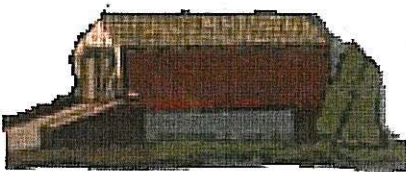
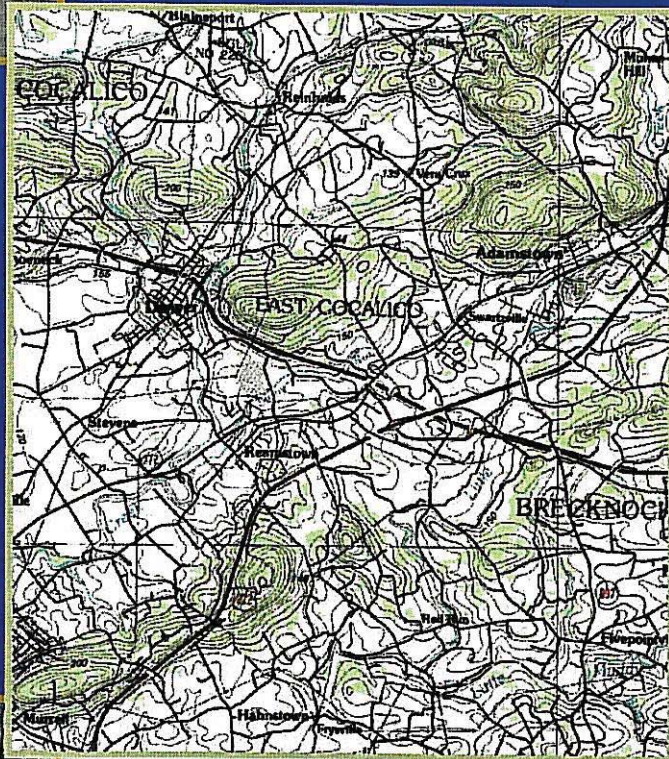


EAST COCALICO TOWNSHIP TRANSPORTATION IMPACT FEE PROGRAM

PART 1: LAND USE ASSUMPTIONS



HRG
Herbert, Rowland & Grubic, Inc.
Engineering & Related Services

BECKER
ENGINEERING

AUGUST 2010
REVISED
OCTOBER 2010

DELTA DEVELOPMENT GROUP
INC.

**TRANSPORTATION IMPACT FEE PROGRAM
LAND USE ASSUMPTIONS**

LANCASTER COUNTY, PENNSYLVANIA

**PREPARED FOR:
EAST COCALICO TOWNSHIP
100 HILL ROAD
DENVER, PENNSYLVANIA 17517**

**PREPARED BY:
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**AUGUST 2010
REVISED OCTOBER 2010**

HRG PROJECT No.: R000866.0431

EAST COCALICO TOWNSHIP

TRANSPORTATION IMPACT FEE PROGRAM

LAND USE ASSUMPTIONS

TABLE OF CONTENTS

	PAGE
ACKNOWLEDGEMENTS	ii
BACKGROUND AND PURPOSE OF REPORT	1
SOURCES OF INFORMATION	1
DESCRIPTION OF EXISTING ROADWAYS	2
DEMOGRAPHICS	2
HOUSING PROFILE	3
HOUSING UNITS	3
EXISTING RESIDENTIAL USE	4
OWNER-OCCUPIED UNITS	4
HOME VALUE	5
AGE OF HOUSING STOCK	5
ANTICIPATED RESIDENTIAL USE AND GROWTH	6
METHODOLOGY FOR PROJECTING RESIDENTIAL YIELDS	6
ANTICIPATED DEVELOPMENT	10
NONRESIDENTIAL LAND USES	12
ANTICIPATED DEVELOPMENT	13
BUSINESS/INDUSTRIAL INDICATORS	15
LOCATION QUOTIENT	15
SHIFT-SHARE ANALYSIS	19
NONRESIDENTIAL PROJECTIONS	23
RETAIL	23
ADVISORY COMMITTEE'S PROJECTIONS FOR RETAIL	27
OFFICE	28
ADVISORY COMMITTEE'S PROJECTIONS FOR OFFICE SPACE	31
INDUSTRIAL	31
ADVISORY COMMITTEE'S PROJECTIONS FOR INDUSTRIAL	33
RESTAURANT	35
ADVISORY COMMITTEE'S PROJECTIONS FOR RESTAURANT	36
HOTEL	37
ADVISORY COMMITTEE'S PROJECTIONS FOR HOTEL	38
OTHER PROJECTIONS	39
OVERALL PROJECTED GROWTH	39

LIST OF APPENDICES

	APPENDIX
PUBLIC HEARING COMMENTS	A
MUNICIPAL MAPS	B
LANCASTER COUNTY POPULATION PROJECTIONS	C
TAZ AND PARCEL DATABASE	D

ACKNOWLEDGMENTS

EAST COCALICO TOWNSHIP BOARD OF SUPERVISORS:

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BECKER
ENGINEERING



DELTA DEVELOPMENT GROUP
INC.

Background and Purpose of Report

The East Cocalico Township AC has drafted, with the assistance of Herbert, Rowland & Grubic, Inc. (HRG) and Delta Development Group, Inc. (Delta) and in conjunction with Becker Engineering, LLC., a Land Use Assumptions Report as the basis for the adoption of an Impact Fee Ordinance and Transportation Capital Improvements Plan for East Cocalico Township.

Article V-A of the Pennsylvania Municipalities Planning Code (MPC), Municipal Capital Improvement, empowers municipalities within the Commonwealth, in accordance with Act 209 of 1990 (P.L. 1343 "Impact Fee Law"), with the ability to assess impact fees against new development in order to generate revenue for funding the costs of transportation capital improvements necessitated by and attributable to new development. On October 15, 2009, the East Cocalico Township Board of Supervisors enacted Resolution No. 2009-24, establishing an AC to evaluate the use of impact fees in the East Cocalico Township.

The AC conducted a public hearing on September 27, 2010, for the consideration of land use assumptions. The AC recommended the approval of the Land Use Assumptions Report to the Board of Supervisors. The comments from the public hearing can be found in **Appendix A**.

Sources of Information

Throughout the development of this document, the AC consulted many sources of information in order to project future land uses as accurately as possible. Both existing land uses and zoning were considered for projecting future land uses. The East Cocalico Township Comprehensive Plan was also consulted for projecting future land uses. These documents were used for guidance, but not for determination.

The AC also reviewed the existing roadways to project changes in land uses and possible changes or upgrades to the existing roadways in East Cocalico Township. Population growth rates based on Census data, Environmental Systems Research Institute (ESRI), and the Lancaster County Planning Commission (LCPC) were analyzed to help determine how much growth the AC and East Cocalico Township should expect within the next 25 years. Past building permits were also analyzed to determine the past amount of growth and projections were built from that information.

Consultants provided shift-share analysis and location quotient information, which the AC analyzed to create better projections about the future growth of businesses and industries. When determining where to place the projected development, the AC reviewed several maps referenced in **Appendix B** of this report. These included **Map 1: Existing Land Use Map**, **Map 2: Topographical Map**, **Map 3: Aerial Map** and **Map 4: Zoning Map**. These maps were created by HRG using the shape files provided to them from Lancaster County and PAMAP.

When the AC began analyzing areas to include in the "Transportation Service Area" (TSA), they excluded the already built-out dense suburban residential areas, parks, Township & East Cocalico Township Authority (ECTA) property and all roadway right-of-way. These areas are known as "excluded areas" and can be seen on **Map 5: Transportation Service Areas and Traffic Analysis Zones Map**. The TSA was then divided into smaller study areas called "Traffic Analysis Zones" (TAZ's). The TSA's and TAZ's are also shown on **Map 5**.

The AC also reviewed where development is planned for the future. Currently, plans exist to build several new housing subdivisions in East Cocalico Township. The locations of developments that are

active and have remaining lots to be built or were under review prior to the resolution establishing the AC are illustrated on **Map 6: Active Subdivisions Map**.

Finally, and most importantly, the AC drew on local knowledge of properties, parcels, ownership, occupancy, environmental conditions and water and sewer accessibility within the growth boundary to determine where the growth will occur. This local knowledge also included real estate and developers' trade knowledge; which included active subdivision and land development plans. Baseline information used for assumption calculations included Geographic Information Systems (GIS) parcel data and permit data reflecting approvals between 1990 and 2009. The AC elected to project all future growth in the Township within the Growth Boundary and within the service area for public sewer and water. All future development projections are illustrated on **Map 7: Projected Growth**.

It should be understood that in conjunction with the preparation of this report and the related projection of development on various parcels within the Township, the AC and consultants did not perform a detailed evaluation of specific parcels to confirm their development potential. Instead, general engineering and land planning "rules of thumb" were utilized to estimate development potential for specific parcels based on the "developable land area" as determined by evaluating readily available GIS mapping information. The information in this report shall not be used by others, such as land owners or developers, to predict actual development potential for specific parcels. A significant number of complex factors impact the future development potential of a specific parcel and those factors include things such as parcel configuration, topography, roadway access, visibility, wetlands, floodplains, geology, soil conditions, zoning, historic features, protected/endangered species, storm water requirements, etc. The detailed evaluation of these type development factors on an individual property basis was well outside the scope of the efforts of the AC and consultants.

Description of Existing Roadways

Interstate 76 (the Pennsylvania Turnpike) runs from east to west, cutting through the heart of East Cocalico Township. US Route 222 runs from southwest to northeast, crossing the Pennsylvania Turnpike at the Reading Lancaster Interchange. The Pennsylvania Department of Transportation (PennDOT) also owns and maintains a number of roads in the Township, including Route 897, Route 272, Church Road, Hahnstown Road, Muddy Creek Road, Red Run Road, Reinholds Road, Smokestown Road and Stevens Road.

Demographics

According to the U.S. Census Bureau, in 2000, East Cocalico Township had a population of 9,954. Census data shows that between 2000 and 2008 the population increased by 503, or 5%, to 10,457. In 2002, the Lancaster County Planning Commission (LCPC) provided population projections out to 2030 for East Cocalico Township. Their estimate for 2030 was a population of 13,961, which is an increase of 2,670 from their estimate of 11,291 in 2010. The data provided by LCPC can be found in **Appendix C**.

The AC estimates that 1,500 residential units will be built between 2010 and 2034 in East Cocalico Township. Using the average household size of 2.78 and multiplying it by the number of new units, there would be an additional 4,170 persons in East Cocalico Township by 2034, for a total of 14,462, which is very comparable to LCPC's projection.

It should also be noted that the East Cocalico Township Comprehensive Plan assumes that 70 residential units will be added each year and this was the value that the AC used to arrive at 1,500 new units by

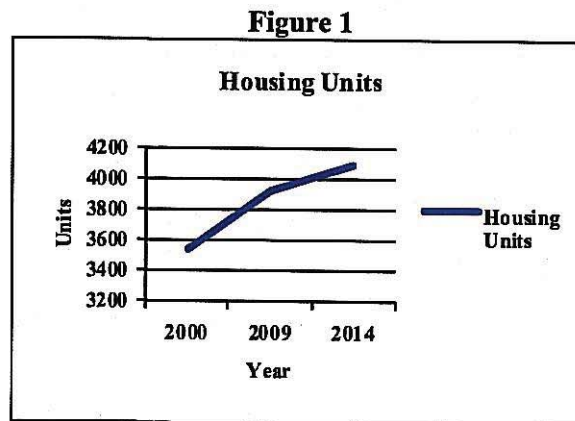
2034. However, due to the current period of economic recession that has transpired nationwide, and the current Township water situation, only 20 units were added over each of the first five years, allowing time for the housing market to rebound. Further detail is included in the following sections and is summarized in Table 7.

Housing Profile

Land uses have been divided into residential and non-residential land uses for ease of measurement. Residential and hotel land uses are measured in units, whereas the non-residential land uses are measured in square feet. This section discusses existing conditions and the projection for residential land uses, which is often referred to as a community's housing. Housing characteristics are perhaps one of the clearest indicators of a community's overall health. Trends in characteristics such as home ownership, homeowner age, and tenure can alert a community that its current housing stock may not be adequate to support the needs of a particular age or income group. Housing is also typically the largest source of tax revenue for a community.

Housing Units

According to the Environmental Systems Research Institute (ESRI) for year 2000, there were a total of 3,549 housing units in East Cocalico Township. **Figure 1** displays the number of housing units for East Cocalico Township from the ESRI data for 2000, 2009 and 2014 projections. Overall, the graph in **Figure 1** indicates an upward trend in housing units from 2000 to 2014. **Table 1** shows the percentage change of housing units for East Cocalico Township between each date. The data shows an average 1.1% per year change from 2000 to 2009 and only an average 0.8% per year change from 2009 to 2014.



Source: Environmental Systems Research Institute (ESRI)

TABLE 1: POPULATION PROJECTIONS			
EAST COCALICO TOWNSHIP	2000	2009	2014
Housing Units	3,549	3,922	4,090
Percent Change	--	+9.5%	+4.1%
Average Annual Percent Change	--	+1.1%	+0.8%

Source: Environmental Systems Research Institute (ESRI)

Existing Residential Use

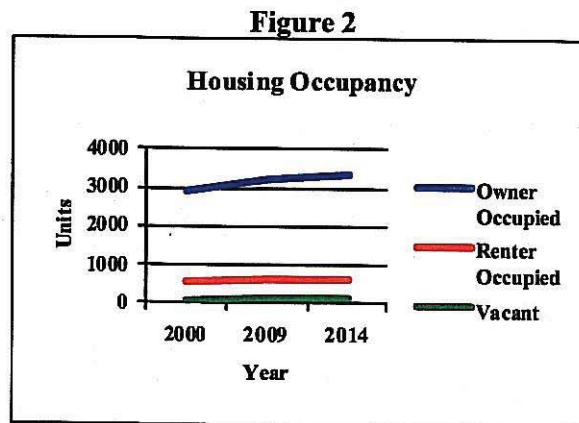
According to the Environmental Systems Research Institute (ESRI) for year 2000, there are 3,453 occupied housing units in East Cocalico Township. As seen in **Table 2**, single-family detached is the most common dwelling type in East Cocalico Township, making up 78.8% of all housing units. Mobile home is the only other housing type that has a significant presence in East Cocalico Township at 9.5%. All other housing types combined make up the remaining 11.7%.

TABLE 2: HOUSING TYPE PERCENTAGES	
HOUSING TYPE	PERCENTAGE
Single-Family Detached	78.8%
Single-Family Attached	4.3%
2 Units in Structure	3.6%
3-4 Units in Structure	1.9%
5-9 Units in Structure	1.4%
10-19 Units in Structure	0.5%
Mobile Home	9.5%
Total	100.0%

Source: Environmental Systems Research Institute (ESRI)

Owner-occupied Units

According to the Environmental Systems Research Institute (ESRI) for year 2000, 97.3% of all East Cocalico Township housing units were occupied, leaving 2.7% unoccupied. Of those occupied units, 81.3% were owner-occupied and 16.0% were renter-occupied. The ESRI data shown in **Figure 2** shows that a large majority of housing units in East Cocalico Township are owner-occupied. The data also projects a slight increase in owner-occupied housing units from 2000 to 2014. ESRI estimates that in 2014, 81.6% of all housing units will be owner-occupied and 15.6% will be renter-occupied while the remaining 2.8% of housing units will be vacant. Overall, there does not appear to be a significant change in occupancy type or vacancy rates from 2000 to 2014.



Source: Environmental Systems Research Institute (ESRI)

Home Value

According to the Environmental Systems Research Institute (ESRI) for year 2000, the median value of homes in East Cocalico Township was \$120,171. This reflects the median home value that is the middle value of all homes. This number is typically lower than the average value because the median is affected by the age of homes. Older homes are less expensive than newly constructed homes; therefore, the median is lower than the average value.

ESRI estimates that the median value of a home in East Cocalico Township in 2009 was \$196,450 and will be \$236,566 in 2014. This shows that there was an average annual 4.3% increase in median home values from 2000 to 2009 and will only be an average annual 3.4% increase from 2009 to 2014. **Table 3** shows how these values compared to the median home values in Lancaster County, Pennsylvania and the United States. The data shows that median home values in East Cocalico Township were higher than Lancaster County, Pennsylvania and the United States.

TABLE 3: MEDIAN HOME VALUES			
MUNICIPALITY	2000	2009	2014
East Cocalico Township	\$120,171	\$196,450	\$236,566
Lancaster County	\$118,290	\$193,385	\$234,179
Pennsylvania	\$94,817	\$161,438	\$193,617
United States of America	\$111,833	\$162,279	\$185,242

Source: Environmental Systems Research Institute (ESRI)

Age of Housing Stock

According to the Environmental Systems Research Institute (ESRI) for year 2000, the median year a home was built in East Cocalico Township was 1977. This means many homes in East Cocalico Township are less than 33 years old. **Table 4** compares the median age of housing units in East Cocalico Township to Lancaster County, Pennsylvania, and the United States. East Cocalico Township has the most recent median year of homes built compared to Lancaster County, Pennsylvania, and the United States.

TABLE 4: MEDIAN YEAR HOMES WERE BUILT		
MUNICIPALITY	MEDIAN YEAR	MEDIAN AGE
East Cocalico Township	1977	33
Lancaster County	1968	42
Pennsylvania	1957	53
United States of America	1971	39

Source: Environmental Systems Research Institute (ESRI)

Table 5 shows the building date of homes, by percentage, based on the Environmental Systems Research Institute (ESRI) for year 2000. Please note that each row totals 100.0%. Many of the structures in East Cocalico Township were built during the 1980's and 1990's. Compared with Lancaster County, Pennsylvania and the United States, East Cocalico Township does not have as many older structures. Since the 1980's, East Cocalico Township has experienced a higher housing stock build rate than Lancaster County, Pennsylvania and the United States.

TABLE 5: YEAR STRUCTURE BUILT				
MUNICIPALITY	1990 - 2000	1980 - 1989	1970 - 1979	1969 - earlier
East Cocalico Township	26.5%	20.1%	12.7%	40.8%
Lancaster County	16.7%	15.8%	15.1%	52.4%
Pennsylvania	10.5%	10.1%	13.5%	65.9%
United States of America	17.0%	15.8%	18.5%	48.7%

Source: Environmental Systems Research Institute (ESRI)

Anticipated Residential Use and Growth

Methodology for Projecting Residential Yields

Table 6, on the following page, shows the existing residential permitting trends for East Cocalico Township, which were separated into single family, multi family, quad and townhouse unit designations. During the 20 year period of 1990 to 2009, the number of permits approved for residential units began to decline after 2006, most likely due to the Township water situation and a period of economic recession that transpired nationwide. The 20 year average of approved permits was 61 units per year. By excluding all data after 2006, the average number of approved permits was 69 units per year.

The Comprehensive Plan for East Cocalico Township assumes that 70 residential units will be added each year. For the purposes of projecting future residential growth through 2034, the following assumptions were used:

- An average of 20 units were added over each of the first five years, allowing time for the housing market to rebound and ECTA improvements to the water distribution system
- An average of 70 units were added over each of the following 20 years from 2015 to 2034
- A total of 1,500 residential units were assumed to be added over the next 25 years
- East Cocalico Township is already in the process of reviewing development plans for 959 residential units
- There are 541 remaining new residential units which this study locates

Table 7, immediately after **Table 6** on the following page, summarizes the calculation of residential units and total population that are bulleted above.

EAST COCALICO TOWNSHIP
 Transportation Impact Fee Program
Land Use Assumptions

TABLE 6: EXISTING PERMITTING TRENDS – RESIDENTIAL HOUSING UNITS						
YEAR	SINGLE FAMILY	MULTI FAMILY	QUAD	TOWNHOUSE	TOTAL	COMPOUND INCREASE FROM 3,549 EXISTING UNITS IN 2000
1990	105	3		4	112	
1991	86			2	88	
1992	65			10	75	
1993	66			33	99	
1994	65			11	76	
1995	74			1	75	
1996	90			3	93	
1997	84			7	91	
1998	85			13	98	
1999	53			9	62	
2000	40	56		7	103	
2001	13			6	19	+0.5%
2002	17			14	31	+0.9%
2003	29				29	+0.8%
2004	36			12	48	+1.3%
2005	39				39	+1.0%
2006	15			20	35	+0.9%
2007	16				16	+0.4%
2008	12				12	+0.3%
2009	11				11	+0.3%
Total	1,001	59	0	152	1,212	
20-year Average	50.1	3.0	0.0	7.6	60.6	
1990-2006 Average	56.6	3.5	0.0	8.9	69.0	

Source: East Cocalico Township

EAST COCALICO TOWNSHIP
Transportation Impact Fee Program
Land Use Assumptions

TABLE 7: PROJECTED RESIDENTIAL HOUSING UNITS IN EAST COCALICO TOWNSHIP					
Year	Projected Units	Total Housing Units	Total Housing Units Less 2.8% Vacancy	Estimated Persons Per Household	Total Estimated Population
2009	--	3,852	3,744	2.79	10,446
2010	20	3,872	3,764	2.78	10,464
2011	20	3,892	3,783	2.78	10,517
2012	20	3,912	3,802	2.78	10,570
2013	20	3,932	3,822	2.78	10,625
2014	20	3,952	3,841	2.78	10,678
2015	70	4,022	3,909	2.78	10,867
2016	70	4,092	3,977	2.78	11,056
2017	70	4,162	4,045	2.78	11,245
2018	70	4,232	4,114	2.78	11,437
2019	70	4,302	4,182	2.78	11,626
2020	70	4,372	4,250	2.78	11,815
2021	70	4,442	4,318	2.78	12,004
2022	70	4,512	4,386	2.78	12,193
2023	70	4,582	4,454	2.78	12,382
2024	70	4,652	4,522	2.78	12,571
2025	70	4,722	4,590	2.78	12,760
2026	70	4,792	4,658	2.78	12,949
2027	70	4,862	4,726	2.78	13,138
2028	70	4,932	4,794	2.78	13,327
2029	70	5,002	4,862	2.78	13,516
2030	70	5,072	4,930	2.78	13,705
2031	70	5,142	4,998	2.78	13,894
2032	70	5,212	5,066	2.78	14,083
2033	70	5,282	5,134	2.78	14,273
2034	70	5,352	5,202	2.78	14,462
Total Units	1,500				

Source: East Cocalico Township Land Use Advisory Committee

In order to project future residential use for East Cocalico Township, it is also helpful to look at the different residential zoning districts throughout the East Cocalico Township. Each of the zoning districts permits a different number of units per acre to be developed within the designated area. The tables on the following page provide the basis of East Cocalico Township's zoning, which was used to help predict future residential units that may be located on a given tract of land. In addition to zoning requirements, environmental constraints, slope restrictions, and disturbance limits are also taken into consideration.

EAST COCALICO TOWNSHIP
Transportation Impact Fee Program
Land Use Assumptions

Agricultural Zone (A)		
Lot Area		# New Lots
at least (acres)	less than (acres)	
2	25	1
25	50	2
50	75	3
75	100	4
100	125	5
125	150	6
150	175	7
175	200	8
200	225	9
225	250	10
250	275	11

Conservation Zone (C)	
Min Lot size	1 Acre *
Min Lot Width	200 ft **
* DEP requirements for on lot septic adjusts lot size. For each 3 acres, 1 new lot can be subdivided i.e. 30 acres is 10-1 acre lots with remaining acreage left with the parent tract	
** Min lot width 150 ft if on a cul de sac	

Rural Residential Zone (R)	
Min Lot Size	1 Acre
Min Lot Width	150 ft

Suburban Residential Zone (R-1)		
Available Utility	Min Lot Area (sf)	Min Lot Width (ft)
None	43,560	400
Public Water	32,000	300
Public Sewer	20,000	200
Both	10,000	100

Mobile Home Park Zone (MPP)	
Min Lot Size	6000 (sf/unit)
Min Lot Width	60 ft

Source: East Cocalico Township

High Density Residential Zone (R-2)			
Use	Min Lot Area	Min Lot Width	Max Density (units/acre)
SFD	10,000 sf	100 ft	4.35
Duplex	5,000 sf/unit	50 ft/unit	5
Townhouse	2,400 sf/unit	24 ft/unit	5
Multifamily	87,120 sf	200 ft	5
Other	10,000 sf	80 ft	n/a

Traditional Residential Zone (R-3)		
Use	Min Lot Area	Min Lot Width
SFD	7,500 sf	25 ft
Duplex	4500 sf/unit	15 ft/unit
Multifamily	5,000 sf	60 ft
Other	5,000 sf	30 ft/unit

Village Overlay Zone (VO)			
Use	max density (units/acre)	Use	max density (units/acre)
SFD	8	Townhouse	8
Duplex	8	Multifamily	8

Mixed Residential Zone (MR)		
Use	Min Lot Area	Min Lot Width (ft)
SFD	15,000 sf	110
Other	1 acre	200

Development Reductions		
Steep Slopes		
Slope (%)	Min Undisturbed Area	Max Impervious
20-30	85%	10%
over 30	90%	10%
Riparian Buffers		
No Mapped Floodplain	75 ft From Stream Centerline	
FEMA Floodplain	65 ft From Floodplain	
Railroad Buffer		
75 ft to Nearest Dwelling		

Anticipated Development

Applications have been submitted to build several new housing subdivisions in East Cocalico Township and active developments with unbuilt lots will continue to develop and must be counted in future development projections. The AC took into account the active developments and the number of residential units that they represent when considering future projections. Developments that are active and have remaining lots to be built are listed in **Table 8** and illustrated on **Map 6**.

TABLE 8: RESIDENTIAL DEVELOPMENT PLANS SUBMITTED					
Subdivision/ Land Development Plan	Total Number Of Units	Preliminary Approval Date	Final Approval, Phase	Time Expired Since Last Review Action	
				< 1 Year	> 2 Years
APPROVED PRELIMINARY PLANS					
CARRIAGE HILL PHASE 3 & 4	35	5/2/2001	NO		
MORGANSHIRE PHASE 2 & 3	48	12/6/2006	YES, Phases 2&3		
RIDGE RD/BUENA VISTA	6	2/20/2007	YES		
STONEY POINTE PHASE 1 & 2	50	10/15/2008	YES, Phase 1		
HEATHERWOODS PHASES 3,4, & 5	90	4/5/2000	NO		
SUBTOTAL	229				
PRELIMINARY PLANS SUBMITTED PRIOR TO TIF RESOLUTION CURRENTLY UNDER REVIEW					
HURST – PRELIMINARY SUBDIVISION PLAN	7			X	
ROSE HILL (VILLAGE OVERLAY)	303				X
STONY RUN FIELDS PRELIMINARY SUBDIVISION (RIDING STABLE)	1			X	
WABASH LANDING PRELIMINARY SUBDIVISION	196			X	
FOX BROOKE – PRELIMINARY SUBDIVISION	122				X
VILLAGE AT EAST COCALICO – PRELIMINARY	101				X
SUBTOTAL	730	Source: East Cocalico Township			
TOTAL	959				

Source: East Cocalico Township

EAST COCALICO TOWNSHIP
Transportation Impact Fee Program
Land Use Assumptions

From **Table 7**, it was estimated that a total of 1,500 residential units will be built by 2034. However, 959 units have already initiated some form of planning as shown in **Table 8**, leaving 541 future units to be developed on other parcels in East Cocalico Township. While the 959 units are expected to develop, they were not mapped as future development because, due to plan status prior to the resolution establishing a Land Use Advisory Committee (AC), they cannot be considered “new growth” for the purposes of developing the Transportation Impact Fee Program. While it is likely that some of these developments may not proceed in their current form and may be redesigned and resubmitted and become subject to Transportation Impact Fees, the AC elected not to adjust the 959 units. Once the residential projection was established, the AC then worked through mapping exercises to determine where the 541 new units would occur.

The AC mapped 541 residential units by identifying the TAZ’s where these units were most likely to be developed. The information and mapping identified in previous sections of this report were used to make location decisions for future residential projections. The projected future residential development is identified in **Table 9** and is mapped on **Map 7**. A listing of all undeveloped parcels considered for potential development can be found in **Appendix D**.

Table 9: Mapped Projected Residential Housing Units						
TAZ	TSA	Parcel ID	Developable Acres	Zoning	Projected Residential Units (# Units)	
29	1	0802641900000	30.62	SUBURBAN RESIDENTIAL	70	
50	2	0809412500000	8.97	RURAL RESIDENTIAL	5	
75		0803134400000	110.75	CONSERVATION/SUBURBAN RESIDENTIAL	91	
108		0807054800000	53.55	RURAL/SUBURBAN RESIDENTIAL	40	
124	3	0804750000000	26.27	HIGH DENSITY RESIDENTIAL	90	
132		0805257200000	6.73	SUBURBAN RESIDENTIAL	15	
		0806436700000	8.96	SUBURBAN RESIDENTIAL	20	
133		0800950700000	9.30	SUBURBAN RESIDENTIAL	100	
		0801839500000	1.17	SUBURBAN RESIDENTIAL		
		0808915800000	3.46	SUBURBAN RESIDENTIAL		
134		0800323100000	8.79	SUBURBAN RESIDENTIAL		
		0805895200000	0.30	TRADITIONAL RESIDENTIAL		
		0808146000000	0.32	SUBURBAN RESIDENTIAL		
		0808794400000	17.97	SUBURBAN RESIDENTIAL	40	
148		0809201700000	22.39	SUBURBAN RESIDENTIAL	45	
152		0802826900000	46.35	RURAL/SUBURBAN RESIDENTIAL	25	
Total Projection					541	

Source: East Cocalico Township Land Use Advisory Committee

EAST COCALICO TOWNSHIP
Transportation Impact Fee Program
Land Use Assumptions

It should be noted that for the purpose of this study future residential housing units were projected or distributed on the above noted parcels, although it was discussed and acknowledged by the AC and consultants that future development could just as easily occur on different parcels of similar zoning in the same general vicinity of these parcels. By identifying these particular parcels the AC is not necessarily predicting that the future development will occur on, or be limited to, these particular parcels, instead the AC believes that the future distribution of housing units will be in these general regions of the Township. The Township currently has sufficient undeveloped residentially zoned property that would allow considerable flexibility in how the future residential units were distributed. In many cases there are adjacent undeveloped parcels with similar residential zoning which could also accommodate the units anticipated. The AC is not intending to indicate a preference or recommendation on which specific parcels should develop in the next 25 years, but instead evaluated past growth history and current zoning to attempt to predict the number and general location of residential units, so that the anticipated impact to the roadway network can be evaluated.

Nonresidential Land Uses

Nonresidential land uses are measured in square feet. This section discusses existing conditions and projections for retail, industrial, office, restaurant, and hotel land uses. It also provides analyses of shift-shares and location quotients that the AC consulted when projecting where development would occur.

Tables 10, 11, and 12 as well as Figure 3 show the approved nonresidential land uses, per square foot, for approved permits over the 20-year period from 1990 to 2009.

TABLE 10: EXISTING NONRESIDENTIAL PERMITTING TRENDS (1990-1999)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	TOTAL	AVERAGE
Industrial	22,883	577,629	1,440	5,260	31,752	47,612	15,425	207,270	69,500	1,394,774	2,373,545	237,355
Office	3,404	2,209	2,784	0	0	6,283	0	0	14,000	0	28,680	2,868
Retail	0	9,624	0	1,549	4,468	12,820	0	30,141	16,654	0	75,256	7,526
Restaurant	0	0	0	0	0	0	0	0	2,880	0	2,880	288
Hotel	8,716	0	0	0	0	0	0	0	0	0	8,716	872
Total	35,003	589,462	4,224	6,809	36,220	66,715	15,425	237,411	103,034	1,394,774	2,489,077	248,908

Note: Numbers may not total exactly due to rounding

TABLE 11: EXISTING NONRESIDENTIAL PERMITTING TRENDS (2000-2009)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	TOTAL	AVERAGE
Industrial	126,549	16,680	26,032	84,686	257,055	46,652	5,632	198,940	22,364	13,920	798,510	79,851
Office	0	2,518	0	0	0	0	6,000	0	0	0	8,518	852
Retail	848	0	8,148	0	19,676	0	7,715	3,432	0	0	39,819	3,982
Restaurant	0	0	0	0	0	0	0	0	0	0	0	0
Hotel	0	0	0	0	0	0	0	0	0	0	0	0
Total	127,397	19,198	34,180	84,686	276,731	46,652	19,347	202,372	22,364	13,920	846,847	84,685

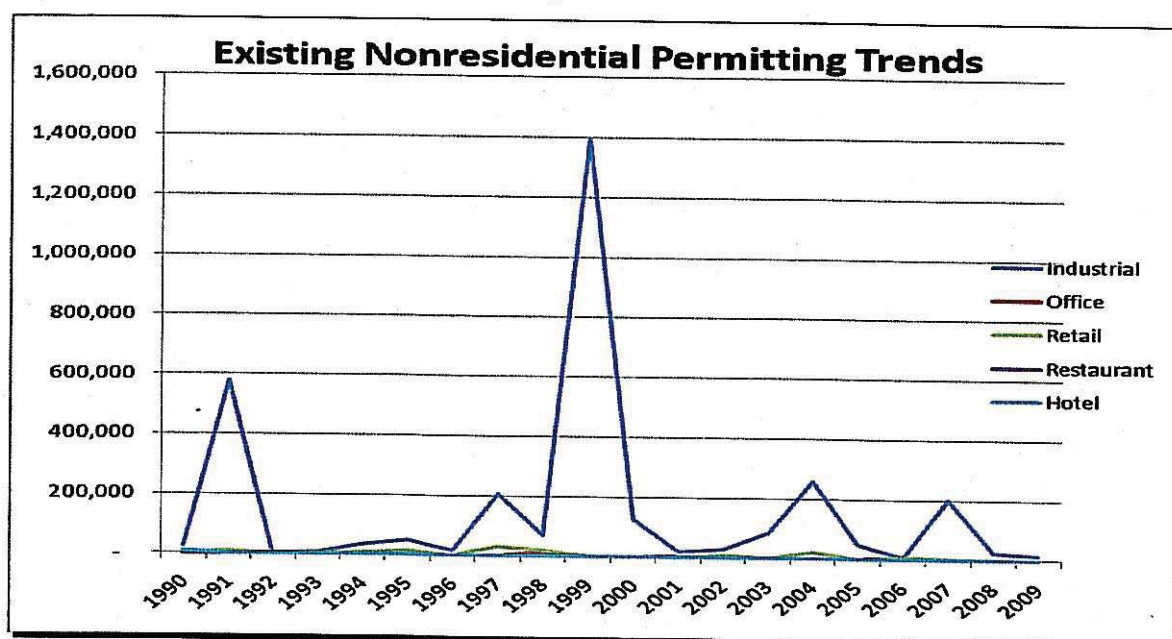
Note: Numbers may not total exactly due to rounding

EAST COCALICO TOWNSHIP
Transportation Impact Fee Program
Land Use Assumptions

TABLE 12: NONRESIDENTIAL PERMITTING TRENDS SUMMARY				
	TOTAL (1990-1999)	TOTAL (2000-2009)	OVERALL TOTAL	AVERAGE PER YEAR
Industrial	2,373,545	798,510	3,172,055	158,603
Office	28,680	8,518	37,198	1,860
Retail	75,256	39,819	115,075	5,754
Restaurant	2,880	0	2,880	144
Hotel	8,716	0	8,716	436
Total	2,489,077	846,847	3,335,924	166,796

Note: Numbers may not total exactly due to rounding

Figure 3



Anticipated Development

Plans exist to build several new commercial developments in East Cocalico Township and active developments with unbuilt structures will continue to develop and must be counted in future development projections. The AC must take into account the active developments and the square footage that they represent when considering future projections. Developments that are active and have yet to be built are listed in Table 13 and illustrated on Map 6.

EAST COCALICO TOWNSHIP
Transportation Impact Fee Program
Land Use Assumptions

TABLE 13: NON-RESIDENTIAL DEVELOPMENT PLANS SUBMITTED

Subdivision/ Land Development Plan	Total Square Footage	Preliminary Approval Date	Final Approval, Phase	Time Expired Since Last Review Action	
				< 1 Year	> 2 Years
APPROVED PRELIMINARY PLANS					
MACMICHAEL - MINOR LAND DEVELOPMENT PLAN (AUTO REPAIR-CAR WASH)	5,370	3/17/2010	UNDER CONSTRUCTION		
KASUN FINAL LAND DEVELOPMENT PLAN (WAREHOUSE)	117,000	7/17/2009			
REAMSTOWN CHURCH OF GOD - (PHASE 2 EXPANSION)		2/16/2000			
WOODCREST RETREAT FINAL LAND DEVELOPMENT PLAN (RECREATION FACILITY)		2/3/2010			
COCALICO COMMONS	454,319	6/3/09	YES, CONDITIONAL		
PRELIMINARY PLANS SUBMITTED PRIOR TO TIF RESOLUTION CURRENTLY UNDER REVIEW					
WJ CROSSROADS PRELIMINARY/FINAL (PROFESSIONAL OFFICES)	3,600			X	
STONY RUN FIELDS PRELIMINARY SUBDIVISION/LAND DEVELOPMENT PLAN (RIDING STABLE)	15,120			X	
PEN-REN PRELIMINARY LAND DEVELOPMENT PLAN (MINI STORAGE)	76,500			X	

Source: East Cocalico Township

Business/Industrial Indicators

As part of the planning process it is important for the AC to understand the current economic environment and factors that may drive potential future non residential land use. In order to help inform the committee the consulting team prepared information for review and consideration by the committee on the local business and industry sectors. Consultants prepared and presented Location Quotient and Shift Share Analysis information to provide information regarding local industry employment by sectors. The information and analysis evaluates the sectors relative to the larger region and changes in employment. The following sections provide the specific information presented to the committee for consideration in preparation of the report.

Location Quotient

A location quotient is a calculation that compares the mix of industry sectors in a local geographic area to the mix of industry sectors in a larger geographic area in order to determine the significance of the local industry mix. Simply put, the location quotient identifies how local industries stack up with national averages. In practice, location quotients are often used to identify importing and exporting industries. An export in industry is one in which the industry not only meets the local demands for its products, but also provides enough so it can sell outside the region.

Simply put, the location quotient identifies how local industries stack up with national averages.

The location quotient is calculated by dividing the mix (the percentage of total employment) of sectors in the larger geographic area by the mix of sectors in the smaller geographic area. A location quotient greater than 1.0 indicates a higher concentration of workers in the smaller geographic area than in the larger geographic or comparison area. On the other hand, a location quotient of less than 1.0 indicates a lower concentration of workers in

the smaller geographic area, which tends to lead to the assumption that the smaller geographic areas tends to import the respective goods or services in the particular industry. For example, in 2008, the Manufacturing sector in East Cocalico Township made up 45.32% of the local employment base. In Lancaster County, that sector made up 19.94% of the County's employment base. If you divide the County percentage of 19.94 by the local percentage of 45.32, the resulting "location quotient" is 2.3, which indicates a relatively significant local concentration in that sector.

Location quotients are one indicator of local strengths that can potentially be leveraged to create additional new jobs. In order to better determine and understand the location quotients for East Cocalico Township compared to Lancaster County and Pennsylvania, **Table 14** displays the actual employment numbers for East Cocalico, Lancaster County, and Pennsylvania. **Table 15** and **Figure 4** presents the location quotients for East Cocalico as compared to Lancaster County and Pennsylvania as well as Lancaster County compared to Pennsylvania. The data obtained by the U.S. Census Bureau provides employment data for 20 industry breakout sectors using the North American Industry Classification System (NAICS) classification. The categories are all two-digit NAICS codes, otherwise known as industry sectors. It should be noted that 2008 is the latest year of employment data available at the municipal level.

EAST COCALICO TOWNSHIP
Transportation Impact Fee Program
Land Use Assumptions

TABLE 14: EMPLOYMENT DATA – 2008			
	East Cocalico	Lancaster County	Pennsylvania
Agriculture, Forestry, Fishing and Hunting	8	2,139	19,646
Mining	65	400	20,132
Utilities	10	305	31,437
Construction	270	16,426	245,396
Manufacturing	2,593	43,047	648,035
Wholesale Trade	721	14,038	236,199
Retail Trade	556	27,158	586,802
Transportation and Warehousing	160	9,751	208,188
Information	2	2,507	103,475
Finance and Insurance	42	7,805	260,639
Real Estate and Rental and Leasing	44	1,922	61,204
Professional, Scientific, and Technical Services	111	7,620	315,152
Management of Companies and Enterprises	0	3,523	111,986
Administration & Support, Waste Management	92	8,767	252,586
Educational Services	429	16,277	456,275
Health Care and Social Assistance	153	30,781	797,373
Arts, Entertainment, and Recreation	62	2,909	63,267
Accommodation and Food Services	280	15,347	358,002
Other Services (excluding Public Administration)	123	5,754	167,707
Public Administration	0	2,684	178,720
Total	5,721	219,160	5,122,221

Source: Local Employment Dynamics – U.S. Census Bureau

EAST COCALICO TOWNSHIP
Transportation Impact Fee Program
Land Use Assumptions

TABLE 15: RELEVANT INDUSTRY LOCATION QUOTIENTS (2008)			
Industry Sector	East Cocalico to PA	East Cocalico to Lancaster County	Lancaster County to PA
Agriculture, Forestry, Fishing and Hunting	0.3	0.1	2.4
Mining	2.8	6.2	0.5
Utilities	0.3	1.3	0.2
Construction	1.0	0.6	1.6
Manufacturing	3.6	2.3	1.5
Wholesale Trade	2.7	2.0	1.4
Retail Trade	0.8	0.8	1.1
Transportation and Warehousing	0.7	0.6	1.1
Information	0.0	0.0	0.6
Finance and Insurance	0.1	0.2	0.7
Real Estate and Rental and Leasing	0.6	0.9	0.7
Professional, Scientific, and Technical Services	0.3	0.6	0.6
Management of Companies and Enterprises	0.0	0.0	0.7
Administration & Support, Waste Management & Remediation	0.3	0.4	0.8
Educational Services	0.8	1.0	0.8
Health Care and Social Assistance	0.2	0.2	0.9
Arts, Entertainment, and Recreation	0.9	0.8	1.1
Accommodation and Food Services	0.7	0.7	1.0
Other Services (excluding Public Administration)	0.7	0.8	0.8
Public Administration	0.0	0.0	.03

Source: Local Employment Dynamics – U.S. Census Bureau

Figure 4

