Commercial Roads			\$34.00	Square Yard	0	\$0.00
New Pavement - Local Residential Roads			\$29.00	Square Yard	200	\$5,800.00
4" PBD			\$7.25	Linear Foot	0	\$0.00
Excavation						
Excavation (Borrow)			\$12.00	Cubic Yard	0	\$0.00
Drainage						
Inlet/Manhole			\$2,400.00	Each	0	\$0.00
Pipe and Trenching			\$55.00	Linear Foot	0	\$0.00
Culvert			\$700.00	Linear Foot	0	\$0.00
Pavement Markings						
4" Pavement Markings			\$2.00	Linear Foot	0	\$0.00
8" Pavement Markings			\$8.00	Linear Foot	0	\$0.00
Miscellaneous						
Guide Rail			\$18.00	Linear Foot	0	\$0.00
Concrete Curb			\$35.00	Linear Foot	125	\$4,375.00
Bituminous Wedge Curb			\$7.00	Linear Foot	0	\$0.00
Other Miscellaneous						
Post Mounted Signs			\$200.00	Each	8	\$1,600.00
						\$0.00
Construction Subtotal:						\$33,257.00
Mobilization			5.0%	Of Construction Total		\$1,662.85
Maintenance and Protection of Traffic			5.0%	Of Construction Total		\$1,662.85
Contingency			15.0%	Of Construction Total		\$4,988.55
Total Construction:						\$41,571.25
Utility Relocation						
Utility Pole Relocation			\$3,300.00	Each	0	\$0.00
Electric Service			\$2,000.00	Each	0	\$0.00
Water/ Gas Valves			\$250.00	Each	0	\$0.00
Fire Hydrant Relocation			\$1,000.00	Each	0	\$0.00
High Tension Electric Poles			\$130,000.00	Each	0	\$0.00
Sanitary Manhole			\$2,400.00	Each	0	\$0.00
Other			\$5,000.00	Project	0	\$0.00
Utility Subtotal:						\$0.00
Contingency			15.0%	Of Utility Subtotal		\$0.00
Total Utility Relocation:						\$0.00
Right-of-Way						
Right-of-Way - Urban			\$150,000.00	Acres	0	\$0.00
Right-of-Way - Rural			\$120,000.00	Acres	0.137809917	\$16,537.19
Construction Easement (75% of ROW)				Acres	0	\$12,402.89
Structures			\$180,000.00	Each	0	\$0.00
Right-of-Way Subtotal:						\$28,940.08
Contingency			15.0%	Of Right-of-Way Subtotal		\$4,341.01
Total Right-of-Way:						\$33,281.09
Engineering			11.5%	Of Construction Total		\$4,780.69
Construction Inspection			8.0%	Of Construction Total		\$3,325.70
Administration and Planning			1.5%	Of Construction Total		\$623.57
Total Project Cost:						\$83,582.31

EXHIBIT "B" - (continued)

PROJECT CODE: I07

TRANSPORTATION DISTRICT:

Eastern/Southern District

LOCATION:

Colonel George Howard Boulevard (SR 1040) & Route 222 southbound Ramps

DEFICIENCY:

The current intersection geometry is deficient with 2034 base traffic volumes.

PROPOSED IMPROVEMENTS:

Construct a clover-leaf interchange.

ESTIMATED COST SUMMARY:

(Current Year 2010 Dollars)

Construction	1,234,313
Utility Relocation	17,250
Right-of-Way	2,777,250
Engineering	141,946
Inspection	98,745
Admin & Planning	18,515
TOTAL	\$4,288,018

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year

2027

Inflation Rate: 3.76%

Projected Construction Cost

\$8,332,896

PROPOSED FUNDING:

State/Federal

100%

\$8,332,896

Other

0%

\$0

Impact Fees

0%

\$0

PROJECT SCHEDULE:

Secure Funding

Year

2025

Acquire ROW

2026

Compete Engineering

2026

Begin Construction

2027

TRANSPORTATION DISTRICT COST:

Western District

0%

\$0

Eastern District

50%

\$0

Southern District

50%

\$0

REMARKS:

EXHIBIT "B" - (continued)

EAST COCALICO TOWNSHIP CAPITAL IMPROVEMENT PLAN - COST ESTIMATE SHEET

Project Number		I07	Done By: BDE		Checked: MJR	
Description			Cost	Unit	Quantity	Total
Construction Items						
Traffic Signals						
New Signal (4-way)			\$200,000.00	Each	0	\$0.00
New Signal (3-way)			\$150,000.00	Each	1	\$150,000.00
Signal Modifications			\$20,000.00	Each	0	\$0.00
Emergency Vehicle Preemption Only			\$10,000.00	Each	0	\$0.00
Pavement						
1.5" Pavement Overlay and Milling			\$7.00	Square Yard	0	\$0.00
New Pavement - Arterial Roads			\$46.00	Square Yard	15000	\$690,000.00
New Pavement - Collector Roads			\$40.00	Square Yard	0	\$0.00
New Pavement - Local Commercial Roads			\$34.00	Square Yard	0	\$0.00
New Pavement - Local Residential Roads			\$29.00	Square Yard	0	\$0.00
4" PBD			\$7.25	Linear Foot	5000	\$36,250.00
Excavation						
Excavation (Borrow)			\$12.00	Cubic Yard	0	\$0.00
Drainage						
Inlet/Manhole			\$2,400.00	Each	0	\$0.00
Pipe and Trenching			\$55.00	Linear Foot	0	\$0.00
Culvert			\$700.00	Linear Foot	0	\$0.00
Pavement Markings						
4" Pavement Markings			\$2.00	Linear Foot	10000	\$20,000.00
8" Pavement Markings			\$8.00	Linear Foot	0	\$0.00
Miscellaneous						
Guide Rail			\$18.00	Linear Foot	5000	\$90,000.00
Concrete Curb			\$35.00	Linear Foot	0	\$0.00
Bituminous Wedge Curb			\$7.00	Linear Foot	0	\$0.00
Other Miscellaneous						
Post Mounted Signs			\$200.00	Each	6	\$1,200.00
						\$0.00
Construction Subtotal:						\$987,450.00
Mobilization		5.0%	Of Construction Total		\$49,372.50	
Maintenance and Protection of Traffic		5.0%	Of Construction Total		\$49,372.50	
Contingency		15.0%	Of Construction Total		\$148,117.50	
Total Construction:						\$1,234,312.50
Utility Relocation						
Utility Pole Relocation			\$3,300.00	Each	0	\$0.00
Electric Service			\$2,000.00	Each	0	\$0.00
Water/ Gas Valves			\$250.00	Each	0	\$0.00
Fire Hydrant Relocation			\$1,000.00	Each	0	\$0.00
High Tension Electric Poles			\$130,000.00	Each	0	\$0.00
Sanitary Manhole			\$2,400.00	Each	0	\$0.00
Street Lights			\$5,000.00	Project	3	\$15,000.00
Utility Subtotal:						\$15,000.00
Contingency		15.0%	Of Utility Subtotal		\$2,250.00	
Total Utility Relocation:						\$17,250.00
Right-of-Way						
Right-of-Way - Urban			\$150,000.00	Acres	0	\$0.00
Right-of-Way - Rural			\$120,000.00	Acres	11.5	\$1,380,000.00
Construction Easement (75% of ROW)				Acres	0	\$1,035,000.00
Structures			\$180,000.00	Each	0	\$0.00
Right-of-Way Subtotal:						\$2,415,000.00
Contingency		15.0%	Of Right-of-Way Subtotal		\$362,250.00	
Total Right-of-Way:						\$2,777,250.00
Engineering		11.5%	Of Construction Total		\$141,945.94	
Construction Inspection		8.0%	Of Construction Total		\$98,745.00	
Administration and Planning		1.5%	Of Construction Total		\$18,514.69	
Total Project Cost:						\$4,288,018.13

EXHIBIT "B" - (continued)

PROJECT CODE: I08

TRANSPORTATION DISTRICT:

Eastern/Southern District

LOCATION:

Colonel George Howard Boulevard (SR 1040) & Route 222 northbound Ramps

DEFICIENCY:

The current intersection geometry is deficient with 2034 base traffic volumes.

PROPOSED IMPROVEMENTS:

Construct a clover-leaf interchange.

ESTIMATED COST SUMMARY:

(Current Year 2010 Dollars)

Construction	1,234,313
Utility Relocation	17,250
Right-of-Way	2,777,250
Engineering	141,946
Inspection	98,745
Admin & Planning	18,515
TOTAL	\$4,288,018

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year

2027

Inflation Rate: 3.76%

Projected Construction Cost

\$8,332,896

PROPOSED FUNDING:

State/Federal

100%

\$8,332,896

Other

0%

\$0

Impact Fees

0%

\$0

PROJECT SCHEDULE:

Secure Funding

Year

2025

Acquire ROW

2026

Compete Engineering

2026

Begin Construction

2027

TRANSPORTATION DISTRICT COST:

Western District

0%

\$0

Eastern District

50%

\$0

Southern District

50%

\$0

REMARKS:

EXHIBIT "B" - (continued)

EAST COCALICO TOWNSHIP CAPITAL IMPROVEMENT PLAN - COST ESTIMATE SHEET

Project Number		I08	Done By: BDE		Checked: MJR	
Description			Cost	Unit	Quantity	Total
Construction Items						
Traffic Signals						
New Signal (4-way)			\$200,000.00	Each	0	\$0.00
New Signal (3-way)			\$150,000.00	Each	1	\$150,000.00
Signal Modifications			\$20,000.00	Each	0	\$0.00
Emergency Vehicle Preemption Only			\$10,000.00	Each	0	\$0.00
Pavement						
1.5" Pavement Overlay and Milling			\$7.00	Square Yard	0	\$0.00
New Pavement - Arterial Roads			\$46.00	Square Yard	15000	\$690,000.00
New Pavement - Collector Roads			\$40.00	Square Yard	0	\$0.00
New Pavement - Local Commercial Roads			\$34.00	Square Yard	0	\$0.00
New Pavement - Local Residential Roads			\$29.00	Square Yard	0	\$0.00
4" PBD			\$7.25	Linear Foot	5000	\$36,250.00
Excavation						
Excavation (Borrow)			\$12.00	Cubic Yard	0	\$0.00
Drainage						
Inlet/Manhole			\$2,400.00	Each	0	\$0.00
Pipe and Trenching			\$55.00	Linear Foot	0	\$0.00
Culvert			\$700.00	Linear Foot	0	\$0.00
Pavement Markings						
4" Pavement Markings			\$2.00	Linear Foot	10000	\$20,000.00
8" Pavement Markings			\$8.00	Linear Foot	0	\$0.00
Miscellaneous						
Guide Rail			\$18.00	Linear Foot	5000	\$90,000.00
Concrete Curb			\$35.00	Linear Foot	0	\$0.00
Bituminous Wedge Curb			\$7.00	Linear Foot	0	\$0.00
Other Miscellaneous						
Post Mounted Signs			\$200.00	Each	6	\$1,200.00
						\$0.00
Construction Subtotal:						\$987,450.00
Mobilization		5.0%	Of Construction Total			\$49,372.50
Maintenance and Protection of Traffic		5.0%	Of Construction Total			\$49,372.50
Contingency		15.0%	Of Construction Total			\$148,117.50
Total Construction:						\$1,234,312.50
Utility Relocation						
Utility Pole Relocation			\$3,300.00	Each	0	\$0.00
Electric Service			\$2,000.00	Each	0	\$0.00
Water/ Gas Valves			\$250.00	Each	0	\$0.00
Fire Hydrant Relocation			\$1,000.00	Each	0	\$0.00
High Tension Electric Poles			\$130,000.00	Each	0	\$0.00
Sanitary Manhole			\$2,400.00	Each	0	\$0.00
Street Lights			\$5,000.00	Project	3	\$15,000.00
Utility Subtotal:						\$15,000.00
Contingency		15.0%	Of Utility Subtotal			\$2,250.00
Total Utility Relocation:						\$17,250.00
Right-of-Way						
Right-of-Way - Urban			\$150,000.00	Acres	0	\$0.00
Right-of-Way - Rural			\$120,000.00	Acres	11.5	\$1,380,000.00
Construction Easement (75% of ROW)				Acres	0	\$1,035,000.00
Structures			\$180,000.00	Each	0	\$0.00
Right-of-Way Subtotal:						\$2,415,000.00
Contingency		15.0%	Of Right-of-Way Subtotal			\$362,250.00
Total Right-of-Way:						\$2,777,250.00
Engineering		11.5%	Of Construction Total			\$141,945.94
Construction Inspection		8.0%	Of Construction Total			\$98,745.00
Administration and Planning		1.5%	Of Construction Total			\$18,514.69
Total Project Cost:						\$4,288,018.13

EXHIBIT "B" - (continued)

PROJECT CODE: I11A

TRANSPORTATION DISTRICT: Eastern/Western/Southern District

LOCATION:

Colonel George Howard Boulevard (SR 1040) / Denver Road (T-901) & Route 272

DEFICIENCY:

The current intersection geometry is deficient with 2034 base traffic volumes.

PROPOSED IMPROVEMENTS:

Construct a 2nd westbound left turn lane on Col Howard Blvd.

Tie into I07 & I08 SR222 Interchange Project and S22 Col. Howard Blvd. widening project

ESTIMATED COST SUMMARY:

(Current Year 2010 Dollars)

Construction	165,983
Utility Relocation	5,750
Right-of-Way	0
Engineering	19,088
Inspection	13,279
Admin & Planning	2,490
TOTAL	\$206,589

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year

2027

Projected Construction Cost

\$401,464

Inflation Rate: 3.76%

PROPOSED FUNDING:

State/Federal

100%

\$401,464

Other

0%

\$0

Impact Fees

0%

\$0

PROJECT SCHEDULE:

Secure Funding

Year

2025

Acquire ROW

2026

Compete Engineering

2026

Begin Construction

2027

TRANSPORTATION DISTRICT COST:

Western District

33%

\$0

Eastern District

33%

\$0

Southern District

34%

\$0

REMARKS:

PENNDOT Project

EXHIBIT "B" - (continued)

EAST COCALICO TOWNSHIP CAPITAL IMPROVEMENT PLAN - COST ESTIMATE SHEET

Project Number		I11A	Done By: BDE		Checked: MJR	
Description			Cost	Unit	Quantity	Total
Construction Items						
Traffic Signals						
New Signal (4-way)			\$200,000.00	Each	0	\$0.00
New Signal (3-way)			\$150,000.00	Each	0	\$0.00
Signal Modifications			\$20,000.00	Each	2	\$40,000.00
Emergency Vehicle Preemption Only			\$10,000.00	Each	0	\$0.00
Pavement						
1.5" Pavement Overlay and Milling			\$7.00	Square Yard	0	\$0.00
New Pavement - Arterial Roads- Concrete			\$75.00	Square Yard	533	\$39,975.00
New Pavement - Collector Roads			\$40.00	Square Yard	0	\$0.00
New Pavement - Local Commercial Roads			\$34.00	Square Yard	0	\$0.00
New Pavement - Local Residential Roads			\$29.00	Square Yard	0	\$0.00
4" PBD			\$7.25	Linear Foot	600	\$4,350.00
Excavation						
Excavation (Borrow)			\$12.00	Cubic Yard	0	\$0.00
Drainage						
Inlet/Manhole			\$2,400.00	Each	2	\$4,800.00
Pipe and Trenching			\$55.00	Linear Foot	100	\$5,500.00
Culvert			\$700.00	Linear Foot	0	\$0.00
Pavement Markings						
4" Pavement Markings			\$2.00	Linear Foot	2600	\$5,200.00
8" Pavement Markings			\$8.00	Linear Foot	0	\$0.00
Miscellaneous						
Guide Rail			\$18.00	Linear Foot	0	\$0.00
Concrete Curb			\$35.00	Linear Foot	500	\$17,500.00
Bituminous Wedge Curb			\$7.00	Linear Foot	0	\$0.00
Other Miscellaneous						
Post Mounted Signs			\$200.00	Each	10	\$2,000.00
Partial Removal of Island			\$25.00	SY	145	\$3,625.00
Construction Subtotal:						\$122,950.00
Mobilization		5.0%	Of Construction Total		\$6,147.50	
Maintenance and Protection of Traffic		5.0%	Of Construction Total		\$6,147.50	
Contingency		25.0%	Of Construction Total		\$30,737.50	
Total Construction:						\$165,982.50
Utility Relocation						
Utility Pole Relocation			\$3,300.00	Each	0	\$0.00
Electric Service			\$2,000.00	Each	0	\$0.00
Water/ Gas Valves			\$250.00	Each	0	\$0.00
Fire Hydrant Relocation			\$1,000.00	Each	0	\$0.00
High Tension Electric Poles			\$130,000.00	Each	0	\$0.00
Sanitary Manhole			\$2,400.00	Each	0	\$0.00
Other			\$5,000.00	Project	1	\$5,000.00
Utility Subtotal:						\$5,000.00
Contingency		15.0%	Of Utility Subtotal		\$750.00	
Total Utility Relocation:						\$5,750.00
Right-of-Way						
2027			\$150,000.00	Acres	0	\$0.00
Right-of-Way - Rural			\$120,000.00	Acres	0	\$0.00
Construction Easement (75% of ROW)				Acres	0	\$0.00
Structures			\$180,000.00	Each	0	\$0.00
Right-of-Way Subtotal:						\$0.00
Contingency		15.0%	Of Right-of-Way Subtotal		\$0.00	
Total Right-of-Way:						\$0.00
Engineering		11.5%	Of Construction Total		\$19,087.99	
Construction Inspection		8.0%	Of Construction Total		\$13,278.60	
Administration and Planning		1.5%	Of Construction Total		\$2,489.74	
Total Project Cost:						\$206,588.83

EXHIBIT "B" - (continued)

PROJECT CODE: I15A

TRANSPORTATION DISTRICT:

Eastern/Western District

LOCATION:

Route 272 & Route 897

DEFICIENCY:

The current intersection geometry is deficient with 2034 base traffic volumes.

PROPOSED IMPROVEMENTS:

Construct a 2nd northbound left turn lane on SR 272

ESTIMATED COST SUMMARY:

(Current Year 2010 Dollars)

Construction	197,585
Utility Relocation	16,330
Right-of-Way	0
Engineering	22,722
Inspection	15,807
Admin & Planning	2,964
TOTAL	\$255,408

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year

2034

Projected Construction Cost

\$642,663

Inflation Rate: 3.76%

PROPOSED FUNDING:

State/Federal

100%

\$642,663

Other

0%

\$0

Impact Fees

0%

\$0

PROJECT SCHEDULE:

Secure Funding

Year

2032

Acquire ROW

2033

Compete Engineering

2033

Begin Construction

2034

TRANSPORTATION DISTRICT COST:

Western District

50%

\$0

Eastern District

50%

\$0

Southern District

0%

\$0

REMARKS:

EXHIBIT "B" - (continued)

EAST COCALICO TOWNSHIP CAPITAL IMPROVEMENT PLAN - COST ESTIMATE SHEET

Project Number		I15A	Done By: BDE		Checked: MJR	
Description			Cost	Unit	Quantity	Total
Construction Items						
Traffic Signals						
New Signal (4-way)			\$200,000.00	Each	0	\$0.00
New Signal (3-way)			\$150,000.00	Each	0	\$0.00
Signal Modifications			\$20,000.00	Each	1	\$20,000.00
Emergency Vehicle Preemption Only			\$10,000.00	Each	0	\$0.00
Pavement						
1.5" Pavement Overlay and Milling			\$7.00	Square Yard	0	\$0.00
New Pavement - Arterial Roads			\$46.00	Square Yard	533	\$24,518.00
New Pavement - Collector Roads			\$40.00	Square Yard	0	\$0.00
New Pavement - Local Commercial Roads			\$34.00	Square Yard	0	\$0.00
New Pavement - Local Residential Roads			\$29.00	Square Yard	0	\$0.00
4" PBD			\$7.25	Linear Foot	600	\$4,350.00
Excavation						
Excavation (Borrow)			\$12.00	Cubic Yard	0	\$0.00
Drainage						
Inlet/Manhole			\$2,400.00	Each	1	\$2,400.00
Pipe and Trenching			\$55.00	Linear Foot	0	\$0.00
Culvert			\$700.00	Linear Foot	0	\$0.00
Pavement Markings						
4" Pavement Markings			\$2.00	Linear Foot	2600	\$5,200.00
8" Pavement Markings			\$8.00	Linear Foot	0	\$0.00
Miscellaneous						
Guide Rail			\$18.00	Linear Foot	0	\$0.00
Concrete Curb			\$35.00	Linear Foot	600	\$21,000.00
Bituminous Wedge Curb			\$7.00	Linear Foot	0	\$0.00
Other Miscellaneous						
Post Mounted Signs			\$200.00	Each	13	\$2,600.00
Sidewalk			\$65.00	SY	1200	\$78,000.00
Construction Subtotal:						\$158,068.00
Mobilization			5.0%	Of Construction Total	\$7,903.40	
Maintenance and Protection of Traffic			5.0%	Of Construction Total	\$7,903.40	
Contingency			15.0%	Of Construction Total	\$23,710.20	
Total Construction:						\$197,585.00
Utility Relocation						
Utility Pole Relocation			\$3,300.00	Each	4	\$13,200.00
Electric Service			\$2,000.00	Each	0	\$0.00
Water/ Gas Valves			\$250.00	Each	0	\$0.00
Fire Hydrant Relocation			\$1,000.00	Each	1	\$1,000.00
High Tension Electric Poles			\$130,000.00	Each	0	\$0.00
Sanitary Manhole			\$2,400.00	Each	0	\$0.00
Other			\$5,000.00	Project	0	\$0.00
Utility Subtotal:						\$14,200.00
Contingency			15.0%	Of Utility Subtotal	\$2,130.00	
Total Utility Relocation:						\$16,330.00
Right-of-Way						
Right-of-Way - Urban			\$150,000.00	Acres	0	\$0.00
Right-of-Way - Rural			\$120,000.00	Acres	0	\$0.00
Construction Easement (75% of ROW)				Acres	0	\$0.00
Structures			\$180,000.00	Each	0	\$0.00
Right-of-Way Subtotal:						\$0.00
Contingency			15.0%	Of Right-of-Way Subtotal	\$0.00	
Total Right-of-Way:						\$0.00
Engineering			11.5%	Of Construction Total	\$22,722.28	
Construction Inspection			8.0%	Of Construction Total	\$15,806.80	
Administration and Planning			1.5%	Of Construction Total	\$2,963.78	
Total Project Cost:						\$255,407.85

EXHIBIT "B" - (continued)

PROJECT CODE: I15B

TRANSPORTATION DISTRICT:

Eastern/Western District

LOCATION:

Route 272 & Route 897

DEFICIENCY:

The current intersection geometry is deficient with 2034 base traffic volumes.

PROPOSED IMPROVEMENTS:

Construct a 2nd westbound left turn lane on SR 897.

ESTIMATED COST SUMMARY:

(Current Year 2010 Dollars)

Construction	106,210
Utility Relocation	24,725
Right-of-Way	0
Engineering	12,214
Inspection	8,497
Admin & Planning	1,593
TOTAL	\$153,239

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year

2034

Projected Construction Cost

\$385,584

Inflation Rate: 3.76%

PROPOSED FUNDING:

State/Federal

100%

\$385,584

Other

0%

\$0

Impact Fees

0%

\$0

PROJECT SCHEDULE:

Secure Funding

Year

2032

Acquire ROW

2033

Compete Engineering

2033

Begin Construction

2034

TRANSPORTATION DISTRICT COST:

Western District

50%

\$0

Eastern District

50%

\$0

Southern District

0%

\$0

REMARKS:

EXHIBIT "B" - (continued)

EAST COCALICO TOWNSHIP CAPITAL IMPROVEMENT PLAN - COST ESTIMATE SHEET

Project Number	I15B	Done By: BDE	Checked: MJR		
Description		Cost	Unit	Quantity	Total
Construction Items					
Traffic Signals					
New Signal (4-way)		\$200,000.00	Each	0	\$0.00
New Signal (3-way)		\$150,000.00	Each	0	\$0.00
Signal Modifications		\$20,000.00	Each	1	\$20,000.00
Emergency Vehicle Preemption Only		\$10,000.00	Each	0	\$0.00
Pavement					
1.5" Pavement Overlay and Milling		\$7.00	Square Yard	0	\$0.00
New Pavement - Arterial Roads		\$46.00	Square Yard	533	\$24,518.00
New Pavement - Collector Roads		\$40.00	Square Yard	0	\$0.00
New Pavement - Local Commercial Roads		\$34.00	Square Yard	0	\$0.00
New Pavement - Local Residential Roads		\$29.00	Square Yard	0	\$0.00
4" PBD		\$7.25	Linear Foot	600	\$4,350.00
Excavation					
Excavation (Borrow)		\$12.00	Cubic Yard	0	\$0.00
Drainage					
Inlet/Manhole		\$2,400.00	Each	2	\$4,800.00
Pipe and Trenching		\$55.00	Linear Foot	0	\$0.00
Culvert		\$700.00	Linear Foot	0	\$0.00
Pavement Markings					
4" Pavement Markings		\$2.00	Linear Foot	2600	\$5,200.00
8" Pavement Markings		\$8.00	Linear Foot	0	\$0.00
Miscellaneous					
Guide Rail		\$18.00	Linear Foot	0	\$0.00
Concrete Curb		\$35.00	Linear Foot	700	\$24,500.00
Bituminous Wedge Curb		\$7.00	Linear Foot	0	\$0.00
Other Miscellaneous					
Post Mounted Signs		\$200.00	Each	8	\$1,600.00
Other					\$0.00
Construction Subtotal:					\$84,968.00
Mobilization		5.0%	Of Construction Total		\$4,248.40
Maintenance and Protection of Traffic		5.0%	Of Construction Total		\$4,248.40
Contingency		15.0%	Of Construction Total		\$12,745.20
Total Construction:					\$106,210.00
Utility Relocation					
Utility Pole Relocation		\$3,300.00	Each	5	\$16,500.00
Electric Service		\$2,000.00	Each	0	\$0.00
Water/ Gas Valves		\$250.00	Each	0	\$0.00
Fire Hydrant Relocation		\$1,000.00	Each	0	\$0.00
High Tension Electric Poles		\$130,000.00	Each	0	\$0.00
Sanitary Manhole		\$2,400.00	Each	0	\$0.00
Street Light		\$5,000.00	Project	1	\$5,000.00
Utility Subtotal:					\$21,500.00
Contingency		15.0%	Of Utility Subtotal		\$3,225.00
Total Utility Relocation:					\$24,725.00
Right-of-Way					
Right-of-Way - Urban		\$150,000.00	Acres	0	\$0.00
Right-of-Way - Rural		\$120,000.00	Acres	0	\$0.00
Construction Easement (75% of ROW)			Acres	0	\$0.00
Structures		\$180,000.00	Each	0	\$0.00
Right-of-Way Subtotal:					\$0.00
Contingency		15.0%	Of Right-of-Way Subtotal		\$0.00
Total Right-of-Way:					\$0.00
Engineering		11.5%	Of Construction Total		\$12,214.15
Construction Inspection		8.0%	Of Construction Total		\$8,496.80
Administration and Planning		1.5%	Of Construction Total		\$1,593.15
Total Project Cost:					\$153,239.10

EXHIBIT "B" - (continued)

PROJECT CODE: I15C

TRANSPORTATION DISTRICT:

Eastern/Western District

LOCATION:

Route 272 & Route 897

DEFICIENCY:

The current intersection geometry is deficient with 2034 base traffic volumes.

PROPOSED IMPROVEMENTS:

Construct an eastbound right turn lane on SR 897.

ESTIMATED COST SUMMARY:

(Current Year 2010 Dollars)

Construction	64,741
Utility Relocation	15,180
Right-of-Way	16,616
Engineering	7,445
Inspection	5,179
Admin & Planning	971
TOTAL	\$110,133

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year

2034

Projected Construction Cost

\$277,118

Inflation Rate: 3.76%

PROPOSED FUNDING:

State/Federal

100%

\$277,118

Other

0%

\$0

Impact Fees

0%

\$0

PROJECT SCHEDULE:

Secure Funding

Year

2032

Acquire ROW

2033

Compete Engineering

2033

Begin Construction

2034

TRANSPORTATION DISTRICT COST:

Western District

50%

\$0

Eastern District

50%

\$0

Southern District

0%

\$0

REMARKS:

EXHIBIT "B" - (continued)

EAST COCALICO TOWNSHIP CAPITAL IMPROVEMENT PLAN - COST ESTIMATE SHEET

Project Number		I15C	Done By: BDE		Checked: MJR	
Description			Cost	Unit	Quantity	Total
Construction Items						
Traffic Signals						
New Signal (4-way)			\$200,000.00	Each	0	\$0.00
New Signal (3-way)			\$150,000.00	Each	0	\$0.00
Signal Modifications			\$20,000.00	Each	1	\$20,000.00
Emergency Vehicle Preemption Only			\$10,000.00	Each	0	\$0.00
Pavement						
1.5" Pavement Overlay and Milling			\$7.00	Square Yard	0	\$0.00
New Pavement - Arterial Roads			\$46.00	Square Yard	333	\$15,318.00
New Pavement - Collector Roads			\$40.00	Square Yard	0	\$0.00
New Pavement - Local Commercial Roads			\$34.00	Square Yard	0	\$0.00
New Pavement - Local Residential Roads			\$29.00	Square Yard	0	\$0.00
4" PBD			\$7.25	Linear Foot	300	\$2,175.00
Excavation						
Excavation (Borrow)			\$12.00	Cubic Yard	0	\$0.00
Drainage						
Inlet/Manhole			\$2,400.00	Each	1	\$2,400.00
Pipe and Trenching			\$55.00	Linear Foot	0	\$0.00
Culvert			\$700.00	Linear Foot	0	\$0.00
Pavement Markings						
4" Pavement Markings			\$2.00	Linear Foot	400	\$800.00
8" Pavement Markings			\$8.00	Linear Foot	0	\$0.00
Miscellaneous						
Guide Rail			\$18.00	Linear Foot	0	\$0.00
Concrete Curb			\$35.00	Linear Foot	300	\$10,500.00
Bituminous Wedge Curb			\$7.00	Linear Foot	0	\$0.00
Other Miscellaneous						
Post Mounted Signs			\$200.00	Each	3	\$600.00
Other						\$0.00
Construction Subtotal:						\$51,793.00
Mobilization			5.0%	Of Construction Total		\$2,589.65
Maintenance and Protection of Traffic			5.0%	Of Construction Total		\$2,589.65
Contingency			15.0%	Of Construction Total		\$7,768.95
Total Construction:						\$64,741.25
Utility Relocation						
Utility Pole Relocation			\$3,300.00	Each	4	\$13,200.00
Electric Service			\$2,000.00	Each	0	\$0.00
Water/ Gas Valves			\$250.00	Each	0	\$0.00
Fire Hydrant Relocation			\$1,000.00	Each	0	\$0.00
High Tension Electric Poles			\$130,000.00	Each	0	\$0.00
Sanitary Manhole			\$2,400.00	Each	0	\$0.00
Other			\$5,000.00	Project	0	\$0.00
Utility Subtotal:						\$13,200.00
Contingency			15.0%	Of Utility Subtotal		\$1,980.00
Total Utility Relocation:						\$15,180.00
Right-of-Way						
Right-of-Way - Urban			\$150,000.00	Acres	0	\$0.00
Right-of-Way - Rural			\$120,000.00	Acres	0.068801653	\$8,256.20
Construction Easement (75% of ROW)				Acres	0	\$6,192.15
Structures			\$180,000.00	Each	0	\$0.00
Right-of-Way Subtotal:						\$14,448.35
Contingency			15.0%	Of Right-of-Way Subtotal		\$2,167.25
Total Right-of-Way:						\$16,615.60
Engineering			11.5%	Of Construction Total		\$7,445.24
Construction Inspection			8.0%	Of Construction Total		\$5,179.30
Administration and Planning			1.5%	Of Construction Total		\$971.12
Total Project Cost:						\$110,132.51

EXHIBIT "B" - (continued)

PROJECT CODE: S24

TRANSPORTATION DISTRICT:

Eastern District

LOCATION:

Route 897, east of Route 272

DEFICIENCY:

The current roadway segment is deficient with 2034 base traffic volumes.

PROPOSED IMPROVEMENTS:

Construct additional thru lanes.

ESTIMATED COST SUMMARY:

(Current Year 2010 Dollars)

Construction	2,157,603
Utility Relocation	116,150
Right-of-Way	739,248
Engineering	248,124
Inspection	172,608
Admin & Planning	32,364
TOTAL	\$3,466,097

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year

2034

Inflation Rate: 3.76%

Projected Construction Cost

\$8,721,472

PROPOSED FUNDING:

State/Federal

100%

\$8,721,472

Other

0%

\$0

Impact Fees

0%

\$0

PROJECT SCHEDULE:

Secure Funding

Year

2032

Acquire ROW

2033

Complete Engineering

2033

Begin Construction

2034

TRANSPORTATION DISTRICT COST:

Western District

0%

\$0

Eastern District

100%

\$0

Southern District

0%

\$0

REMARKS:

EXHIBIT "B" - (continued)

EAST COCALICO TOWNSHIP CAPITAL IMPROVEMENT PLAN - COST ESTIMATE SHEET

Project Number	S24	Done By: BDE	Checked: MJR		
Description		Cost	Unit	Quantity	Total
Construction Items					
Traffic Signals					
New Signal (4-way)		\$200,000.00	Each	1	\$200,000.00
New Signal (3-way)		\$150,000.00	Each	0	\$0.00
Signal Modifications		\$20,000.00	Each	0	\$0.00
Emergency Vehicle Preemption Only		\$10,000.00	Each	0	\$0.00
Pavement					
1.5" Pavement Overlay and Milling		\$7.00	Square Yard	0	\$0.00
New Pavement - Arterial Roads		\$46.00	Square Yard	10667	\$490,682.00
New Pavement - Collector Roads		\$40.00	Square Yard	0	\$0.00
New Pavement - Local Commercial Roads		\$34.00	Square Yard	0	\$0.00
New Pavement - Local Residential Roads		\$29.00	Square Yard	0	\$0.00
4" PBD		\$7.25	Linear Foot	8000	\$58,000.00
Excavation					
Excavation (Borrow)		\$12.00	Cubic Yard	0	\$0.00
Drainage					
Inlet/Manhole		\$2,400.00	Each	10	\$24,000.00
Pipe and Trenching		\$55.00	Linear Foot	0	\$0.00
Culvert		\$700.00	Linear Foot	0	\$0.00
Pavement Markings					
4" Pavement Markings		\$2.00	Linear Foot	16000	\$32,000.00
8" Pavement Markings		\$8.00	Linear Foot	0	\$0.00
Miscellaneous					
Guide Rail		\$18.00	Linear Foot	400	\$7,200.00
Concrete Curb		\$35.00	Linear Foot	4000	\$140,000.00
Bituminous Wedge Curb		\$7.00	Linear Foot	0	\$0.00
Other Miscellaneous					
Post Mounted Signs		\$200.00	Each	21	\$4,200.00
Widen Bridge Structure		\$3,850.00	SY	200	\$770,000.00
Construction Subtotal:					\$1,726,082.00
Mobilization		5.0%	Of Construction Total	\$86,304.10	
Maintenance and Protection of Traffic		5.0%	Of Construction Total	\$86,304.10	
Contingency		15.0%	Of Construction Total	\$258,912.30	
Total Construction:					\$2,157,602.50
Utility Relocation					
Utility Pole Relocation		\$3,300.00	Each	30	\$99,000.00
Electric Service		\$2,000.00	Each	0	\$0.00
Water/ Gas Valves		\$250.00	Each	0	\$0.00
Fire Hydrant Relocation		\$1,000.00	Each	2	\$2,000.00
High Tension Electric Poles		\$130,000.00	Each	0	\$0.00
Sanitary Manhole		\$2,400.00	Each	0	\$0.00
Other		\$5,000.00	Project	0	\$0.00
Utility Subtotal:					\$101,000.00
Contingency		15.0%	Of Utility Subtotal	\$15,150.00	
Total Utility Relocation:					\$116,150.00
Right-of-Way					
Right-of-Way - Urban		\$150,000.00	Acres	0	\$0.00
Right-of-Way - Rural		\$120,000.00	Acres	2.20392562	\$264,471.07
Construction Easement (75% of ROW)			Acres	0	\$198,353.31
Structures		\$180,000.00	Each	1	\$180,000.00
Right-of-Way Subtotal:					\$642,824.38
Contingency		15.0%	Of Right-of-Way Subtotal	\$96,423.66	
Total Right-of-Way:					\$739,248.04
Engineering		11.5%	Of Construction Total	\$248,124.29	
Construction Inspection		8.0%	Of Construction Total	\$172,608.20	
Administration and Planning		1.5%	Of Construction Total	\$32,364.04	
Total Project Cost:					\$3,466,097.06

EXHIBIT "B" - (continued)

PROJECT CODE: 125

TRANSPORTATION DISTRICT:

Western District

LOCATION:

Stevens Road (SR 1045) & Wabash Road (T-669) / Indiantown Road (West Cocalico Township)

DEFICIENCY:

The current intersection is deficient with 2034 base traffic volumes.

PROPOSED IMPROVEMENTS:

Install a traffic signal.

ESTIMATED COST SUMMARY:

(Current Year 2010 Dollars)

Construction	250,000
Utility Relocation	0
Right-of-Way	0
Engineering	28,750
Inspection	20,000
Admin & Planning	3,750
TOTAL	\$302,500

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year

2024

Inflation Rate: 3.76%

Projected Construction Cost

\$526,229

PROPOSED FUNDING:

State/Federal

0%

\$0

Other

100%

\$526,229

Impact Fees

0%

\$0

PROJECT SCHEDULE:

Secure Funding

Year

2022

Acquire ROW

2023

Complete Engineering

2023

Begin Construction

2024

TRANSPORTATION DISTRICT COST:

Western District

100%

\$0

Eastern District

0%

\$0

Southern District

0%

\$0

REMARKS:

EXHIBIT "B" - (continued)

EAST COCALICO TOWNSHIP CAPITAL IMPROVEMENT PLAN - COST ESTIMATE SHEET

Project Number	I25	Done By: BDE	Checked: MJR		
Description		Cost	Unit	Quantity	Total
Construction Items					
Traffic Signals					
New Signal (4-way)		\$200,000.00	Each	1	\$200,000.00
New Signal (3-way)		\$150,000.00	Each	0	\$0.00
Signal Modifications		\$20,000.00	Each	0	\$0.00
Emergency Vehicle Preemption Only		\$10,000.00	Each	0	\$0.00
Pavement					
1.5" Pavement Overlay and Milling		\$7.00	Square Yard	0	\$0.00
New Pavement - Arterial Roads		\$46.00	Square Yard	0	\$0.00
New Pavement - Collector Roads		\$40.00	Square Yard	0	\$0.00
New Pavement - Local Commercial Roads		\$34.00	Square Yard	0	\$0.00
New Pavement - Local Residential Roads		\$29.00	Square Yard	0	\$0.00
4" PBD		\$7.25	Linear Foot	0	\$0.00
Excavation					
Excavation (Borrow)		\$12.00	Cubic Yard	0	\$0.00
Drainage					
Inlet/Manhole		\$2,400.00	Each	0	\$0.00
Pipe and Trenching		\$55.00	Linear Foot	0	\$0.00
Culvert		\$700.00	Linear Foot	0	\$0.00
Pavement Markings					
4" Pavement Markings		\$2.00	Linear Foot	0	\$0.00
8" Pavement Markings		\$8.00	Linear Foot	0	\$0.00
Miscellaneous					
Guide Rail		\$18.00	Linear Foot	0	\$0.00
Concrete Curb		\$35.00	Linear Foot	0	\$0.00
Bituminous Wedge Curb		\$7.00	Linear Foot	0	\$0.00
Other Miscellaneous					
Post Mounted Signs		\$200.00	Each	0	\$0.00
Other					\$0.00
Construction Subtotal:					\$200,000.00
Mobilization		5.0%	Of Construction Total		\$10,000.00
Maintenance and Protection of Traffic		5.0%	Of Construction Total		\$10,000.00
Contingency		15.0%	Of Construction Total		\$30,000.00
Total Construction:					\$250,000.00
Utility Relocation					
Utility Pole Relocation		\$3,300.00	Each	0	\$0.00
Electric Service		\$2,000.00	Each	0	\$0.00
Water/ Gas Valves		\$250.00	Each	0	\$0.00
Fire Hydrant Relocation		\$1,000.00	Each	0	\$0.00
High Tension Electric Poles		\$130,000.00	Each	0	\$0.00
Sanitary Manhole		\$2,400.00	Each	0	\$0.00
Other		\$5,000.00	Project	0	\$0.00
Utility Subtotal:					\$0.00
Contingency		15.0%	Of Utility Subtotal		\$0.00
Total Utility Relocation:					\$0.00
Right-of-Way					
Right-of-Way - Urban		\$150,000.00	Acres	0	\$0.00
Right-of-Way - Rural		\$120,000.00	Acres	0	\$0.00
Construction Easement (75% of ROW)			Acres	0	\$0.00
Structures		\$180,000.00	Each	0	\$0.00
Right-of-Way Subtotal:					\$0.00
Contingency		15.0%	Of Right-of-Way Subtotal		\$0.00
Total Right-of-Way:					\$0.00
Engineering		11.5%	Of Construction Total		\$28,750.00
Construction Inspection		8.0%	Of Construction Total		\$20,000.00
Administration and Planning		1.5%	Of Construction Total		\$3,750.00
Total Project Cost:					\$302,500.00

EXHIBIT "B" - (continued)

PROJECT CODE: I26

TRANSPORTATION DISTRICT:

Western District

LOCATION:

Stevens Road (SR 1045) / Line Road (SR 1045) & Sevens Road (SR 1030) / south Main Street (West Cocalico)

DEFICIENCY:

The current intersection is deficient with 2034 base traffic volumes.

PROPOSED IMPROVEMENTS:

Install a traffic signal.

ESTIMATED COST SUMMARY:

(Current Year 2010 Dollars)

Construction	250,000
Utility Relocation	0
Right-of-Way	0
Engineering	28,750
Inspection	20,000
Admin & Planning	3,750
TOTAL	\$302,500

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year

2024

Inflation Rate: 3.76%

Projected Construction Cost

\$526,229

PROPOSED FUNDING:

State/Federal

0%

\$0

Other

100%

\$526,229

Impact Fees

0%

\$0

PROJECT SCHEDULE:

Secure Funding

Year

2022

Acquire ROW

2023

Complete Engineering

2023

Begin Construction

2024

TRANSPORTATION DISTRICT COST:

Western District

100%

\$0

Eastern District

0%

\$0

Southern District

0%

\$0

REMARKS:

EXHIBIT "B" - (continued)

EAST COCALICO TOWNSHIP CAPITAL IMPROVEMENT PLAN - COST ESTIMATE SHEET

Project Number		I26	Done By: BDE		Checked: MJR	
Description			Cost	Unit	Quantity	Total
Construction Items						
Traffic Signals						
New Signal (4-way)			\$200,000.00	Each	1	\$200,000.00
New Signal (3-way)			\$150,000.00	Each	0	\$0.00
Signal Modifications			\$20,000.00	Each	0	\$0.00
Emergency Vehicle Preemption Only			\$10,000.00	Each	0	\$0.00
Pavement						
1.5" Pavement Overlay and Milling			\$7.00	Square Yard	0	\$0.00
New Pavement - Arterial Roads			\$46.00	Square Yard	0	\$0.00
New Pavement - Collector Roads			\$40.00	Square Yard	0	\$0.00
New Pavement - Local Commercial Roads			\$34.00	Square Yard	0	\$0.00
New Pavement - Local Residential Roads			\$29.00	Square Yard	0	\$0.00
4" PBD			\$7.25	Linear Foot	0	\$0.00
Excavation						
Excavation (Borrow)			\$12.00	Cubic Yard	0	\$0.00
Drainage						
Inlet/Manhole			\$2,400.00	Each	0	\$0.00
Pipe and Trenching			\$55.00	Linear Foot	0	\$0.00
Culvert			\$700.00	Linear Foot	0	\$0.00
Pavement Markings						
4" Pavement Markings			\$2.00	Linear Foot	0	\$0.00
8" Pavement Markings			\$8.00	Linear Foot	0	\$0.00
Miscellaneous						
Guide Rail			\$18.00	Linear Foot	0	\$0.00
Concrete Curb			\$35.00	Linear Foot	0	\$0.00
Bituminous Wedge Curb			\$7.00	Linear Foot	0	\$0.00
Other Miscellaneous						
Post Mounted Signs			\$200.00	Each	0	\$0.00
Other						\$0.00
Construction Subtotal:						\$200,000.00
Mobilization		5.0%	Of Construction Total		\$10,000.00	
Maintenance and Protection of Traffic		5.0%	Of Construction Total		\$10,000.00	
Contingency		15.0%	Of Construction Total		\$30,000.00	
Total Construction:						\$250,000.00
Utility Relocation						
Utility Pole Relocation			\$3,300.00	Each	0	\$0.00
Electric Service			\$2,000.00	Each	0	\$0.00
Water/ Gas Valves			\$250.00	Each	0	\$0.00
Fire Hydrant Relocation			\$1,000.00	Each	0	\$0.00
High Tension Electric Poles			\$130,000.00	Each	0	\$0.00
Sanitary Manhole			\$2,400.00	Each	0	\$0.00
Other			\$5,000.00	Project	0	\$0.00
Utility Subtotal:						\$0.00
Contingency		15.0%	Of Utility Subtotal		\$0.00	
Total Utility Relocation:						\$0.00
Right-of-Way						
Right-of-Way - Urban			\$150,000.00	Acres	0	\$0.00
Right-of-Way - Rural			\$120,000.00	Acres	0	\$0.00
Construction Easement (75% of ROW)				Acres	0	\$0.00
Structures			\$180,000.00	Each	0	\$0.00
Right-of-Way Subtotal:						\$0.00
Contingency		15.0%	Of Right-of-Way Subtotal		\$0.00	
Total Right-of-Way:						\$0.00
Engineering		11.5%	Of Construction Total		\$28,750.00	
Construction Inspection		8.0%	Of Construction Total		\$20,000.00	
Administration and Planning		1.5%	Of Construction Total		\$3,750.00	
Total Project Cost:						\$302,500.00

EXHIBIT "B" - (continued)

PROJECT CODE: S29

TRANSPORTATION DISTRICT:

Southern District

LOCATION:

Church Street (SR 1051), between Red Run Road (SR 1044) & Napierville

DEFICIENCY:

The current roadway segment is deficient with 2034 base traffic volumes.

PROPOSED IMPROVEMENTS:

Widen to 12' lanes with 4' shoulders.

ESTIMATED COST SUMMARY:

(Current Year 2010 Dollars)

Construction	196,600
Utility Relocation	99,820
Right-of-Way	0
Engineering	22,609
Inspection	15,728
Admin & Planning	2,949
TOTAL	\$337,706

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year

2034

Projected Construction Cost

\$849,744

Inflation Rate: 3.76%

PROPOSED FUNDING:

State/Federal

100%

\$849,744

Other

0%

\$0

Impact Fees

0%

\$0

PROJECT SCHEDULE:

Secure Funding

Year

2032

Acquire ROW

2033

Compete Engineering

2033

Begin Construction

2034

TRANSPORTATION DISTRICT COST:

Western District

0%

\$0

Eastern District

0%

\$0

Southern District

100%

\$0

REMARKS:

EXHIBIT "B" - (continued)

EAST COCALICO TOWNSHIP CAPITAL IMPROVEMENT PLAN - COST ESTIMATE SHEET

Project Number		S29	Done By: BDE		Checked: MJR	
Description			Cost	Unit	Quantity	Total
Construction Items						
Traffic Signals						
New Signal (4-way)			\$200,000.00	Each	0	\$0.00
New Signal (3-way)			\$150,000.00	Each	0	\$0.00
Signal Modifications			\$20,000.00	Each	0	\$0.00
Emergency Vehicle Preemption Only			\$10,000.00	Each	0	\$0.00
Pavement						
1.5" Pavement Overlay and Milling			\$7.00	Square Yard	0	\$0.00
New Pavement - Arterial Roads			\$46.00	Square Yard	0	\$0.00
New Pavement - Collector Roads			\$40.00	Square Yard	2667	\$106,680.00
New Pavement - Local Commercial Roads			\$34.00	Square Yard	0	\$0.00
New Pavement - Local Residential Roads			\$29.00	Square Yard	0	\$0.00
4" PBD			\$7.25	Linear Foot	4000	\$29,000.00
Excavation						
Excavation (Borrow)			\$12.00	Cubic Yard	0	\$0.00
Drainage						
Inlet/Manhole			\$2,400.00	Each	8	\$19,200.00
Pipe and Trenching			\$55.00	Linear Foot	0	\$0.00
Culvert			\$700.00	Linear Foot	0	\$0.00
Pavement Markings						
4" Pavement Markings			\$2.00	Linear Foot	0	\$0.00
8" Pavement Markings			\$8.00	Linear Foot	0	\$0.00
Miscellaneous						
Guide Rail			\$18.00	Linear Foot	0	\$0.00
Concrete Curb			\$35.00	Linear Foot	0	\$0.00
Bituminous Wedge Curb			\$7.00	Linear Foot	0	\$0.00
Other Miscellaneous						
Post Mounted Signs			\$200.00	Each	12	\$2,400.00
Other						\$0.00
Construction Subtotal:						\$157,280.00
Mobilization		5.0%	Of Construction Total		\$7,864.00	
Maintenance and Protection of Traffic		5.0%	Of Construction Total		\$7,864.00	
Contingency		15.0%	Of Construction Total		\$23,592.00	
Total Construction:						\$196,600.00
Utility Relocation						
Utility Pole Relocation			\$3,300.00	Each	26	\$85,800.00
Electric Service			\$2,000.00	Each	0	\$0.00
Water/ Gas Valves			\$250.00	Each	0	\$0.00
Fire Hydrant Relocation			\$1,000.00	Each	1	\$1,000.00
High Tension Electric Poles			\$130,000.00	Each	0	\$0.00
Sanitary Manhole			\$2,400.00	Each	0	\$0.00
Other			\$5,000.00	Project	0	\$0.00
Utility Subtotal:						\$86,800.00
Contingency		15.0%	Of Utility Subtotal		\$13,020.00	
Total Utility Relocation:						\$99,820.00
Right-of-Way						
Right-of-Way - Urban			\$150,000.00	Acres	0	\$0.00
Right-of-Way - Rural			\$120,000.00	Acres	0	\$0.00
Construction Easement (75% of ROW)				Acres	0	\$0.00
Structures			\$180,000.00	Each	0	\$0.00
Right-of-Way Subtotal:						\$0.00
Contingency		15.0%	Of Right-of-Way Subtotal		\$0.00	
Total Right-of-Way:						\$0.00
Engineering		11.5%	Of Construction Total		\$22,609.00	
Construction Inspection		8.0%	Of Construction Total		\$15,728.00	
Administration and Planning		1.5%	Of Construction Total		\$2,949.00	
Total Project Cost:						\$337,706.00

EXHIBIT "B" - (continued)

PROJECT CODE: S01

TRANSPORTATION DISTRICT:

Western District

LOCATION:

Denver Road Bridge (T-901)

DEFICIENCY:

The current roadway segment is deficient with 2034 projected traffic volumes.

PROPOSED IMPROVEMENTS:

Widen to 12' lanes with 6' shoulders (upgrade to community collector)

ESTIMATED COST SUMMARY:

(Current Year 2010 Dollars)

Construction	804,938
Utility Relocation	7,590
Right-of-Way	53,130
Engineering	201,234
Inspection	80,494
Admin & Planning	12,074
TOTAL	\$1,159,460

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year

2014

Inflation Rate: 3.76%

Projected Construction Cost

\$1,394,458

PROPOSED FUNDING:

State/Federal	0%	\$0
Other	0%	\$0
Impact Fees	100%	\$1,394,458

PROJECT SCHEDULE:

	Year
Secure Funding	2012
Acquire ROW	2012
Compete Engineering	2013
Begin Construction	2014

TRANSPORTATION DISTRICT COST:

Western District	100%	\$1,394,458
Eastern District	0%	\$0
Southern District	0%	\$0

REMARKS:

EXHIBIT "B" - (continued)

EAST COCALICO TOWNSHIP CAPITAL IMPROVEMENT PLAN - COST ESTIMATE SHEET

Project Number	S01	Done By: BDE	Checked: MJR		
Description		Cost	Unit	Quantity	Total
Construction Items					
Traffic Signals					
New Signal (4-way)		\$200,000.00	Each	0	\$0.00
New Signal (3-way)		\$150,000.00	Each	0	\$0.00
Signal Modifications		\$20,000.00	Each	0	\$0.00
Emergency Vehicle Preemption Only		\$10,000.00	Each	0	\$0.00
Pavement					
1.5" Pavement Overlay and Milling		\$7.00	Square Yard	0	\$0.00
New Pavement - Arterial Roads		\$46.00	Square Yard	0	\$0.00
New Pavement - Collector Roads		\$40.00	Square Yard	4000	\$160,000.00
New Pavement - Local Commercial Roads		\$34.00	Square Yard	0	\$0.00
New Pavement - Local Residential Roads		\$29.00	Square Yard	0	\$0.00
4" PBD		\$7.25	Linear Foot	2000	\$14,500.00
Excavation					
Excavation (Borrow)		\$12.00	Cubic Yard	0	\$0.00
Drainage					
Inlet/Manhole		\$2,400.00	Each	4	\$9,600.00
Pipe and Trenching		\$55.00	Linear Foot	222	\$12,210.00
Culvert		\$700.00	Linear Foot	0	\$0.00
Pavement Markings					
4" Pavement Markings		\$0.16	Linear Foot	4000	\$640.00
8" Pavement Markings		\$8.00	Linear Foot	0	\$0.00
Miscellaneous					
Guide Rail		\$25.00	Linear Foot	500	\$12,500.00
Concrete Curb		\$35.00	Linear Foot	2000	\$70,000.00
Bituminous Wedge Curb		\$7.00	Linear Foot	0	\$0.00
Other Miscellaneous					
Post Mounted Signs		\$200.00	Each	0	\$0.00
New Bridge Structure		\$1,350.00	Square Yard	270	\$364,500.00
Construction Subtotal:					\$643,950.00
Mobilization		5.0%	Of Construction Total		\$32,197.50
Maintenance and Protection of Traffic		5.0%	Of Construction Total		\$32,197.50
Contingency		15.0%	Of Construction Total		\$96,592.50
Total Construction:					\$804,937.50
Utility Relocation					
Utility Pole Relocation		\$3,300.00	Each	2	\$6,600.00
Electric Service		\$2,000.00	Each	0	\$0.00
Water/ Gas Valves		\$250.00	Each	0	\$0.00
Fire Hydrant Relocation		\$1,000.00	Each	0	\$0.00
High Tension Electric Poles		\$130,000.00	Each	0	\$0.00
Sanitary Manhole		\$2,400.00	Each	0	\$0.00
Other		\$5,000.00	Project	0	\$0.00
Utility Subtotal:					\$6,600.00
Contingency		15.0%	Of Utility Subtotal		\$990.00
Total Utility Relocation:					\$7,590.00
Right-of-Way					
Right-of-Way - Urban		\$150,000.00	Acres	0	\$0.00
Right-of-Way - Rural		\$120,000.00	Acres	0.31	\$37,200.00
Construction Easement (25% of ROW)		\$30,000.00	Acres	0.3	\$9,000.00
Structures		\$180,000.00	Each	0	\$0.00
Right-of-Way Subtotal:					\$46,200.00
Contingency		15.0%	Of Right-of-Way Subtotal		\$6,930.00
Total Right-of-Way:					\$53,130.00
Engineering		25.0%	Of Construction Total		\$201,234.38
Construction Inspection		10.0%	Of Construction Total		\$80,493.75
Administration and Planning		1.5%	Of Construction Total		\$12,074.06
Total Project Cost:					\$1,159,459.69

EXHIBIT "B" - (continued)

PROJECT CODE: I03

TRANSPORTATION DISTRICT:

Southern District

LOCATION:

Church Street (SR 1051) & Reamstown Road (T-700)

DEFICIENCY:

The current intersection is deficient with 2034 projected traffic volumes.

PROPOSED IMPROVEMENTS:

Install a traffic signal.

ESTIMATED COST SUMMARY:

(Current Year 2010 Dollars)

Construction	250,000
Utility Relocation	0
Right-of-Way	17,250
Engineering	28,750
Inspection	20,000
Admin & Planning	3,750
TOTAL	\$319,750

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year

2024

Projected Construction Cost

\$556,237

Inflation Rate: 3.76%

PROPOSED FUNDING:

State/Federal

0%

\$0

Other

33%

\$183,558

Impact Fees

67%

\$372,679

PROJECT SCHEDULE:

Secure Funding

Year

2022

Acquire ROW

2023

Compete Engineering

2023

Begin Construction

2024

TRANSPORTATION DISTRICT COST:

Western District

0%

\$0

Eastern District

0%

\$0

Southern District

100%

\$372,679

REMARKS:

EXHIBIT "B" - (continued)

EAST COCALICO TOWNSHIP CAPITAL IMPROVEMENT PLAN - COST ESTIMATE SHEET

Project Number		I03	Done By: BDE		Checked: MJR	
Description			Cost	Unit	Quantity	Total
Construction Items						
Traffic Signals						
New Signal (4-way)			\$200,000.00	Each	1	\$200,000.00
New Signal (3-way)			\$150,000.00	Each	0	\$0.00
Signal Modifications			\$20,000.00	Each	0	\$0.00
Emergency Vehicle Preemption Only			\$10,000.00	Each	0	\$0.00
Pavement						
1.5" Pavement Overlay and Milling			\$7.00	Square Yard	0	\$0.00
New Pavement - Arterial Roads			\$46.00	Square Yard	0	\$0.00
New Pavement - Collector Roads			\$40.00	Square Yard	0	\$0.00
New Pavement - Local Commercial Roads			\$34.00	Square Yard	0	\$0.00
New Pavement - Local Residential Roads			\$29.00	Square Yard	0	\$0.00
4" PBD			\$7.25	Linear Foot	0	\$0.00
Excavation						
Excavation (Borrow)			\$12.00	Cubic Yard	0	\$0.00
Drainage						
Inlet/Manhole			\$2,400.00	Each	0	\$0.00
Pipe and Trenching			\$55.00	Linear Foot	0	\$0.00
Culvert			\$700.00	Linear Foot	0	\$0.00
Pavement Markings						
4" Pavement Markings			\$2.00	Linear Foot	0	\$0.00
8" Pavement Markings			\$8.00	Linear Foot	0	\$0.00
Miscellaneous						
Guide Rail			\$18.00	Linear Foot	0	\$0.00
Concrete Curb			\$35.00	Linear Foot	0	\$0.00
Bituminous Wedge Curb			\$7.00	Linear Foot	0	\$0.00
Other Miscellaneous						
Post Mounted Signs			\$200.00	Each	0	\$0.00
Other					0	\$0.00
			Construction Subtotal:			\$200,000.00
Mobilization			5.0%	Of Construction Total		\$10,000.00
Maintenance and Protection of Traffic			5.0%	Of Construction Total		\$10,000.00
Contingency			15.0%	Of Construction Total		\$30,000.00
			Total Construction:			\$250,000.00
Utility Relocation						
Utility Pole Relocation			\$3,300.00	Each	0	\$0.00
Electric Service			\$2,000.00	Each	0	\$0.00
Water/ Gas Valves			\$250.00	Each	0	\$0.00
Fire Hydrant Relocation			\$1,000.00	Each	0	\$0.00
High Tension Electric Poles			\$130,000.00	Each	0	\$0.00
Sanitary Manhole			\$2,400.00	Each	0	\$0.00
Other			\$5,000.00	Project	0	\$0.00
			Utility Subtotal:			\$0.00
Contingency			15.0%	Of Utility Subtotal		\$0.00
			Total Utility Relocation:			\$0.00
Right-of-Way						
Right-of-Way - Urban			\$150,000.00	Acres	0.1	\$15,000.00
Right-of-Way - Rural			\$120,000.00	Acres	0	\$0.00
Construction Easement (75% of ROW)				Acres	0	\$0.00
Structures			\$180,000.00	Each	0	\$0.00
			Right-of-Way Subtotal:			\$15,000.00
Contingency			15.0%	Of Right-of-Way Subtotal		\$2,250.00
			Total Right-of-Way:			\$17,250.00
Engineering			11.5%	Of Construction Total		\$28,750.00
Construction Inspection			8.0%	Of Construction Total		\$20,000.00
Administration and Planning			1.5%	Of Construction Total		\$3,750.00
			Total Project Cost:			\$319,750.00

EXHIBIT "B" - (continued)

PROJECT CODE: I04A

TRANSPORTATION DISTRICT:

Western/Southern District

LOCATION:

Church Street (SR 1051) & Route 272

DEFICIENCY:

The current intersection geometry is deficient with 2034 projected traffic volumes.

PROPOSED IMPROVEMENTS:

Construct a westbound left turn lane and right turn lane, remove/install two signal poles, curb

ESTIMATED COST SUMMARY:

(Current Year 2010 Dollars)

Construction	382,000
Utility Relocation	35,535
Right-of-Way	75,469
Engineering	57,300
Inspection	38,200
Admin & Planning	5,730
TOTAL	\$594,234

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year

2019

Projected Construction Cost

\$859,522

Inflation Rate: 3.76%

PROPOSED FUNDING:

State/Federal	0%	\$0
Other	50%	\$429,761
Impact Fees	50%	\$429,761

PROJECT SCHEDULE:

	Year
Secure Funding	2017
Acquire ROW	2018
Compete Engineering	2018
Begin Construction	2019

TRANSPORTATION DISTRICT COST:

Western District	0%	\$0
Eastern District	0%	\$0
Southern District	100%	\$429,761

REMARKS:

EXHIBIT "B" - (continued)

EAST COCALICO TOWNSHIP CAPITAL IMPROVEMENT PLAN - COST ESTIMATE SHEET

Project Number		I04A	Done By: BDE		Checked: MJR	
Description			Cost	Unit	Quantity	Total
Construction Items						
Traffic Signals						
New Signal (4-way)			\$200,000.00	Each	0.5	\$100,000.00
New Signal (3-way)			\$150,000.00	Each	0	\$0.00
Signal Modifications			\$20,000.00	Each	0	\$0.00
Emergency Vehicle Preemption Only			\$10,000.00	Each	0	\$0.00
Pavement						
1.5" Pavement Overlay and Milling			\$7.00	Square Yard	4000	\$28,000.00
New Pavement - Arterial Roads			\$46.00	Square Yard	1000	\$46,000.00
New Pavement - Collector Roads			\$40.00	Square Yard	0	\$0.00
New Pavement - Local Commercial Roads			\$34.00	Square Yard	0	\$0.00
New Pavement - Local Residential Roads			\$29.00	Square Yard	400	\$11,600.00
4" PBD			\$7.25	Linear Foot	800	\$5,800.00
Excavation						
Excavation (Borrow)			\$12.00	Cubic Yard	0	\$0.00
Drainage						
Inlet/Manhole			\$2,400.00	Each	5	\$12,000.00
Pipe and Trenching			\$55.00	Linear Foot	800	\$44,000.00
Culvert			\$700.00	Linear Foot	0	\$0.00
Pavement Markings						
4" Pavement Markings			\$2.00	Linear Foot	2600	\$5,200.00
8" Pavement Markings			\$8.00	Linear Foot	0	\$0.00
Miscellaneous						
Guide Rail			\$18.00	Linear Foot	0	\$0.00
Concrete Curb			\$35.00	Linear Foot	1200	\$42,000.00
Bituminous Wedge Curb			\$7.00	Linear Foot	0	\$0.00
Other Miscellaneous						
Post Mounted Signs			\$200.00	Each	5	\$1,000.00
Other (ADA Ramps)			\$2,500.00	Each	4	\$10,000.00
			Construction Subtotal:			\$305,600.00
Mobilization			5.0%	Of Construction Total	\$15,280.00	
Maintenance and Protection of Traffic			5.0%	Of Construction Total	\$15,280.00	
Contingency			15.0%	Of Construction Total	\$45,840.00	
			Total Construction:			\$382,000.00
Utility Relocation						
Utility Pole Relocation			\$3,300.00	Each	3	\$9,900.00
Electric Service			\$2,000.00	Each	0	\$0.00
Water/ Gas Valves			\$250.00	Each	0	\$0.00
Fire Hydrant Relocation			\$1,000.00	Each	1	\$1,000.00
High Tension Electric Poles			\$130,000.00	Each	0	\$0.00
Sanitary Manhole			\$2,400.00	Each	0	\$0.00
Other			\$5,000.00	Project	4	\$20,000.00
			Utility Subtotal:			\$30,900.00
Contingency			15.0%	Of Utility Subtotal	\$4,635.00	
			Total Utility Relocation:			\$35,535.00
Right-of-Way						
Right-of-Way - Urban			\$150,000.00	Acres	0.25	\$37,500.00
Right-of-Way - Rural			\$120,000.00	Acres	0	\$0.00
Construction Easement (75% of ROW)				Acres	0	\$28,125.00
Structures			\$180,000.00	Each	0	\$0.00
			Right-of-Way Subtotal:			\$65,625.00
Contingency			15.0%	Of Right-of-Way Subtotal	\$9,843.75	
			Total Right-of-Way:			\$75,468.75
Engineering			15.0%	Of Construction Total	\$57,300.00	
Construction Inspection			10.0%	Of Construction Total	\$38,200.00	
Administration and Planning			1.5%	Of Construction Total	\$5,730.00	
			Total Project Cost:			\$594,233.75

EXHIBIT "B" - (continued)

PROJECT CODE: I04B

TRANSPORTATION DISTRICT:

Western/Southern District

LOCATION:

Church Street (SR 1051) & Route 272

DEFICIENCY:

The current intersection geometry is deficient with 2034 projected traffic volumes.

PROPOSED IMPROVEMENTS:

Construct a Eastbound left turn lane and right turn lane, remove/install two signal poles, curb

ESTIMATED COST SUMMARY:

(Current Year 2010 Dollars)

Construction	382,000
Utility Relocation	45,885
Right-of-Way	43,125
Engineering	43,930
Inspection	30,560
Admin & Planning	5,730
TOTAL	\$551,230

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year

2019

Projected Construction Cost

\$797,320

Inflation Rate: 3.76%

PROPOSED FUNDING:

State/Federal	0%	\$0
Other	50%	\$398,660
Impact Fees	50%	\$398,660

PROJECT SCHEDULE:

	Year
Secure Funding	2017
Acquire ROW	2018
Compete Engineering	2018
Begin Construction	2019

TRANSPORTATION DISTRICT COST:

Western District	100%	\$398,660
Eastern District	0%	\$0
Southern District	0%	\$0

REMARKS:

EXHIBIT "B" - (continued)

EAST COCALICO TOWNSHIP CAPITAL IMPROVEMENT PLAN - COST ESTIMATE SHEET

Project Number		I04B	Done By: BDE		Checked: MJR	
Description			Cost	Unit	Quantity	Total
Construction Items						
Traffic Signals						
New Signal (4-way)			\$200,000.00	Each	0.5	\$100,000.00
New Signal (3-way)			\$150,000.00	Each	0	\$0.00
Signal Modifications			\$20,000.00	Each	0	\$0.00
Emergency Vehicle Preemption Only			\$10,000.00	Each	0	\$0.00
Pavement						
1.5" Pavement Overlay and Milling			\$7.00	Square Yard	4000	\$28,000.00
New Pavement - Arterial Roads			\$46.00	Square Yard	1000	\$46,000.00
New Pavement - Collector Roads			\$40.00	Square Yard	0	\$0.00
New Pavement - Local Commercial Roads			\$34.00	Square Yard	0	\$0.00
New Pavement - Local Residential Roads			\$29.00	Square Yard	400	\$11,600.00
4" PBD			\$7.25	Linear Foot	800	\$5,800.00
Excavation						
Excavation (Borrow)			\$12.00	Cubic Yard	0	\$0.00
Drainage						
Inlet/Manhole			\$2,400.00	Each	5	\$12,000.00
Pipe and Trenching			\$55.00	Linear Foot	800	\$44,000.00
Culvert			\$700.00	Linear Foot	0	\$0.00
Pavement Markings						
4" Pavement Markings			\$2.00	Linear Foot	2600	\$5,200.00
8" Pavement Markings			\$8.00	Linear Foot	0	\$0.00
Miscellaneous						
Guide Rail			\$18.00	Linear Foot	0	\$0.00
Concrete Curb			\$35.00	Linear Foot	1200	\$42,000.00
Bituminous Wedge Curb			\$7.00	Linear Foot	0	\$0.00
Other Miscellaneous						
Post Mounted Signs			\$200.00	Each	5	\$1,000.00
Other(ADA Ramps)			\$2,500.00	Each	4	\$10,000.00
			Construction Subtotal:			\$305,600.00
Mobilization			5.0%	Of Construction Total	\$15,280.00	
Maintenance and Protection of Traffic			5.0%	Of Construction Total	\$15,280.00	
Contingency			15.0%	Of Construction Total	\$45,840.00	
			Total Construction:			\$382,000.00
Utility Relocation						
Utility Pole Relocation			\$3,300.00	Each	3	\$9,900.00
Electric Service			\$2,000.00	Each	0	\$0.00
Water/ Gas Valves			\$250.00	Each	0	\$0.00
Fire Hydrant Relocation			\$1,000.00	Each	0	\$0.00
High Tension Electric Poles			\$130,000.00	Each	0	\$0.00
Sanitary Manhole			\$2,400.00	Each	0	\$0.00
Other			\$5,000.00	Project	6	\$30,000.00
			Utility Subtotal:			\$39,900.00
Contingency			15.0%	Of Utility Subtotal	\$5,985.00	
			Total Utility Relocation:			\$45,885.00
Right-of-Way						
Right-of-Way - Urban			\$150,000.00	Acres	0.25	\$37,500.00
Right-of-Way - Rural			\$120,000.00	Acres	0	\$0.00
Construction Easement (75% of ROW)				Acres	0	\$0.00
Structures			\$180,000.00	Each	0	\$0.00
			Right-of-Way Subtotal:			\$37,500.00
Contingency			15.0%	Of Right-of-Way Subtotal	\$5,625.00	
			Total Right-of-Way:			\$43,125.00
Engineering			11.5%	Of Construction Total	\$43,930.00	
Construction Inspection			8.0%	Of Construction Total	\$30,560.00	
Administration and Planning			1.5%	Of Construction Total	\$5,730.00	
			Total Project Cost:			\$551,230.00

EXHIBIT "B" - (continued)

PROJECT CODE: S05

TRANSPORTATION DISTRICT:

Eastern/Western District

LOCATION:

Route 897, west of Route 272

DEFICIENCY:

The current roadway segment is deficient with 2034 projected traffic volumes.

PROPOSED IMPROVEMENTS:

Widen to 12' lanes with 6' shoulders.

ESTIMATED COST SUMMARY:

(Current Year 2010 Dollars)

Construction	731,383
Utility Relocation	474,030
Right-of-Way	0
Engineering	84,109
Inspection	58,511
Admin & Planning	10,971
TOTAL	\$1,359,003

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year

2034

Projected Construction Cost

\$3,419,554

Inflation Rate: 3.76%

PROPOSED FUNDING:

State/Federal	100%	\$3,419,554
Other	0%	\$0
Impact Fees	0%	\$0

PROJECT SCHEDULE:

	Year
Secure Funding	2032
Acquire ROW	2033
Compete Engineering	2033
Begin Construction	2034

TRANSPORTATION DISTRICT COST:

Western District	0%	\$0
Eastern District	0%	\$0
Southern District	0%	\$0

REMARKS:

Future PENNDOT Project

EXHIBIT "B" - (continued)

EAST COCALICO TOWNSHIP CAPITAL IMPROVEMENT PLAN - COST ESTIMATE SHEET

Project Number		S05	Done By: BDE		Checked: MJR	
Description			Cost	Unit	Quantity	Total
Construction Items						
Traffic Signals						
New Signal (4-way)			\$200,000.00	Each	0	\$0.00
New Signal (3-way)			\$150,000.00	Each	0	\$0.00
Signal Modifications			\$20,000.00	Each	0	\$0.00
Emergency Vehicle Preemption Only			\$10,000.00	Each	0	\$0.00
Pavement						
1.5" Pavement Overlay and Milling			\$7.00	Square Yard	0	\$0.00
New Pavement - Arterial Roads			\$46.00	Square Yard	7111	\$327,106.00
New Pavement - Collector Roads			\$40.00	Square Yard	0	\$0.00
New Pavement - Local Commercial Roads			\$34.00	Square Yard	0	\$0.00
New Pavement - Local Residential Roads			\$29.00	Square Yard	0	\$0.00
4" PBD			\$7.25	Linear Foot	16000	\$116,000.00
Excavation						
Excavation (Borrow)			\$12.00	Cubic Yard	0	\$0.00
Drainage						
Inlet/Manhole			\$2,400.00	Each	31	\$74,400.00
Pipe and Trenching			\$55.00	Linear Foot	0	\$0.00
Culvert			\$700.00	Linear Foot	0	\$0.00
Pavement Markings						
4" Pavement Markings			\$2.00	Linear Foot	0	\$0.00
8" Pavement Markings			\$8.00	Linear Foot	0	\$0.00
Miscellaneous						
Guide Rail			\$18.00	Linear Foot	1300	\$23,400.00
Concrete Curb			\$35.00	Linear Foot	1000	\$35,000.00
Bituminous Wedge Curb			\$7.00	Linear Foot	0	\$0.00
Other Miscellaneous						
Post Mounted Signs			\$200.00	Each	46	\$9,200.00
Other						\$0.00
Construction Subtotal:						\$585,106.00
Mobilization		5.0%	Of Construction Total		\$29,255.30	
Maintenance and Protection of Traffic		5.0%	Of Construction Total		\$29,255.30	
Contingency		15.0%	Of Construction Total		\$87,765.90	
Total Construction:						\$731,382.50
Utility Relocation						
Utility Pole Relocation			\$3,300.00	Each	124	\$409,200.00
Electric Service			\$2,000.00	Each	0	\$0.00
Water/ Gas Valves			\$250.00	Each	0	\$0.00
Fire Hydrant Relocation			\$1,000.00	Each	3	\$3,000.00
High Tension Electric Poles			\$130,000.00	Each	0	\$0.00
Sanitary Manhole			\$2,400.00	Each	0	\$0.00
Other			\$5,000.00	Project	0	\$0.00
Utility Subtotal:						\$412,200.00
Contingency		15.0%	Of Utility Subtotal		\$61,830.00	
Total Utility Relocation:						\$474,030.00
Right-of-Way						
Right-of-Way - Urban			\$150,000.00	Acres	0	\$0.00
Right-of-Way - Rural			\$120,000.00	Acres	0	\$0.00
Construction Easement (75% of ROW)				Acres	0	\$0.00
Structures			\$180,000.00	Each	0	\$0.00
Right-of-Way Subtotal:						\$0.00
Contingency		15.0%	Of Right-of-Way Subtotal		\$0.00	
Total Right-of-Way:						\$0.00
Engineering		11.5%	Of Construction Total		\$84,108.99	
Construction Inspection		8.0%	Of Construction Total		\$58,510.60	
Administration and Planning		1.5%	Of Construction Total		\$10,970.74	
Total Project Cost:						\$1,359,002.83

EXHIBIT "B" - (continued)

PROJECT CODE: I09A

TRANSPORTATION DISTRICT:

Eastern/Southern District

LOCATION:

Colonel George Howard Boulevard (SR 1040) & Pepperidge Farm Boulevard (T-902)

DEFICIENCY:

The current intersection geometry is deficient with 2034 projected traffic volumes.

PROPOSED IMPROVEMENTS:

Construct a 2nd northbound left turn lane (Left-Left-Thru-Right configuration).

ESTIMATED COST SUMMARY:

(Current Year 2010 Dollars)

Construction	103,210
Utility Relocation	5,750
Right-of-Way	0
Engineering	11,869
Inspection	8,257
Admin & Planning	1,548
TOTAL	\$130,634

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year

2019

Projected Construction Cost

\$188,954

Inflation Rate: 3.76%

PROPOSED FUNDING:

State/Federal	0%	\$0
Other	0%	\$0
Impact Fees	0%	\$0

PROJECT SCHEDULE:

Year

Secure Funding
Acquire ROW
Compete Engineering
Begin Construction

TRANSPORTATION DISTRICT COST:

Western District	0%	\$0
Eastern District	99%	\$0
Southern District	1%	\$0

REMARKS:

Work to be done by Developer of adjacent parcels

EXHIBIT "B" - (continued)

EAST COCALICO TOWNSHIP CAPITAL IMPROVEMENT PLAN - COST ESTIMATE SHEET

Project Number		I09A	Done By: BDE		Checked: MJR	
Description			Cost	Unit	Quantity	Total
Construction Items						
Traffic Signals						
New Signal (4-way)			\$200,000.00	Each	0	\$0.00
New Signal (3-way)			\$150,000.00	Each	0	\$0.00
Signal Modifications			\$20,000.00	Each	1	\$20,000.00
Emergency Vehicle Preemption Only			\$10,000.00	Each	0	\$0.00
Pavement						
1.5" Pavement Overlay and Milling			\$7.00	Square Yard	0	\$0.00
New Pavement - Arterial Roads			\$46.00	Square Yard	533	\$24,518.00
New Pavement - Collector Roads			\$40.00	Square Yard	0	\$0.00
New Pavement - Local Commercial Roads			\$34.00	Square Yard	0	\$0.00
New Pavement - Local Residential Roads			\$29.00	Square Yard	0	\$0.00
4" PBD			\$7.25	Linear Foot	600	\$4,350.00
Excavation						
Excavation (Borrow)			\$12.00	Cubic Yard	0	\$0.00
Drainage						
Inlet/Manhole			\$2,400.00	Each	0	\$0.00
Pipe and Trenching			\$55.00	Linear Foot	0	\$0.00
Culvert			\$700.00	Linear Foot	0	\$0.00
Pavement Markings						
4" Pavement Markings			\$2.00	Linear Foot	2600	\$5,200.00
8" Pavement Markings			\$8.00	Linear Foot	0	\$0.00
Miscellaneous						
Guide Rail			\$18.00	Linear Foot	0	\$0.00
Concrete Curb			\$35.00	Linear Foot	500	\$17,500.00
Bituminous Wedge Curb			\$7.00	Linear Foot	0	\$0.00
Other Miscellaneous						
Post Mounted Signs			\$200.00	Each	5	\$1,000.00
Other (ADA upgrades)			\$1.00	LS	10000	\$10,000.00
Construction Subtotal:						\$82,568.00
Mobilization				5.0%	Of Construction Total	\$4,128.40
Maintenance and Protection of Traffic				5.0%	Of Construction Total	\$4,128.40
Contingency				15.0%	Of Construction Total	\$12,385.20
Total Construction:						\$103,210.00
Utility Relocation						
Utility Pole Relocation			\$3,300.00	Each	0	\$0.00
Electric Service			\$2,000.00	Each	0	\$0.00
Water/ Gas Valves			\$250.00	Each	0	\$0.00
Fire Hydrant Relocation			\$1,000.00	Each	0	\$0.00
High Tension Electric Poles			\$130,000.00	Each	0	\$0.00
Sanitary Manhole			\$2,400.00	Each	0	\$0.00
Other			\$5,000.00	Project	1	\$5,000.00
Utility Subtotal:						\$5,000.00
Contingency				15.0%	Of Utility Subtotal	\$750.00
Total Utility Relocation:						\$5,750.00
Right-of-Way						
Right-of-Way - Urban			\$150,000.00	Acres	0	\$0.00
Right-of-Way - Rural			\$120,000.00	Acres	0	\$0.00
Construction Easement (75% of ROW)				Acres	0	\$0.00
Structures			\$180,000.00	Each	0	\$0.00
Right-of-Way Subtotal:						\$0.00
Contingency				15.0%	Of Right-of-Way Subtotal	\$0.00
Total Right-of-Way:						\$0.00
Engineering				11.5%	Of Construction Total	\$11,869.15
Construction Inspection				8.0%	Of Construction Total	\$8,256.80
Administration and Planning				1.5%	Of Construction Total	\$1,548.15
Total Project Cost:						\$130,634.10

EXHIBIT "B" - (continued)

PROJECT CODE: I09B

TRANSPORTATION DISTRICT: Eastern/Southern District

LOCATION:

Colonel George Howard Boulevard (SR 1040) & Pepperidge Farm Boulevard (T-902)

DEFICIENCY:

The current intersection geometry is deficient with 2034 projected traffic volumes.

PROPOSED IMPROVEMENTS:

I09B Deleted- Work roled into I09A "Construct a northbound right turn lane."

ESTIMATED COST SUMMARY:

(Current Year 2010 Dollars)

Construction	51,929
Utility Relocation	0
Right-of-Way	0
Engineering	5,972
Inspection	4,154
Admin & Planning	779
TOTAL	\$62,834

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year	2034	Inflation Rate: 3.76%
Projected Construction Cost	\$0	

PROPOSED FUNDING:

State/Federal	0%	\$0
Other	0%	\$0
Impact Fees	0%	\$0

PROJECT SCHEDULE:

	Year
Secure Funding	2032
Acquire ROW	2033
Compete Engineering	2033
Begin Construction	2034

TRANSPORTATION DISTRICT COST:

Western District	0%	\$0
Eastern District	99%	\$0
Southern Distict	1%	\$0

REMARKS:

EXHIBIT "B" - (continued)

EAST COCALICO TOWNSHIP CAPITAL IMPROVEMENT PLAN - COST ESTIMATE SHEET

Project Number		I09B	Done By: BDE		Checked: MJR	
Description			Cost	Unit	Quantity	Total
Construction Items						
Traffic Signals						
New Signal (4-way)			\$200,000.00	Each	0	\$0.00
New Signal (3-way)			\$150,000.00	Each	0	\$0.00
Signal Modifications			\$20,000.00	Each	1	\$20,000.00
Emergency Vehicle Preemption Only			\$10,000.00	Each	0	\$0.00
Pavement						
1.5" Pavement Overlay and Milling			\$7.00	Square Yard	0	\$0.00
New Pavement - Arterial Roads			\$46.00	Square Yard	333	\$15,318.00
New Pavement - Collector Roads			\$40.00	Square Yard	0	\$0.00
New Pavement - Local Commercial Roads			\$34.00	Square Yard	0	\$0.00
New Pavement - Local Residential Roads			\$29.00	Square Yard	0	\$0.00
4" PBD			\$7.25	Linear Foot	300	\$2,175.00
Excavation						
Excavation (Borrow)			\$12.00	Cubic Yard	0	\$0.00
Drainage						
Inlet/Manhole			\$2,400.00	Each	0	\$0.00
Pipe and Trenching			\$55.00	Linear Foot	0	\$0.00
Culvert			\$700.00	Linear Foot	0	\$0.00
Pavement Markings						
4" Pavement Markings			\$2.00	Linear Foot	400	\$800.00
8" Pavement Markings			\$8.00	Linear Foot	0	\$0.00
Miscellaneous						
Guide Rail			\$18.00	Linear Foot	0	\$0.00
Concrete Curb			\$35.00	Linear Foot	0	\$0.00
Bituminous Wedge Curb			\$7.00	Linear Foot	0	\$0.00
Other Miscellaneous						
Post Mounted Signs			\$200.00	Each	0	\$0.00
Removal of Channelizing Island			\$25.00	SY	130	\$3,250.00
Construction Subtotal:						\$41,543.00
Mobilization		5.0%	Of Construction Total		\$2,077.15	
Maintenance and Protection of Traffic		5.0%	Of Construction Total		\$2,077.15	
Contingency		15.0%	Of Construction Total		\$6,231.45	
Total Construction:						\$51,928.75
Utility Relocation						
Utility Pole Relocation			\$3,300.00	Each	0	\$0.00
Electric Service			\$2,000.00	Each	0	\$0.00
Water/ Gas Valves			\$250.00	Each	0	\$0.00
Fire Hydrant Relocation			\$1,000.00	Each	0	\$0.00
High Tension Electric Poles			\$130,000.00	Each	0	\$0.00
Sanitary Manhole			\$2,400.00	Each	0	\$0.00
Other			\$5,000.00	Project	0	\$0.00
Utility Subtotal:						\$0.00
Contingency		15.0%	Of Utility Subtotal		\$0.00	
Total Utility Relocation:						\$0.00
Right-of-Way						
Right-of-Way - Urban			\$150,000.00	Acres	0	\$0.00
Right-of-Way - Rural			\$120,000.00	Acres	0	\$0.00
Construction Easement (75% of ROW)				Acres	0	\$0.00
Structures			\$180,000.00	Each	0	\$0.00
Right-of-Way Subtotal:						\$0.00
Contingency		15.0%	Of Right-of-Way Subtotal		\$0.00	
Total Right-of-Way:						\$0.00
Engineering		11.5%	Of Construction Total		\$5,971.81	
Construction Inspection		8.0%	Of Construction Total		\$4,154.30	
Administration and Planning		1.5%	Of Construction Total		\$778.93	
Total Project Cost:						\$62,833.79

EXHIBIT "B" - (continued)

PROJECT CODE: I09C

TRANSPORTATION DISTRICT:

Eastern/Southern District

LOCATION:

Colonel George Howard Boulevard (SR 1040) & Pepperidge Farm Boulevard (T-902)

DEFICIENCY:

The current intersection geometry is deficient with 2034 projected traffic volumes.

PROPOSED IMPROVEMENTS:

Construct dual southbound left turn lanes. Maintain existing SB RT Lane and Thru lane.

Maintain existing signals and install median to create protected EB RT lane

ESTIMATED COST SUMMARY:

(Current Year 2010 Dollars)

Construction	310,568
Utility Relocation	5,750
Right-of-Way	0
Engineering	35,715
Inspection	24,845
Admin & Planning	4,659
TOTAL	\$381,537

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year

2019

Projected Construction Cost

\$551,869

Inflation Rate: 3.76%

PROPOSED FUNDING:

State/Federal	0%	\$0
Other	0%	\$0
Impact Fees	0%	\$0

PROJECT SCHEDULE:

Year

Secure Funding
Acquire ROW
Complete Engineering
Begin Construction

TRANSPORTATION DISTRICT COST:

Western District	0%	\$0
Eastern District	99%	\$0
Southern District	1%	\$0

REMARKS:

Work to be done by Developer of adjacent parcels

EXHIBIT "B" - (continued)

EAST COCALICO TOWNSHIP CAPITAL IMPROVEMENT PLAN - COST ESTIMATE SHEET

Project Number		I09C	Done By: BDE		Checked: MJR	
Description			Cost	Unit	Quantity	Total
Construction Items						
Traffic Signals						
New Signal (4-way)			\$200,000.00	Each	0	\$0.00
New Signal (3-way)			\$150,000.00	Each	0	\$0.00
Signal Modifications			\$20,000.00	Each	1	\$20,000.00
Emergency Vehicle Preemption Only			\$10,000.00	Each	0	\$0.00
Pavement						
1.5" Pavement Overlay and Milling			\$7.00	Square Yard	0	\$0.00
New Pavement - Arterial Roads (Concrete)			\$70.00	Square Yard	1600	\$112,000.00
New Pavement - Collector Roads			\$40.00	Square Yard	0	\$0.00
New Pavement - Local Commercial Roads			\$34.00	Square Yard	0	\$0.00
New Pavement - Local Residential Roads			\$29.00	Square Yard	0	\$0.00
4" PBD			\$7.25	Linear Foot	1000	\$7,250.00
Excavation						
Excavation (Borrow)			\$12.00	Cubic Yard	0	\$0.00
Drainage						
Inlet/Manhole			\$2,400.00	Each	0	\$0.00
Pipe and Trenching			\$55.00	Linear Foot	0	\$0.00
Culvert			\$700.00	Linear Foot	0	\$0.00
Pavement Markings						
4" Pavement Markings			\$2.00	Linear Foot	4400	\$8,800.00
8" Pavement Markings			\$8.00	Linear Foot	0	\$0.00
Miscellaneous						
Guide Rail			\$18.00	Linear Foot	0	\$0.00
Concrete Curb (Vertical and Mountable)			\$35.00	Linear Foot	2000	\$70,000.00
Bituminous Wedge Curb			\$7.00	Linear Foot	0	\$0.00
Other Miscellaneous						
Post Mounted Signs			\$200.00	Each	10	\$2,000.00
ADA Upgrades			\$1.00	LS	10,000	\$10,000.00
Construction Subtotal:						\$230,050.00
Mobilization				5.0%	Of Construction Total	\$11,502.50
Maintenance and Protection of Traffic				5.0%	Of Construction Total	\$11,502.50
Contingency				25.0%	Of Construction Total	\$57,512.50
Total Construction:						\$310,567.50
Utility Relocation						
Utility Pole Relocation			\$3,300.00	Each	0	\$0.00
Electric Service			\$2,000.00	Each	0	\$0.00
Water/ Gas Valves			\$250.00	Each	0	\$0.00
Fire Hydrant Relocation			\$1,000.00	Each	0	\$0.00
High Tension Electric Poles			\$130,000.00	Each	0	\$0.00
Sanitary Manhole			\$2,400.00	Each	0	\$0.00
Other			\$5,000.00	Project	1	\$5,000.00
Utility Subtotal:						\$5,000.00
Contingency				15.0%	Of Utility Subtotal	\$750.00
Total Utility Relocation:						\$5,750.00
Right-of-Way						
Right-of-Way - Urban			\$150,000.00	Acres	0	\$0.00
Right-of-Way - Rural			\$120,000.00	Acres	0	\$0.00
Construction Easement (75% of ROW)				Acres	0	\$0.00
Structures			\$180,000.00	Each	0	\$0.00
Right-of-Way Subtotal:						\$0.00
Contingency				15.0%	Of Right-of-Way Subtotal	\$0.00
Total Right-of-Way:						\$0.00
Engineering				11.5%	Of Construction Total	\$35,715.26
Construction Inspection				8.0%	Of Construction Total	\$24,845.40
Administration and Planning				1.5%	Of Construction Total	\$4,658.51
Total Project Cost:						\$381,536.68

EXHIBIT "B" - (continued)

PROJECT CODE: I09D

TRANSPORTATION DISTRICT:

Eastern/Southern District

LOCATION:

Colonel George Howard Boulevard (SR 1040) & Pepperidge Farm Boulevard (T-902)

DEFICIENCY:

The current intersection geometry is deficient with 2034 projected traffic volumes.

PROPOSED IMPROVEMENTS:

I09D Deleted- Work roled into I09C "Construct a southbound right turn lane."

Existing SB Right Turn Lane can be maintained following Cocalico Commons HOP work.

ESTIMATED COST SUMMARY:

(Current Year 2010 Dollars)

Construction	48,366
Utility Relocation	0
Right-of-Way	0
Engineering	5,562
Inspection	3,869
Admin & Planning	725
TOTAL	\$58,523

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year

2034

Inflation Rate: 3.76%

Projected Construction Cost

\$0

PROPOSED FUNDING:

State/Federal

0%

\$0

Other

0%

\$0

Impact Fees

0%

\$0

PROJECT SCHEDULE:

Secure Funding

Year

2032

Acquire ROW

2033

Compete Engineering

2033

Begin Construction

2034

TRANSPORTATION DISTRICT COST:

Western District

0%

\$0

Eastern District

99%

\$0

Southern Distict

1%

\$0

REMARKS:

EXHIBIT "B" - (continued)

EAST COCALICO TOWNSHIP CAPITAL IMPROVEMENT PLAN - COST ESTIMATE SHEET

Project Number		I09D	Done By: BDE		Checked: MJR	
Description			Cost	Unit	Quantity	Total
Construction Items						
Traffic Signals						
New Signal (4-way)			\$200,000.00	Each	0	\$0.00
New Signal (3-way)			\$150,000.00	Each	0	\$0.00
Signal Modifications			\$20,000.00	Each	1	\$20,000.00
Emergency Vehicle Preemption Only			\$10,000.00	Each	0	\$0.00
Pavement						
1.5" Pavement Overlay and Milling			\$7.00	Square Yard	0	\$0.00
New Pavement - Arterial Roads			\$46.00	Square Yard	333	\$15,318.00
New Pavement - Collector Roads			\$40.00	Square Yard	0	\$0.00
New Pavement - Local Commercial Roads			\$34.00	Square Yard	0	\$0.00
New Pavement - Local Residential Roads			\$29.00	Square Yard	0	\$0.00
4" PBD			\$7.25	Linear Foot	300	\$2,175.00
Excavation						
Excavation (Borrow)			\$12.00	Cubic Yard	0	\$0.00
Drainage						
Inlet/Manhole			\$2,400.00	Each	0	\$0.00
Pipe and Trenching			\$55.00	Linear Foot	0	\$0.00
Culvert			\$700.00	Linear Foot	0	\$0.00
Pavement Markings						
4" Pavement Markings			\$2.00	Linear Foot	400	\$800.00
8" Pavement Markings			\$8.00	Linear Foot	0	\$0.00
Miscellaneous						
Guide Rail			\$18.00	Linear Foot	0	\$0.00
Concrete Curb			\$35.00	Linear Foot	0	\$0.00
Bituminous Wedge Curb			\$7.00	Linear Foot	0	\$0.00
Other Miscellaneous						
Post Mounted Signs			\$200.00	Each	2	\$400.00
						\$0.00
Construction Subtotal:						\$38,693.00
Mobilization		5.0%	Of Construction Total			\$1,934.65
Maintenance and Protection of Traffic		5.0%	Of Construction Total			\$1,934.65
Contingency		15.0%	Of Construction Total			\$5,803.95
Total Construction:						\$48,366.25
Utility Relocation						
Utility Pole Relocation			\$3,300.00	Each	0	\$0.00
Electric Service			\$2,000.00	Each	0	\$0.00
Water/ Gas Valves			\$250.00	Each	0	\$0.00
Fire Hydrant Relocation			\$1,000.00	Each	0	\$0.00
High Tension Electric Poles			\$130,000.00	Each	0	\$0.00
Sanitary Manhole			\$2,400.00	Each	0	\$0.00
Other			\$5,000.00	Project	0	\$0.00
Utility Subtotal:						\$0.00
Contingency		15.0%	Of Utility Subtotal			\$0.00
Total Utility Relocation:						\$0.00
Right-of-Way						
Right-of-Way - Urban			\$150,000.00	Acres	0	\$0.00
Right-of-Way - Rural			\$120,000.00	Acres	0	\$0.00
Construction Easement (75% of ROW)				Acres	0	\$0.00
Structures			\$180,000.00	Each	0	\$0.00
Right-of-Way Subtotal:						\$0.00
Contingency		15.0%	Of Right-of-Way Subtotal			\$0.00
Total Right-of-Way:						\$0.00
Engineering		11.5%	Of Construction Total			\$5,562.12
Construction Inspection		8.0%	Of Construction Total			\$3,869.30
Administration and Planning		1.5%	Of Construction Total			\$725.49
Total Project Cost:						\$58,523.16

EXHIBIT "B" - (continued)

PROJECT CODE: I10

TRANSPORTATION DISTRICT:

Eastern/Southern District

LOCATION:

Colonel George Howard Boulevard (SR 1040) & Reamstown Road (T-700)

DEFICIENCY:

The current intersection is deficient with 2034 projected traffic volumes.

PROPOSED IMPROVEMENTS:

Install a traffic signal.

ESTIMATED COST SUMMARY:

(Current Year 2010 Dollars)

Construction	187,500
Utility Relocation	0
Right-of-Way	0
Engineering	21,563
Inspection	15,000
Admin & Planning	2,813
TOTAL	\$226,875

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year

2027

Projected Construction Cost

\$440,886

Inflation Rate: 3.76%

PROPOSED FUNDING:

State/Federal

50%

\$220,443

Other

0%

\$0

Impact Fees

50%

\$220,443

PROJECT SCHEDULE:

Secure Funding

Year

2025

Acquire ROW

2026

Compete Engineering

2026

Begin Construction

2027

TRANSPORTATION DISTRICT COST:

Western District

0%

\$0

Eastern District

99%

\$218,238

Southern District

1%

\$2,204

REMARKS:

EXHIBIT "B" - (continued)

EAST COCALICO TOWNSHIP CAPITAL IMPROVEMENT PLAN - COST ESTIMATE SHEET

Project Number		I10	Done By: BDE		Checked: MJR	
Description			Cost	Unit	Quantity	Total
Construction Items						
Traffic Signals						
New Signal (4-way)			\$200,000.00	Each	0	\$0.00
New Signal (3-way)			\$150,000.00	Each	1	\$150,000.00
Signal Modifications			\$20,000.00	Each	0	\$0.00
Emergency Vehicle Preemption Only			\$10,000.00	Each	0	\$0.00
Pavement						
1.5" Pavement Overlay and Milling			\$7.00	Square Yard	0	\$0.00
New Pavement - Arterial Roads			\$46.00	Square Yard	0	\$0.00
New Pavement - Collector Roads			\$40.00	Square Yard	0	\$0.00
New Pavement - Local Commercial Roads			\$34.00	Square Yard	0	\$0.00
New Pavement - Local Residential Roads			\$29.00	Square Yard	0	\$0.00
4" PBD			\$7.25	Linear Foot	0	\$0.00
Excavation						
Excavation (Borrow)			\$12.00	Cubic Yard	0	\$0.00
Drainage						
Inlet/Manhole			\$2,400.00	Each	0	\$0.00
Pipe and Trenching			\$55.00	Linear Foot	0	\$0.00
Culvert			\$700.00	Linear Foot	0	\$0.00
Pavement Markings						
4" Pavement Markings			\$2.00	Linear Foot	0	\$0.00
8" Pavement Markings			\$8.00	Linear Foot	0	\$0.00
Miscellaneous						
Guide Rail			\$18.00	Linear Foot	0	\$0.00
Concrete Curb			\$35.00	Linear Foot	0	\$0.00
Bituminous Wedge Curb			\$7.00	Linear Foot	0	\$0.00
Other Miscellaneous						
Post Mounted Signs			\$200.00	Each	0	\$0.00
						\$0.00
Construction Subtotal:						\$150,000.00
Mobilization		5.0%	Of Construction Total			\$7,500.00
Maintenance and Protection of Traffic		5.0%	Of Construction Total			\$7,500.00
Contingency		15.0%	Of Construction Total			\$22,500.00
Total Construction:						\$187,500.00
Utility Relocation						
Utility Pole Relocation			\$3,300.00	Each	0	\$0.00
Electric Service			\$2,000.00	Each	0	\$0.00
Water/ Gas Valves			\$250.00	Each	0	\$0.00
Fire Hydrant Relocation			\$1,000.00	Each	0	\$0.00
High Tension Electric Poles			\$130,000.00	Each	0	\$0.00
Sanitary Manhole			\$2,400.00	Each	0	\$0.00
Other			\$5,000.00	Project	0	\$0.00
Utility Subtotal:						\$0.00
Contingency		15.0%	Of Utility Subtotal			\$0.00
Total Utility Relocation:						\$0.00
Right-of-Way						
Right-of-Way - Urban			\$150,000.00	Acres	0	\$0.00
Right-of-Way - Rural			\$120,000.00	Acres	0	\$0.00
Construction Easement (75% of ROW)				Acres	0	\$0.00
Structures			\$180,000.00	Each	0	\$0.00
Right-of-Way Subtotal:						\$0.00
Contingency		15.0%	Of Right-of-Way Subtotal			\$0.00
Total Right-of-Way:						\$0.00
Engineering		11.5%	Of Construction Total			\$21,562.50
Construction Inspection		8.0%	Of Construction Total			\$15,000.00
Administration and Planning		1.5%	Of Construction Total			\$2,812.50
Total Project Cost:						\$226,875.00

EXHIBIT "B" - (continued)

PROJECT CODE: I11B

TRANSPORTATION DISTRICT: Eastern/Western/Southern District

LOCATION:

Colonel George Howard Boulevard (SR 1040) / Denver Road (T-901) & Route 272

DEFICIENCY:

The current intersection geometry is deficient with 2034 projected traffic volumes.

PROPOSED IMPROVEMENTS:

Prohibit left turns and thru movements exiting the eastbound approach. Project I30 is required prerequisite or concurrently.

ESTIMATED COST SUMMARY:

(Current Year 2010 Dollars)

Construction	253,250
Utility Relocation	0
Right-of-Way	0
Engineering	29,124
Inspection	20,260
Admin & Planning	3,799
TOTAL	\$306,433

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year

2034

Projected Construction Cost

\$771,052

Inflation Rate: 3.76%

PROPOSED FUNDING:

State/Federal	50%	\$385,526
Other	0%	\$0
Impact Fees	50%	\$385,526

PROJECT SCHEDULE:

	Year
Secure Funding	2032
Acquire ROW	2033
Compete Engineering	2033
Begin Construction	2034

TRANSPORTATION DISTRICT COST:

Western District	1%	\$3,855
Eastern District	98%	\$377,816
Southern District	1%	\$3,855

REMARKS:

EXHIBIT "B" - (continued)

EAST COCALICO TOWNSHIP CAPITAL IMPROVEMENT PLAN - COST ESTIMATE SHEET

Project Number		I11B	Done By: BDE		Checked: MJR	
Description			Cost	Unit	Quantity	Total
Construction Items						
Traffic Signals						
New Signal (4-way)			\$200,000.00	Each	1	\$200,000.00
New Signal (3-way)			\$150,000.00	Each	0	\$0.00
Signal Modifications			\$20,000.00	Each	0	\$0.00
Emergency Vehicle Preemption Only			\$10,000.00	Each	0	\$0.00
Pavement						
1.5" Pavement Overlay and Milling			\$7.00	Square Yard	0	\$0.00
New Pavement - Arterial Roads			\$46.00	Square Yard	0	\$0.00
New Pavement - Collector Roads			\$40.00	Square Yard	0	\$0.00
New Pavement - Local Commercial Roads			\$34.00	Square Yard	0	\$0.00
New Pavement - Local Residential Roads			\$29.00	Square Yard	0	\$0.00
4" PBD			\$7.25	Linear Foot	0	\$0.00
Excavation						
Excavation (Borrow)			\$12.00	Cubic Yard	0	\$0.00
Drainage						
Inlet/Manhole			\$2,400.00	Each	0	\$0.00
Pipe and Trenching			\$55.00	Linear Foot	0	\$0.00
Culvert			\$700.00	Linear Foot	0	\$0.00
Pavement Markings						
4" Pavement Markings			\$2.00	Linear Foot	1300	\$2,600.00
8" Pavement Markings			\$8.00	Linear Foot	0	\$0.00
Miscellaneous						
Guide Rail			\$18.00	Linear Foot	0	\$0.00
Concrete Curb			\$35.00	Linear Foot	0	\$0.00
Bituminous Wedge Curb			\$7.00	Linear Foot	0	\$0.00
Other Miscellaneous						
Post Mounted Signs			\$200.00	Each	0	\$0.00
						\$0.00
Construction Subtotal:						\$202,600.00
Mobilization			5.0%	Of Construction Total		\$10,130.00
Maintenance and Protection of Traffic			5.0%	Of Construction Total		\$10,130.00
Contingency			15.0%	Of Construction Total		\$30,390.00
Total Construction:						\$253,250.00
Utility Relocation						
Utility Pole Relocation			\$3,300.00	Each	0	\$0.00
Electric Service			\$2,000.00	Each	0	\$0.00
Water/ Gas Valves			\$250.00	Each	0	\$0.00
Fire Hydrant Relocation			\$1,000.00	Each	0	\$0.00
High Tension Electric Poles			\$130,000.00	Each	0	\$0.00
Sanitary Manhole			\$2,400.00	Each	0	\$0.00
Other			\$5,000.00	Project	0	\$0.00
Utility Subtotal:						\$0.00
Contingency			15.0%	Of Utility Subtotal		\$0.00
Total Utility Relocation:						\$0.00
Right-of-Way						
Right-of-Way - Urban			\$150,000.00	Acres	0	\$0.00
Right-of-Way - Rural			\$120,000.00	Acres	0	\$0.00
Construction Easement (75% of ROW)				Acres	0	\$0.00
Structures			\$180,000.00	Each	0	\$0.00
Right-of-Way Subtotal:						\$0.00
Contingency			15.0%	Of Right-of-Way Subtotal		\$0.00
Total Right-of-Way:						\$0.00
Engineering			11.5%	Of Construction Total		\$29,123.75
Construction Inspection			8.0%	Of Construction Total		\$20,260.00
Administration and Planning			1.5%	Of Construction Total		\$3,798.75
Total Project Cost:						\$306,432.50

EXHIBIT "B" - (continued)

PROJECT CODE: I11C

TRANSPORTATION DISTRICT: Eastern/Western/Southern District

LOCATION:

Colonel George Howard Boulevard (SR 1040) / Denver Road (T-901) & Route 272

DEFICIENCY:

The current intersection geometry is deficient with 2034 projected traffic volumes.

PROPOSED IMPROVEMENTS:

Construct a 2nd northbound right turn lane.

ESTIMATED COST SUMMARY:

(Current Year 2010 Dollars)

Construction	51,491
Utility Relocation	0
Right-of-Way	0
Engineering	5,921
Inspection	4,119
Admin & Planning	772
TOTAL	\$62,304

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year

2029

Projected Construction Cost

\$130,352

Inflation Rate: 3.76%

PROPOSED FUNDING:

State/Federal

50%

\$65,176

Other

0%

\$0

Impact Fees

50%

\$65,176

PROJECT SCHEDULE:

Secure Funding

Year

2027

Acquire ROW

2028

Complete Engineering

2028

Begin Construction

2029

TRANSPORTATION DISTRICT COST:

Western District

1%

\$652

Eastern District

98%

\$63,873

Southern District

1%

\$652

REMARKS:

EXHIBIT "B" - (continued)

EAST COCALICO TOWNSHIP CAPITAL IMPROVEMENT PLAN - COST ESTIMATE SHEET

Project Number		I11C	Done By: BDE		Checked: MJR	
Description			Cost	Unit	Quantity	Total
Construction Items						
Traffic Signals						
New Signal (4-way)			\$200,000.00	Each	0	\$0.00
New Signal (3-way)			\$150,000.00	Each	0	\$0.00
Signal Modifications			\$20,000.00	Each	1	\$20,000.00
Emergency Vehicle Preemption Only			\$10,000.00	Each	0	\$0.00
Pavement						
1.5" Pavement Overlay and Milling			\$7.00	Square Yard	0	\$0.00
New Pavement - Arterial Roads			\$46.00	Square Yard	333	\$15,318.00
New Pavement - Collector Roads			\$40.00	Square Yard	0	\$0.00
New Pavement - Local Commercial Roads			\$34.00	Square Yard	0	\$0.00
New Pavement - Local Residential Roads			\$29.00	Square Yard	0	\$0.00
4" PBD			\$7.25	Linear Foot	300	\$2,175.00
Excavation						
Excavation (Borrow)			\$12.00	Cubic Yard	0	\$0.00
Drainage						
Inlet/Manhole			\$2,400.00	Each	0	\$0.00
Pipe and Trenching			\$55.00	Linear Foot	0	\$0.00
Culvert			\$700.00	Linear Foot	0	\$0.00
Pavement Markings						
4" Pavement Markings			\$2.00	Linear Foot	400	\$800.00
8" Pavement Markings			\$8.00	Linear Foot	0	\$0.00
Miscellaneous						
Guide Rail			\$18.00	Linear Foot	0	\$0.00
Concrete Curb			\$35.00	Linear Foot	0	\$0.00
Bituminous Wedge Curb			\$7.00	Linear Foot	0	\$0.00
Other Miscellaneous						
Post Mounted Signs			\$200.00	Each	2	\$400.00
Removal of Channelizing Island			\$25.00	SY	100	\$2,500.00
Construction Subtotal:						\$41,193.00
Mobilization		5.0%	Of Construction Total		\$2,059.65	
Maintenance and Protection of Traffic		5.0%	Of Construction Total		\$2,059.65	
Contingency		15.0%	Of Construction Total		\$6,178.95	
Total Construction:						\$51,491.25
Utility Relocation						
Utility Pole Relocation			\$3,300.00	Each	0	\$0.00
Electric Service			\$2,000.00	Each	0	\$0.00
Water/ Gas Valves			\$250.00	Each	0	\$0.00
Fire Hydrant Relocation			\$1,000.00	Each	0	\$0.00
High Tension Electric Poles			\$130,000.00	Each	0	\$0.00
Sanitary Manhole			\$2,400.00	Each	0	\$0.00
Other			\$5,000.00	Project	0	\$0.00
Utility Subtotal:						\$0.00
Contingency		15.0%	Of Utility Subtotal		\$0.00	
Total Utility Relocation:						\$0.00
Right-of-Way						
Right-of-Way - Urban			\$150,000.00	Acres	0	\$0.00
Right-of-Way - Rural			\$120,000.00	Acres	0	\$0.00
Construction Easement (75% of ROW)				Acres	0	\$0.00
Structures			\$180,000.00	Each	0	\$0.00
Right-of-Way Subtotal:						\$0.00
Contingency		15.0%	Of Right-of-Way Subtotal		\$0.00	
Total Right-of-Way:						\$0.00
Engineering		11.5%	Of Construction Total		\$5,921.49	
Construction Inspection		8.0%	Of Construction Total		\$4,119.30	
Administration and Planning		1.5%	Of Construction Total		\$772.37	
Total Project Cost:						\$62,304.41

EXHIBIT "B" - (continued)

PROJECT CODE: I11D

TRANSPORTATION DISTRICT: Eastern/Western/Southern District

LOCATION:

Colonel George Howard Boulevard (SR 1040) / Denver Road (T-901) & Route 272

DEFICIENCY:

The current intersection geometry is deficient with 2034 projected traffic volumes.

PROPOSED IMPROVEMENTS:

Construct a 2nd westbound right turn lane.

ESTIMATED COST SUMMARY:

(Current Year 2010 Dollars)

Construction	60,679
Utility Relocation	0
Right-of-Way	0
Engineering	6,978
Inspection	4,854
Admin & Planning	910
TOTAL	\$73,421

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year

2029

Projected Construction Cost

\$153,611

Inflation Rate: 3.76%

PROPOSED FUNDING:

State/Federal	50%	\$76,805
Other	0%	\$0
Impact Fees	50%	\$76,805

PROJECT SCHEDULE:

	Year
Secure Funding	2027
Acquire ROW	2028
Complete Engineering	2028
Begin Construction	2029

TRANSPORTATION DISTRICT COST:

Western District	1%	\$768
Eastern District	98%	\$75,269
Southern District	1%	\$768

REMARKS:

EXHIBIT "B" - (continued)

EAST COCALICO TOWNSHIP CAPITAL IMPROVEMENT PLAN - COST ESTIMATE SHEET

Project Number		I11D	Done By: BDE		Checked: MJR	
Description			Cost	Unit	Quantity	Total
Construction Items						
Traffic Signals						
New Signal (4-way)			\$200,000.00	Each	0	\$0.00
New Signal (3-way)			\$150,000.00	Each	0	\$0.00
Signal Modifications			\$20,000.00	Each	1	\$20,000.00
Emergency Vehicle Preemption Only			\$10,000.00	Each	0	\$0.00
Pavement						
1.5" Pavement Overlay and Milling			\$7.00	Square Yard	0	\$0.00
New Pavement - Arterial Roads			\$46.00	Square Yard	333	\$15,318.00
New Pavement - Collector Roads			\$40.00	Square Yard	0	\$0.00
New Pavement - Local Commercial Roads			\$34.00	Square Yard	0	\$0.00
New Pavement - Local Residential Roads			\$29.00	Square Yard	0	\$0.00
4" PBD			\$7.25	Linear Foot	300	\$2,175.00
Excavation						
Excavation (Borrow)			\$12.00	Cubic Yard	0	\$0.00
Drainage						
Inlet/Manhole			\$2,400.00	Each	0	\$0.00
Pipe and Trenching			\$55.00	Linear Foot	0	\$0.00
Culvert			\$700.00	Linear Foot	0	\$0.00
Pavement Markings						
4" Pavement Markings			\$2.00	Linear Foot	400	\$800.00
8" Pavement Markings			\$8.00	Linear Foot	0	\$0.00
Miscellaneous						
Guide Rail			\$18.00	Linear Foot	0	\$0.00
Concrete Curb			\$35.00	Linear Foot	0	\$0.00
Bituminous Wedge Curb			\$7.00	Linear Foot	0	\$0.00
Other Miscellaneous						
Post Mounted Signs			\$200.00	Each	0	\$0.00
Removal of Channelizing Island			\$25.00	SY	410	\$10,250.00
Construction Subtotal:						\$48,543.00
Mobilization		5.0%	Of Construction Total		\$2,427.15	
Maintenance and Protection of Traffic		5.0%	Of Construction Total		\$2,427.15	
Contingency		15.0%	Of Construction Total		\$7,281.45	
Total Construction:						\$60,678.75
Utility Relocation						
Utility Pole Relocation			\$3,300.00	Each	0	\$0.00
Electric Service			\$2,000.00	Each	0	\$0.00
Water/ Gas Valves			\$250.00	Each	0	\$0.00
Fire Hydrant Relocation			\$1,000.00	Each	0	\$0.00
High Tension Electric Poles			\$130,000.00	Each	0	\$0.00
Sanitary Manhole			\$2,400.00	Each	0	\$0.00
Other			\$5,000.00	Project	0	\$0.00
Utility Subtotal:						\$0.00
Contingency		15.0%	Of Utility Subtotal		\$0.00	
Total Utility Relocation:						\$0.00
Right-of-Way						
Right-of-Way - Urban			\$150,000.00	Acres	0	\$0.00
Right-of-Way - Rural			\$120,000.00	Acres	0	\$0.00
Construction Easement (75% of ROW)				Acres	0	\$0.00
Structures			\$180,000.00	Each	0	\$0.00
Right-of-Way Subtotal:						\$0.00
Contingency		15.0%	Of Right-of-Way Subtotal		\$0.00	
Total Right-of-Way:						\$0.00
Engineering		11.5%	Of Construction Total		\$6,978.06	
Construction Inspection		8.0%	Of Construction Total		\$4,854.30	
Administration and Planning		1.5%	Of Construction Total		\$910.18	
Total Project Cost:						\$73,421.29

EXHIBIT "B" - (continued)

PROJECT CODE: I18

TRANSPORTATION DISTRICT:

Eastern/Western District

LOCATION:

Route 272 & Pepperidge Farm Driveway

DEFICIENCY:

The current intersection geometry is deficient with 2034 projected traffic volumes.

PROPOSED IMPROVEMENTS:

Realign and Signalize with Route 272 & Hill Road (T-846).

ESTIMATED COST SUMMARY:

(Current Year 2010 Dollars)

Construction	581,175
Utility Relocation	71,990
Right-of-Way	0
Engineering	66,835
Inspection	46,494
Admin & Planning	8,718
TOTAL	\$775,212

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year

2029

Projected Construction Cost

\$1,621,883

Inflation Rate: 3.76%

PROPOSED FUNDING:

State/Federal	0%	\$0
Other	0%	\$0
Impact Fees	100%	\$1,621,883

PROJECT SCHEDULE:

	Year
Secure Funding	2027
Acquire ROW	2028
Compete Engineering	2028
Begin Construction	2029

TRANSPORTATION DISTRICT COST:

Western District	0%	\$0
Eastern District	100%	\$1,621,883
Southern District	0%	\$0

REMARKS:

Road to be built when site is developed adjacent to relocated road. Right-of-way to be acquired through the land development process.
Ownership of Turnpike Bridge to remain with Turnpike.

EXHIBIT "B" - (continued)

EAST COCALICO TOWNSHIP CAPITAL IMPROVEMENT PLAN - COST ESTIMATE SHEET

Project Number		I18	Done By: BDE		Checked: MJR	
Description			Cost	Unit	Quantity	Total
Construction Items						
Traffic Signals						
New Signal (4-way)			\$200,000.00	Each	0	\$0.00
New Signal (3-way)			\$150,000.00	Each	0	\$0.00
Signal Modifications			\$20,000.00	Each	4	\$80,000.00
Emergency Vehicle Preemption Only			\$10,000.00	Each	0	\$0.00
Pavement						
1.5" Pavement Overlay and Milling			\$7.00	Square Yard	0	\$0.00
New Pavement - Arterial Roads			\$46.00	Square Yard	0	\$0.00
New Pavement - Collector Roads			\$40.00	Square Yard	3600	\$144,000.00
New Pavement - Local Commercial Roads			\$34.00	Square Yard	0	\$0.00
New Pavement - Local Residential Roads			\$29.00	Square Yard	0	\$0.00
4" PBD			\$7.25	Linear Foot	1600	\$11,600.00
Excavation						
Excavation (Borrow)			\$12.00	Cubic Yard	0	\$0.00
Drainage						
Inlet/Manhole			\$2,400.00	Each	10	\$24,000.00
Pipe and Trenching			\$55.00	Linear Foot	1500	\$82,500.00
Culvert			\$700.00	Linear Foot	0	\$0.00
Pavement Markings						
4" Pavement Markings			\$2.00	Linear Foot	3200	\$6,400.00
8" Pavement Markings			\$8.00	Linear Foot	0	\$0.00
Miscellaneous						
Guide Rail			\$18.00	Linear Foot	0	\$0.00
Concrete Curb			\$35.00	Linear Foot	2000	\$70,000.00
Bituminous Wedge Curb			\$7.00	Linear Foot	0	\$0.00
Other Miscellaneous						
Post Mounted Signs			\$200.00	Each	10	\$2,000.00
ADA Upgrades			\$10,000.00	LS	1	\$10,000.00
Construction Subtotal:						\$430,500.00
Mobilization		5.0%	Of Construction Total		\$21,525.00	
Maintenance and Protection of Traffic		5.0%	Of Construction Total		\$21,525.00	
Contingency		25.0%	Of Construction Total		\$107,625.00	
Total Construction:						\$581,175.00
Utility Relocation						
Utility Pole Relocation			\$3,300.00	Each	2	\$6,600.00
Electric Service			\$2,000.00	Each	0	\$0.00
Water/ Gas Valves			\$250.00	Each	0	\$0.00
Fire Hydrant Relocation			\$1,000.00	Each	1	\$1,000.00
High Tension Electric Poles			\$130,000.00	Each	0	\$0.00
Sanitary Manhole			\$2,400.00	Each	0	\$0.00
Street Lights			\$5,000.00	Project	11	\$55,000.00
Utility Subtotal:						\$62,600.00
Contingency		15.0%	Of Utility Subtotal		\$9,390.00	
Total Utility Relocation:						\$71,990.00
Right-of-Way						
Right-of-Way - Urban			\$150,000.00	Acres	0	\$0.00
Right-of-Way - Rural			\$120,000.00	Acres	0	\$0.00
Construction Easement (75% of ROW)				Acres	0	\$0.00
Structures			\$180,000.00	Each	0	\$0.00
Right-of-Way Subtotal:						\$0.00
Contingency		15.0%	Of Right-of-Way Subtotal		\$0.00	
Total Right-of-Way:						\$0.00
Engineering		11.5%	Of Construction Total		\$66,835.13	
Construction Inspection		8.0%	Of Construction Total		\$46,494.00	
Administration and Planning		1.5%	Of Construction Total		\$8,717.63	
Total Project Cost:						\$775,211.75

EXHIBIT "B" - (continued)

PROJECT CODE: I22

TRANSPORTATION DISTRICT:

Eastern/Southern District

LOCATION:

Muddy Creek Road (SR 1059) & Trost Road (T-953)

DEFICIENCY:

The current intersection geometry is deficient with 2034 projected traffic volumes.

PROPOSED IMPROVEMENTS:

Project Deleted. Not feasible- PENNDOT will not permit installation of All-Way Stop Control
Install all-way stop control and channelize the eastbound right turn movement.

ESTIMATED COST SUMMARY:

(Current Year 2010 Dollars)

Construction	165,665
Utility Relocation	7,590
Right-of-Way	133,074
Engineering	19,051
Inspection	13,253
Admin & Planning	2,485
TOTAL	\$341,119

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year

2034

Projected Construction Cost

\$858,332

Inflation Rate: 3.76%

PROPOSED FUNDING:

State/Federal	0%	\$0
Other	0%	\$0
Impact Fees	0%	\$0

PROJECT SCHEDULE:

	Year
Secure Funding	2032
Acquire ROW	2033
Compete Engineering	2033
Begin Construction	2034

TRANSPORTATION DISTRICT COST:

Western District	0%	\$0
Eastern District	41%	\$0
Southern District	59%	\$0

REMARKS:

Candidate project. May turn into future signal project

EXHIBIT "B" - (continued)

EAST COCALICO TOWNSHIP CAPITAL IMPROVEMENT PLAN - COST ESTIMATE SHEET

Project Number		I22	Done By: BDE		Checked: MJR	
Description			Cost	Unit	Quantity	Total
Construction Items						
Traffic Signals						
New Signal (4-way)			\$200,000.00	Each	0	\$0.00
New Signal (3-way)			\$150,000.00	Each	0	\$0.00
Signal Modifications			\$20,000.00	Each	0	\$0.00
Emergency Vehicle Preemption Only			\$10,000.00	Each	0	\$0.00
Pavement						
1.5" Pavement Overlay and Milling			\$7.00	Square Yard	0	\$0.00
New Pavement - Arterial Roads			\$46.00	Square Yard	2667	\$122,682.00
New Pavement - Collector Roads			\$40.00	Square Yard	0	\$0.00
New Pavement - Local Commercial Roads			\$34.00	Square Yard	0	\$0.00
New Pavement - Local Residential Roads			\$29.00	Square Yard	0	\$0.00
4" PBD			\$7.25	Linear Foot	200	\$1,450.00
Excavation						
Excavation (Borrow)			\$12.00	Cubic Yard	0	\$0.00
Drainage						
Inlet/Manhole			\$2,400.00	Each	0	\$0.00
Pipe and Trenching			\$55.00	Linear Foot	0	\$0.00
Culvert			\$700.00	Linear Foot	0	\$0.00
Pavement Markings						
4" Pavement Markings			\$2.00	Linear Foot	200	\$400.00
8" Pavement Markings			\$8.00	Linear Foot	0	\$0.00
Miscellaneous						
Guide Rail			\$18.00	Linear Foot	0	\$0.00
Concrete Curb			\$35.00	Linear Foot	200	\$7,000.00
Bituminous Wedge Curb			\$7.00	Linear Foot	0	\$0.00
Other Miscellaneous						
Post Mounted Signs			\$200.00	Each	5	\$1,000.00
						\$0.00
Construction Subtotal:						\$132,532.00
Mobilization			5.0%	Of Construction Total		\$6,626.60
Maintenance and Protection of Traffic			5.0%	Of Construction Total		\$6,626.60
Contingency			15.0%	Of Construction Total		\$19,879.80
Total Construction:						\$165,665.00
Utility Relocation						
Utility Pole Relocation			\$3,300.00	Each	2	\$6,600.00
Electric Service			\$2,000.00	Each	0	\$0.00
Water/ Gas Valves			\$250.00	Each	0	\$0.00
Fire Hydrant Relocation			\$1,000.00	Each	0	\$0.00
High Tension Electric Poles			\$130,000.00	Each	0	\$0.00
Sanitary Manhole			\$2,400.00	Each	0	\$0.00
Other			\$5,000.00	Project	0	\$0.00
Utility Subtotal:						\$6,600.00
Contingency			15.0%	Of Utility Subtotal		\$990.00
Total Utility Relocation:						\$7,590.00
Right-of-Way						
Right-of-Way - Urban			\$150,000.00	Acres	0	\$0.00
Right-of-Way - Rural			\$120,000.00	Acres	0.551033058	\$66,123.97
Construction Easement (75% of ROW)				Acres	0	\$49,592.98
Structures			\$180,000.00	Each	0	\$0.00
Right-of-Way Subtotal:						\$115,716.94
Contingency			15.0%	Of Right-of-Way Subtotal		\$17,357.54
Total Right-of-Way:						\$133,074.48
Engineering			11.5%	Of Construction Total		\$19,051.48
Construction Inspection			8.0%	Of Construction Total		\$13,253.20
Administration and Planning			1.5%	Of Construction Total		\$2,484.98
Total Project Cost:						\$341,119.13

EXHIBIT "B" - (continued)

PROJECT CODE: S22

TRANSPORTATION DISTRICT:

Eastern/Southern District

LOCATION:

Colonel George Howard Boulevard (SR 1040)

DEFICIENCY:

The current roadway segment is deficient with 2034 projected traffic volumes.

PROPOSED IMPROVEMENTS:

Construct additional 3rd thru lanes (triple thrus in each direction between Route 272 and the first Route 222 ramp). Tie into SR 222 Interchange work (I07 and I08).

ESTIMATED COST SUMMARY:

(Current Year 2010 Dollars)

Construction	1,953,659
Utility Relocation	26,795
Right-of-Way	0
Engineering	224,671
Inspection	156,293
Admin & Planning	29,305
TOTAL	\$2,390,723

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year

2027

Projected Construction Cost

\$4,645,886

Inflation Rate: 3.76%

PROPOSED FUNDING:

State/Federal	80%	\$3,716,709
Other	0%	\$0
Impact Fees	20%	\$929,177

PROJECT SCHEDULE:

	Year
Secure Funding	2025
Acquire ROW	2026
Compete Engineering	2026
Begin Construction	2027

TRANSPORTATION DISTRICT COST:

Western District	0%	\$0
Eastern District	41%	\$380,963
Southern District	59%	\$548,215

REMARKS:

EXHIBIT "B" - (continued)

EAST COCALICO TOWNSHIP CAPITAL IMPROVEMENT PLAN - COST ESTIMATE SHEET

Project Number	S22	Done By: BDE	Checked: MJR		
Description		Cost	Unit	Quantity	Total
Construction Items					
Traffic Signals					
New Signal (4-way)		\$200,000.00	Each	3	\$600,000.00
New Signal (3-way)		\$150,000.00	Each	0	\$0.00
Signal Modifications		\$20,000.00	Each	0	\$0.00
Emergency Vehicle Preemption Only		\$10,000.00	Each	0	\$0.00
Pavement					
1.5" Pavement Overlay and Milling		\$7.00	Square Yard	0	\$0.00
New Pavement - Arterial Roads		\$75.00	Square Yard	6667	\$500,025.00
New Pavement - Collector Roads- Shoulder		\$40.00	Square Yard	6667	\$266,680.00
New Pavement - Local Commercial Roads		\$34.00	Square Yard	0	\$0.00
New Pavement - Local Residential Roads		\$29.00	Square Yard	0	\$0.00
4" PBD		\$7.25	Linear Foot	5000	\$36,250.00
Excavation					
Excavation (Borrow)		\$12.00	Cubic Yard	0	\$0.00
Drainage					
Inlet/Manhole		\$2,400.00	Each	3	\$7,200.00
Pipe and Trenching		\$55.00	Linear Foot	0	\$0.00
Culvert		\$700.00	Linear Foot	0	\$0.00
Pavement Markings					
4" Pavement Markings		\$2.00	Linear Foot	10000	\$20,000.00
8" Pavement Markings		\$8.00	Linear Foot	0	\$0.00
Miscellaneous					
Guide Rail		\$18.00	Linear Foot	200	\$3,600.00
Concrete Curb		\$35.00	Linear Foot	200	\$7,000.00
Bituminous Wedge Curb		\$7.00	Linear Foot	0	\$0.00
Other Miscellaneous					
Post Mounted Signs		\$200.00	Each	32	\$6,400.00
					\$0.00
Construction Subtotal:					\$1,447,155.00
Mobilization		5.0%	Of Construction Total		\$72,357.75
Maintenance and Protection of Traffic		5.0%	Of Construction Total		\$72,357.75
Contingency		25.0%	Of Construction Total		\$361,788.75
Total Construction:					\$1,953,659.25
Utility Relocation					
Utility Pole Relocation		\$3,300.00	Each	1	\$3,300.00
Electric Service		\$2,000.00	Each	0	\$0.00
Water/ Gas Valves		\$250.00	Each	0	\$0.00
Fire Hydrant Relocation		\$1,000.00	Each	0	\$0.00
High Tension Electric Poles		\$130,000.00	Each	0	\$0.00
Sanitary Manhole		\$2,400.00	Each	0	\$0.00
Street Lights		\$5,000.00	Project	4	\$20,000.00
Utility Subtotal:					\$23,300.00
Contingency		15.0%	Of Utility Subtotal		\$3,495.00
Total Utility Relocation:					\$26,795.00
Right-of-Way					
Right-of-Way - Urban		\$150,000.00	Acres	0	\$0.00
Right-of-Way - Rural		\$120,000.00	Acres	0	\$0.00
Construction Easement (75% of ROW)			Acres	0	\$0.00
Structures		\$180,000.00	Each	0	\$0.00
Right-of-Way Subtotal:					\$0.00
Contingency		15.0%	Of Right-of-Way Subtotal		\$0.00
Total Right-of-Way:					\$0.00
Engineering		11.5%	Of Construction Total		\$224,670.81
Construction Inspection		8.0%	Of Construction Total		\$156,292.74
Administration and Planning		1.5%	Of Construction Total		\$29,304.89
Total Project Cost:					\$2,390,722.69

EXHIBIT "B" - (continued)

PROJECT CODE: I23

TRANSPORTATION DISTRICT:

Eastern District

LOCATION:

Muddy Creek Road (SR 1059) & Stone Hill Road (T-862)

DEFICIENCY:

The current intersection is deficient with 2034 projected traffic volumes.

PROPOSED IMPROVEMENTS:

Install all-way stop control.

ESTIMATED COST SUMMARY:

(Current Year 2010 Dollars)

Construction	1,000
Utility Relocation	0
Right-of-Way	0
Engineering	115
Inspection	80
Admin & Planning	15
TOTAL	\$1,210

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year

2034

Projected Construction Cost

\$3,045

Inflation Rate: 3.76%

PROPOSED FUNDING:

State/Federal

50%

\$1,522

Other

0%

\$0

Impact Fees

50%

\$1,522

PROJECT SCHEDULE:

Secure Funding

Year

2032

Acquire ROW

2033

Compete Engineering

2033

Begin Construction

2034

TRANSPORTATION DISTRICT COST:

Western District

0%

\$0

Eastern District

100%

\$1,522

Southern District

0%

\$0

REMARKS:

EXHIBIT "B" - (continued)

EAST COCALICO TOWNSHIP CAPITAL IMPROVEMENT PLAN - COST ESTIMATE SHEET

Project Number		I23	Done By: BDE		Checked: MJR	
Description			Cost	Unit	Quantity	Total
Construction Items						
Traffic Signals						
New Signal (4-way)			\$200,000.00	Each	0	\$0.00
New Signal (3-way)			\$150,000.00	Each	0	\$0.00
Signal Modifications			\$20,000.00	Each	0	\$0.00
Emergency Vehicle Preemption Only			\$10,000.00	Each	0	\$0.00
Pavement						
1.5" Pavement Overlay and Milling			\$7.00	Square Yard	0	\$0.00
New Pavement - Arterial Roads			\$46.00	Square Yard	0	\$0.00
New Pavement - Collector Roads			\$40.00	Square Yard	0	\$0.00
New Pavement - Local Commercial Roads			\$34.00	Square Yard	0	\$0.00
New Pavement - Local Residential Roads			\$29.00	Square Yard	0	\$0.00
4" PBD			\$7.25	Linear Foot	0	\$0.00
Excavation						
Excavation (Borrow)			\$12.00	Cubic Yard	0	\$0.00
Drainage						
Inlet/Manhole			\$2,400.00	Each	0	\$0.00
Pipe and Trenching			\$55.00	Linear Foot	0	\$0.00
Culvert			\$700.00	Linear Foot	0	\$0.00
Pavement Markings						
4" Pavement Markings			\$2.00	Linear Foot	0	\$0.00
8" Pavement Markings			\$8.00	Linear Foot	0	\$0.00
Miscellaneous						
Guide Rail			\$18.00	Linear Foot	0	\$0.00
Concrete Curb			\$35.00	Linear Foot	0	\$0.00
Bituminous Wedge Curb			\$7.00	Linear Foot	0	\$0.00
Other Miscellaneous						
Post Mounted Signs			\$200.00	Each	4	\$800.00
						\$0.00
Construction Subtotal:						\$800.00
Mobilization			5.0%	Of Construction Total		\$40.00
Maintenance and Protection of Traffic			5.0%	Of Construction Total		\$40.00
Contingency			15.0%	Of Construction Total		\$120.00
Total Construction:						\$1,000.00
Utility Relocation						
Utility Pole Relocation			\$3,300.00	Each	0	\$0.00
Electric Service			\$2,000.00	Each	0	\$0.00
Water/ Gas Valves			\$250.00	Each	0	\$0.00
Fire Hydrant Relocation			\$1,000.00	Each	0	\$0.00
High Tension Electric Poles			\$130,000.00	Each	0	\$0.00
Sanitary Manhole			\$2,400.00	Each	0	\$0.00
Other			\$5,000.00	Project	0	\$0.00
Utility Subtotal:						\$0.00
Contingency			15.0%	Of Utility Subtotal		\$0.00
Total Utility Relocation:						\$0.00
Right-of-Way						
Right-of-Way - Urban			\$150,000.00	Acres	0	\$0.00
Right-of-Way - Rural			\$120,000.00	Acres	0	\$0.00
Construction Easement (75% of ROW)				Acres	0	\$0.00
Structures			\$180,000.00	Each	0	\$0.00
Right-of-Way Subtotal:						\$0.00
Contingency			15.0%	Of Right-of-Way Subtotal		\$0.00
Total Right-of-Way:						\$0.00
Engineering			11.5%	Of Construction Total		\$115.00
Construction Inspection			8.0%	Of Construction Total		\$80.00
Administration and Planning			1.5%	Of Construction Total		\$15.00
Total Project Cost:						\$1,210.00

EXHIBIT "B" - (continued)

PROJECT CODE: S28

TRANSPORTATION DISTRICT:

Southern District

LOCATION:

Church Street (SR 1051), between Route 272 & Red Run Road (SR 1044)

DEFICIENCY:

The current roadway segment is deficient with 2034 projected traffic volumes.

PROPOSED IMPROVEMENTS:

Widen to 11' lanes with 4' shoulders.

ESTIMATED COST SUMMARY:

(Current Year 2010 Dollars)

Construction	204,725
Utility Relocation	166,635
Right-of-Way	0
Engineering	23,543
Inspection	16,378
Admin & Planning	3,071
TOTAL	\$414,352

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year

2034

Inflation Rate: 3.76%

Projected Construction Cost

\$1,042,603

PROPOSED FUNDING:

State/Federal	100%	\$1,042,603
Other	0%	\$0
Impact Fees	0%	\$0

PROJECT SCHEDULE:

	Year
Secure Funding	2032
Acquire ROW	2033
Compete Engineering	2033
Begin Construction	2034

TRANSPORTATION DISTRICT COST:

Western District	0%	\$0
Eastern District	0%	\$0
Southern District	100%	\$0

REMARKS:

EXHIBIT "B" - (continued)

EAST COCALICO TOWNSHIP CAPITAL IMPROVEMENT PLAN - COST ESTIMATE SHEET

Project Number		S28	Done By: BDE		Checked: MJR	
Description			Cost	Unit	Quantity	Total
Construction Items						
Traffic Signals						
New Signal (4-way)			\$200,000.00	Each	0	\$0.00
New Signal (3-way)			\$150,000.00	Each	0	\$0.00
Signal Modifications			\$20,000.00	Each	0	\$0.00
Emergency Vehicle Preemption Only			\$10,000.00	Each	0	\$0.00
Pavement						
1.5" Pavement Overlay and Milling			\$7.00	Square Yard	0	\$0.00
New Pavement - Arterial Roads			\$46.00	Square Yard	0	\$0.00
New Pavement - Collector Roads			\$40.00	Square Yard	2222	\$88,880.00
New Pavement - Local Commercial Roads			\$34.00	Square Yard	0	\$0.00
New Pavement - Local Residential Roads			\$29.00	Square Yard	0	\$0.00
4" PBD			\$7.25	Linear Foot	10000	\$72,500.00
Excavation						
Excavation (Borrow)			\$12.00	Cubic Yard	0	\$0.00
Drainage						
Inlet/Manhole			\$2,400.00	Each	0	\$0.00
Pipe and Trenching			\$55.00	Linear Foot	0	\$0.00
Culvert			\$700.00	Linear Foot	0	\$0.00
Pavement Markings						
4" Pavement Markings			\$2.00	Linear Foot	0	\$0.00
8" Pavement Markings			\$8.00	Linear Foot	0	\$0.00
Miscellaneous						
Guide Rail			\$18.00	Linear Foot	0	\$0.00
Concrete Curb			\$35.00	Linear Foot	0	\$0.00
Bituminous Wedge Curb			\$7.00	Linear Foot	0	\$0.00
Other Miscellaneous						
Post Mounted Signs			\$200.00	Each	12	\$2,400.00
						\$0.00
Construction Subtotal:						\$163,780.00
Mobilization			5.0%	Of Construction Total		\$8,189.00
Maintenance and Protection of Traffic			5.0%	Of Construction Total		\$8,189.00
Contingency			15.0%	Of Construction Total		\$24,567.00
Total Construction:						\$204,725.00
Utility Relocation						
Utility Pole Relocation			\$3,300.00	Each	43	\$141,900.00
Electric Service			\$2,000.00	Each	0	\$0.00
Water/ Gas Valves			\$250.00	Each	0	\$0.00
Fire Hydrant Relocation			\$1,000.00	Each	3	\$3,000.00
High Tension Electric Poles			\$130,000.00	Each	0	\$0.00
Sanitary Manhole			\$2,400.00	Each	0	\$0.00
Other			\$5,000.00	Project	0	\$0.00
Utility Subtotal:						\$144,900.00
Contingency			15.0%	Of Utility Subtotal		\$21,735.00
Total Utility Relocation:						\$166,635.00
Right-of-Way						
Right-of-Way - Urban			\$150,000.00	Acres	0	\$0.00
Right-of-Way - Rural			\$120,000.00	Acres	0	\$0.00
Construction Easement (75% of ROW)				Acres	0	\$0.00
Structures			\$180,000.00	Each	0	\$0.00
Right-of-Way Subtotal:						\$0.00
Contingency			15.0%	Of Right-of-Way Subtotal		\$0.00
Total Right-of-Way:						\$0.00
Engineering			11.5%	Of Construction Total		\$23,543.38
Construction Inspection			8.0%	Of Construction Total		\$16,378.00
Administration and Planning			1.5%	Of Construction Total		\$3,070.88
Total Project Cost:						\$414,352.25

EXHIBIT "B" - (continued)

PROJECT CODE: I30

TRANSPORTATION DISTRICT:

Western/Southern District

LOCATION:

Route 272 & Denver Road (T-90)

DEFICIENCY:

The current intersection geometry is deficient with 2034 projected traffic volumes.

PROPOSED IMPROVEMENTS:

Construct a new eastbound approach with dual left turn lanes and a shared right turn lane. Install a traffic signal. Construct a northbound left turn lane.

ESTIMATED COST SUMMARY:

(Current Year 2010 Dollars)

Construction	313,400
Utility Relocation	4,945
Right-of-Way	35,477
Engineering	36,041
Inspection	25,072
Admin & Planning	4,701
TOTAL	\$419,636

CONSTRUCTION YEAR AND PROJECTED COST:

Construction Year

2034

Inflation Rate: 3.76%

Projected Construction Cost

\$1,055,896

PROPOSED FUNDING:

State/Federal

0%

\$0

Other

0%

\$0

Impact Fees

0%

\$0

PROJECT SCHEDULE:

Secure Funding

Year

2032

Acquire ROW

2033

Compete Engineering

2033

Begin Construction

2034

TRANSPORTATION DISTRICT COST:

Western District

0%

\$0

Eastern District

0%

\$0

Southern District

0%

\$0

REMARKS:

EXHIBIT "B" - (continued)

EAST COCALICO TOWNSHIP CAPITAL IMPROVEMENT PLAN - COST ESTIMATE SHEET

Project Number		I30	Done By: BDE		Checked: MJR	
Description			Cost	Unit	Quantity	Total
Construction Items						
Traffic Signals						
New Signal (4-way)			\$200,000.00	Each	1	\$200,000.00
New Signal (3-way)			\$150,000.00	Each	0	\$0.00
Signal Modifications			\$20,000.00	Each	0	\$0.00
Emergency Vehicle Preemption Only			\$10,000.00	Each	0	\$0.00
Pavement						
1.5" Pavement Overlay and Milling			\$7.00	Square Yard	0	\$0.00
New Pavement - Arterial Roads			\$46.00	Square Yard	533	\$24,518.00
New Pavement - Collector Roads			\$40.00	Square Yard	0	\$0.00
New Pavement - Local Commercial Roads			\$34.00	Square Yard	178	\$6,052.00
New Pavement - Local Residential Roads			\$29.00	Square Yard	0	\$0.00
4" PBD			\$7.25	Linear Foot	1400	\$10,150.00
Excavation						
Excavation (Borrow)			\$12.00	Cubic Yard	0	\$0.00
Drainage						
Inlet/Manhole			\$2,400.00	Each	0	\$0.00
Pipe and Trenching			\$55.00	Linear Foot	0	\$0.00
Culvert			\$700.00	Linear Foot	0	\$0.00
Pavement Markings						
4" Pavement Markings			\$2.00	Linear Foot	5000	\$10,000.00
8" Pavement Markings			\$8.00	Linear Foot	0	\$0.00
Miscellaneous						
Guide Rail			\$18.00	Linear Foot	0	\$0.00
Concrete Curb			\$35.00	Linear Foot	0	\$0.00
Bituminous Wedge Curb			\$7.00	Linear Foot	0	\$0.00
Other Miscellaneous						
Post Mounted Signs			\$200.00	Each	0	\$0.00
						\$0.00
Construction Subtotal:						\$250,720.00
Mobilization		5.0%	Of Construction Total			\$12,536.00
Maintenance and Protection of Traffic		5.0%	Of Construction Total			\$12,536.00
Contingency		15.0%	Of Construction Total			\$37,608.00
Total Construction:						\$313,400.00
Utility Relocation						
Utility Pole Relocation			\$3,300.00	Each	1	\$3,300.00
Electric Service			\$2,000.00	Each	0	\$0.00
Water/ Gas Valves			\$250.00	Each	0	\$0.00
Fire Hydrant Relocation			\$1,000.00	Each	1	\$1,000.00
High Tension Electric Poles			\$130,000.00	Each	0	\$0.00
Sanitary Manhole			\$2,400.00	Each	0	\$0.00
Other			\$5,000.00	Project	0	\$0.00
Utility Subtotal:						\$4,300.00
Contingency		15.0%	Of Utility Subtotal			\$645.00
Total Utility Relocation:						\$4,945.00
Right-of-Way						
Right-of-Way - Urban			\$150,000.00	Acres	0	\$0.00
Right-of-Way - Rural			\$120,000.00	Acres	0.146900826	\$17,628.10
Construction Easement (75% of ROW)				Acres	0	\$13,221.07
Structures			\$180,000.00	Each	0	\$0.00
Right-of-Way Subtotal:						\$30,849.17
Contingency		15.0%	Of Right-of-Way Subtotal			\$4,627.38
Total Right-of-Way:						\$35,476.55
Engineering		11.5%	Of Construction Total			\$36,041.00
Construction Inspection		8.0%	Of Construction Total			\$25,072.00
Administration and Planning		1.5%	Of Construction Total			\$4,701.00
Total Project Cost:						\$419,635.55