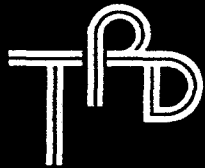


MOUNT JOY TOWNSHIP LAND USE ASSUMPTIONS REPORT

For Submission To:
Mount Joy Township
Lancaster County, Pennsylvania

March 15, 2004
TPD # MJTO.A.00003

Prepared By:



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INTRODUCTION

Traffic Planning and Design, Inc. (TPD) has completed a Land Use Assumptions Report (LUAR) for Mount Joy Township in compliance with the Pennsylvania Transportation Impact Fee Law as defined in sections 501-A through 506-A of the Municipal Planning Code (MPC). Sections 501-A through 506-A of the MPC were added to the code on December 19, 1990, via Act 209 of 1990 and were recently amended via Act 68 of 2000. The MPC authorizes municipalities within the Commonwealth to enact, amend and repeal impact fee ordinances and to charge impact fees to cover the cost of off-site road improvements necessitated by new land development.

Mount Joy Township is located in Lancaster County. As shown in Figure 1, Mount Joy Township is bordered by South Londonderry Township, Lebanon County to the north, Rapho Township to the east, Mount Joy Borough and East Donegal Township to the south, and Elizabethtown Borough and West Donegal, Conewago and Londonderry Townships to the west.

According to the MPC, as a prerequisite to the development of the transportation capital improvements plan (CIP), the Transportation Impact Fee Advisory Committee shall develop land use assumptions for the determination of future growth and development within the designated area or areas as described by the municipal resolution and recommend its findings to the governing body. The remainder of this report addresses the necessary components of a LUAR as stipulated in the MPC. A summary of the necessary components is as follows:

The land use assumptions shall:

- Describe the existing land uses within the designated area or areas and the highways, roads or streets incorporated therein.
- To the extent possible, reflect projected changes in land uses, densities of residential development, intensities of nonresidential development and population growth rates which may affect the level of traffic within the designated area or areas over a period of at least the next five years. These projections shall be based on an analysis of population growth rates during the prior five-year period, current zoning regulations, approved subdivision and land developments, and the future land use plan contained in the adopted municipal comprehensive plan. It may also refer to all professionally produced studies and reports pertaining to the municipality regarding such items as demographics, parks and recreation, economic development and any other study deemed appropriate by the municipality.

The Township is currently updating its Comprehensive Plan. The plan will include the Elizabethtown and Mount Joy Urban Growth Boundaries adopted by Lancaster County. It is anticipated that the Township Board of Supervisors will adopt the updated comprehensive plan in May 2004.

The MPC requires the delineation of a transportation service area(s) for the adoption of the Transportation Capital Improvements Plan (CIP). A transportation service area is defined as follows:

“A geographically defined portion of the municipality not to exceed seven square miles of area which, pursuant to the comprehensive plan and applicable district zoning regulations, has an aggregation of sites with development potential creating the need for transportation improvements within such area to be funded by impact fees. No area may be included in more than one transportation service area.”

The transportation service area delineated in the CIP will include the areas of the Township within the Elizabethtown and Mount Joy Urban Growth Boundaries.

Mount Joy Township is located within a county that has created a county planning agency. Therefore, a draft of the LUAR dated January 26, 2004 was forwarded to the Lancaster County Planning Commission for a 30-day comment period as required by the MPC. In addition, a copy of the draft LUAR was forwarded to all the contiguous municipalities and the Elizabethtown and Donegal School Districts for their review and comment. Although not required by the MPC, Elizabethtown College was also given an opportunity to comment on the LUAR.

EXISTING CONDITIONS

Population

Table 1 shows population growth in the Township since 1970 and contains ten-year projections to 2030. The total population of Mount Joy Township has increased by 1,717 people or 28 percent in the past ten years and 2,816 people or 55 percent since 1980. The Lancaster County Planning Commission (LCPC) provided population projections for 2010 and 2020. The population of Mount Joy Township is expected to grow by approximately 970 people or twelve percent by 2010. LCPC estimates that the population could increase by approximately 5,582 people by 2020 due to the increased densities permitted in the residentially zoned districts within the Elizabethtown and Mount Joy Urban Growth Boundaries.

**Table 1
Population Data and Projections**

Year	Population	10 Year Net Increase	10 Year Percent Increase
1970	4,228	-	-
1980	5,128	900	21%
1990	6,227	1,099	21%
2000	7,944	1,717	28%
2010	8,941	997	12%
2020	12,410	4,585	51%

Source: Lancaster County Planning Commission

According to the U.S. Census Bureau Minor Civil Division Population Estimates released on the Internet on July 10, 2003, the estimated population of Mount Joy Township was 8,182 people in

2001 and 8,494 people in 2002. According to these estimates, the population of Mount Joy Township has experienced approximately 46 percent of the LCPC estimated increase between 2000 and 2010 within the first two years of the projection.

Land Use

The Township's zoning ordinance was last revised in March 2000. The Township contains ten districts as shown in Figure 2. The following is an overview of the districts:

Agricultural (A) is intended to preserve agricultural areas and discourage housing near agricultural areas. The majority of the land area outside of the Elizabethtown Urban Growth Boundary is zoned Agricultural.

Rural (R) is intended for low-density development and not planned for public water or sewage services.

Low Density Residential (R-1) is intended to provide residential neighborhoods that primarily include single family detached dwelling units at a low density.

Medium Density Residential District (R-2) is intended for residential neighborhoods with single-family detached dwelling units at a medium density.

Medium-High Density Residential District (R-3) is intended for a mix of housing types at medium-high densities.

Conservation District (CR) is intended for residential neighborhoods at low densities in areas that include significant natural features.

Limited Commercial District (C-1) is intended for smaller commercial uses in areas that have traffic capacity limitations, contain significant natural features or are close to residential areas. Office uses are also permitted in the C-1 District.

General Commercial District (C-2) is intended for a wide range of commercial uses that provide safe and efficient traffic flow and are compatible with residential neighborhoods. Office uses are also permitted in the C-2 District.

General Industrial District (GI) is intended for a wide range of industrial uses and complementary commercial uses. A coordinated interior road system and control of nuisances and hazards are encouraged.

Light Industrial District (LI) is intended for a wide range of industrial uses while avoiding heavy industrial uses that are likely to cause nuisances and hazards.

Floodplain Conservation District (FC) is an overlay district for flood prone areas.

Mount Joy Township is approximately 28 square miles in size. Approximately 73 percent of the Township is zoned agricultural, 19 percent residential, five percent industrial and three percent commercial. It should be noted that residential uses are also permitted in the agricultural district. Table 2 shows the total acreage for each zoning district in Mount Joy Township.

**Table 2
Existing Land Use**

Zoning District	Total Acres	Built Acres
Agricultural (A)	12,969	1,495
Rural District (R)	1,159	186
Low Density Residential (R-1)	390	158
Medium Density Residential (R-2)	1,325	637
Medium-High Density Residential (R-3)	195	112
Conservation Residential (CR)	217	25
Limited Commercial (C-1)	399	33
General Commercial (C-2)	399	228
General Industrial (GI)	214	51
Light Industrial (LI)	696	121
Total:	17,874	3,046

Source: Mount Joy Township

As shown in Table 2, approximately 17 percent of the total land in Mount Joy Township has been built out. Approximately 34 percent of the land in the residential districts has been built out.

Building Permits

As shown in Table 3, a total of 728 building permits have been filed with Mount Joy Township between 1998 and 2003 according to the Township building permit data.

**Table 3
Building Permits**

Year	Residential Building Permits	Commercial/Industrial Building Permits
1998	51	13
1999	87	18
2000	84	8
2001	132	12
2002	211	10
2003	163	7

Source: Mount Joy Township

An average of 121 residential and 11 commercial and industrial building permits have been filed with the Township per year between 1998 and 2003. However, the number of residential permits was significantly above the average in 2002 and 2003. The Township expects this trend to continue with approximately 200 or more residential building permits per year over the next ten years. The number of permits in 2003 decreased from the 2002 total because a sewer

moratorium was placed on land development within the Urban Growth Boundary. Without the moratorium, the total number of residential building permits would have likely exceeded the 2002 total.

Transportation Network

The transportation network within the township services local, regional and county traffic patterns. Locally, approximately 94 miles of township & state roads provide access to township communities. Regionally approximately nine miles of state roads provide travel corridors between Mount Joy Borough, Elizabethtown Borough, Hershey, and developing communities within East/West Donegal Townships. Finally, approximately eight miles of limited access expressway links Dauphin and Lancaster Counties. Figure 3 illustrates the transportation network while the following listing describes how roads in the township should be classified in accordance with PENNDOT and Mount Joy Township's functional classification systems.

Expressways:

- PA 283 (S.R. 0283)

Minor Arterials:

- Harrisburg Pike (S.R. 0230)
- Hershey Road (S.R. 0743)
- Cloverleaf Road (S.R. 4025) from PA 283 to S.R. 0230

Collectors:

- Andrew Avenue (T351) west of Cloverleaf Road
- Campus Road (T316) from College Avenue to Schwanger Road
- Cloverleaf Road (S.R. 4025) from PA 283 to Mount Pleasant Road
- Cloverleaf Road (T335) from Mount Pleasant Road to the Square at Milton Grove
- Colebrook Road (S.R. 4025) from S.R. 0230 to Harrisburg Avenue S.R. 4018
- College Avenue (T316 and T319)
- Elizabethtown Road (S.R. 4008)
- Green Tree Road (T320) from Elizabethtown Road to Cloverleaf Road
- Holy Street (T610)
- Mount Gretna Road (S.R. 0241)
- Harrisburg Avenue (S.R. 4017 & S.R. 4018)
- Meadow View Road (S.R. 4033)
- Milton Grove Road (S.R. 4014) from Meadow View Road to the Square at Milton Grove
- Mount Pleasant Road (S.R. 4010) from Cloverleaf Road to T350, and from T350 to Rapho Township
- North Colebrook Road (S.R. 4027)
- Oberholtzer Road (S.R. 4023)
- Radio Station Road (T316 & T318) north of Elizabethtown Road
- Ridge Road (T855) from Elizabethtown Borough to Green Tree Road
- Ridge Run Road (T316)

- Ridge View Road (T318) from Ridge Road to Mount Gretna Road
- Schwanger Road (T843) from S.R.4018 to Mount Pleasant Road
- Sheaffer Road (T318 & T888)
- Snyder Road (S.R. 4017) from Mount Pleasant Road to S.R. 230
- Sunnyburn Road (S.R. 4039)
- West Risser Mill Road (T350) linking Mount Pleasant Road

Local Roads: All other roads are classified as Local Roads.

PROJECTED CONDITIONS

Developable Lands

The amount of developable land was determined from an analysis completed in 2000 for revisions to the Township Comprehensive Plan and Zoning Ordinance. The analysis utilized the tax parcel data from the Lancaster County Geographic Information System (GIS). Table 4 shows the amount of land that could be developed in each of the zoning districts.

**Table 4
Developable Land**

Zoning District	Total Acres	Built Acres	Vacant/ Developable	Percent of Total Developable Land
Rural District (R)	1,159	186	650	25%
Low Density Residential (R-1)	390	158	148	6%
Medium Density Residential (R-2)	1,325	637	551	22%
Medium-High Density Residential (R-3)	195	112	52	2%
Conservation Residential (CR)	217	25	231	9%
Limited Commercial (C-1)	399	33	179	7%
General Commercial (C-2)	399	228	100	4%
General Industrial (GI)	214	51	95	4%
Light Industrial (LI)	696	121	528	21%
Total:	4,905	1,551	2,534	100%

Source: Mount Joy Township

As shown in Table 4, the most developable land is found in the Rural (R) and Medium Density (R-2) districts with 650 and 551 acres respectively. These lands combine for 47 percent of the developable non-agricultural land in the Township. The commercial districts combine for a total of 279 developable acres, and the industrial districts contain a total of 593 developable acres.

Subdivision of residential lots and creation of new principal non-agricultural lots or uses within the Agricultural District are limited. The potential number of residential lots, which may be

created in accordance with current zoning, is 644 dwelling units. This would compute to approximately one dwelling unit for 14 acres. Such low-density land development will not likely generate significant impacts to the capacity of the adjacent roadway system in these areas within the next ten years.

Approved/Pending Land Developments

According to the provisions of the Pennsylvania Municipalities Planning Code (MPC), preliminary land development proposals submitted to the Township prior to the advertisement of its notice of intent to adopt a transportation impact fee ordinance are not subject to the assessment of an impact fee. Table 5 shows the land developments that are currently under consideration for approval or have been approved by the Township prior to the advertisement of the notice of intent.

**Table 5
Approved/Pending Land Developments**

Development	Size	Location	Occupancy Permits Filed
Farmbrook Phase IV	46 Townhouses	Cloverleaf Road/Schwanger Road	0
Bradfield Phase III	49 Townhouses	Cloverleaf Road/Harrisburg Avenue	11
Norlanco Medical Center	17,350 Square Feet Medical Office 4,025 Pharmacy w/ Drive Thru	Cloverleaf Road/Andrew Drive	0
Sico Car Wash	5 Washing Bays	Route 230/Cloverleaf Road	0
Shady Oaks	84 Apartments	Cloverleaf Road/Harrisburg Avenue	0
Timber Ridge	40 Townhouses	Route 743/Route 241	0
Rockwood Phase IV	80 Townhouses	Route 743/Route 241	74
Northbrooke Phase IV	40 Single Family - Detached	Route 743/Route 241	11
Grandview Meadows	78 Townhouses 20 Apartments	Route 230/Orchard Drive	56
Deerfield Phase II	48 Townhouses	Route 230/Orchard Drive	25

Pennmark/Oweiler Tract	4,200 Square feet – Bank 4,800 Square feet – Restaurant 34,000 Square feet - Retail	Route 230/Cloverleaf Road	0
Shaeffer Ridge	32 Townhouses	Ridge Road/Sheaffer Road	14
Violet's Path	10 Single Family - Detached	Ridge Road/Sheaffer Road	1
Honeysuckle Court	16 Single Family – Detached	Ridge Road/Sheaffer Road	3
Ridge View West	16,800 Square feet – Medical/Dental Office 500 Square feet – General Office	Ridge View Road/ Elizabethtown Road	0

As shown in Table 5, 15 developments are not subject to a transportation impact fee. The proposed and approved land developments total 543 residential dwelling units, 47,025 square feet of commercial and 34,650 square feet of office space. Building permits have been issued for 419 of the approved or pending dwelling units. A total of 195 residential occupancy permits were filed with the Township prior to September 1, 2003 and the completion of the peak period traffic counts for the Roadway Sufficiency Analysis.

Projected Land Development

As discussed previously in this report, the LCPC anticipates the population to increase by 5,582 people by 2020. In addition, the LCPC estimates that approximately 2,147 residential dwelling units will be needed to accommodate the population increase. However, Mount Joy Township anticipates the population increase and issuance of building permits to occur much more rapidly than the LCPC projections. Based on Township trends, residential building permits will likely average approximately 200 per year over the next ten years.

Population estimates since the 2000 Census and pending land development proposals support the Township's projection. The estimated population of Mount Joy Township was 8,182 people in 2001 and 8,494 people in 2002. According to these estimates, the population of Mount Joy Township has experienced approximately 46 percent of its LCPC estimated increase between 2000 and 2010 within the first two years of the projection.

In 2002, a conceptual plan was developed for the construction of 844 dwelling units on 315 acres south of Route 283 and west of Cloverleaf Road. Sketch plans have already been submitted to the Township for 394 units. If the U.S. Census average household size for single family detached, duplex, townhouse and apartments are applied to the proposed number of units, the approximate total population increase in the Township as a result of the development would be 2,392 people. This population increase would account for over 100 percent of the 2030 urban

growth boundary population increase projected by the LCPC, with no provision for population growth in other portions of the urban growth boundary not included in the project area.

The following table lists the growth and development that is anticipated within the next ten years based on the population and residential dwelling unit projections and perceived development pressures in the Township. The locations of projected development are shown in Figure 4 and the subsequent enlargement.

**Table 6
Projected Land Development**

Development	Land Use	Size
A-1	Light Industrial	50,000 square feet
A-2	Light Industrial	90,000 square feet
A-3	Light Industrial	375,000 square feet
A-4	Light Industrial	50,000 square feet
A-5	Light Industrial	750,000 square feet
B-1	Residential	45 townhouses
B-2	Residential	70 single family detached 60 duplex
B-3	Residential	6 single family detached 20 duplex
B-4	Age Qualified	300 units
B-5	College Dormitories	128 units
B-6	Residential	95 single family detached
B-7	Residential	29 single family detached
B-8	Residential	265 single family detached 75 duplex 140 townhouses
B-9	Residential	125 single family detached 35 duplex 55 townhouses
B-10	Residential	90 single family detached 70 duplex
B-11	Residential	143 single family detached 24 duplex 79 townhouses
B-12	Residential	18 single family detached
B-13	Residential	53 apartments
B-14	Residential	71 single family detached 60 duplex
B-15	Commercial	25,000 square feet
B-16	Commercial	25,000 square feet

B-17	Office	50,000 square feet
B-18	Commercial	5,000 square feet
B-19	Commercial	45,000 square feet
B-20	Residential	20 single family detached 10 townhouses 6 duplexes
B-21	Commercial	15,000 square feet
B-22	Residential	80 single family detached 22 duplexes 42 townhouses
C-1	Commercial	184,000 square feet
C-2	Residential	48 single family detached
C-3	Commercial	381,000 square feet Convenience store w/ 12 fueling stations
C-4	Commercial	50,000 square feet
C-5	Commercial	30,000 square feet
C-6	Office	30,000 square feet
C-7	Office	30,000 square feet
D-1	Commercial	260,000 square feet 2,500 square feet (restaurant) 2,000 square feet (drive-in bank)
D-2	Residential	18 townhouses
D-3	Commercial	20,000 square feet

The number of dwelling units for the residential developments and the square footage for the commercial, office and industrial developments in Table 6 are the estimated net build-out of each parcel(s). For residential development, it was assumed that approximately 40 percent of the buildable land area would be utilized for parking and open space. For example, the residential developments identified by a letter B equate to a gross density of 3.25 units per acre. After accounting for open space and parking, the net build-out density is 5.5 units per acre. Therefore, the residential net build-out density is equal to the LCPC targeted density within its Urban Growth Boundaries.

The net build-out for commercial, industrial and office developments assumed building coverages according to the current Township Zoning Ordinance. The projected land development listed in Table 6 assumes a full build-out of land zoned commercial within the Elizabethtown and Mount Joy Urban Growth Boundaries. The projections assume a 10 – 15 percent build out of parcels zoned industrial.

Institutional related uses are projected in the residential areas, including an age qualified development (B-4) and college dormitories (B-5). The Elizabethtown School District does not anticipate a significant expansion of existing facilities within the next ten years. The Norlanco Medical Center does not anticipate any hospital construction in the Township within the next ten years.

As shown in Table 6, 37 developments are anticipated for land development within the next ten years. Table 7 summarizes the anticipated growth and development according to land use.

Table 7
Summary of Projected Land Development

Land Use	Total Development
Residential	1,874 dwelling units
Age Qualified	300 units
College Dormitories	128 units
Office	110,000 square feet
Commercial	1,044,500 square feet
Industrial	1,315,000 square feet



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FIGURE 1

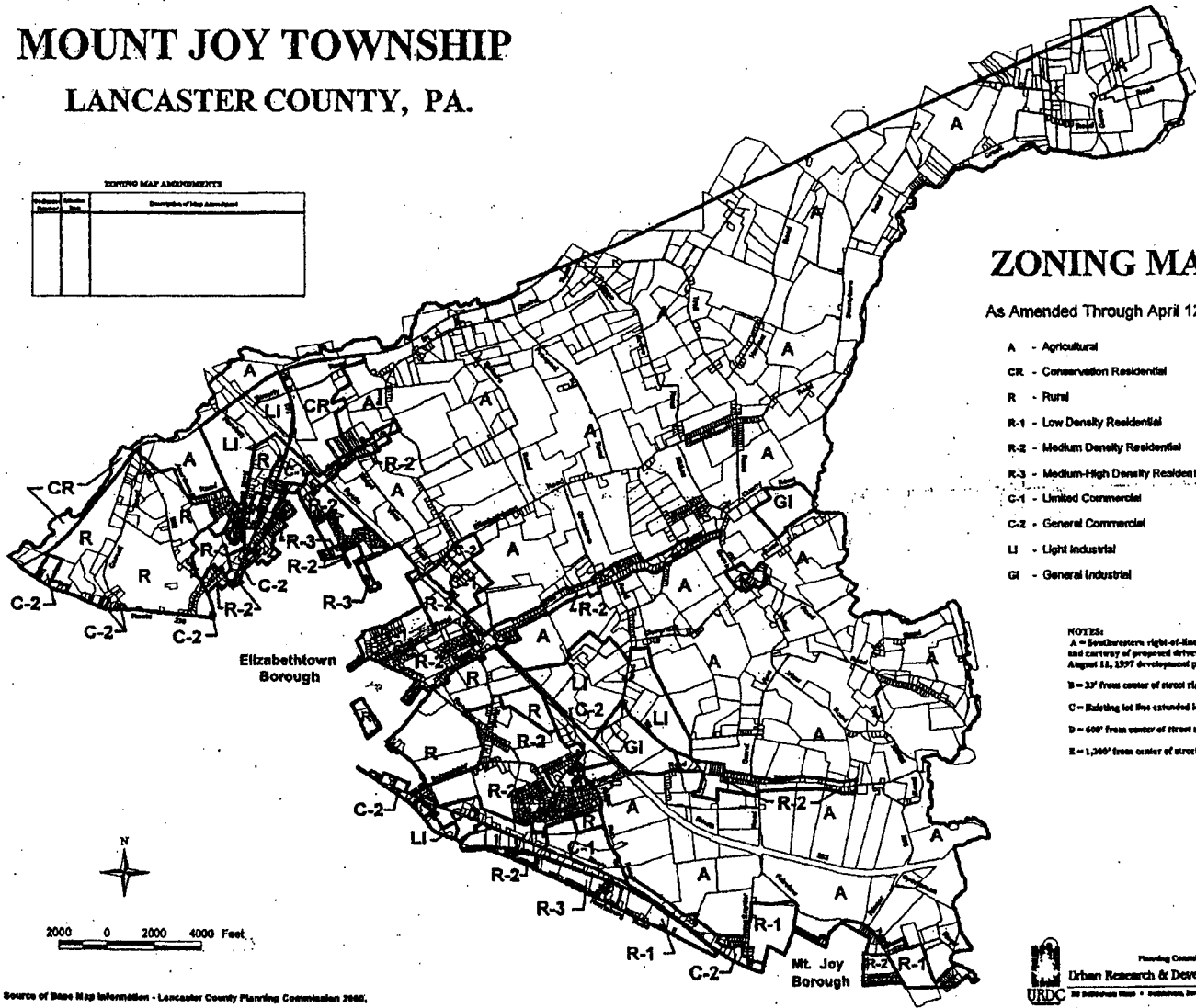
PROJECT LOCATION

MOUNT JOY TOWNSHIP

LANCASTER COUNTY, PA.

ZONING MAP AMENDMENTS

Amendment Number	Effective Date	Description of Map Amendment



ZONING MAP

As Amended Through April 12, 2000

- A - Agricultural
- CR - Conservation Residential
- R - Rural
- R-1 - Low Density Residential
- R-2 - Medium Density Residential
- R-3 - Medium-High Density Residential
- C-1 - Limited Commercial
- C-2 - General Commercial
- LI - Light Industrial
- GI - General Industrial

NOTES:
 A - Shows the street right-of-line of proposed street and centerline of proposed driveway, as shown on August 18, 1997 development plan.
 B - 33' from center of street right-of-way.
 C - Riding lot line extended to a straight line.
 D - 600' from corner of street right-of-way.
 E - 1,200' from corner of street right-of-way.

Planning Consultant:
Urban Research & Development Corporation
 URDC
 30 Elizabeth Place • Elizabeth, Pennsylvania 19008 • 610-652-6700

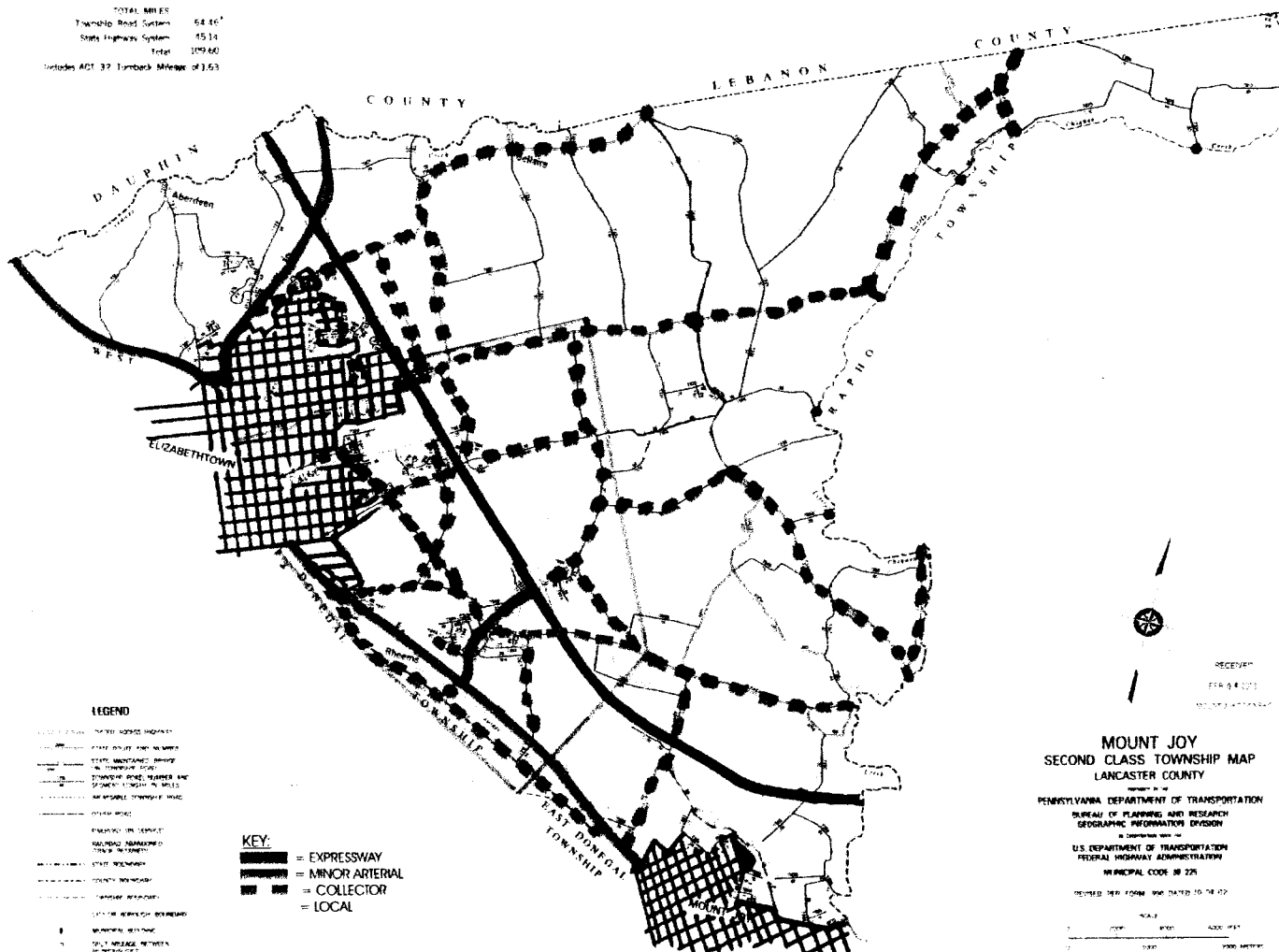
Source of Base Map Information - Lancaster County Planning Commission 2000.

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FIGURE 2

ZONING MAP

TOTAL MILES
Township Road System 54.46
State Highway System 45.14
Total 99.60
Includes ADT 37 Turnback Mileage of 3.53



LEGEND

- STATE ROUTE HIGHWAY
- STATE ROUTE AND HIGHWAY
- STATE MAINTAINED DRIVE
- TOWNSHIP ROAD NUMBER AND
- ROADWAY LENGTH IN MILES
- UNPAVED DRIVEWAY ROAD
- UNPAVED ROAD
- EMPAVED DR. DRIVEWAY
- RAILROAD
- NATURAL BOUNDARY
- COUNTY BOUNDARY
- MUNICIPAL BOUNDARY
- UNPAVED DRIVEWAY
- UNPAVED DRIVEWAY BOUNDARY
- UNPAVED DRIVEWAY
- UNPAVED DRIVEWAY BOUNDARY

KEY:

- = EXPRESSWAY
- = MINOR ARTERIAL
- = COLLECTOR
- = LOCAL



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MOUNT JOY TOWNSHIP

**MOUNT JOY
SECOND CLASS TOWNSHIP MAP
LANCASTER COUNTY**

REPORT OF THE
PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
BUREAU OF PLANNING AND RESEARCH
GEOGRAPHIC INFORMATION DIVISION

IN COOPERATION WITH THE
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
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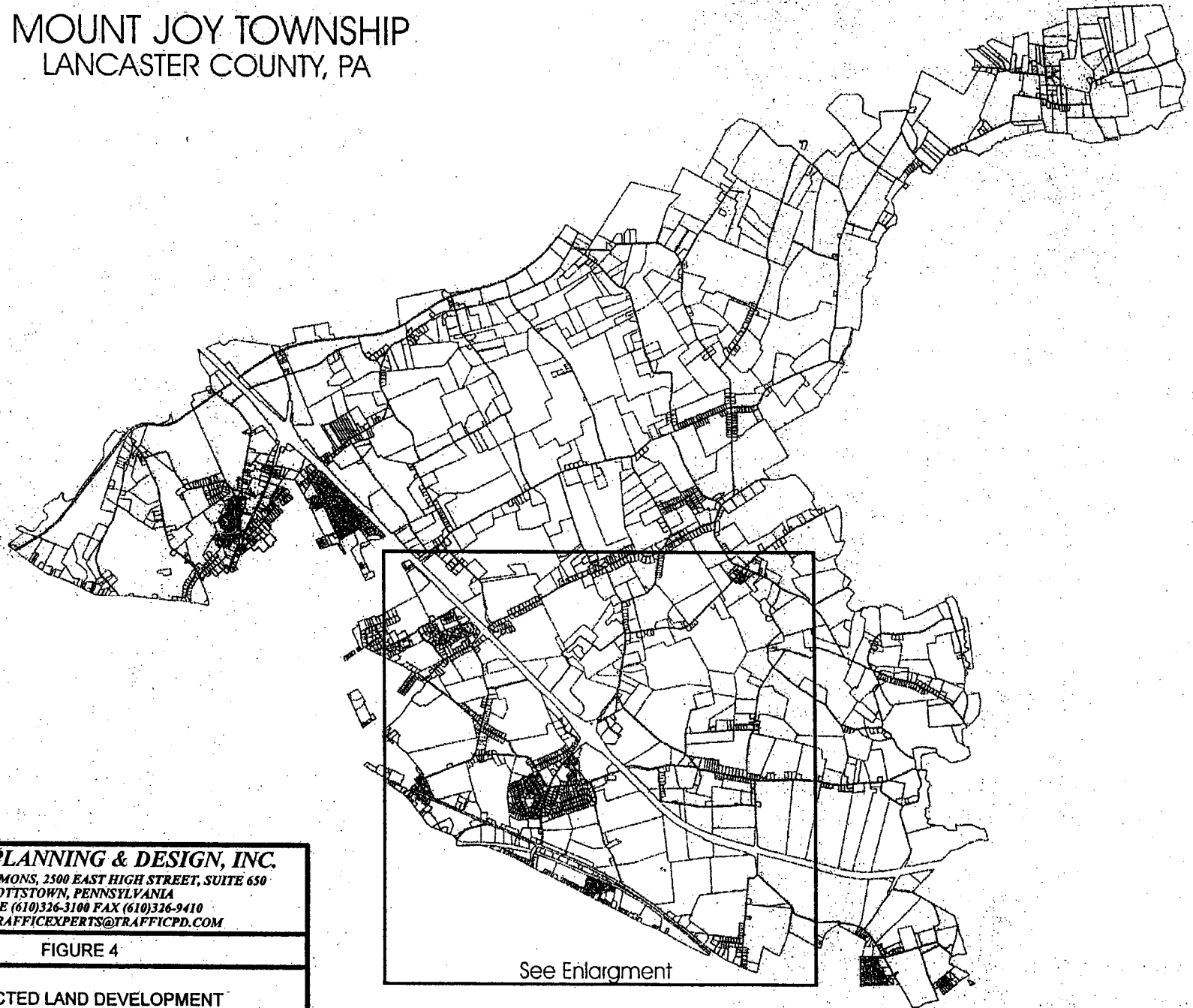
SCALE:
1" = 1 MILE
1" = 1/2 MILE

DATE: 10/18/02
DRAWN BY: J. ROSS
CHECKED BY: J. ROSS

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FIGURE 3
TRANSPORTATION NETWORK

MOUNT JOY TOWNSHIP
LANCASTER COUNTY, PA



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FIGURE 4

PROJECTED LAND DEVELOPMENT

See Enlargment



ENLARGEMENT