



Community Plan

VOLUME 3: EXISTING CONDITIONS
CITY OF CENTERVILLE & WASHINGTON TOWNSHIP

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*This report is **Volume 3** of the Community Plan. It contains existing conditions analysis and background information used for the Plan. **Volume 1** is the General Elements, and contains recommendations for the nine plan elements. **Volume 2** includes a summary of recommendations for the Study Areas. These documents were prepared on behalf of the Create the Vision Steering Committee, a 34-member group appointed by City Council and Township Trustees to prepare the Community Plan.*

OUR COMMUNITY

CREATE THE VISION

1. Introduction

OUR FUTURE



1. Introduction

A. History

In September 2002, the City of Centerville and Washington Township initiated a process to create a joint community plan titled *Create the Vision: Our Community Our Future*. Even though there is considerable cooperation between the two governments, the joint community plan was an unprecedented effort. It is also noteworthy that there are very few examples in the State of Ohio of joint planning between municipalities and townships. In fact, there is typically a great deal of divisiveness in the typical city-township relationship—especially related to land use and development. Although joint planning seemed like an obvious approach for many residents, it took insightful leadership to organize such a process.

Both the City and Township have undertaken separate, competent planning efforts in the past. These plans have been created and implemented by the City and Township on an individual level. However, through the development and implementation of *Create the Vision*, the Community will have a plan that addresses needs and aspirations across jurisdictional boundaries, and brings the Community together to create a socially, economically and ecologically sustainable future.

The planning process began when the City and Township officials appointed 34 people to a citizen-based *Create the Vision Steering Committee*. The Committee was created to reflect the diverse interests of the Community, including: citizens, business leaders, civic and neighborhood organizations, and elected and appointed leaders. The Committee was

organized to guide and manage the planning process. The Committee's ultimate role was to guide the process, understand the issues and make recommendations contained in the plan.

Following the creation of the Committee, monthly meetings were facilitated by the lead planning consultant, ACP – Visioning & Planning, Ltd. With support from the City's Planning Division and the Township's Development Services Department, the consultant team executed the work program. The existing conditions analysis, which formed an important foundation to the Community Plan, was the first major effort. The public involvement effort began in November 2002 and continued through adoption of the Plan. The Community Plan was ultimately established through the cooperation of the City and Township, and participation and input from residents.

This unprecedented planning effort brought the City of Centerville and Washington Township together, provided opportunities to debate important issues, and resulted in an important, ambitious, and essential vision for the future of the Community.

The success of the Community Plan will be measured relative to tangible evidence of implementation. This challenge is in the hands of the residents and other Community stakeholders—especially the elected and appointed officials. Implementation of this Plan is the next bold step for the Community.

B. Organization of the Document

Following this Introduction is an Executive Summary that summarizes the planning process, describes the Plan's goals, highlights key recommendations, and introduces implementation considerations. Chapters 3 through 10 outline topics where extensive background information was gathered and analyzed for the Plan. These topics include:

- Demographics
- Land Use
- Parks and Recreation
- Transportation
- Utilities
- Fiscal Analysis
- Housing Competitiveness
- Office Market Analysis

Each chapter presents the topic in an overview, key findings, and discussion on analysis.

There are two important documents referenced in this volume: Volume 1, General Elements, and Volume 2, Study Areas. Volume 1 contains recommendations for the nine plan elements, including land use, community appearance, community services, economic development, education and learning, parks and recreation, transportation, utilities, and implementation.

Volume 2 contains more detailed land use recommendations for specific locations in the Community.

OUR COMMUNITY

2. Executive Summary

CREATE
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OUR FUTURE

2. Executive Summary



A. Overview

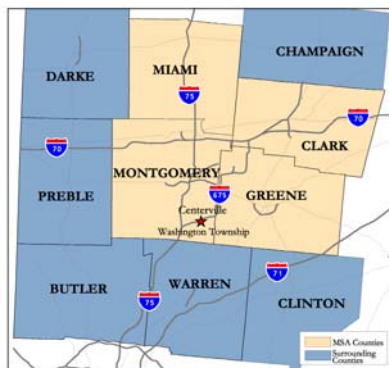
The Community Plan is an official policy document for the City of Centerville and Washington Township and establishes a vast and comprehensive framework to guide decision-making.

The planning process for the Community Plan was initiated by the City of Centerville and Washington Township with the goal of maintaining and enhancing the Community's quality of life. The Community Plan is an effort to create a clear and consistent policy structure so that expectations for land use and public investments are clear to all interested parties.

This chapter summarizes the existing conditions and key elements including demographics, land use, parks and recreation, transportation, utilities, fiscal analysis, housing competitiveness, and office conditions.

B. Existing Condition Analysis

This section provides an overview and key findings of the elements researched in the preparation of the Plan. Existing conditions included the statistical analysis of several key topics, broken out in this section by chapter. This Volume details specific information on a technical and analytical basis, and provided a foundation for recommendations discussed in greater detail in Volume 1: General Elements, and Volume 2: Study Areas.



1. Demographics

The Demographics chapter of this Volume outlines prevalent data on the Community's current population and housing conditions as well as population projections through the year 2020. US Census data was gathered from 1970, when the Community started to develop a more rapid rate, to fully understand the demographic trends that have occurred. Comparative insight was also gained by evaluating the surrounding area's demographic characteristics, including Montgomery County, the Dayton-Springfield MSA, and other regional cities and counties.

Key Demographic findings are as follows:

- **Steady Growth:** The Community has more than doubled in population since 1970 while the MSA and Montgomery County as a whole has lost population. Surrounding Counties (Butler, Champaign, Clinton, Darke, Preble, and Warren) have gained population over the last 30 years.
- **Rapid Development:** The most significant amount of growth occurred between 1970 and 1980 (Centerville –83 percent decennial gain, Washington Township–47 percent decennial gain).
- **Ageing Population:** Between 1990 and 2000, the Community experienced a 31 percent increase in the number of residents 65 years or older while losing population in the 25-34 year old age group.
- **Slower Projected City Growth:** By 2020, Centerville is projected to have a population of 25,675 (2.9 percent growth), while Washington Township is projected to have 41,295 persons (17.4 percent growth).
- **Continual Housing Growth:** The Community has consistently increased the number of housing units over the last 30 years (a total gain of 13,345).
- **High Housing Values:** Washington Township's median housing unit value was \$163,300 in 2000. This is \$13,000 higher than any other township in Montgomery County.
- **Greater Regional Growth:** The surrounding counties (Non-MSA) have experienced a greater rate of growth since 1990 than Montgomery County, which actually declined three percent.

2. Land Use

The Land Use chapter of this Volume provides a summary of how the land within the Community was being utilized in 2002. The assessment categorizes the Community into 12 different land use classifications and calculates the acreage of each use in both the City of Centerville and Washington Township. A comparison between the past (based on the 1969 City of Centerville-Washington Township Comprehensive Plan) and present land use percentages is also presented. Additionally, environmental constraints and agriculture suitability is analyzed in the Existing Land Use assessment.

Key Land Use findings are as follows:

- **Total Acreage:** The Community contained 20,117 acres or 31.4 square miles. (City 6,706 acres or nearly 10.5 square miles, Township 13,411 acres or nearly 21.0 square miles)
- **Diminishing Developable Land:** 15,464 acres (75.1 percent) in the Community is currently considered developed land. (City 5,800 acres or 86.4 percent, Township 9,664 acres or 72.1 percent) Of the undeveloped land only 3,186 acres (63.5 percent) is developable because it is in some form of public ownership (e.g. highway rights of way) or because of environmental constraints.
- **Past Development:** In 1967, 69.4 percent of the planning area was undeveloped (14,260 acres). Today, only 22.7 percent of the land is undeveloped (4,552 acres).
- **Residential Community:** Residential use represents the most significant land use in the Community. Single and multi-family use together make up 60 percent of the Community's total land area. When considering only the developed land in the Community, residential uses total 78 percent (City 73 percent, Township 81 percent).
- **Prime Agricultural Soils:** 73 percent of the undeveloped land is considered to have prime agricultural soils. (75 percent City, 73 percent Township)
- **Consistent Residential Density:** Since 1967, the Community's households per acre have remained consistent, only declining from 1.9 households per gross residential acre to 1.8 households per gross residential acre.
- **Higher City Population Density:** The City of Centerville has a higher population density than Washington Township (City 4.0 persons per acre, Township 3.1 persons per acre).

3. Parks and Recreation

The Parks and Recreation chapter of this Volume inventories all the existing parks and recreational facilities in the City and Township and provide a geographical assessment that illustrates how the facilities are distributed throughout the Community. The chapter also summarizes the role that each different entity (Centerville-Washington Park District (CWPD), the City of Centerville, and Washington Township) plays in managing the 49 parks and recreational facilities. The school recreational facilities are further assessed due to many Community residents using these sites as neighborhood facilities. It should be noted that only governmental facilities were inventoried, although it is recognized that other institutions like churches as well as numerous private clubs provide recreation facilities throughout the Community.

Key Parks and Recreation issues are as follows:

- **Operations:** The CWPD owns and maintains 44 parks out of the 49 parks and recreation facilities within the Community. The City

owns and maintains three parks and recreation facilities, while Washington Township owns and maintains one park and recreational facility.

- **Recent Improvements:** The CWPDP has made significant improvements to their park system including a \$2.4 million renovation of Schoolhouse Park, major improvements to the Activity Center entrance and parking, a new shelter house and restroom at Yankee Park, and improvements to 13 Neighborhood parks between 1999 and 2002. Additionally, The Golf Club at Yankee Trace added nine new holes in 2002.
- **National Recognition:** The Golf Club at Yankee Trace has brought national recognition to the Community with *Golf Digest* naming the course at Yankee Trace as one of the top ten municipal courses in the United States in 2002.
- **Regional Attraction:** The Golf Club at Yankee Trace is a regional recreation facility with the most rounds of golf (86 percent) in 2002, played by non-Centerville residents.
- **Needed Parkland:** The northwestern quadrant of the Community along Alexandersville-Bellbrook Road is not as sufficiently served with parks and recreational facilities as other quadrants in the Community due to the area being residentially developed prior to the formation of the CWPDP. Additionally, though The Golf Club at Yankee Trace is a specialized recreation facility in the southwest quadrant, the geographic analysis indicated an absence of community-scaled parkland in this growing quadrant of the Community.
- **Dedication Requirements:** Washington Township does not currently have a formal dedication requirement in its zoning ordinance for parkland in new developments, but does have parkland guidelines. This suggests more land dedicated (5 acres for every 100 acres developed) than the City of Centerville's Parkland Dedication Ordinance (3.26 acres for every 100 acres developed). These dedications are a major source of Neighborhood parkland for the Community.

4. Transportation

The Transportation chapter of this Volume presents a summary of the transportation characteristics, trends and projections for the City of Centerville, Washington Township, and the Community as a whole. The existing conditions section illustrates how traffic volumes have progressively increased over the last 30 years along corridors throughout the Community as well as the levels of service (LOS) they are currently operating at.

Key Transportation issues are as follows:

- **Jurisdictional Responsibility:** The City of Centerville has responsibility for all roads within the municipal boundaries while

the Township is responsible for local roads not maintained by Montgomery County or the State of Ohio.

- **Major Roadways:** The major roadways (SR 48 and SR 725) do not provide sufficient connectivity and capacity, and the existing County and Township roads have to be upgraded to better serve the transportation needs of the Community.
- **North/South Traffic:** The Community's greatest transportation problem is the north-south movement of traffic.
- **Increased Traffic Volumes:** If the proposed I-75 interchange is built at Austin Pike, traffic volumes would increase by 21 percent. Many of the roadways in the southern portion of Washington Township are inadequate to handle this anticipated traffic.

5. Utilities

The Utilities chapter of this Volume inventories the Community's water distribution, sanitary sewer, and stormwater facilities. The inventory includes an assessment of the existing conditions of each system, identification of areas of concern based on current problems, and planned improvements to correct such problems and meet anticipated development needs.

Key Utilities issues are as follows:

- **Sanitary Sewers:** The Montgomery County Sanitary Engineers Office provides sanitary sewer services for the Community. The County is in the process of implementing a \$100 million improvement plan to address the sewage overflows and sanitary sewer capacity concerns throughout the County.
- **Water Distribution:** The Community has sufficient supply pressures and fire flow throughout the planning area with the exception of the Architectural Preservation District, where fire flow is limited due to existing water mains being undersized and, areas along the ridge east of Sheehan Road because of higher elevations.
- **Storm Sewer System:** The City and the Township have documented storm water system problems such as street and yard flooding, channel erosion, and maintenance issues. Both jurisdictions have conducted various studies to alleviate the storm sewer problems.

6. Economic Analysis

The Economic Analysis chapter of this Volume analyzes three aspects of the Community's economy: housing, the office market, and retail analysis. The housing portion provides an overview of issues impacting the competitiveness of housing in both the City and Township. It also offers input on the Community's role in the regional housing market and the factors that may impact their competitiveness.

The office market analysis was conducted to determine the potential for office space within the Community. In order to determine the Community's regional office market potential, such factors as employment, market trends,

office absorption, demand forecasts, and the region's competitive framework were evaluated.

The retail analysis focused on retail market issues within the Community as well as throughout the Dayton region. As part of the assessment, supply and rent trends, demand, and niche marketing opportunities were studied. Additionally, the illustrative demand assessment identifies the level of retail potential generated by residents of the Community.

Key Economic Analysis issues are as follows:

A. Housing Competitiveness:

- **Aging Housing Stock:** Centerville is largely built-out, while there is still room for growth in the Township. The Community will see the average age of their housing stock increase in the near future as new development winds down leading to difficulty competing with new housing developments in other regional communities.
- **Remaining Competitive:** The Community has protected and promoted a certain lifestyle through regulatory mechanisms. In the future, the Community is going to need to be responsive to a changing market to remain competitive in attracting emerging market niches.
- **Affordable Housing:** While the Community should continue to promote and enhance higher priced, high quality housing, there is a need to ensure that adequate opportunities for affordable housing are offered to the residents.

B. Office Market:

- **Diverse Office Market:** The Dayton office market is relatively diverse with a wide range of tenants including Wright Patterson Air Force Base, defense contractors, corporate offices, and institutional uses such as universities and hospitals.
- **Marginal Growth:** Future projections for the Dayton office market are conservative with new offices being occupied by in town move-ups and transfers among existing businesses.
- **Strategic Location:** The Community, a part of the competitive south Dayton sub-market, is strategically located in the emerging Cincinnati-Dayton commutershed, which has excellent north-south access along I-75 and I-675.
- **Healthy Office Market:** Conservative supply trends have allowed the Community to maintain a relative healthy office market. Too much additional growth however, will upset the existing balance between supply and demand.

C. Retail Analysis:

- **Declining Regional Household Base:** The most important issue impacting the retail market throughout the Dayton market is the stagnant regional population base.

- **Competitive:** The Community is well positioned to capture regional retail demand. New development is needed to remain competitive but will impact older, existing retail areas.
- **Niche Markets:** Within the next few years, there will be a demand for a maximum of 200,000 square feet of additional retail. Demand will increase for restaurants, grocery/pharmacy, apparel and accessory, and home furnishings stores.

7. Fiscal Impact Assessment

The Fiscal Impact Assessment chapter of this Volume analyzes the cost of each type of tax generating land use within the Community. The net fiscal benefits are determined based on the revenues generated (i.e. taxes) annually to either the City or Township minus the annual costs (i.e. police, fire, recreation, and administration) generated by each type of land use. Since the City of Centerville and Washington Township have a very different tax and operating structure, each entity is analyzed separately and comparisons were not made between the two.

The Fiscal Conditions Analysis provides an overview of fiscal trends for the entire Community. Each jurisdiction's popular budgets for the past 10 years are analyzed in terms of operating revenue and expenditure trends, fiscal incentive programs, capital budgeting process, and capital funding sources. Interviews were conducted as part of the analysis with key individuals including representatives of the City and Township departments, Centerville City School District, and the Montgomery County Auditor. Additionally, the Fiscal Conditions Analysis provides findings on the fiscal situation as an input to the planning and visioning process and to help guide fiscal planning.

Key Fiscal Impact Assessment issues are as follows:

A. City of Centerville (Land Use Cost-Benefit Analysis):

- **Residential Impact:** Single-family residential uses produce a marginal net fiscal benefit to the City of Centerville, while multi-family residential uses generally produce a negative fiscal impact on the City.
- **High Fiscal Returns:** Both commercial and industrial uses generate a relatively high fiscal gain to the City, primarily due to income taxes generated by workers.
- **Retail Impact:** Centerville's retail produces a negative fiscal impact on the City.
- **Highest Fiscal Return:** Office uses produce the highest fiscal return on a per-square-foot basis.

B. Washington Township (Land Use Cost Benefit Analysis):

- **Residential Impact:** Multi-family residential uses produce a higher fiscal impact for the Township than single-family, which also produces a positive fiscal impact.

- **Density:** Lower density housing in Washington Township results in a lower fiscal return on a per acre basis than the City of Centerville.
- **Highest Fiscal Return:** Office uses generate the highest revenue but also generate the most cost to the Township.

C. Centerville-Washington Township Fiscal Conditions

Analysis:

- **Financial Structure:** Washington Township is more dependent on property taxes, which generate 72 percent of its revenues, than the City of Centerville, which generates 41 percent of its revenue from income taxes.
- **City Income Tax Comparisons:** Residents of the Community that work in Dayton pay a higher income tax rate (2.75 percent) than those who work in Centerville (1.75 percent).
- **Healthy Fund Balances:** Both the City and Township maintain healthy fund balances. The Township in January of 2001 had \$15 million while the City maintains between \$3 and \$5 million.

OUR COMMUNITY

3. Demographics

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OUR FUTURE



3. Demographics

A. Overview

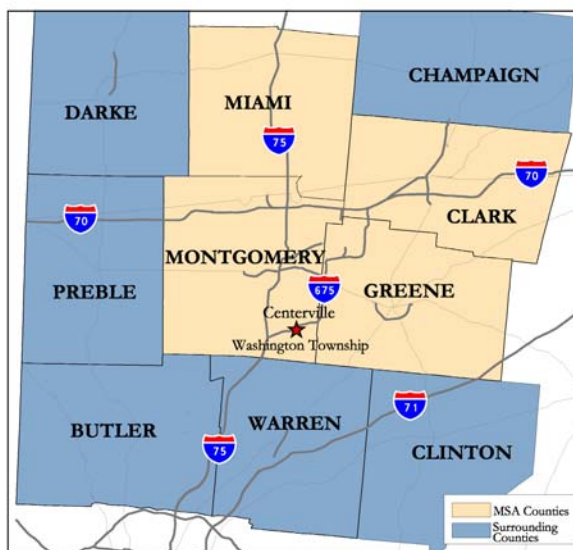
This chapter presents a summary of the demographic characteristics, trends and projections for the City of Centerville, Washington Township and the Community as a whole (it should be noted that when the term “Community” is used in the narrative, it is in reference to both the City and Township). It outlines prevalent data on the Community’s current population and housing conditions and provides projections through the year 2020. Comparative data is also provided for Montgomery County and the Dayton Springfield MSA. By analyzing the Community as a whole and the surrounding area’s demographic characteristics, insight can be gained about trends that may affect the Community in the coming years.

Sources include the US Census of Population and Housing (1970-2000), Ohio Department of Development, Miami Valley Regional Planning Commission, Brookings Institution, City of Centerville Planning Department and Washington Township Development Services Department. Numerous tables derived from the above sources support the narrative throughout the document as well as two maps, Median Age and Housing Size, found at the end of the chapter. The remainder of this chapter includes:

- Summary of Key Findings
- Population Characteristics, Trends and Projections
- Housing Characteristics and Trends
- Regional Perspective

B. Key Findings

- The Community has more than doubled in population since 1970 while the MSA and Montgomery County as a whole has lost population. Surrounding Counties (Butler, Champaign, Clinton, Darke, Preble, and Warren) gained population over the last 30 years.
- Between 1990 and 2000, the Community experienced a 31 percent increase in the number of residents 65 years or older while losing population in the 25-34 year old age group.
- The Community has consistently increased the number of housing units over the last 30 years (a total gain of 13,345).
- Washington Township's median housing unit value was \$163,300 in 2000. This is \$13,000 higher than any other township in Montgomery County.
- The surrounding counties (Non-MSA) have experienced a greater rate of growth since 1990 than Montgomery County, which actually declined 3 percent.



C. Population Characteristics and Trends

Over the last 30 years, the Community has experienced many changes in the population. The population trends assessment highlights historic and more recent trends that are significant to understanding the Community and planning its future. This section provides a summary of the general population for the City of Centerville, Washington Township, Montgomery County and the Dayton/Springfield (MSA), which encompasses the three entities.

The analysis in this section makes comparisons in population growth since 1970 among the three divisions.

- The Community has more than doubled in size with an increase of 28,494 residents to total 52,991 (116 percent growth). (1970-2000)
- The Township and City have experienced high rates of growth while both Montgomery County and the Dayton/Springfield MSA have struggled to maintain its population. (County 8 percent loss, MSA 2 percent loss) (1970-2000)
- The most significant amount of growth occurred between 1970 and 1980 (Centerville – 83 percent decennial gain, Washington Township – 47 percent decennial gain).
- Of the 52,991 persons in 2000, the City of Centerville had 23,024 residents and Washington Township had 29,967 residents.
- In 2000, the Community represented 9 percent of the total Montgomery County population (up from 4 percent in 1970) and 6 percent of the overall Dayton/Springfield MSA (up from 3 percent in 1970).

Table A.1

City of Centerville Historic Population Growth				
Year	Persons	Actual Change	Percentage Change	Average Annual Rate
1970	10,333			
1980	18,886	8,553	82.8	8.3
1990	21,082	2,196	11.6	1.2
2000	23,024	1,942	9.2	0.9
1970-2000		12,691	122.8	4.1

Source: US Census of Population, 1970-2000

Table A.2

Washington Township Historic Population Growth				
Year	Persons	Actual Change	Percentage Change	Average Annual Rate
1970	14,164			
1980	20,865	6,701	47.3	4.7
1990	25,527	4,662	22.3	2.2
2000	29,967	4,440	17.4	1.7
1970-2000		15,803	111.6	3.7

Source: US Census of Population, 1970-2000

Table A.3

Montgomery County Historic Population Growth				
Year	Persons	Actual Change	Percentage Change	Average Annual Rate
1970	608,413			
1980	571,697	-36,716	-6.0	-0.6
1990	573,809	2,112	0.4	0.0
2000	559,062	-14,747	-2.6	-0.3
1970-2000		-49,351	-8.1	-0.3

Source: US Census of Population, 1970-2000

Table A.4

Dayton/Springfield MSA Historic Population Growth				
Year	Persons	Actual Change	Percentage Change	Average Annual Rate
1970	974,927			
1980	942,083	-32,844	-3.4	-0.3
1990	951,270	9,187	1.0	0.1
2000	950,558	-712	-0.1	0.0
1970-2000		-24,369	-2.5	-0.1

Source: US Census of Population, 1970-2000

Table A.5

1970-2000 Population Percentage Change				
	Centerville	Washington Township	Montgomery County	Dayton/Springfield MSA
1970-1980	83	47	-6.0	-3.4
1980-1990	12	22	0.4	1.0
1990-2000	9	17	-2.6	-0.1

Source: US Census of Population, 1970-2000

- The Community's median age increased from 32.8 to 41.8 between 1980-2000. The City's median age increase was slightly higher (31.2 to 42.6). During that same time period, Montgomery County's median age rose from 30.3 to 36.4.
- The Community experienced a 46 percent (2,656) increase in the number of residents 65 years or older between 1990 and 2000. (Township 50 percent growth or 1,377 residents) (City 42 percent increase or 1,279 residents)

Between 1990 and 2000, the only age group to lose population was the 25-34 year old demographic.(12 percent Community wide)

Separately, the City lost a much higher percentage of 25-34 year old

residents (16 percent or 507 residents) than the Township (8 percent or 291 residents). Additionally, the City also lost population in the Under 24 year old demographic (2 percent).

Table A.6

Community Population Distribution 1990-2000			
Age	1990	2000	Percent Change
0-24 years	14,629	15,336	4.8
25-34 years	6,599	5,801	-12.1
35-54 years	14,971	17,152	14.6
55-64 years	4,572	6,208	35.8
65+ years	5,838	8,494	45.5
Total	46,609	52,991	13.7

Source: US Census of Population, 1990-2000, City of Centerville, and Washington Township

Table A.7

City of Centerville Population Distribution 1990-2000			
Age	1990	2000	Percent Change
0-24 years	6,510	6,394	-1.8
25-34 years	3,155	2,648	-16.1
35-54 years	6,298	6,811	8.1
55-64 years	2,042	2,815	37.9
65+ years	3,077	4,356	41.6
Total	21,082	23,024	9.2

Source: US Census of Population, 1990-2000, City of Centerville

Table A.8

Washington Township Population Distribution 1990-2000			
Age	1990	2000	Percent Change
0-24 years	8,119	8,942	10.1
25-34 years	3,444	3,153	-8.4
35-54 years	8,673	10,341	19.2
55-64 years	2,530	3,393	34.1
65+ years	2,761	4,138	49.9
Total	25,527	29,967	17.4

Source: US Census of Population, 1990-2000, Washington Township

- In the Community, 92.3 percent of the population was white, which was significantly higher than both Montgomery County (76.6 percent) and the Dayton/Springfield MSA (82.3 percent). (2000)

- The Community had a higher percentage of residents from Asian descent than African American descent.(2000) (Centerville–3.2 percent Asian, 2.9 percent African American, Washington Township–3.8 percent Asian, 2.4 percent African American). Nationally (3.6-Asian, 12.3-African American) and in both the Dayton/Springfield MSA (1.2-Asian, 14.2-African American) and Montgomery County (1.3-Asian, 19.9-African American), the demographic was reversed.
- In 2000, 53 percent of Washington Township residents over 25 years old had a bachelor’s degree or higher. The City was slightly lower at 46 percent of the population having attained at least a bachelor’s degree, but much higher than both Montgomery County (23 percent) and the Dayton/Springfield MSA (22 percent). The national average was 26 percent. This is a change from 48 percent for Washington Township and 40 percent for the City of Centerville in 1990.
- Washington Township had a significantly higher median household income than the City of Centerville (\$16,410 a year difference) in 2000.

Table A.9

2000 Median Income per Household	
	Median Income
Washington Township	\$71,302
City of Centerville	\$54,892
Montgomery County	\$40,156
Dayton/Springfield MSA	\$41,550

Source: US Census, 2000

(Note: US Census does identify three Census communities for the planning area. In addition to the City and Township, it also identifies an area north of Alexandersville-Bell Road and south of Whipp Road. This area is known as Woodbourne-Hyde Park and consists of 7,245 residents and 3,020 residential units. This statistics for this area have been included in the Township amounts.)

D. Population Projections

An important aspect of planning for a community in a comprehensive planning process includes developing projections for future population growth. There are a number of methods with various assumptions that can be used to project populations.

1. Centerville Population Projections

Centerville’s population has increased steadily over the past 70 years, but the rate of change from one decade to another has fluctuated. Over the

past several decades, that rate of change has dropped significantly. Using either the geometric or exponential methods to project population growth does not reveal this change. Between 1970 and 1980, or the decade following the City’s incorporation, the population grew by 83.8 percent. Between 1980 and 1990, the population growth rate dropped to 11.6 percent. By 2000, the rate dropped to 9.2 percent. The rate of change between 1980 and 2000 has declined by 26.2 percent.

Assuming a drop in the rate of change (similar to the last two decades) for future population growth gives a projected population of 24,951 in 2010 and 25,675 in 2020. This amounts to an overall increase of 2,651 persons for the next 20 years. This scenario seems likely given the limited amount of land currently available for development and the eventual size of the City when it is fully developed. This also correlates with school district projections that show enrollment leveling off by the 2004/2005 school year illustrated in Chart A.1.

2. Washington Township Population Projections

Using a similar declining rate of growth method of that used for Centerville, Washington Township is projected to have a population of 34,144 in 2010 and 37,216 in 2020. This amounts to an overall increase of 7,249 persons by 2020.

Table A.10

Community Population Projections						
Year	City of Centerville	Actual Change	Percentage Change	Washington Township	Actual Change	Percentage Change
1970	10,333			14,164		
1980	18,886	8,553	82.8	20,865	6,701	47.3
1990	21,082	2,196	11.6	25,527	4,662	22.3
2000	23,024	1,942	9.2	29,967	4,440	17.4
2010	24,951	1,927	8.4	34,144	4,177	13.9
2020	25,675	724	2.9	37,216	3,072	9.0

Source: US Census of Population, 1970-2000 and ACP

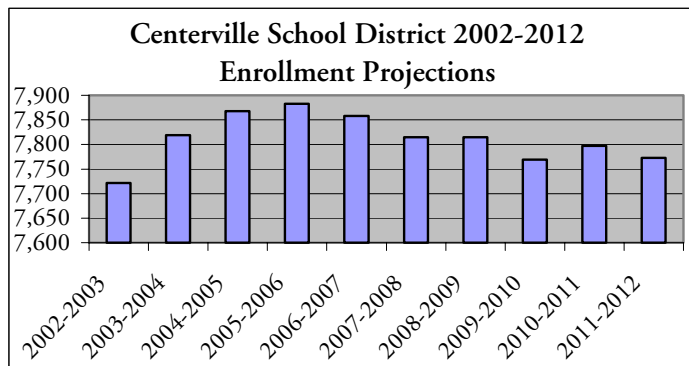
3. Community Population Projections

Over the coming 20 years, based on what is projected for the City and Township, the Community may expect a total population of 62,891, for a gain of 9,900 residents (19 percent population gain). Projections were made for each jurisdiction independently because of the differences in growth history and potential. Centerville’s rate of growth in the past three decades has declined and there is a limited amount of land for development. Washington Township however has shown a steadier growth rate and has more land to absorb the growth.

4. Centerville School District Projections

Another method for projecting population is to compare the Ohio Department of Education's enrollment projections for the public school system. The projections are based upon data that was submitted by the Centerville School District and illustrate the progression of students through the school system over the next 10 years. As shown in Chart A.1, the Centerville School District is projected to increase enrollment by 51 students over the next 10 years. This represents a flat growth for the school age population in the Community.

Chart A.1



Source: Ohio Department of Education, 2002

One other conventional method of comparing future population is to use the Ohio Department of Development's county projections. The current projections for Montgomery County were prepared based on the 1990 US Census and fell short of the year 2000 projection by over 29,000 persons. The Ohio Department of Development's projections for Montgomery County were not used as a comparison.

E. Housing Characteristics and Trends

This section provides a basic comparison of housing units for the City of Centerville and Washington Township. This section also documents how the Community's growth compares to Montgomery County and the Dayton/Springfield MSA.

- The Community has consistently increased the number of housing units over the last 30 years. (A total gain of 16, 259 units)
- The highest growth occurred in the City (129 percent) during the 1970s and in Washington Township (41 percent) during the 1980s, which does not correlate with the Township's highest population growth.
- Although Montgomery County and the Dayton/Springfield MSA lost population between 1970 and 2000, both had significant increases in the number of housing units that were constructed.
- Between the years 1980 and 2000, both the City and Township's persons per household average declined, reflecting an aging

population and a corresponding reduction in persons per household. (City - .6 percent decline, Township - .3 percent decline) To reflect this change, there have been a large number of multi-family residential units targeted toward an older population throughout the Community.

Table A.11

City of Centerville Historic Housing Growth				
Year	Units	Actual Change	Percentage Change	Average Annual Rate
1970	3,027			
1980	6,919	3,892	128.6	12.9
1990	8,801	1,882	27.2	2.7
2000	10,422	1,621	18.4	1.8
1970-2000		7,395	244.3	8.1

Source: US Census of Housing, 1970-2000

Table A.12

Washington Township Historic Housing Growth				
Year	Units	Actual Change	Percentage Change	Average Annual Rate
1970	3,532			
1980	7,352	3,820	108.2	10.8
1990	10,354	3,002	40.8	4.1
2000	12,509	2,155	20.8	2.1
1970-2000		8,977	254.2	8.5

Source: US Census of Housing, 1970-2000

Table A.13

Montgomery County Historic Housing Growth				
Year	Units	Actual Change	Percentage Change	Average Annual Rate
1970	197,397			
1980	227,582	30,185	15.3	1.5
1990	240,820	13,238	5.8	0.6
2000	248,443	7,623	3.2	0.3
1970-2000		51,046	25.9	0.9

Source: US Census of Housing, 1970-2000

Table A.14

Dayton/Springfield MSA Historic Housing Growth				
Year	Units	Actual Change	Percentage Change	Average Annual Rate
1970	272,373			
1980	320,270	47,897	17.6	1.8
1990	385,420	65,150	20.3	2.0
2000	408,277	22,857	5.9	0.6
1970-2000		135,904	49.9	1.7

Source: US Census of Housing, 1970-2000

Table A.15

1970-2000 Housing Unit Percentage Change				
	Centerville	Washington Township	Montgomery County	Dayton/ Springfield MSA
1970-1980	128.6	108.2	15.3	17.6
1980-1990	27.2	40.8	5.8	20.3
1990-2000	18.4	20.8	3.2	5.9

Source: US Census of Housing, 1970-2000

- The Community had a total of 22,931 housing units in 2000. (City-10,422 units, Township-12,509 units)
- Of the Community’s total housing units, 60.5 percent was single family detached units. (2000)
- The Community’s overall occupancy rate (95.6 percent) was higher than Montgomery County (92.3 percent) and the Dayton/Springfield MSA (93.0 percent). (2000)
- Within the Community, 75 percent of the households were owner-occupied in 2000. (City-73.5 percent owner-occupied, Township-76.4 percent owner-occupied) In comparison, Montgomery had an owner occupancy rate of 64.7 percent.
- The Community’s median housing unit value was \$163,300 in 2000. This compares to a median value of \$95,900 in Montgomery County and \$99,000 in the Dayton/Springfield MSA.

Table A.16

2000 Housing Unit Occupancy Rate	
Jurisdiction	Occupancy Percentage
Washington Township	95.4
City of Centerville	95.9
Montgomery County	92.3
Dayton/Springfield MSA	93.0

Source: US Census, 2000

Table A.17

2000 Owner-Occupied Percentage	
Jurisdiction	Occupancy Percentage
Washington Township	76.4
City of Centerville	73.5
Montgomery County	64.7
Dayton/Springfield MSA	67.2

Source: US Census, 2000

- 30 percent (4,490) of all households in 2000 were residents 65 years or older. 4,089 (82.8 percent) of those households were owner occupied.

F. Regional Perspective

The Community exists as part of a larger urbanized area and is affected by what is happening in the vicinity surrounding the planning area. This section includes a comparison of other cities, townships, and counties in the greater Dayton/Springfield region. Also, the regional demographics provide a context for considering demographic phenomenon in the Community.

- Bellbrook, Vandalia and Centerville experienced the largest growth between 1970 and 1980 while Beavercreek, Mason, Springboro, and Tipp City all experienced increased growth in the 1990s.
- The surrounding counties, especially Warren and Butler to the south of the Community, have experienced a greater rate of growth since 1990 than Montgomery County, which actually declined 3 percent.

Table A.18

Regional Communities Historic Population Growth						
City	1970	1980	1990	2000	Actual Change	Percent Change 1970-2000
Community	24,497	39,751	46,609	52,991	28,494	116.3
Washington Township	14,164	20,865	25,527	29,967	15,803	111.6
Centerville	10,333	18,886	21,082	23,024	12,691	122.8
Beavercreek	-	31,589	33,626	37,984	6,395	20.2
Bellbrook	1,268	5,174	6,511	7,009	5,741	452.8
Dayton	243,023	193,536	182,044	166,179	-76,844	-31.6
Fairborn	32,267	29,702	31,300	32,052	-215	-0.7
Kettering	71,864	61,186	60,569	57,502	-14,362	-20.0
Mason	5,677	8,692	11,452	22,016	16,339	287.8
Miamisburg	17,797	15,304	17,834	19,489	1,692	9.5
Oakwood	10,095	9,372	8,957	9,215	-880	-8.7
Springboro	2,799	4,962	6,590	12,380	9,581	342.3
Tipp City	5,090	5,595	6,027	9,221	4,131	81.2
Vandalia	10,796	13,161	13,883	14,603	3,807	35.3

Source: US Census of Population, 1970-2000

Table A.19

MSA Counties Historic Population Growth						
County	1970	1980	1990	2000	Actual Change	Percent Change 1970-2000
Clark	157,115	150,236	147,548	144,742	-12,373	-7.9
Greene	125,057	129,769	136,731	147,886	22,829	18.3
Miami	84,342	90,381	93,182	98,868	14,526	17.2
Montgomery	608,413	571,697	573,809	559,062	-49,351	-8.1
MSA Total	974,927	942,083	951,270	950,558	-24,369	-2.5

Source: US Census of Population, 1970-2000

Table A.20

Surrounding Counties Historic Population Growth						
County	1970	1980	1990	2000	Actual Change	Percent Change 1970-2000
Butler	226,207	258,787	291,479	332,807	106,600	47.1
Champaign	30,491	33,649	36,019	38,890	8,399	27.5
Clinton	31,464	34,603	35,415	40,543	9,079	28.9
Darke	49,141	55,096	53,619	53,309	4,168	8.5
Preble	34,719	38,223	40,113	42,337	7,618	21.9
Warren	84,925	99,276	113,909	158,383	73,458	86.5

Source: US Census of Population, 1970-2000

- Every regional community lost population in the 25-34 year old age group between 1990 and 2000 (See Table A.21)
- The Dayton Metro area over the last decade has lost more young adults (25-34 year olds) than any other comparable metro area in the Country.
- The City of Centerville had the highest percentage of population over 65 years old (18.9 percent) in 2000. The Community as a whole had one of the lowest percentages of 25-34 year olds.

Table A.21

2000 Regional Age Group Comparisons						
Regional Jurisdictions	25-34 Age Group Percentage			65 + Age Group Percentage		
	1990	2000	Percent Change	1990	2000	Percent Change
Community	14.2	10.9	-30.3	12.5	16.0	21.9
Centerville	14.9	11.5	-29.6	14.6	18.9	22.8
Washington Township	13.5	10.5	-28.6	10.8	13.8	21.7
Beavercreek/Beavercreek Township	13.0	9.6	-35.4	9.1	12.5	27.2
Bellbrook/Sugar Creek Township	12.5	9.0	-38.9	10.7	10.7	0.0
Dayton	18.1	14.1	-28.4	13.1	12.0	-9.2
Fairborn	18.8	15.3	-22.9	9.4	11.6	19.0
Kettering	17.5	14.2	-23.2	16.9	18.3	7.7
Mason	20.0	13.8	-44.9	6.8	8.5	20.0
Miamisburg/Miami Township	20.6	16.5	-24.8	10.8	13.5	20.0
Oakwood	13.3	9.7	-37.1	16.6	13.8	-20.3
Springboro/ Clear Creek Township	16.6	12.0	-38.3	6.5	7.1	8.5
Tipp City	17.4	13.1	-32.9	13.6	13.0	-4.6
Vandalia	17.8	13.1	-35.9	11.4	13.5	15.6
Ohio	16.5	13.4	-23.1	13.0	13.4	3.0

Source: US Census of Population, 1990-2000

- Washington Township (\$163,300) had the highest median housing value out of the nine townships in Montgomery County. (This total includes the total Community) Washington Township's median value was also \$60,000 higher than the State of Ohio's. (2000)
- Centerville and Washington Township's percentage of owner-occupied units was average among regional jurisdictions. Fairfield ranked the lowest and Springboro/ Clear Creek Township the highest. (2000)
- The Community occupancy rate percentage placed average among regional jurisdictions. Bellbrook had the highest occupancy rate and Dayton ranked the lowest. (2000)

Table A.22

Montgomery County 2000 Median Housing and Rental Values		
Township	Owner Occupied Median Housing Value	Median Gross Rent
Washington*	\$163,300	\$674
City of Centerville	\$148,700	\$641
Butler	\$150,200	\$672
Clay	\$115,700	\$542
German	\$112,100	\$547
Harrison	\$73,900	\$471
Jackson	\$93,200	\$522
Jefferson	\$73,400	\$450
Miami	\$115,500	\$601
Perry	\$100,000	\$513
Montgomery County	\$95,950	\$525
Ohio	\$103,700	\$515

Source: Miami Valley Regional Planning Commission

* Includes Total Community

Table A.23

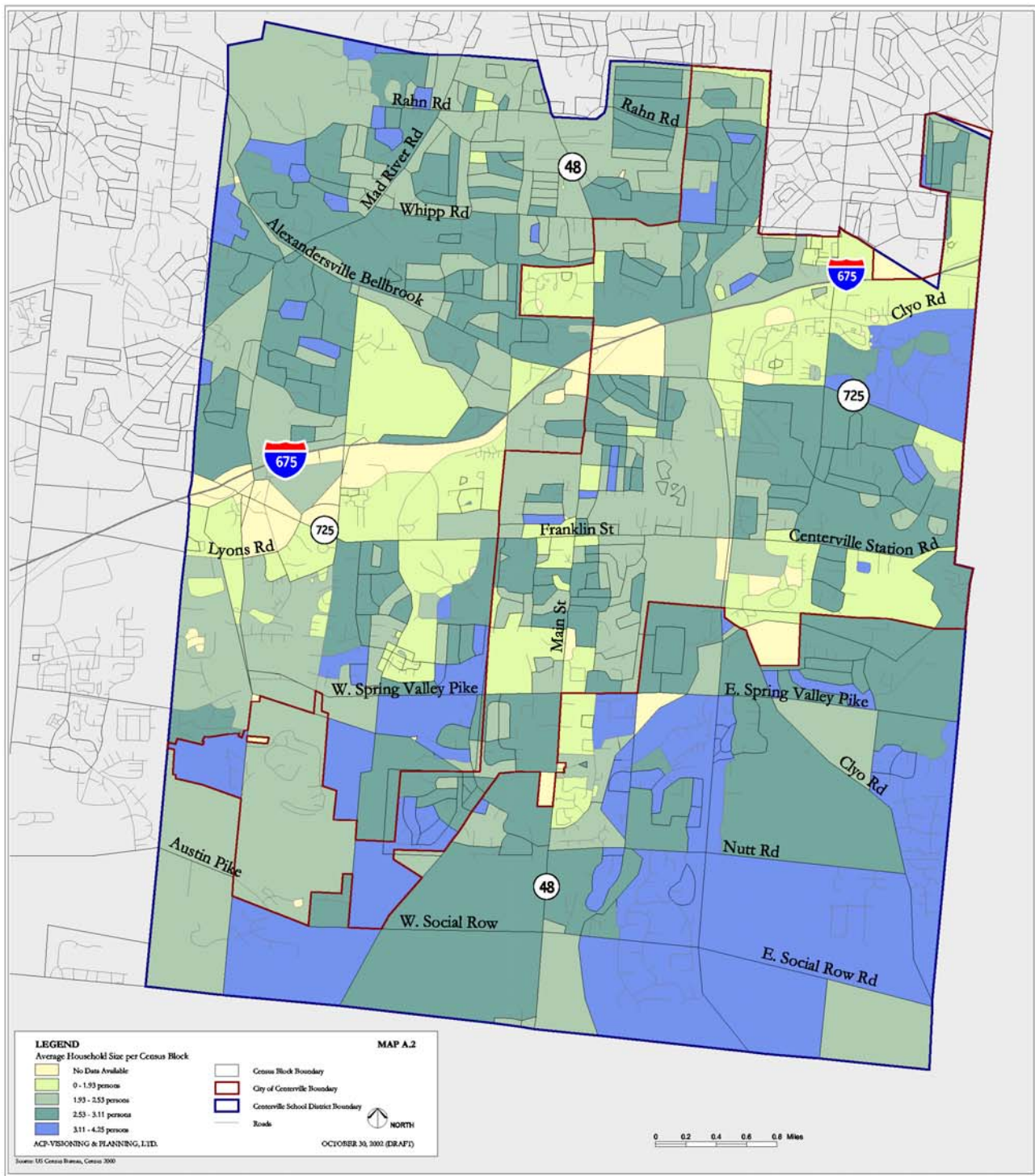
2000 Regional Median Housing and Rental Values		
Municipality	Owner Occupied Median Housing Value	Median Gross Rent
Community	\$163,000	\$674
City of Centerville	\$148,700	\$641
Beavercreek	\$143,300	\$821
Bellbrook	\$131,200	\$347
Dayton	\$67,300	\$448
Fairborn	\$92,000	\$573
Kettering	\$111,000	\$570
Mason	\$155,800	\$622
Miamisburg	\$117,100	\$502
Oakwood	\$183,500	\$610
Springboro	\$171,300	\$602
Tipp City	\$129,400	\$524
Vandalia	\$115,200	\$506
Dayton/Springfield MSA	\$99,000	\$526
Ohio	\$103,700	\$515

Source: Miami Valley Regional Planning Commission

Table A.24

2000 Regional Owner-Occupied Percentage Comparisons		
Regional Jurisdictions	Owner-Occupied	Renter-Occupied
Community	73.5	26.5
City of Centerville	76.4	23.6
Beavercreek/ Beavercreek Township	83.5	16.5
Bellbrook/ Sugar Creek Township	80.5	19.5
Dayton	52.8	47.2
Fairborn	51.7	48.3
Kettering	66.6	33.4
Mason	84.7	15.3
Miamisburg/ Miami Township	67.3	32.7
Oakwood	83.6	16.4
Springboro/ Clear Creek Township	89.5	10.5
Tipp City	66.1	33.9
Vandalia	65.1	34.9
Dayton/ Springfield MSA	67.2	32.8
Ohio	69.1	30.9

Source: US Census of Population, 2000

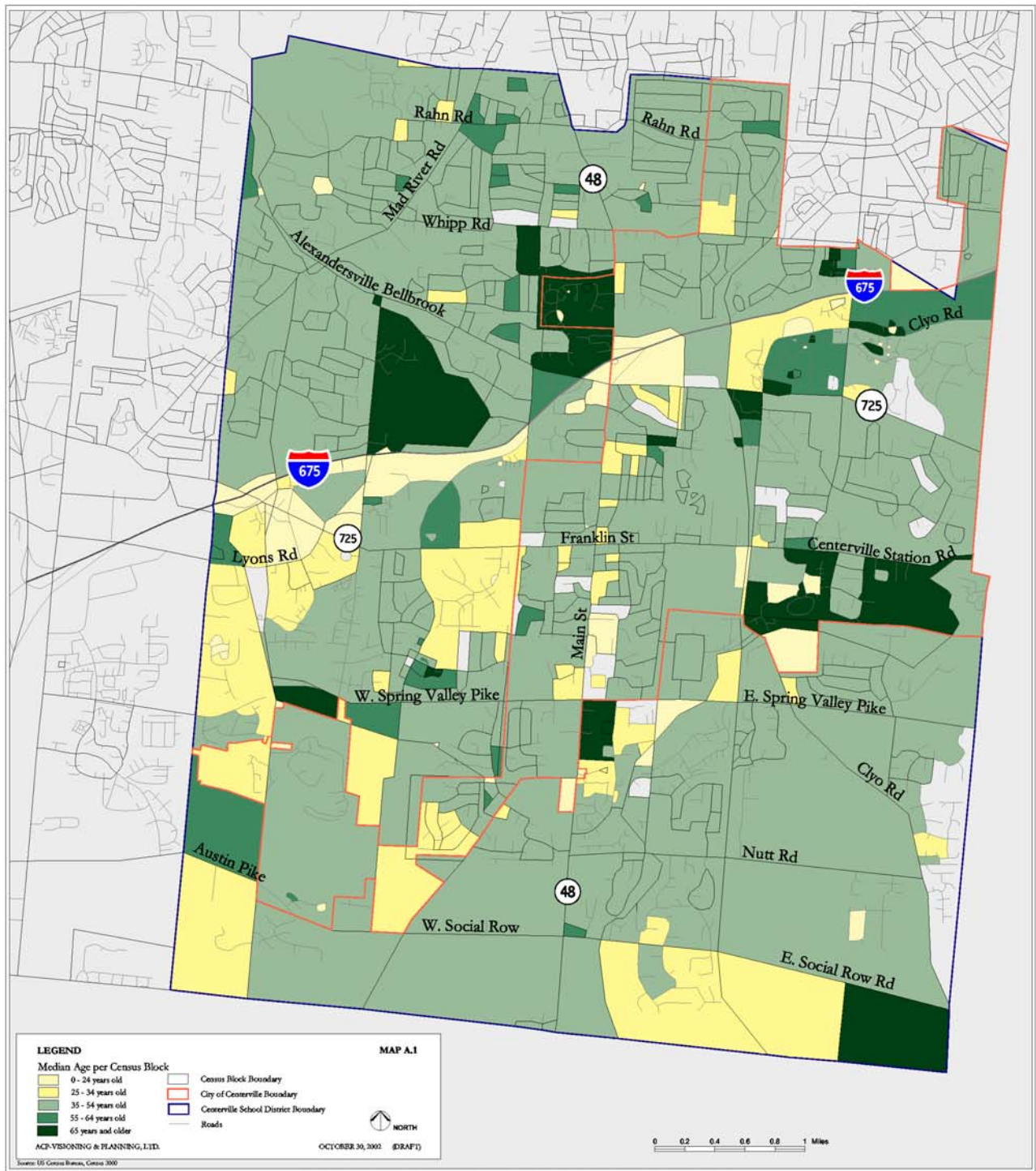


HOUSEHOLD SIZE

COMMUNITY PLAN

CITY OF CENTERVILLE

WASHINGTON TOWNSHIP



M E D I A N A G E

COMMUNITY PLAN

CITY OF CENTERVILLE

WASHINGTON TOWNSHIP

OUR COMMUNITY

4. Land Use

CREATE
THE VISION

OUR FUTURE



4. Land Use

A. Overview

This chapter presents a summary of how land within the City of Centerville and Washington Township is currently being utilized. This assessment looks at how land use in the Community has changed over the last 30 years based on the 1969 City of Centerville-Washington Township, Ohio Comprehensive Development Plan. A comparison between the past and the present land use percentages and population density is also presented.

It is important to note that throughout the chapter, there is a distinction made between total land in the Community and the total developed land, which does not include agriculture, undeveloped land, and woodlands. It should also be noted that references to current population is based on Year 2000 U.S. Census information. References to current land use are based on October 2002 land use inventory data.

The remainder of this chapter includes:

- Summary of Key Findings
- Land Use Development
- Historic Land Use and Population Density Change

At the end of this chapter are three maps that illustrate graphically important land use information. The maps include:

- Existing Land Use
- Environmental Constraints
- Agriculture Suitability

B. Key Findings

- The Community contains 20,117 acres or 31.4 square miles. (City 6,706 acres or nearly 10.5 square miles, Township 13,411 acres or nearly 21.0 square miles) (The total land area amounts are derived from data provided by the City and the Township using the mapping software.)
- 15,464 acres (75.1 percent) in the Community is currently considered developed land. (City 5,800 acres or 86.4 percent, Township 9,664 acres or 72.1 percent) Of the undeveloped land only 3,186 acres (63.5 percent) is developable because it is in some form of public ownership (e.g. highway rights of way) or because of environmental constraints.
- In 1967, 69.4 percent of the planning area was undeveloped (14,260 acres). Today, only 22.7 percent of the land is undeveloped (4,552 acres).
- Residential use represents the most significant land use in the community. Single and multi-family together make up 60 percent of the Community's total land area. When considering only the developed land in the community, residential uses total 78 percent. (City 73 percent, Township 81 percent)
- Multi-family residential is the third highest use (8.1 percent) in the Community and second highest in the City of Centerville (11.1 percent) when considering total land area.
- Since 1967, the Community's households per acre have remained consistent, only declining from 1.9 households per gross residential acre to 1.8.
- The City of Centerville has a higher population density than Washington Township (City 4.0 persons per acre, Township 3.1 persons per acre).

C. Land Use Development Patterns

This section summarizes the existing land use within the corporate boundaries of the Community. As the existing land use map at the end of this section illustrates, the Community has been categorized into 12 different classifications. Each classification represents how the land is currently being used, not the land's current zoning classification. It is important to note that even though some uses straddle the corporate boundary, the acreage is only calculated for the land within the Township's incorporated and unincorporated limits. Also, the attached land use glossary outlines the types of uses found in each classification. The boundaries for specific uses are

calculated to the center line of roadways as well as lakes, ponds and drainage ways and are integrated into the specific use categories.

The Community as a whole currently contains over 20,000 acres (31.4 square miles). Separately, the City of Centerville incorporates a little more than 6,700 acres (10.5 square miles) and the unincorporated area of the Township includes approximately 13,411 acres (21.0 square miles). These acreages were derived from the land use maps generated using a Geographical Information System (GIS) for the Community with data provided by the City and Township. As the tables below indicate, both the City and Township have a substantial amount of single and multi-family housing use. The Community also has a large amount of agriculture land (14.6 percent) and public parks and recreation (6.6 percent).

While the Community has continued to develop at a steady pace over the last 30 years, the most recent development has occurred along the eastern and western boundaries of the planning area, with concentrations along Yankee Street and Wilmington Pike. Also, the southern portion of the planning area, though still mostly rural, has been facing development pressures in recent years for mostly single-family residential growth.

Table 4.1

Community Existing Land Use		
Land Use Value	Acres	Percentage
Single Family Residential	10,408	51.7
Agriculture	2,929	14.6
Multi-Family Residential	1,627	8.1
Public Parks and Recreation	1,330	6.6
Woodland	951	4.7
Commercial	679	3.4
Undeveloped	672	3.3
Public/Institutional	617	3.1
Office	424	2.1
Private Recreation/Open Space	260	1.3
Utility	110	0.5
Industrial	110	0.5
Total	20,117	100*

Source: ACP 2002

* Percentages rounded to the nearest tenth of a percent.

Table 4.2

City of Centerville Existing Land Use		
Land Use Value	Acres	Percentage
Single Family Residential	3,465	51.7
Multi-Family Residential	742	11.1
Public Parks and Recreation	654	9.8
Agriculture	351	5.2
Undeveloped	348	5.2
Commercial	311	4.6
Public/Institutional	284	4.2
Woodland	207	3.1
Office	154	2.3
Private Recreation and Open Space	97	1.5
Industrial	74	1.1
Utility	19	0.3
Total	6,706	100*

Source: ACP 2002

* Percentages rounded to the nearest tenth of a percent.

Table 4.3

Washington Township Existing Land Use		
Land Use Value	Acres	Percentage
Single Family Residential	6,943	51.8
Agriculture	2,578	19.2
Multi-Family Residential	885	6.6
Woodland	744	5.5
Public Parks and Recreation	676	5
Commercial	368	2.7
Public/Institutional	333	2.5
Undeveloped	324	2.4
Office	270	2.0
Private Recreation/Open Space	163	1.2
Utility	91	0.7
Industrial	36	0.3
Total	13,411	100*

Source: ACP 2002

* Percentages rounded to the nearest tenth of a percent.

1. Residential

Residential property consumes the vast majority of the developed land in the Community. As the Housing Demographics indicate in Appendix A, the majority of the housing in both the City and Township has been built since 1970. Over the last decade significant growth has occurred in the southwest area of the Community along Yankee Street and Social Row Road in conjunction with the City-owned Yankee Trace Golf Course. Major developments in these areas include Yankee Trace and Waterbury Woods.

In general, new single-family housing ranges from 1,900 to 4,000 square feet of floor area built on lots that range from 8,000 square feet to an acre.

Regarding multi-family dwelling units, a recent trend in the Community has been the development of residential communities targeted toward the senior population in the Dayton/Springfield MSA. The 2000 US Census specified that 12 percent of the 65 and older population lived in group quarters, often referred to as retirement homes. Development for such retirement and assisted living communities as well as traditional apartment and condominium complexes has been focused on the major thoroughfares.

Key residential land use findings include:

- 10,408 acres (51.7 percent) Community wide is used for single-family dwelling units. (City 3,465, Township 6,943)
- 78 percent of the total developed land is used as residential. (Single-family and multi-family)(City 73 percent, Township 81 percent)
- Multi-family residential is the third highest usage in the Community (8.1 percent) and Township (6.6 percent) and second highest in the City of Centerville (11.1 percent).
- 71.2 percent of the total housing units have been built since 1970, not including group home units. (2000) (The US Census does not include group homes as individual housing units)

2. Commercial and Office

Commercial and office use currently consumes a small percentage of the overall land in the Community, as shown in red and orange on the existing land use map. The largest commercial centers are located in the Community along SR 725 and SR 48, while the largest cluster of office use is south of I-675.

Key commercial and office land use findings include:

- The Community currently contains 679 acres of commercial land (3.4 percent of total) and 424 acres of office (2.1 percent of total).
- 7.1 percent of the developed land is used for commercial/office use. (City 8.0 percent, Township 6.6 percent)

3. Industrial

Land that is used for industrial activities, whether it is heavy manufacturing or light industrial warehousing, is relatively rare in the Community (0.6 percent). Neither the City nor Township have marketed themselves for industrial use and therefore have not attracted significant industrial users. Industrial uses in the Community are focused in four areas:

South Suburban Road, Compark Road, Congress Park Drive, and South Yankee Street at Austin Pike.

Key industrial land use findings include:

- 110 acres (0.5 percent) is used for industrial purposes.
- The City of Centerville has a higher percentage of industrial land than Washington Township. (City 1.1 percent, Township 0.3 percent)

4. Parks and Recreation

The Community has been successful over the last 30 years in developing an extensive public parks and recreation system that currently contains over 1,200 acres, representing 6.6 percent of the land. Part of the success is due to the City and Township joining efforts and forming a joint Parks and Recreation District (responsible for 43 parks) and creating the Washington Township Recreation Center. Additionally, Centerville has constructed a public golf course, Benham's Grove, and Stubbs Park.

The National Recreation and Parks Association established a Community standard of 10 acres of park land for every 1,000 residents in the early 1980's. While this is no longer a commonly used standard, it can be used as a benchmark for the Community. Currently, the Community's parks and recreational facilities exceed this standard by 699 acres or 13.2 acres per every 1,000 residents.

Key parks and recreational land use findings include:

- 6.6 percent of the Community is dedicated to public parks and recreation. Including private recreation and open space, the number increases to 7.9 percent (1,590 acres).
- 7.9 percent of the developed land is used for public parks and recreational uses. (City 11.1 percent, Township 6.0 percent)

5. Public/Institutional

Public and Institutional land uses, shown in blue on the existing land use map, are interspersed throughout the entire community. These uses include all schools, government facilities, churches, cemeteries, and hospitals (including medical office buildings when located in a medical campus). Some of the largest public/institutional uses in the Community include Centerville Senior High School, Southview Hospital, and some of the larger churches.

Key public/institutional land use findings include:

- Within the Community, a total of 617 acres are public/ institutional.
- The City has a considerably higher percentage of public/institutional than Washington Township. (City-4.2 percent, Township-2.5 percent)

D. Natural Resources

Natural resource characteristics factor into how and where future development may occur. These characteristics include floodplains, woodlands, restrictive slopes and soils, and prime agricultural land. By

taking an assessment of such features, a better determination can be made later on in the planning process on what undeveloped land is most appropriate for development and what land should be considered to remain in its natural state.

1. Floodplains

Floodplains are areas surrounding rivers and streams and are prone to periodic or regular flooding. Due to the potential of flooding and the unstable environment, development in these designated areas can be dangerous and is usually discouraged. Both the floodway and floodplain, as defined by the Ohio Department of Natural Resources, are illustrated on the attached environmental constraints map. For development purposes, these maps may be cross-referenced with the Federal Emergency Management Agency's (FEMA) floodplain maps, which provide another source of floodway mapping. Floodways are the areas within the rivers and streams where the water actually flows. The 100 year floodplain is defined by areas surrounding the floodways that have a one and 100 chance of flooding in any particular year.

Key floodplain findings include:

- 814 acres (4 percent) in the Community are in the 100-year floodplain.
- Most areas in the Community adjacent to the 100-year floodplain have already been developed.

2. Woodlands

Woodlands, sometimes referred to as urban tree canopy, can provide many benefits to the Community other than offering an aesthetically pleasing natural environment. These benefits include stabilizing soils from wind and water erosion, reducing noise levels, cleansing air pollutants, providing wild life habitat, and improving water quality by filtering soils and pollutants. Economic benefits provided by urban tree canopy include reducing energy costs for heating and cooling and increased real estate values. Large groupings of woodlands are dispersed throughout the Community as illustrated on the land use map.

Key woodlands findings include:

- Woodlands consume 4.7 percent of the total land area in the Community.
- 22 percent of the undeveloped land is woodlands.

3. Restrictive Slope and Soils

Topography is an important aspect to look at when determining where future development will occur. If the slope is greater than 12 percent, vegetative cover is greatly diminished which in turn increases soil instability levels. The potential for erosion therefore intensifies when soils on steep slopes become unstable. The restrictive soils, as identified by the Ohio Department of Natural Resources, within the Community are shown on the environmental constraints map. The slopes are broken into three different slope categories and identified as moderately or severely eroded. Slopes

identified as six to twelve percent do not have as high of a potential for erosion but should be considered somewhat restrictive due to development challenges of not being level ground.

Key findings concerning restrictive slope and soils include:

- Six percent of the whole Community has a slope of 12 percent or greater.
- Four percent of the undeveloped land in the Community has a slope greater than 12 percent.

4. Prime Agricultural Land

As indicated in this chapter, agriculture is considered undeveloped and consumes 15 percent of the total land. All farmland however, is not considered to be prime agricultural land. The agriculture suitability map depicts the prime agriculture land by delineating the best farming soils, as described by the Ohio Department of Natural Resources. Soils that are considered good for agriculture if well drained are also defined on the map. As shown, the majority of the prime agriculture land is located in the southern portion of the Community. Several larger clusters of undeveloped land with prime soils are also found off of Wilmington Pike.

Key prime agricultural land findings include:

- 73 percent of the undeveloped land is considered to have prime agricultural soils. (75 percent City, 73 percent Township)
- Of the prime agricultural soils, 27 percent is restricted to well-drained areas.
- Five percent (197 acres) of the prime agriculture land is in the floodplain.
- There is a total of 3,186 acres of prime agriculture land in the Community without environmental constraints.

E. Historic Land Use and Population Density Change

In 1967, 69 percent of the land within the Community was undeveloped, according to the 1969 Comprehensive Development Plan. Today, the undeveloped land within the planning area totals one-third of that percentage. This section provides a historic perspective on what changes have occurred to the City and Township land use over the last 30 years.

1. Basic Composition

In 1967, the year when the last land use survey was completed, the Community contained approximately 32 square miles or 20,531 acres. Of this area, 69.5 percent of the Community was either undeveloped or used for agriculture purposes. As far as how the developed land was being utilized 40 years ago, the largest portion (17.3 percent) was expectedly being consumed by residential land use. Public and quasi-public use (including parks and open space) consumed 4.9 percent while Commercial and Office usage totaled 1.0 percent. Of the remaining land within the Community, 7.2 percent was being used for transportation and right-of-way. The table below illustrates the Community's 1967 land use percentages.

Table 4.4

Community Existing Land Use - 1967		
Land Use Value	Acres	Percentage
Residential	3,559	17.3
Commercial and Office	194	0.9
Industrial	31	0.2
Public and Quasi-Public or Private	1,005	4.9
Transportation and Right of Way	1,482	7.2
Vacant and Agriculture	14,260	69.5
Total	20,531	100.0*

Source: ACP 2002

* Percentages rounded to the nearest tenth of a percent.

2. Historic and Current Land Use Comparisons

Since 1967, the planning area has actually decreased in size due to the City of Kettering annexing approximately 300 acres. Overall, the Community's industrial acreage has stayed consistent as a percentage of the entire planning area whereas the residential, commercial/office, public/institutional, and parks and recreational land uses have all had notable increases. Other more significant comparisons between the two land use surveys (see also Table 4.4) are highlighted below.

- In 1967, 69.5 percent of the planning area was undeveloped (76.6 percent including transportation). Today, only 23.1 percent of the land is undeveloped.
- Since 1967, the Community has converted 8,468 acres (42 percent) of land into residential development.
- Of the developed land in 1967, 74 percent of the land was being used for residential. This compares to the present 78 percent Community's residential use, which has increased at a moderately larger proportion than the other land uses.

3. Population and Residential Density

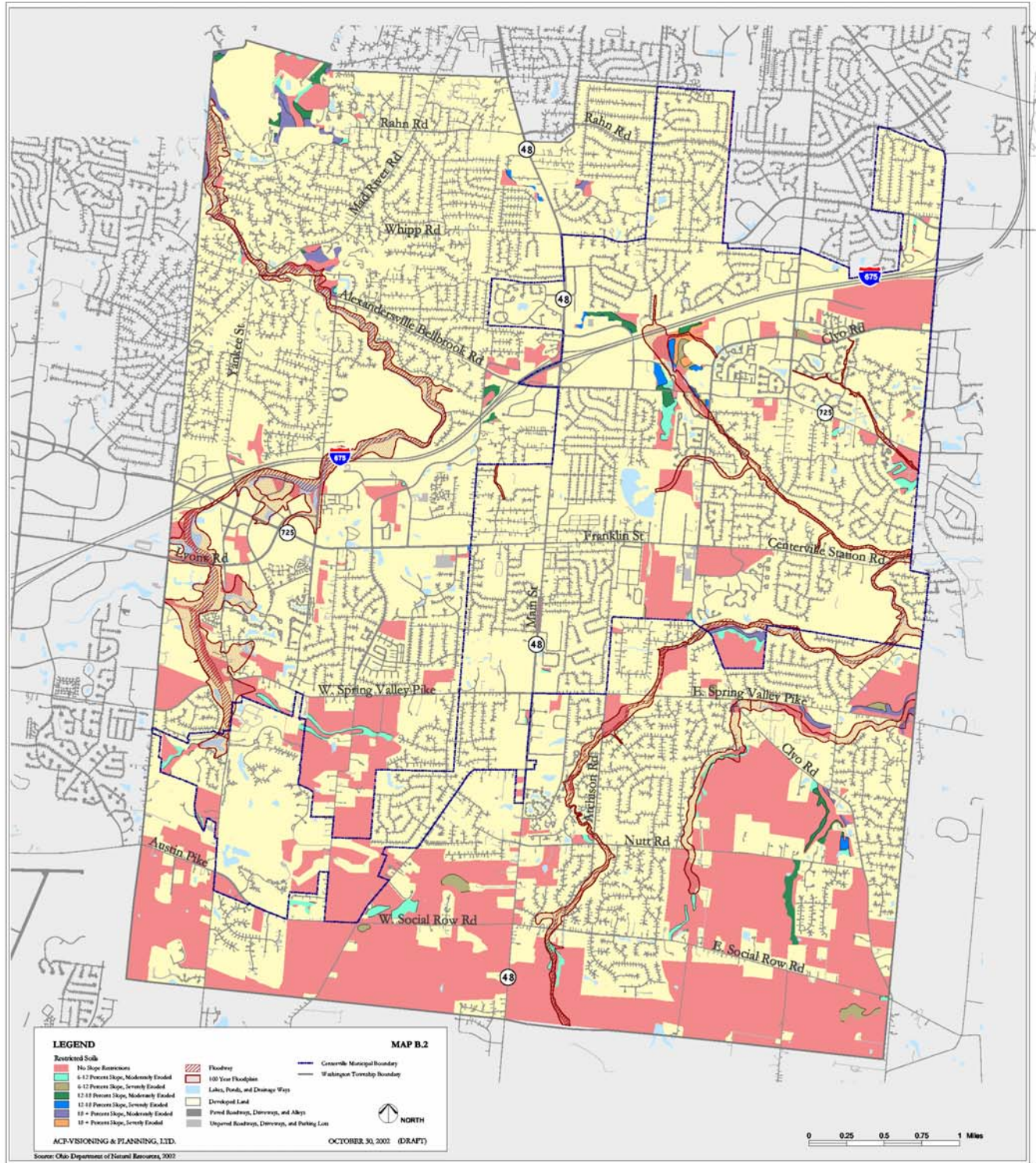
This section summarizes two different measures land utilization: population density and the density of residential structures. Population density is measured using the total number of persons (24,497 in 1970 and 52,991 in 2000) divided by the total area within the Community (20,531 acres in 1967 and 20,117 acres in 2002). This is relevant to Centerville and Washington Township, in order for the Community to see how dense the population has become.

Residential density measures the concentration of residential structures. This is done by taking the total housing units (6,559 in 1970 and 22,931 in 2000) divided by the gross residential acreage (3,559 acres in 1970 and 12,027 acres in 2002). In both calculations the 1970 and 2000 US Census

were used because the total population and housing units were not available for 1967 or 2002.

The key population and residential density findings include:

- Community wide, between 1967 and 2000, the Community's population density rose from 1.2 persons per acres to 2.6 persons per acre showing a 46 percent increase of population density.
- Between 1967 and 2000, when factoring only developed land, the Community's population density declined from 5.1 persons per acre to 3.4 persons per acre.
- Since 1967, the Community's housing units per acre have remained consistent, increasing slightly from 1.8 housing units per gross residential acre to 1.9.
- When comparing only the developed year 2002 acres with the year 2000 population, the City of Centerville has a higher population density than Washington Township. (City-4.0 persons per acre, Township-3.1 persons per acre)
- Currently, the City of Centerville has a higher residential density than the Township. (City-2.5 housing units per acre, Township-1.6 housing units per acre)

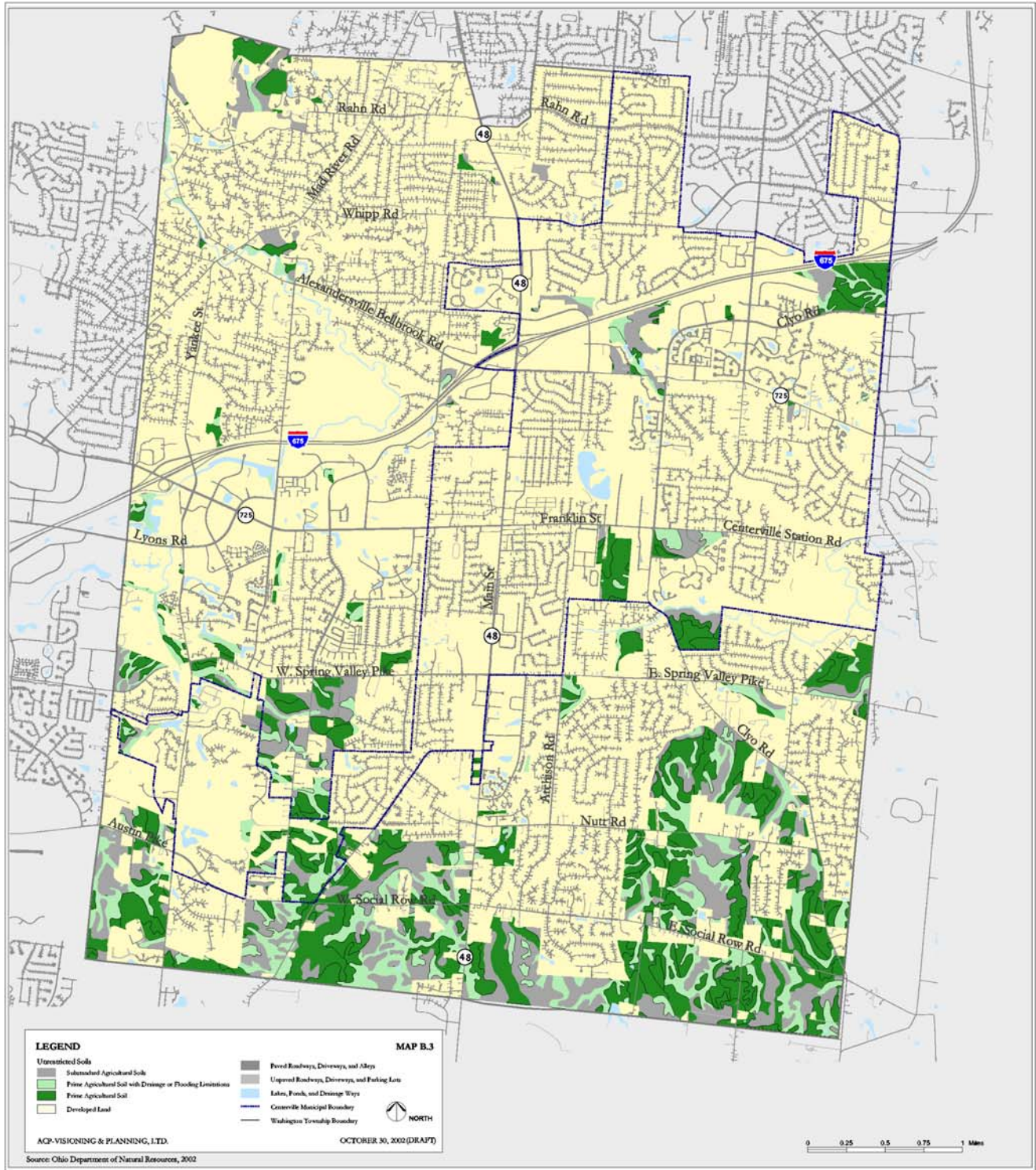


ENVIRONMENTAL CONSTRAINTS

COMMUNITY PLAN

CITY OF CENTERVILLE

WASHINGTON TOWNSHIP



AGRICULTURE SUITABILITY

COMMUNITY PLAN

CITY OF CENTERVILLE

WASHINGTON TOWNSHIP

OUR COMMUNITY

5. Parks and Recreation

CREATE
THE VISION

OUR FUTURE



5. Parks and Recreation

A. Overview

Parks and recreational facilities are some of the Community’s most important amenities. Centerville and Washington Township have 50 park and recreational facilities. An inventory of all the existing parks and recreational facilities was completed and a geographical assessment was made as to how the facilities are distributed throughout the Community.

This chapter summarizes the role that each different entity (Centerville-Washington Park District, the City, and the Township) plays in managing the 50 parks and recreational facilities offered. Emphasis is given to the Centerville-Washington Park District (CWPD), which is not governed by the City or Township, due to the Park District overseeing a total of 44 of the 50 parks and recreational facilities.

It is important to note that only governmental facilities are inventoried including schools, although it is recognized that other institutions i.e. churches as well as numerous private clubs provide recreation facilities throughout the Community. The wide variety of recreational activities as well as future expansion plans is also covered. A Parks and Recreation map (Map E.1) with all 50 designated parks and recreational facilities highlighted is found at the end of the chapter. Map E.1 includes all public school facilities as well.

The following summarizes the remainder of this chapter:

- Key Findings - Parks and Recreational Facilities
- Geographical Analysis
- Future Expansion

B. Key Findings

- **Ownership:** The CWPD owns and maintains 44 parks out of the 50 parks and recreation facilities within the Community. The City owns and maintains three parks and recreation facilities, while Washington Township owns and maintains two parks and recreational facilities. An additional facility, Hithergreen Senior Center, is owned by Washington Township but is governed by its own separate board of directors.
- **Improvements:** The CWPD has made significant improvements to their park system including a \$2.4 million renovation of Schoolhouse Park, major improvements to the Activity Center entrance and parking, a new shelter house and restroom at Yankee Park, and improvements to 13 Neighborhood parks between 1999 and 2002.
- **National Recognition:** The Golf Club at Yankee Trace has brought national recognition to the Community with *Golf Digest* naming the course at Yankee Trace as one of the top ten municipal courses in the United States in 2002.
- **Regional Attraction:** The Golf Club at Yankee Trace is a regional recreation facility with the most rounds of golf (86 percent) in 2002, played by non-Centerville residents.
- **Southwest Need:** Although The Golf Club at Yankee Trace is a specialized recreation facility in the southwest quadrant, the geographic analysis indicated an absence of Community scaled parkland in this growing quadrant of the Community.
- **Northwest Need:** According to the Geographical Analysis, the northwestern quadrant of the Community along Alexandersville-Bellbrook Road is not as sufficiently served with parks and recreational facilities as other quadrants in the Community.
- **Dedication Requirements:** Washington Township does not currently have a formal dedication requirement in its zoning ordinance for parkland in new developments but does have parkland guidelines, which suggest more land dedicated (5 acres for every 100 acres developed) than the City of Centerville’s Parkland Dedication Ordinance (3.26 acres for every 100 acres developed). These dedications are a major source of Neighborhood parkland for the Community.

C. Parks and Recreation Facilities

1. Centerville-Washington Park District

The Centerville-Washington Park District (CWPD) was established in 1959 as a separate entity from the City of Centerville and Washington Township through a provision in Section 511 of the Ohio Revised Code. The CWPD was one of the first township park districts established in the State of Ohio. The CWPD is primarily funded by property tax levies voted on by the City and Township citizens (who have not rejected a levy since 1967). Personnel include 19 full-time employees and numerous part-time and seasonal employees.

The CWPD currently maintains 44 parks covering over 900 acres. The land was acquired mainly through the transfer of open space (which include dedications), donations, and purchases by the CWPD. The largest amount of acreage has been acquired through open space transfer (441 acres) followed closely by purchased parkland (410 acres).

When the CWPD was formed, the original goal was to have a park within walking distance of every home (approximately one-fourth of a mile). The addition of 30 small neighborhood parks has contributed the most to that goal. The CWPD has acquired land with money from tax levies and through zoning and subdivision regulations. The CWPD's mission is "to preserve open space, while providing quality outdoor education and recreation programs that enhance the quality of life for local residents and future generations." (1999-2000 CWPD Biennial Report)

Each park falls into one of the following three classifications:

- Neighborhood (30 parks)
- Community (7 parks)
- Nature (7 parks)

All 30 of the Neighborhood parks have been developed with the cooperation of the City of Centerville, Washington Township, Montgomery County, and developers within the Community. It is the CWPD's goal to provide at least one small park in each neighborhood throughout the Community. Neighborhood parks are usually small in acreage (averaging 6.7 acres) but provide a pleasant open space environment within walking distance to many homes. Neighborhood parks can include playground equipment, benches, drinking fountains, small shelters, tennis courts, specimen trees, picnic tables, and on street parking. Community parks on the other hand are generally large parks and include many amenities such as walking trails, shelters, athletic fields, and playground equipment. The CWPD also maintains Nature parks like Bill Yeck Park. The Nature parks are passive natural areas, by design having limited development and few amenities, but provide a good atmosphere for nature walks, educational programs and observing wildlife. Listed in Table E.1 are all the parks in the CWPD and the amenities that each park provides.

Throughout the CWPD, which covers the entire Community, athletic facilities exist to allow citizens of the Community to participate in a variety

Table E.1

Centerville-Washington Park District Parks and Recreation Facilities																	
Number	Park	Type of Park	Quadrant	Acres	Baseball	Basketball	Football	Soccer	Tennis	Shelter	Drinking Fountains	Water Feature	Hiking	Nature Study	Play Equipment	Soccer Practice	Sled Hills
1	Activity Center	Community	NW	21.15	●			●			●				●	●	
2	Brittany Hills Park	Neighborhood	NW	4.15											●	●	
3	Donnybrook Park	Neighborhood	NW	4.72								●		●	●	●	
4	Elizabeth Hoy Park	Neighborhood	NW	4.06											●	●	
5	Grant Park	Nature	NW	187.67								●	●	●	●	●	●
6	Green Park	Neighborhood	NW	5					●	●					●	●	
7	Huffman Park	Nature	NW	12.45								●	●	●			
8	Old Lane Park	Neighborhood	NW	4.42					●		●				●		
9	Rahn Park	Neighborhood	NW	0.98													
10	Woodbourne Springs Park	Nature	NW	7.08								●	●	●			
11	Woodbourne Green Park	Neighborhood	NW	0.11													
12	Yankee Park	Community	NW	36.68	●			●	●	●	●			●	●	●	
Total Acreage				288.47													

Number	Park	Type of Park	Quadrant	Acres	Baseball	Basketball	Football	Soccer	Tennis	Shelter	Drinking Fountains	Water Feature	Hiking	Nature Study	Play Equipment	Soccer Practice	Sled Hills
13	Fence Row Park	Neighborhood	SW	2.07													
14	Holes Creek Wetland	Nature	SW	25.2								●					
15	Oak Creek South Park	Community	SW	24.16	●						●	●	●	●		●	
16	Rosewood Park	Neighborhood	SW	13.04							●	●		●	●	●	●
17	Silvercreek Park	Neighborhood	SW	8.97													
18	Wagon Trail Park	Neighborhood	SW														
19	Waterbury Woods Park	Neighborhood	SW	7.01											●	●	
Total Acreage				80.45													

Number	Park	Type of Park	Quadrant	Acres	Baseball	Basketball	Football	Soccer	Tennis	Shelter	Drinking Fountains	Water Feature	Hiking	Nature Study	Play Equipment	Soccer Practice	Sled Hills
20	Black Oak Park	Nature	NE	17.86								●		●	●	●	●
21	Black Oak East Park	Nature	NE	25.394								●	●	●	●	●	
22	Forest Walk Park	Neighborhood	NE	8.3								●		●			
23	Greene Line Park	Neighborhood	NE	11.33								●		●	●	●	●
24	Iron Horse Park	Community	NE	31.46	●			●			●	●	●	●	●	●	●
25	Manor Park	Neighborhood	NE	7.43												●	
26	Pellbrook Park	Neighborhood	NE	5.52											●	●	
27	Pleasant Hill Park	Neighborhood	NE	5				●								●	
28	Red Coach Park	Neighborhood	NE	5						●	●				●	●	
29	Village South Park	Neighborhood	NE	10.49				●	●		●				●	●	
Total Acreage				127.78													

Number	Park	Type of Park	Quadrant	Acres	Baseball	Basketball	Football	Soccer	Tennis	Shelter	Drinking Fountains	Water Feature	Hiking	Nature Study	Play Equipment	Soccer Practice	Sled Hills
30	Beechwood Springs Park	Neighborhood	SE	11.46								●		●	●		
31	Big Bend Park	Neighborhood	SE	7.84							●	●		●	●		
32	Bill Yeck Park	Nature	SE	153.71								●	●	●			●
33	Cherry Hill Park	Neighborhood	SE	6.02											●	●	●
34	Concept Park	Neighborhood	SE	6.15		●				●	●	●			●	●	
35	Forest Field Park	Community	SE	44.27	●			●	●	●	●	●		●	●	●	
36	Little Mound Park	Neighborhood	SE	5.14											●	●	●
37	Nutt Woods Park	Neighborhood	SE	3.075									●	●		●	●
38	Oak Grove Park	Community	SE	101.06	●	●		●	●	●		●	●	●	●	●	
39	Quail Run Park	Neighborhood	SE	9.16											●	●	●
40	Rooks Ravine Park	Neighborhood	SE	5.16								●	●	●		●	
41	Schoolhouse Park	Community	SE	35.54	●	●	●	●	●		●				●	●	
42	Stringtown Park	Neighborhood	SE	4.17												●	
43	Watkins Glen Park	Neighborhood	SE	5.26								●			●	●	
44	Willowbrook Park	Neighborhood	SE	17.89								●		●		●	
Total Acreage				415.91													

Table E.1 (continued)

City of Centerville Parks and Recreation Facilities																	
Number	Park or Facility	Type of Facility	Quadrant	Acres	Rental Fee	User Fee	Meeting Rooms	Restaurant	Amphitheater	Shelter	Drinking Fountains	Water Feature	Hiking	Gardening Plots	Play Equipment	Full Service Kitchen	Sled Hills
45	Benham's Grove	Comm. Gathering Place	NE	8.6	●	●	●			●		●				●	
46	Stubbs Park	Community Park	SW	61.4	●				●	●	●	●	●	●	●		●
47	Yankee Trace	Golf Course	SW	300		●	●	●				●				●	
Total Acreage				370													
Washington Township and Hithergreen Senior Center Parks and Recreation Facilities																	
Number	Park or Facility	Type of Facility	Quadrant	Acres	Rental Fee	User Fee	Meeting Rooms	Shelter	Auditorium	Aquatic Facility	Multiple Arts Room	Water Feature	Hiking	Fitness Room	Play Equipment	Full Service Kitchen	Indoor Track
48	Hithergreen Senior Center	Senior Center	NE	15		●	●		●		●			●		●	
49	Mead - Altick Nature Preserve	Nature Park	NW	30													
50	Washington Twp. Recreation Complex	Communtity Park	NW	27	●	●	●	●		●		●	●	●	●	●	●
Total Acreage				72													
Centerville City School Recreational Facilities																	
Letter	School	Type of School	Quadrant	Acres	Baseball	Basketball	Playground	Soccer	Soccer Practice	Tennis Courts	Running Track						
A	Centerville	High	SE	28						●	●						
B	Cline	Elementary	SW	3.5		●	●			●							
C	Hadley Watts	Middle	NW	22.05	●			●	●								
D	Ida Weller	Elementary	SW	10.7		●	●	●	●								
E	John Hole	Elementary	NW	4.9			●										
F	Kindergarten Village	Kindergarten	NE	5			●										
G	Magsig	Middle	SW	0													
H	Normandy	Elementary	NW	9.7		●	●										
I	Stingley	Elementary	NE	3.3			●										
J	Tower Heights	Middle	NE	0													
K	W.R. Driscoll	Elementary	NE	6.5		●	●										
Total Acreage				93.65													

Table E.2

Centerville-Washington Park District Athletic Facilities	
Type	Number
Ball Diamonds	20
Basketball Cours	4
Football Fields	2
Soccer Fields	26
Tennis Courts	16

Source: CWPDP

of sports. Listed in Table E.2 are the number and type of athletic fields that the CWPDP have created throughout the District and currently maintain. As shown, the District has more soccer fields (26) than any other type of athletic field. The CWPDP also organizes adult softball leagues, and tennis instruction and leagues.

The CWPDP works in a year-round partnership with several athletic associations in the Community to allow them use of CWPDP athletic fields. These associations include the Centerville Wee Elks Football League, Centerville United Soccer Association, the Centerville Baseball League, and the Noon-Optimists Softball League.

Besides athletic programs, the CWPDP offers a wide variety of other programs to the citizens of the Community. Over the course of the year, many different nature programs are offered to children pre-school aged through adults. Some of these programs include nature clubs and summer naturalist programs for youth, discovery walks through different parks, adult beginning birding to explore bird watching, and an adult winter tree workshop to learn about identifying trees.

In addition, the CWPDP offers a summer recreation program to youth ages 6-12 at 20 of the District parks throughout the summer. In the summer recreation program, the CWPDP staff leads games, crafts, and special events with children who are registered in the program.

Also, several programs for children are sponsored by the CWPDP throughout the year. A Winter Woods Day Camp offered on Saturdays in February allows children to enjoy the outdoors through crafts, hiking, and games. During the Centerville School District’s spring break, the CWPDP presents a Zany Spring Fling day of fun and the summer months offer special events for children. Finally, during the fall months the Community has the opportunity to participate in a Storytelling Campfire in September and a Halloween Mini Trail and Haunted Trail in October. Park Volunteer Naturalists augment staff by conducting some programs while youth and adult volunteers assist with programs throughout the year. Volunteers donate close to 2,000 hours every year toward park programs. The CWPDP distributes a quarterly newsletter throughout the City and Township, which provides registration information for all the above programs as well as park updates.

One type of improvement program that the CWPDP oversees is the Neighborhood Park Improvement Program. This program allowed for the upgrade of three parks per year or 18 parks in six years within the District. Once the parks that are to be upgraded are decided upon, a survey of neighborhood residents is conducted to determine what facilities should be included. The entire process normally takes place over a year. Winter through summer is when the surveys are conducted and the plans are prepared. Construction of the new planned facilities then occurs in the fall. Through the course of the Neighborhood Park Improvement Program, the

CWPD has found that most neighborhoods are interested in upgrading the play equipment in their neighborhood parks.

In 1997, the CWPD conducted a public survey to determine what the Community was pleased with or would like to see improved throughout the District. When considering quality of life within neighborhoods, the number one concern was protecting open space from development. In the same survey, the residents were split on developing smaller parks used by neighborhoods (52 percent) or developing a few larger parks used by all residents (48 percent). Also, hiking and nature walks were activities that residents enjoy doing and would like to see offered more. When asked what the CWPD does well, more residents said maintenance (35 percent) while 18 percent suggested that the playgrounds could use improvements.

Between 1999 and 2000, according to the CWPD Biennial Report, several significant improvements were made in the District. The most notable, the Schoolhouse Park Redevelopment, began in the spring of 1998 and was finished in 2001 with a total of \$2.4 million worth of improvements. Improvements included completely renovating the park by constructing two football fields, three soccer fields, two baseball diamonds, three tennis courts, two basketball courts, a picnic shelter, playground equipment, and concession stand. The redevelopment project earned an *Outstanding Park Area Development Award* in 2000 from the Ohio Parks and Recreation Association.

Other recent improvements throughout the park district include the following:

- Reconstruction of six tennis courts at Green, Old Lane, and Yankee Parks.
- Resurfacing of three tennis courts at Village South Park.
- The addition of soccer fields at Centerville School District sites and the development of practice soccer fields at neighborhood parks throughout the Community.
- The upgrading of ball diamonds throughout the CWPD.
- Play equipment, benches, and landscaping added to Big Bend, Black Oak, Concept, Donnybrook, Grants Trail, Little Mound, Manor, Pelbrook, Pleasant Hill, Quail Run, Red Coach, Watkins Glen, and Willowbrook Parks.
- Drive and parking improvements to Activity Center, Iron Horse, and Oak Creek South Parks.
- Construction of a bridge, new signs, and wetland at Grant Park and an observation deck, new signs, and interpretive display at Bill Yeck Park.

2. City of Centerville

The City of Centerville owns and operates three separate recreational facilities: Leonard E. Stubbs Memorial Park, Benham's Grove, and The Golf Club at Yankee Trace.

The Leonard E. Stubbs Memorial Park, located near the new City police headquarters along West Spring Valley Road, is classified as a Community park. The entire park encompasses approximately 61 acres of gently sloping land and is known for its large amount of open space and walking trails.

Amenities at Stubbs Park include the Centerville Community Amphitheater that houses concerts and dramas during the summer months, a concession building, multi-purpose court for inline skating, hockey, and basketball as well as play equipment. Large fields for informal sporting activities are located within Stubbs Park as well as public art. Garden plots are also available for residents to rent for the purpose of growing and harvesting crops.

The general public cannot rent the entire Stubbs Park but has the option to rent the Centerville Community Amphitheater for not-for-profit performing arts activities. The Amphitheater includes a stage, two dressing rooms, and lawn-style seating.

Benham's Grove is located along North Main Street in Centerville's Historic Architectural Preservation District. The property, which is situated on 8.6 acres, was once a part of a 50-acre farm originally owned by Aaron Nutt. The City of Centerville purchased Benham's Grove in 1991 and has operated it as a Community Gathering Place since 1992.

The 19th Century Victorian-era farmhouse development consists of the Gerber House, a Cottage, Barn, and Gazebo. A rental fee is assessed to the general public wanting to use the facility, though Centerville residents do receive a discounted rate. The entire complex accommodates a maximum of 200 guests and offers modern day conveniences such as full kitchens in the Gerber House and Barn, air conditioning, working fireplaces, and electronic equipment for business meetings. Each of the individual facilities can also be rented separately.

The Golf Club at Yankee Trace is a City operated golf course located in the southwestern portion of the planning area. The newest of the three recreational facilities, Yankee Trace offers a 27 hole golf course, a bentgrass practice range for lessons and general practice, and a 32,000 square foot clubhouse. The Golf Club is offered to the general public for a fee but boasts services normally only offered through a private club atmosphere such as a championship golf course, a fine dining restaurant and four golf instructors on staff. In 2002, Golf Digest named the Golf Club at Yankee Trace one of the top ten municipal golf courses in the United States and the course received four and one half out of a possible five stars.

The City of Centerville residents are provided discounted golf fees through the Centerville Resident Benefit Program. Washington Township residents however, are considered general public and are not offered a discount. The Centerville residents also have the ability to reserve tee times eight days in advance and are offered discounted rates on Yankee Trace's Annual Fee, Executive Business, and Preferred Players Card Programs. The Annual Fee and Executive Business Programs, which cost from \$2,350 to

\$4,800 a year in 2002 depending on the program and resident status, offer many benefits including unlimited golfing privileges, access to the Yankee Trace computerized handicap system, and private locker and bag storage services. The Preferred Players Card Program does not offer unlimited golfing but allows members to schedule playing times 10 days in advance in order to schedule the most convenient playing times. This program was offered to Centerville residents in 2002 for \$240 per year and to the general public for \$270 per year.

In addition, The Golf Club at Yankee Trace offers various youth clinic programs throughout the year. In 2002, approximately 500 youth participated in such programs as camps and golf leagues.

The Golf Club at Yankee Trace also hosts the annual Nationwide Dayton Open presented by Dayton Area Toyota Dealerships. The attendance of the tournament in 2000 was 20,000. By 2002 the attendance rose to 35,500 persons.

Notable key findings from the 2002 Golf Course Operations Report for Yankee Trace are as follows:

- The golf course, originally 18 holes, added an additional nine holes in August of 2002.
- A total of 37,750 estimated rounds of golf were played in 2002. 2,750 of those were on the newly added nine holes.
- In 2001, the US municipal golf course median for rounds of golf played was 39,000. (National Golf Foundation)
- 22,495 people played rounds of golf at Yankee Trace in 2002. 3,245 (14 percent) were Centerville residents while 19,250 (86 percent) traveled to Centerville to play at Yankee Trace.
- An estimated 12 percent increase (4,530 rounds) in the number of golf rounds has occurred since 2000.
- Volunteers provided 6,650 hours of volunteer service to Yankee Trace in 2002.
- Yankee Trace is projected to increase its number of rounds to 51,000 in 2003 (a 26 percent increase), due to the expansion.

3. Washington Township

Washington Township recreational facilities consist of the Washington Recreational Center complex and the Mead-Altick Nature Preserve. Table E.1 illustrates what amenities each facility offer to the residents of Washington Township.

The Washington Township Recreation Center is located on 27 acres along Miamisburg-Centerville Rd/SR 725 in Washington Township. The Center serves both Washington Township and Centerville residents and is funded through property taxes collected throughout the Community and fees collected for use of the facilities. The Recreation Center is also opened to non-residents of the Community at a higher non-resident rate.

The Recreation Center is 50,000 square feet and includes a natatorium, weight rooms, two gymnasiums, locker rooms, an indoor running track,

climbing wall, and meeting rooms. The natatorium alone includes two indoor pools and a 140-foot water flume slide. The nearby 27-acre park consists of a historic log cabin, picnic shelter, running track, play field, and three ponds.

The Washington Township Recreation Center also offers a variety of programs to the Community. These programs include adult education, art, aquatics, dance, fitness and sports classes, preschool, summer camps, and youth and adult athletic leagues.

The following includes utilization of the Washington Township Recreation Center in 2002:

- 2,462 memberships were sold.
- 88 percent (2,176) of the memberships sold were to residents of the Community.
- 121,326 people used the Recreation Center during the open activity schedule (84,915 members, 36,411 non-members).
- 15,495 people attended aerobic classes.

The Mead-Altick Nature Preserve is also owned and maintained by Washington Township. The Nature Preserve, which was donated to the Township, encompasses approximately 30 acres. Currently, the Mead-Altick Nature Preserve has no amenities at the site.

Another facility in Washington Township is the centrally located Town Hall Theatre, housed in the old Township Hall on North Main Street in Centerville's Historic Architectural Preservation District. The Town Hall Theatre, which seats 300, is home of the All Children's Theatre and Landmark Theatre Company and is operated by the Washington Township Recreation Center. Between the two theatre companies, nine drama productions were scheduled at the Theater between June 2002 and April 2003. A wide-range of acting and dancing classes are also offered at the Town Hall Theatre.

4. Hithergreen Senior Center

The Hithergreen Senior Center offers citizens in the Community a facility to help meet social and recreational needs. Hithergreen does not have a minimal age to participate but most citizens are over the age of 55. Much like the Washington Township Recreation Center, Hithergreen Senior Center is located in Washington Township but is partially funded by both Washington Township and the City of Centerville. Other funding for the Center comes from membership dues, program fees, donations, and fund-raising.

Hithergreen has been a senior center in the Community for 20 years, including eight years at its current location (an old middle school) in the northeastern portion of the Township on Hithergreen Drive. The Center currently serves between 2,200-2,300 active members and is governed by a 15 member Board of Trustees. Three full time and seven part time employees as well as 300 active volunteers staff the Center.

Located on 15 acres, the 45,000 square foot facility includes an auditorium, arts and crafts rooms, full service kitchen, dining room, fitness and weight room, gymnasium, library, meeting rooms, and window on the wildlife area. The Hithergreen Senior Center also offers a variety of programs and travel opportunities to the senior citizens of Centerville and Washington Township. These include an aviation club, card parties, dance classes, the Thursday Lunch Program, planned bus trips, and numerous education classes.

5. School Facilities

Many of the Centerville City School District facilities throughout the Community are utilized for public use after school, on weekends, and during summer months. Because of this, outdoor school facilities were inventoried as part of the Community's parks and recreation. There are 11 total schools. However, not all 11 schools have facilities, as listed in E.1.

While most school facilities are maintained by the Centerville School District and used for general uncoordinated activity use, some facilities are maintained and scheduled for youth leagues by the CWPDP. These school facilities include two baseball diamonds, two soccer fields, and practice soccer areas at Watts Middle School and two soccer fields and practice soccer areas at Weller Elementary School.

D. Geographical Analysis

As previously mentioned, when the CWPDP was first established the original goal was to have a park within walking distance (approximately one-fourth a mile radius) from each home in the Community. A geographical analysis was completed to determine what areas in the Community are either fully serviced or currently lacking nearby parks and recreational facilities and to measure progress on the original goal. As Map E.2 illustrates, a one-fourth mile radius circle was placed at the center of each Neighborhood park. Community parks, Nature parks, and the other facilities such as Yankee Trace and the Recreation Center in Centerville and Washington Township are designed to attract residents throughout the much larger Community. However, residents near the larger parks and recreational facilities do tend to use these facilities, especially the parks, as their local neighborhood park. For that reason, a half-mile radius was placed at the center instead of a one-fourth a mile radius due to these areas attracting more usage. Map E.2 shows only areas developed for residential purposes to verify where the users would be commuting and what neighborhoods are served or not fully served.

As Map E.2 shows, either a neighborhood park or a larger park/recreational facility serves neighborhoods in the Community. Several areas are served by more than one park including the neighborhoods east of Clio Road between Centerville Station Road and SR 725. Other well-served areas are located in the northwest portion of Downtown Centerville and south of SR 725 in Washington Township.

There are, however, neighborhoods that are not as fully served with parks and recreational facilities as other areas in the Community. The northwestern portion of the planning area along Alexandersville-Bellbrook Road is the most underserved in regard to proximity to such services and opportunities. Another area lacking is the southwestern quadrant of the Community. Currently, besides the Golf Club at Yankee Trace, which is a specialized recreational facility, no Community parks or recreational facilities exist in the southern portion of this quadrant. Since the Golf Club at Yankee Trace does not serve the entire population, the Geographical Analysis concludes an additional Community scaled Park is needed in this area, in particular to anticipate future development.

E. Future Expansion

As development continues to occur throughout the Community, the different needs for future parks and recreational facilities will change. Listed below are future expansion plans for each of the entities, which are also illustrated in Map E.3.

1. Centerville-Washington Park District

The CWPDP's current growth strategy is to make improvements to existing parks, serve new neighborhoods, and expand some of the existing parks. Many of the existing parks were purchased or acquired over the last 30 years but, in some instances, little was done to develop the land, which is now being fully developed. The CWPDP is also interested in connecting a few existing parks through the acquisition, dedication or donation of land. This growth strategy is difficult with most Neighborhood parks within the District because most are surrounded by residential development and lack the ability to expand. The CWPDP completed a 10-year plan in 1999, outlining possible park expansions planned over the next 10 years. These include Big Bend, Bill Yeck, Cherry Hill, Grant, Oak Grove, Schoolhouse, and land south of Social Row and west of SR 48. These parks are highlighted on Map E.3. This map also shows the undeveloped land within the City and Township where the CWPDP growth strategy of connecting some parks could take effect or new parks and recreational facilities could be considered.

Another goal of the CWPDP is to have a neighborhood park in each new subdivision. The City of Centerville currently has a requirement in its Parkland Dedication Ordinance that states how much land needs to be devoted to parkland depending upon the amount developed. According to the Centerville Parkland Dedication Ordinance, a developer must dedicate .0085 acres of parkland or pay a fee in lieu of land dedicated for every person estimated for their development. Once the land is set aside, the City or the CWPDP acquires the land and develops it into a park. Monies paid in lieu of land dedication are used to purchase parkland in accordance with the approved park plan. Unlike Centerville, Washington Township does not have a formal dedication requirement stating if any parkland should be set

aside. The Township does, however, have a guideline for developers to follow. The parkland guideline suggests that a new development with a density of 1.75 houses per acre (100 acres developed at the standard density of 175 houses) should have five acres of parkland dedicated either within or outside the development. The Township has no way to enforce the guideline without a dedication requirement in either the Township Zoning Ordinance or Subdivision Regulations. Based on a 100-acre residential development, when comparing the City's Parkland Dedication Ordinance with the guideline set for developers within the Township, the City requires 3.36 acres of parkland the Township suggests 5 acres.

The CWPDP is also obtaining funding to complete Oak Grove Park, located in the southeastern portion of the Township, along Social Row Road. The CWPDP acquired the 101-acre park in 1994 to be developed as a Community park. A Park Master Plan was completed in 2001, which includes 15 soccer fields, five baseball diamonds, three tennis courts, two basketball courts, picnic shelters, playgrounds, and walking path. Oak Grove Park, depending on funding, is expected to be completed in phases over the next four to six years and cost an estimated \$7 million.

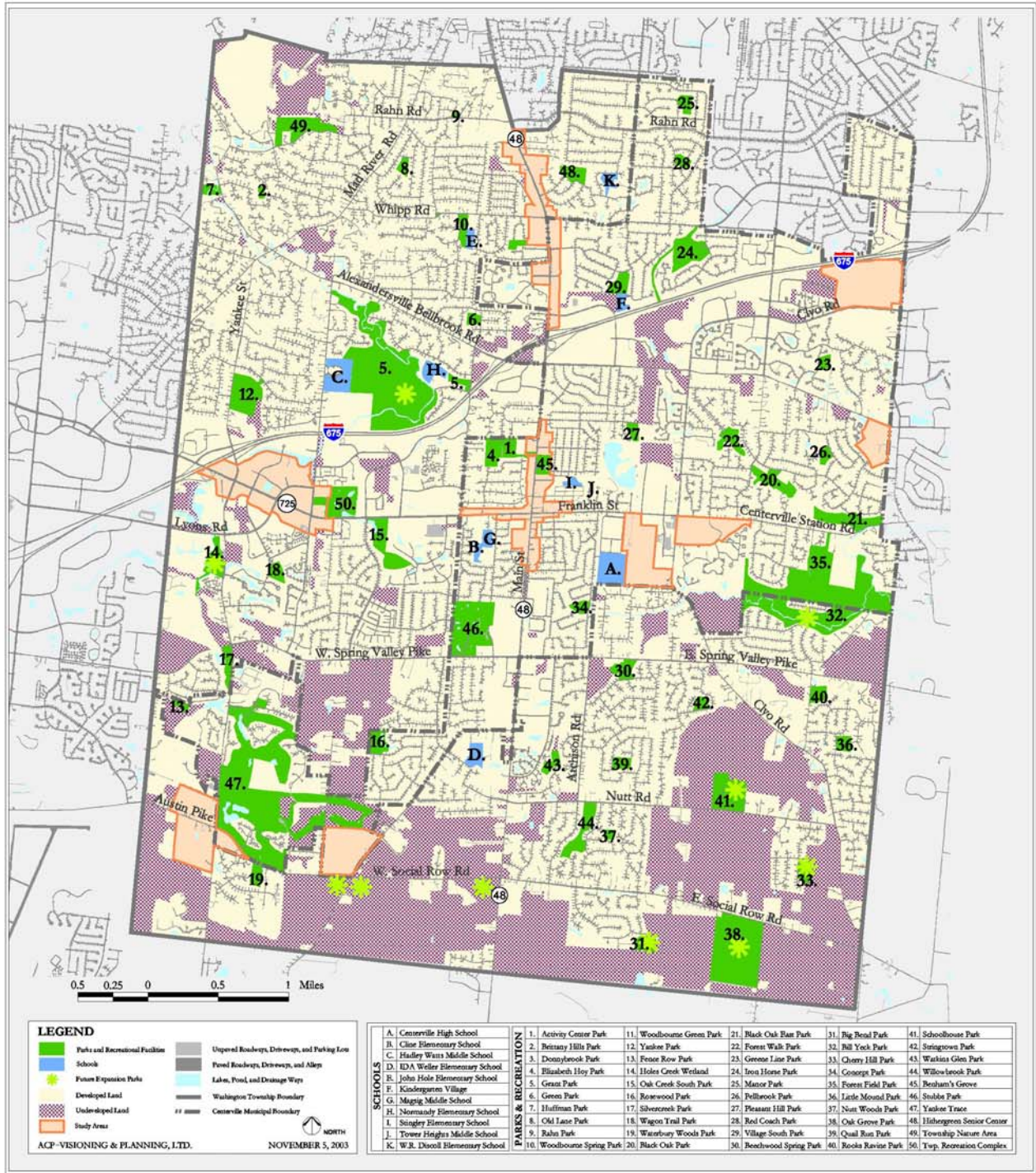
2. City of Centerville

The City of Centerville currently has no expansion plans for any of its three recreational facilities. However, approximately 26 acres, located across the road from Yankee Trace, was donated to the City to be used for golf purposes. The 26 acres currently serves as additional parking for large events at The Golf Club at Yankee Trace. The donated property also included the historic Munger Home at 9955 Yankee Road, in which the City is in the progress of renovating.

3. Washington Township

In 2002, Washington Township purchased (with inheritance tax out of the Township's general fund) the Centerville Cinemas, which are adjacent to the current Washington Township Recreation Complex. The facility was purchased with the intention of expanding the current Recreation Center to include an auditorium/theater (seating 250), two gyms, racquetball courts, multi-purpose rooms (4), a small kitchenette, and a teen center. These planned improvements will be funded through a levy, voted on by the Community. Currently, an assessment is underway determining the cost of rehabilitating the Cinemas. A decision on the final cost is to be made by February 20th, which is the deadline for submitting a proposed levy to the Board of Elections. The expectation is to have the levy voted on during the May 6, 2003 election.

There are no other current plans for expansion for recreational purposes within the Township.



PARKS AND RECREATION

COMMUNITY PLAN

CITY OF CENTERVILLE

WASHINGTON TOWNSHIP

OUR COMMUNITY

6. Transportation

CREATE
THE VISION

OUR FUTURE

Transportation

1. Overview

This chapter presents a summary of the transportation characteristics, trends and projections for the City of Centerville, Washington Township, and the Community as a whole. It outlines prevalent data on the Community's current transportation system.

The Washington Township **Thoroughfare Plan and Functional Classification (Figure I)**, and the City of Centerville **Thoroughfare Plan (Figure II)** served as the starting point in the development of the proposed Community Thoroughfare Plan. A Thoroughfare Plan is a networked hierarchy of streets. The 1990 Montgomery County Comprehensive Development Plan, which is the Thoroughfare Plan for Washington Township, and which the City of Centerville adheres to, lists six (6) major types of roads, classified according to the functions they provide:

Freeways and Expressways – carry high volume, high speed traffic for long distances.

Major Arterial – serve to move large volumes of through traffic from one area of the Community to another. Land service should be subordinated to the provision of travel service.

Minor Arterial – interconnect with and augment the major arterial system by serving trips of moderate length at a somewhat lower level of service.

Major Collectors – “collect” traffic from local streets and conducts this traffic to arterial streets for movement to other destinations.

Minor Collectors – provide direct land access and circulation at the neighborhood level by collecting traffic from residential streets and rural roads and carrying it to and from the arterial streets.

Local Streets – the remaining streets not described above, generally serving low volume residential traffic.

The Community's transportation system and land use patterns must closely interact with one another. Different types of land uses require different transportation needs. Unless well planned, the transportation needs of one land use may conflict with and/or impede the transportation needs or livability of an adjacent land use.



The Community's Thoroughfare Plan will be a planning guide to provide consistency and continuity in the roadway system, both locally as well as interconnecting with adjacent jurisdictions. As a planning document, the Thoroughfare Plan recommends appropriate right-of-way widths for each type of street in order to provide for vehicular, pedestrian, and bicycle needs. It also recommends ways to manage traffic more efficiently and to provide alternate modes of transportation.

Within the Community the Major existing routes are Federal Interstate Route 675, and State Routes 48 and 725. Federal Interstate Route 75 and State Route 741 are north-south roadways directly west of Centerville-Washington Township. Minor Arterial Streets include Social Row Road, Yankee Street, Spring Valley, and Clio Road.

Failure to manage access to and from the roadway system is a leading cause of accidents, congestion, decline in operating speed, loss of traffic carrying capacity, and increased traffic delays. A proliferation of driveways, intersections, and traffic signals without regard to their proper design, location, and spacing degrades roadway operation and performance, and poses serious traffic hazards for the traveling public. Failure to manage access significantly reduces traffic mobility, increases congestion, and contributes to higher rates of property damage, personal injury, and fatal crashes while increasing transportation costs and delays in the movement of people and goods.

Key Findings

This report identifies the key factors affecting the efficiency and effectiveness of the existing transportation network in the community. It begins with the key findings of the existing roadways and factors presently affecting or planned for the transportation system. Increased traffic volumes and the potential for congestion must be planned for and dealt with as the population increases, and development occurs both in the community as well as in the adjacent jurisdictions.

- Responsibility for roads in the Community rests with several units of governments. The City of Centerville has responsibility for all roads within its jurisdiction. In Washington Township, the State of Ohio Department of Transportation has jurisdiction over state highways and the interstate (SR 48, SR 725, and I 675), while the Montgomery County Engineer has jurisdiction for County roads and bridges. Washington Township is responsible for the other roadways, primarily the local streets.
- While many roadways in the northern half of the Community have been widened, most county and township roadways in the southern half are narrow, sometimes with



sharp turns, and little or no berms for breakdowns. These may need additional capacity in the future to accommodate population and traffic growth.

- The major existing routes are State Route 48 (north-south) and State Route 725 (east-west). These two roadways do not provide sufficient connectivity and capacity, and the existing County and Township roads are having to be upgraded to better serve the transportation needs of the community. The potential for an adequate east-west network of streets already exists, but not so in the north-south direction, as explained in the next section.

Local streets are generally well developed, although problems do exist in terms of street connectivity between some adjacent subdivisions. It is desirable for the connector(s) in one subdivision to be integrated with those in the adjacent subdivision, so subdivision-to-subdivision trips do not need to be made on the arterial streets. This is particularly true for bicycle and pedestrian trips.

- One of the greatest problems for the Centerville – Washington Township remains the north-south movement of traffic within and through the Community. This was also the conclusion of the 1969 **Comprehensive Development Plan for Washington Township**.

Accepted transportation planning practices recommend an arterial roadway every one to two miles. At the present time, the only major north-south thoroughfare in Centerville-Washington Township is State Route 48.

SR 48 essentially bisects the approximate 5¼-mile width of the Community. While SR 48 has been widened between the City of Kettering corporation limit and Sheehan Road, it remains a narrow two-lane roadway in the southern portion of Washington Township. Washington Township officials are currently working with the Montgomery County Engineer's office for the installation of turn lanes at the signalized intersections of SR 48 at Nutt Road and SR 48 at Social Row Road. Construction is expected to take place in 2005 at the latest.

The northern section of SR 48 between the City of Kettering corporation limit and Boundbrook Drive north of I-675 has been developed with most properties having full access curb cuts. This is not in accordance with the guidelines contained in the Ohio Department of Transportation *State Highway Access Management Manual*. The *State Highway Access Management Manual* establishes procedures and standards intended to protect the utility, function, capacity, and safety of the state highway system. This section is in Study Area "A", and will be discussed later in the study in more detail.



- The next north-south through street west of SR 48 is Yankee Street, approximately 2¼ miles away. It is shown as a Minor Arterial on the Washington Township Thoroughfare Plan. While Yankee Street has been widened north of Lyons Road, the potential for growth of the southwestern portion of Washington Township can be expected to drive the need to improve the southern section as well.
- Paragon Road is a north-south roadway approximately mid-way between SR 48 and Yankee Street. The northern portion has been improved to a three-lane design with signalized intersections. Paragon Road south of Spring Valley Pike is a narrow, two-lane roadway, with two very sharp 90-degree curves. Although shown on the Washington Township **Thoroughfare Plan and Functional Classification Plan** as a Major Collector, and on the City of Centerville **Thoroughfare Plan** as a 70' roadway between Social Row and SR 725, a major residential area was developed on both sides between SR 725 and Spring Valley, and the Yankee Trace Golf Course expanded to the east side south of Spring Valley. The future suitability of Paragon Road south of Spring Valley Road as a Thoroughfare will need to be evaluated.
- To the east of SR 48, there is essentially no north-south thoroughfare street south of the City of Centerville between SR 48 and Greene County. Although Clio Road is properly spaced between SR 48 on the west and Wilmington Pike on the east where it crosses Franklin Street/Centerville Station Road, it begins to angle southeast after crossing Spring Valley Pike, and terminates at Social Row Road. There is no north-south arterial street in over 2½ miles. While Clio Road is a five-lane facility in the City of Centerville, it remains a narrow two-lane roadway in Washington Township, with little access control. This is expected to impact, or be impacted by, potential development in southeastern Washington Township.
- An interchange is proposed for I-75 somewhere south of I-675, probably at Austin Pike. If the interchange were built, traffic volumes would increase an additional 21% over what is otherwise expected due to an increase in population and employment between 1995 and 2030.
- Several of the sources contacted expressed an opinion that there is strong civic support for an I-75 interchange south of I-675 and north of the SR 73 interchange; they stated the Community should plan for it to happen. For long-range planning purposes at this time, it appears that Austin Pike would be the most favorable location, and that the earliest probable construction is 2012.
- Many of the roadways in the southern portion of Washington Township are inadequate to handle the anticipated traffic. The expected increase in traffic on



Austin Pike, if the freeway interchange is built, combined with the potential for development in the southern half of the community, suggests the need to improve east-west transportation facilities and multi-modal transportation choices (bikeways, pedestrian, transit). Social Row Road is shown on the Washington Township T as a Minor Arterial. A short section in Centerville south of Yankee Trace has been improved to a five-lane roadway, with concrete medians, access control, and a hiker-biker trail on the north side with a sidewalk on the south side.

- The City of Centerville has instituted access management techniques when roadways are widened. As roadways throughout the Community are improved, implementation of appropriate access management techniques should be required. Otherwise, correcting the problems associated with inadequate access management may require expending significant public funds to widen roadways, to provide additional operational and safety improvement, and in severe cases to relocate or construct new roadways. These remedial measures are increasingly prohibitive in terms of their economic, social, and environmental costs.
- Traffic Safety is traditionally a combination of activities, commonly known as the three “E”s, Engineering, Enforcement, and Education.

It should be recognized that Centerville Police Chief Stephen Walker and the command staff, in 1996, the first year when the number of crashes exceeded 700, developed a comprehensive traffic safety program with regard to Enforcement and Education to “reduce the occurrence as well as the severity of accidents in the most prolific accident areas of the city as determined by statistical analysis.”

The result of this comprehensive Enforcement and Education traffic safety program, coupled with the ongoing Engineering efforts that has been widening streets and intersections, has been a reduction of accidents in Centerville to levels prior to those seen in 1970's. In 2000, traffic accidents were down 34% over the record number recorded in 1996. Personal injury accidents have dropped 22.5% over 1996 totals. The reductions of personal injury accidents imply that the speeds of motorists at the time of impact are less, and therefore cause fewer injuries.

- The US Bureau of Census ranked the Dayton Urbanized Area as the 83rd largest Urbanized Area ranked by square miles of sprawl (1970-1990). While the population of the area as a whole decreased 10.6%, the population of the Community increased over 22,100 persons.



3. Existing Conditions:

Traffic Volumes

Traffic volumes have progressively increased in the past thirty years, reflecting the new commercial, office and residential development the Community has experienced.

	<u>1970</u>	<u>1978</u>	<u>1986</u>	<u>1987</u>	<u>1995</u>	<u>1999</u>	<u>2000</u>
SR 48 @ Warren County Line	5840	5770	5540		6790	10360	
Lyons Road west of Yankee				10022	20799		21849
SR 48 @ SR 725	15760	20700	23200		24430	30060	
SR 725 @ Centerville North Corp	17660	24370	28530		32110	34850	
McEwen North of Beryl				6453	7649		9186
SR 725 @ West Centerville Corp	11660	15280	19780		19850	18940	
Spring Valley east of Yankee				7571			10845
Nutt Rd east of Meadow Woods			853		1642		1831

Sources: Ohio Department of Transportation
Washington Township

Levels of Service

Planning level capacity analyses were performed for various roadway sections based upon the traffic counts. These were performed using the 1994 Highway capacity Manual guidelines. Level of Service (LOS) is expressed like a school report card, "A" through "F".

Level "A" is described as primarily free-flow operations; vehicles are unimpeded in their ability to maneuver within the traffic stream, and delay at signalized intersections is minimal.

Level "F" is characterized by extremely slow travel speeds, with congestion at signalized intersections, high delays, and extensive queuing.



In urban areas, a LOS “D” is generally considered to be an acceptable LOS during peak periods. LOS “D” borders on a range in which small increases in traffic flow may cause substantial increases in delay and decreases in travel speeds.

Maximum Level of Service Thresholds

LOS	Two-Lane	Four-Lane
A	2,400	15,300
B	4,800	25,700
C	7,900	36,000
D	13,500	43,000
E	22,900	54,300

Source: 1994 Highway Capacity Manual, Table 8-10

LOCATION	VOLUME AADT	NUMBER OF LANES	LEVEL OF SERVICE
Alex-Bell east of Mad River	10666	2	C
Alex-Bell east of McEwen	10893	2	C
Bigger south of Whipp	16680	5	B
Centerville Station east Clyo	4400	2	B
Clyo north of Social Row	2314	2	A
Clyo south of Franklin	11230	2	C
Clyo south of Spring Valley	3332	2	B
Lyons east of Yankee	12886	4	A
Lyons west of Yankee	22000	4	B
McEwen south of Alex Bell	7027	5	A
Nutt east of Atchinson	3767	2	B
Paragon north of	370	2	A



LOCATION	VOLUME AADT	NUMBER OF LANES	LEVEL OF SERVICE
Social Row			
Sheehan north of Social Row	1346	2	A
Social Row east of Sheehan	4940	2	C
Social Row west of Sheehan	6585	2	C
Spring Valley west of Clio	18200	2	E
SR 48 north of Spring Valley	22420	4	B
SR 48 south of Sheehan	16266	2	E
SR 48 south of Spring Valley	17280	5	B
Whipp east of Bigger	9990	2	C
Whipp east of Mad River	3410	2	B
Yankee south of Lyons	19784	2	D
Yankee south of Spring Valley	14960	2	D
Yankee south of SR-725	25570	2	E

NOTE: These are generalized LOS ratings for planning purposes for the roadway sections. Bottleneck situations may exist at critical intersections.

The Level of Service Analyses shows that many of the roadways that have not been widened from two lanes are presently operating at low levels of service, and will not be able to accommodate future growth without improvements or a shift in motorists' travel mode. The congested roads frequently have a high number of traffic crashes, as documented in the following section.



Traffic Crashes

The Montgomery County Engineer's office provided crash data for Washington Township based upon calculated crash rates (crashes per million vehicles) for the years 1999, 2000, and 2001. Similarly, the Centerville City Engineer provided crash rates for the City of Centerville for the years 2000, 2001 and 2002.

The crash rate takes into consideration traffic volume, which recognizes exposure. Intersections with crash rates below 2 are generally felt not to have a safety problem. The highest crash rates for the Centerville – Washington Township Community are listed below. On the basis of this data, most intersections within the community do not appear to have a safety problem.

WASHINGTON TOWNSHIP CRASH RATES: 1999 THROUGH 2001

Location	Number of Crashes	Crash Rate/m veh
Clyo @ Social Row	15	3.19
McEwen @ Congress	16	2.09
Alex Bell @ Mad River	41	1.84
Social Row @ Sheehan	16	1.74
Mad River @ Yankee	16	1.45
Lyons @ Yankee	50	1.23
Yankee @ Yanks Court	32	1.05

CITY OF CENTERVILLE CRASH RATES: 2000 THROUGH 2002

Location	Number of Crashes	Crash Rate/m veh
SB Wilmington Pk. @ IR 675	109	2.64
Spring Valley Rd. @ SR 48	76	1.80
Bigger Rd. @ Clyo Rd.	36	1.40
Franklin St. @ Main St. (SR48)	65	1.35
Alex-Bell @ Clyo Rd.	35	1.08
Alex-Bell @ SR 48	76	1.04
Clyo Road @ Franklin St.	25	1.02

The Montgomery County Sheriff's Washington Township Sub-station provided a listing of the 10 most frequent crash locations listed highest to lowest for the period August 1, 2000 to August 1, 2002:

- 1) SR 725 and Yankee
- 2) SR 48 and Whipp
- 3) SR 48 and Alex Bell
- 4) SR 725 and Lyons



- 5) SR 725 and Leona
- 6) SR 725 and IR 675
- 7) Yankee and Lyons
- 8) Yankee and Yanks
- 9) Alex Bell and Mad River
- 10) SR 48 and Rahn

The Centerville Police Department provided quarterly crash frequency summaries for the period April 2001 through June 2002:

Location	2 nd Quarter 2001	3 rd Quarter 2001	4 th Quarter 2001	1 st Quarter 2002	2 nd Quarter 2002	TOTAL	RANK
Wilmington Pike	15	21	6	12	16	70	1
Alex-Bell Road	25	12	8	11	11	67	2
Main Street, South	15	11	1	12	25	64	3
Far Hills Avenue	10	14	2	18	9	53	4
I-675	4	18	8	10	9	49	5
Franklin St, East	14	12	3	12	5	46	6
Clyo Road	9	14	4	4	7	38	7
Main Street, North	10	7	5	6	8	36	8
Franklin St, West	2	4	7	3	2	18	9

While not considered to have a traffic safety problem based on the crash rates, the large frequency of crashes represents a considerable cost to the Community in terms of crash costs, and resultant additional congestion and delays. The Ohio Department of Transportation estimates each Property Damage Only crash costs \$2,500, while each Personal Injury/Fatal crash costs \$67,900.

For illustrative purposes, the **Yankee Street Traffic Study** reported that of the 64 crashes at the intersection of State Route 725 at Yankee Street for the years 1998 through 2000, 37.5% were Personal Injury, resulting in an estimated cost of over \$1,629,000. This intersection ranked number one on the Montgomery County Sheriff's office listing of the ten most frequent crash locations in Washington Township for the period August 1, 2000, to August 1, 2002.

Similarly, the **Yankee Street Traffic Study** reported that of the 28 crashes at the intersection of Yanks Court at Yankee Street for the years 1998 through 2000, 46.4% were Personal Injury, resulting in an estimated cost of over \$882,000. This intersection ranked eighth on the Montgomery County Sheriff's office listing of the ten most frequent crash locations in Washington Township for the period August 1, 2000, to August 1, 2002.



Transit

The Miami Valley Regional Transit Authority primarily has five (5) routes serving the Centerville-Washington Township community:

- Route #14, a north-south route, operates along SR 48 between Mandel Drive on the south, and the northern Community limit. There are Park-N-Ride lots at Sheehan Road, and at Spring Valley Pike.
- Route #16 briefly comes into Centerville in the far northeast corner, making a short loop east of Bigger Road north of I 675.
- Route, #17, crosses the very northwest corner of Washington Township, as it operates along Mad River Road between the South Regional Hub and downtown Dayton.
- Routes #21 briefly come into Centerville in the far northeast corner, making a short loop west of Bigger Road north of I 675.
- Route #23, principally an east-west route, operates along SR 725/Franklin Street west of SR 48, and Franklin Street, Clio Road and Bigger Road on the northeast.

The South Regional Hub, serving routes #17, #19, #23, #24, #42, #60, and Expressway Routes X5 and X1B, is immediately west of the Community, being located on Lyons Road south of the Dayton Mall. Regional Hubs are an effort to match public transit to the needs of Miami Valley residents.

Figure III shows the Existing Transit Service for Centerville/Washington Township. The streets with transit routes are predominately commercially oriented, typically with large parking lots between the stores and the streets. These are not considered to be *pedestrian friendly*. Access to and from the bus stops are primarily through parking lots.

Bikeways

Bicycling is a local activity, as trip lengths are typically less than five miles. The lack of bike routes or bike lanes interconnecting throughout the community, and bicycle parking or secured storage at the destinations, decreases the desirability for bicycle usage within the roadway corridor. If the Community wants to promote bicycling as a safe and convenient option for personal transportation, it must strive to enhance cyclist mobility through all parts of the Community, and to improve access to, and bicycle facilities at, local destinations.



There are presently few bike routes within the Community; however, an effort is being made to establish hiker-biker paths alongside new or newly widened roadways, such as what has been done around Yankee Trace, or to provide wide curb lanes.

Historic District

The historic district of Centerville, which is thought of by most as the “downtown” of the Community, is impacted by the amount of traffic, including large trucks. It is the junction of two Major Arterial Streets, State Routes, SR 48 and SR 725. On-street parking is prohibited. The presence of SR 725 has an additional impact, as it makes a ninety-degree turn at SR 48. As the historic focal point of the Centerville/Washington Township Community, the existing emphasis is clearly the movement of vehicular traffic. Making the historic district streets of Centerville more accessible, comfortable and safe for walking is crucial for developing a livable city where the street becomes more pedestrian friendly.

4. Existing Problem Locations

Meetings and/or conversations with various people during the data gathering and analysis phase identified a number of specific concerns. These are presented for *information only* at this time, and are in no priority order. They will be considered as the Transportation Plan is developed:

- Mad River at Alexander Bell – this four-way stop intersection backs up in the peak hours, causing significant delays and accidents.
- Whipp Road at SR 48 – high volume of traffic (35,000 ADT), highest frequency of crashes.
- Centerville High School – concern with 1500 cars arriving / leaving in short periods of time.
- SR 725 through the historic district – concern with trucks on the state route through the historic district; trucks have problems with making turns at SR 48, and create congestion.
- Historic District - need to make appropriate traffic control and parking provisions as the district is becoming more pedestrian oriented;
- IR 675 Northbound to SR 725 - exit backs onto mainline.



- IR 675 Northbound and Southbound to Alex Bell – both ramps back onto mainline, especially Southbound.
- SR 48 at Siebenthaler/library – need to connect rear area(s) for possible signalization.
- Paragon Road – needs to be a collector street, not an arterial street.
- SR 48 at Nutt/Hibbard – frequent crashes; medical office expanding.
- Bikeways - need an east-west bikeway to Wilmington Road.
- Bikeways - would like to see a bikeway on the southern side of the Planning area to connect to Oak Grove Park.
- Bikeways - how to cross arterials?
- Bikeways - Bike lanes needed on Washington Church Road
- Traffic Signals - Need to synchronize traffic signals across jurisdictional boundaries – Kettering PEEK system with Centerville’s closed loop system.
- SR 48 – concern for “cut-through” traffic coming from Warren County.
- Miami Regional Transit Authority – new developments need to be transit oriented.

Additional areas of general traffic operations concern were identified as follows:

- Alexander Bell at SR 48
- Wilmington Pike at IR 675
- Clyo Road at Wilmington Pike
- SR 725 at Wilmington Pike
- Franklin at Main
- Spring Valley at SR 48

5. Contacts Made

- City of Centerville
Norbert Hoffman, P.E., City Engineer
Steve Feverston, Planner
Centerville Police Department (crash statistics)
- Washington Township
Bill Johnson – Washington Township Public Works Director
David Douglas - Planner
Deputy David Grove - Montgomery County Sheriff, Washington Township Sub-
station
- Montgomery County Engineer's Office
Joe Litvin – Montgomery County Engineer / Project Manager Austin Pike
Interchange Project
Gary Shoup - Montgomery County Engineer's Office
George Butzer – DLZ Corporation, consultant for the Austin Pike Interchange
Project
- Miami Valley Regional Transit Authority
Frank Eckler, Manager of Planning and Service Development
- Ohio Department of Transportation
Curt Mailer – ODOT District 7 Safety
Craig Elery – ODOT District 7
- Ohio Department of Public Safety
Robert Wakefield – Crash Records
- Developer
George Oberer - Proposed 327 acre residential development on the south side of
Social Row Road between SR 48 and Sheehan Road.
- City of Kettering
Dexter McMillan - Transportation Engineering Department
- Warren County
Daniel Corey, PE - Development

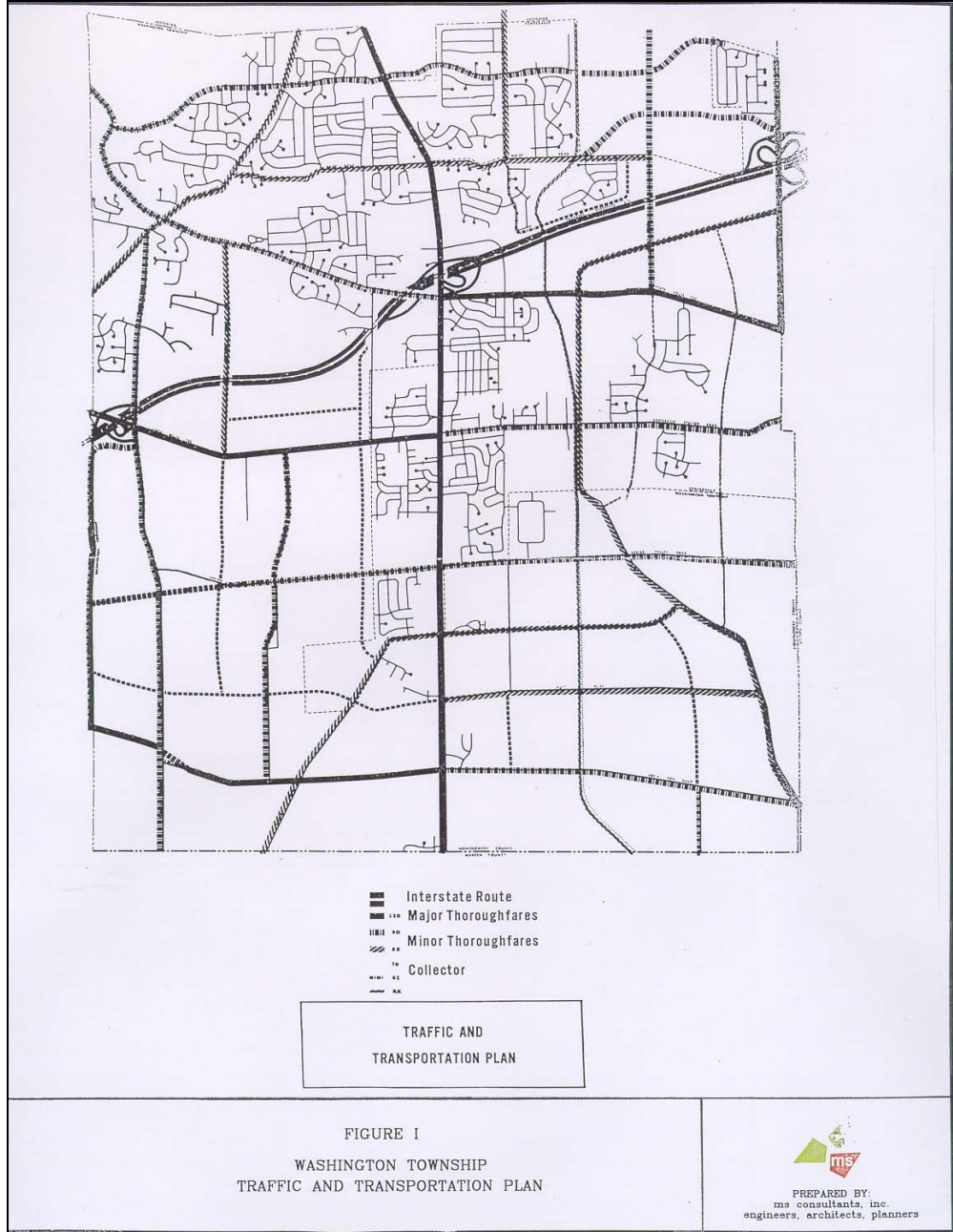


6. Reports Referenced:

- Centerville – Thoroughfare Plan for the City of Centerville, Ohio (1994)
- Washington Township – Traffic and Transportation Plan
- Yankee Street Traffic Study – July, 2002
- Planning for Transit-Friendly Communities – November, 2000
- 2000 Annual Report – Miami Valley Regional Planning Commission
- Traffic Survey Reports from the Ohio Department of Transportation
Various intersections along SR 48 & SR-725
1964, 1970, 1975, 1978, 1982, 1986, 1990, 1994, 1999
- ED/GE Strip Commercial Study – December 4, 1998
- Planning for and Improvement of Strip Commercial Areas – September, 1994
- Access Control Plan for State Route 725 – October, 1979
- The Dayton Mall Area Thoroughfare Plan – January, 1974
- Comprehensive Development Plan – Washington Township – August 1969
- State Highway Access Management Manual, December 2001
- 1982 THRU 2000 HOSE COUNT SUMMARY – Montgomery County Engineer's Office
- Montgomery County Comprehensive Plan for Washington Township

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Thoroughfare Plan for the City of Centerville, Ohio

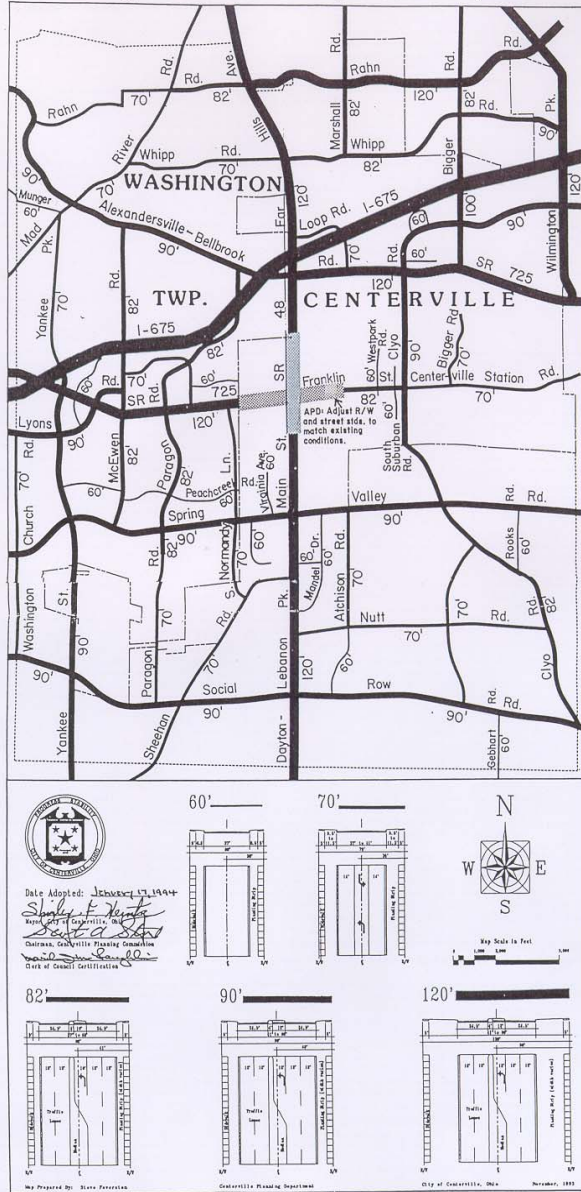


FIGURE II
THOROUGHFARE PLAN FOR THE
CITY OF CENTERVILLE, OHIO

PREPARED BY:
ms consultants, inc.
engineers, architects, planners



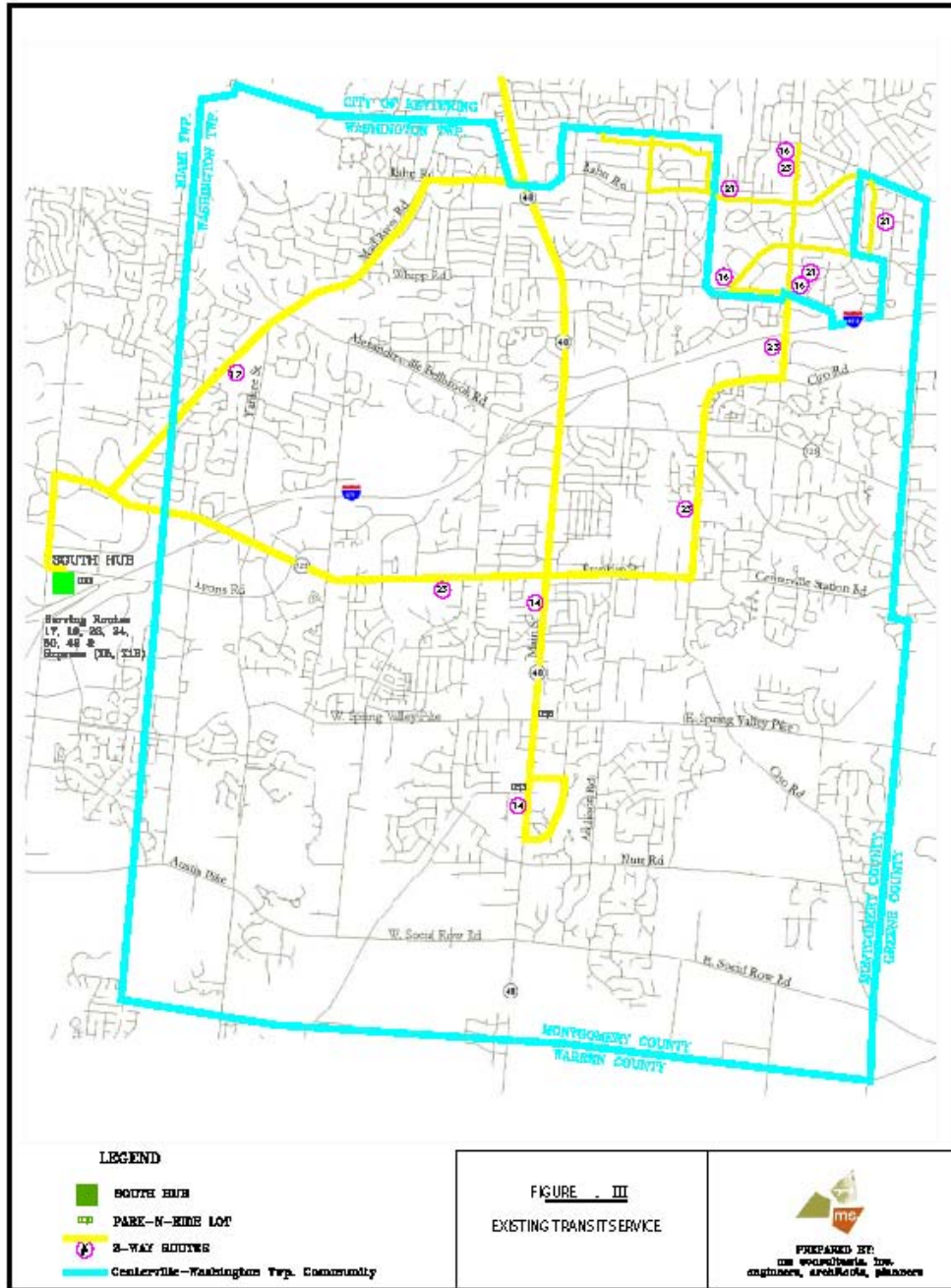


EXHIBIT
EXISTING TRANSIT SERVICE E



OUR COMMUNITY

7. Utilities

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***Existing Conditions Report: Utilities
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City of Centerville and Washington Township***

Utilities

1. Overview

This chapter presents an evaluation of the water distribution, sanitary sewer, and stormwater facilities for the City of Centerville and Washington Township areas, herein referred to as the “Community.” The scope this review shall include an assessment of the existing conditions of each system, identification of areas of concern based on the current situation and planned improvements for improving the systems to correct problem areas and meet anticipated development needs.

Information on the water distribution and sanitary sewer facilities was obtained primarily from the Montgomery County Sanitary Engineer’s office. Stormwater system information was collected from the City of Centerville and Montgomery County Engineer’s office.

2. Key Findings

Sanitary Sewers

- Since accepting the recommendations of the 1990 Master Plan, Montgomery County has been implementing a \$100 million dollar improvement plan to address sewage overflows and sanitary sewer capacity concerns throughout the County.
- The sizing of proposed sanitary sewer system improvements were based on future land use and 2040 population forecasts identified in the 1990 Master Plan.
- Once consensus is reached on a desired development scenario as part of this Comprehensive Planning process, these land uses and population projections will be provided to ms, who will compare them to those contained in the 1990 Master Plan and identify any significant variations and/or concerns.
- The feasibility of providing Warren County sanitary sewer service shall be reviewed.

Water Distribution

- There is currently sufficient storage in the system to meet the existing demands of the Community and a master plan in place to add storage as a function of development.
- The County has noted that there is sufficient supply pressures and fire flow throughout the planning area, with two potential exceptions. These two areas include the Architectural Preservation District, where fire flow is limited due to existing



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mains being undersized and localized areas of low pressures along the ridge east of Sheehan Road where elevations are greater than 1030 MSL such that individual booster pumps are needed.

Storm Sewer System

- Storm sewer system problems such as street and yard flooding, channel erosion, and maintenance issues have been documented by the City and Township
- Both jurisdictions have conducted various studies to define the problems associated with the identified problem areas.
- The flood insurance mapping is, in most cases, dated and requires an update to provide sound decisions regarding floodplain development.
- The NPDES Phase II program is currently under development by the City and County.

3. Existing Conditions

A. Sanitary Sewers

Sanitary sewer service for the City of Centerville and Washington Township is provided by the Montgomery County Sanitary Engineer. The Community is drained through two major service areas, the Western Regional and Sugar Creek Basins. Refer to Exhibit I for an illustration of the existing interceptor sewers and drainage basins.

Western Regional Service Area

The wastewater generated in this basin flows north by gravity to the Dryden Road pretreatment and pumping facility. The Dryden Road facility provides screening and grit removal of the wastewater before being pumped through a 54-inch force main 2 miles to the WWTP.

The Western Regional WWTP (WRWWTP) was constructed in 1979 and treats 20 MGD annual average flow and can process a peak flow of 60 MGD. Wastewater is treated through a two-stage activated sludge process, followed by tertiary filtration and disinfection before discharging into the Great Miami River.



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Sugar Creek Basin Service Area

Residents in the southeast quadrant of the planning area are located in the Sugar Creek Basin service area. The wastewater produced in this area is collected and conveyed east to the Montgomery – Greene County line, where further conveyance and ultimately treatment is provided by at the Sugar Creek WWTP. Treated effluent from this WWTP discharges into the Little Miami River.

Collection System Facilities

The Community is served by a network of sanitary sewer lines ranging in size from 8 to 84-inches in diameter. The older sewers were generally constructed of vitrified clay pipe and brick manholes. As a result, the amount of infiltration entering these older pipes, joints, and manholes increases over time. To prevent basement flooding, emergency sanitary relief overflows were constructed throughout the system to ensure that the capacity of the pipe was not exceeded during peak flow conditions. These overflows, on occasion, discharge sanitary sewage into nearby storm sewers or streams.

To rectify this problem, a Sanitary Sewer Master Plan was prepared for the County in 1990. In this study, the sanitary sewers and emergency overflows were analyzed to determine the problem areas and corrective action needed. The report also noted chronic problem areas throughout the County where repeated backups and customer complaints were documented.

The result of these findings led to the development of a \$100 million dollar improvement plan to reduce or eliminate these problems. The proposed improvements currently being undertaken by the County include the following:

- Construction of relief sewers
- Construction of equalization basins
- Elimination of pump stations
- Elimination of emergency overflows

The Sanitary Sewer Master Plan also considered future development in the design of these improvements. Population projections were made to year 2040 using available County planning and Census records available at the time. No provision was made in the Master Plan for accepting flows from Warren County to the south; however, a



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agreement for Montgomery County to provide sewer service to portions of Warren County is in place. It is our understanding that a modification to the 1990 Master Plan that specifically addresses the availability of sewer capacity within the County's sanitary collection system to service Warren County has not been prepared to date.

B. Water Distribution System

The Community's drinking water is furnished by the Montgomery County Sanitary Engineer's department. Water is purchased by the County from the City of Dayton and then sold to Centerville and Township residents. The source of water is the Miami Valley Buried Aquifer. No violations of EPA drinking water standards were noted in the 2000 Consumer Confidence Report filed by the County. Montgomery County is considering the construction of its own water treatment facility but must wait until the service agreement with the City of Dayton expires in 2015.

There are three pressure zones operated by the County, High, Medium, and Low Pressure System. The entire planning area lies within the Medium Pressure System, which equates to a hydraulic grade line (HGL) of 1126.0. This grade line is used to determine which areas in the planning area, if any, may encounter inadequate supply pressures based on the ground elevations.

The most recent master plan prepared by the County was in 1988. Population projections were made for 1993, 1998, and 2005 to permit the assignment of demands for modeling purposes. It should be noted that this water master plan assumed a full development condition under the 2005 scenario. In the water master plan, existing system storage as of 1988 and proposed system recommendations were made as shown in Table 3.B.1.



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Table 3.B.1: Water Distribution System Storage *		
Target Completion Date	Required Additional Storage	Status
As of 1988	2.0 MG Centerville Tank #1	--
Immediate Needs	2.0 MG Walnut Grove Tank #1 2.0 MG Centerville Tank #2	Built Built
1998	2.0 MG Elevated Tank #1 (See narrative below)	No Plans
2005	2.0 MG Walnut Grove Tank #2 2.0 MG Elevated Tank #2 (See narrative below)	No Plans No Plans

* Within Community limits

All of the existing or future tanks have or shall have an overflow elevation of 1126 with a 40' operating range. 50% of the tank volume is held in reserve for fire fighting. Refer to Exhibit II for an illustration of the existing facilities and areas currently served with water.

The 2.0 MG Walnut Grove Tank #1 was recommended in the 1988 master plan to address areas with low pressure in the south central portion of Washington Township. Although this tank did provide storage and reinforced pressures in the southern area, there are still some areas where the pressures remained low due to elevation. The County has installed a booster station to ensure adequate supply pressures for customers located in this area. The 2.0 MG Elevated Tanks #1 and #2 were included in the master plan and programmed to be constructed in response to development trends, depending on whether they be concentrated in the southwest or southeast sections of the Township.

Based on preliminary discussions with the County, all nine key development areas should have adequate supply pressures based on a review of the existing waterlines adjacent to each area. The areas identified as potential areas of concern are the following:

- The Architectural Preservation District (Franklin and Main St.). The depth to rock is shallow and the existing waterlines are 6"-8" in diameter, which may not



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provide adequate fire flows depending on the desired development scenario being formulated as part of this community plan. Based on fire flow test records, available fire flows ranging from 2100 to 4700 gpm at 20 psi were documented (See Table 3.B.2). Depending on the intended redevelopment scenario, this may or may not be adequate.

- A ridge exists east of Sheehan Road where elevations are greater than 1030 MSL. Consequently, localized areas of low pressures can be anticipated if development occurs along this ridge such that individual booster pumps are needed to increase supply pressures. The fire flow test was conducted at Sheehan and Social Row Road reported an available fire flow of 1900 gpm at 20 psi, which is acceptable for residential use.

Table 3.B.2: Summary of Flow Test Records

Study Area	Static	Residual	Pito	Calc Flow (gpm)	Calc flow (gpm) at 20 psi
A	86	61	48	1163	1964
A	73	69	31	934	3771
A	54	53	44	2226	14946
A	65	55	52	2420	5452
A	58	55	50	1186	4674
B	61	34	25	839	1051
B	57	30	27	872	1034
D	51	45	27	872	2116
D	72	67	54	1233	4367
D	66	62	55	1244	4653
E	54	45	39	1048	2148
E and F	73	65	58	1278	3548
F	70	67	42	1087	4968
G	57	52	42	1087	3205
H	92	89	60	1300	7230
H	76	35	36	1007	1191
I	53	39	13	1210	1922

C. Storm System System

The drainage of the City and Township is predominantly into natural streams tributary to Holes Creek, which flows north to the Great Miami River, and to Sugar Creek, which flows east into Greene County to the Little Miami River. The City and Township stormwater systems are comprised of various storm structure types, including catch basins, manholes, piping, man-made and natural ditches, culverts, and



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detention ponds. Refer to Exhibit III for an illustration of the stormwater drainage system.

The operation and maintenance of the storm system is handled by the respective City and township public works departments. Floodplain regulations are administered by the County Planning Commission for the township and by the City Engineer within Centerville.

The City of Centerville, in response to major rain events in 1988 and 1989, completed a Stormwater Management Master Plan in 1992. The purpose of the report was to identify deficiencies in the existing system, provide recommendations for addressing those problems, and to review the management policies of the City to provide better management practices. The Master Plan noted 22 problem areas based on documented complaints by City residents. The problems, in general, included the following:

- Street and yard flooding
- Ditch erosion
- Maintenance problems
- Sanitary backups (addressed in sanitary sewer master plan)

The Master Plan consequently outlined the following recommendations.

1. Prepare revised stormwater management ordinance (Ordinance No. 2-92 passed by City Council on February 17, 1992).
2. Prepare a Stormwater Management Design Criteria Manual (currently under development, not issued final).
3. Structural system improvements
 - \$3.5 million in regional detention basins
 - \$3.0 million in storm sewer improvements

The structural improvements were prioritized by the City and continue to be implemented as project funding is secured.



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Washington Township has documented several problem areas and issues in the stormwater physical and management systems. They are outlined as follows.

- Northern 1/3 of the Township is aging and may require programmed maintenance to ensure proper function.
- Frequent street flooding occurs on Rahn Road at Grantland Drive. A recently completed study of flooding problems in this area recommended a stormwater detention basin be sited behind the Georgetown Apartments complex in Kettering. The Miami Conservancy District will be serving as the lead agency for this improvement, which should be constructed in the 2003 calendar year.
- Stream erosion problems at Greensboro Drive near Meadowview Drive
- Existing pipe-arch constructed under several buildings at the Washington Square Shopping Center
- The East Branch of Sugar Creek, which flows from the Warren County line north to Spring Valley Pike and then east into Greene County, does not have base flood elevations determined (BFE's) and may experience extensive development in the near future.
- Retention basins required for runoff control from new developments are traditionally owned and operated by the respective homeowner's association. The Township has noted aesthetic concerns with the ongoing maintenance of these basins.

The City of Centerville and Washington Township have been proactive in pursuing solutions to the stormwater issues affecting the respective communities. A vehicle for advancing a comprehensive stormwater management program for the Community is the NPDES Phase 2 stormwater regulations being promulgated by EPA. The Phase 2 regulations require communities to address the following six minimum control measures listed below. It is our understanding that efforts to address these measures are currently under development by the City and County.

1. Public Education and Outreach
2. Public Involvement and Participation
3. Illicit Discharge Detection and Elimination
4. Construction Site Runoff Control
5. Post-Construction Stormwater Control



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6. Pollution Prevention / Good Housekeeping for Municipal Operations

D. Contacts Made

City of Centerville:

- Steve Feverston, City Planner
- Norbert Hoffman, City Engineer

Washington Township:

- Tom Toberen, PE, PS, Deputy Administrator
- David Douglas, Township Planner
- John Davies, Development Services
- Mike Long, Township Fire Marshall

Montgomery County Sanitary Department:

- Greg Merrill, PE, Deputy Director of Engineering Services
- Randy Gilbert, PE, Chief Engineer, Engineering Services

Other Contacts:

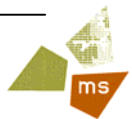
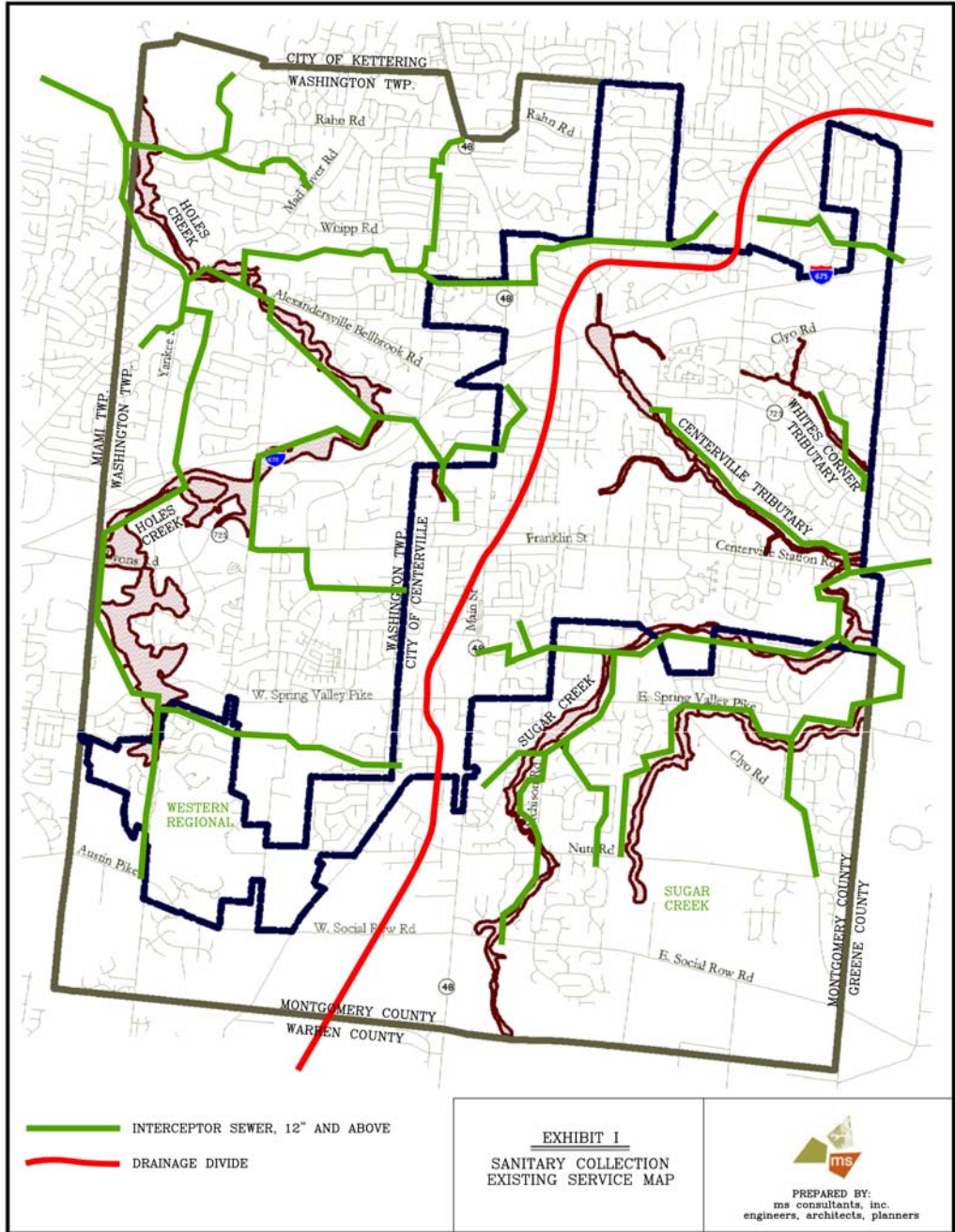
- Bruce Bollinger and Pat Timmons, County Engineers Office
- Doug Hall, Miami Conservancy District, Manager, Watershed Initiatives
- Scott Hammond, Miami Valley Regional Planning Commission
- Tim Grow, Greene County Office of Sanitary Engineering

E. Reports Referenced

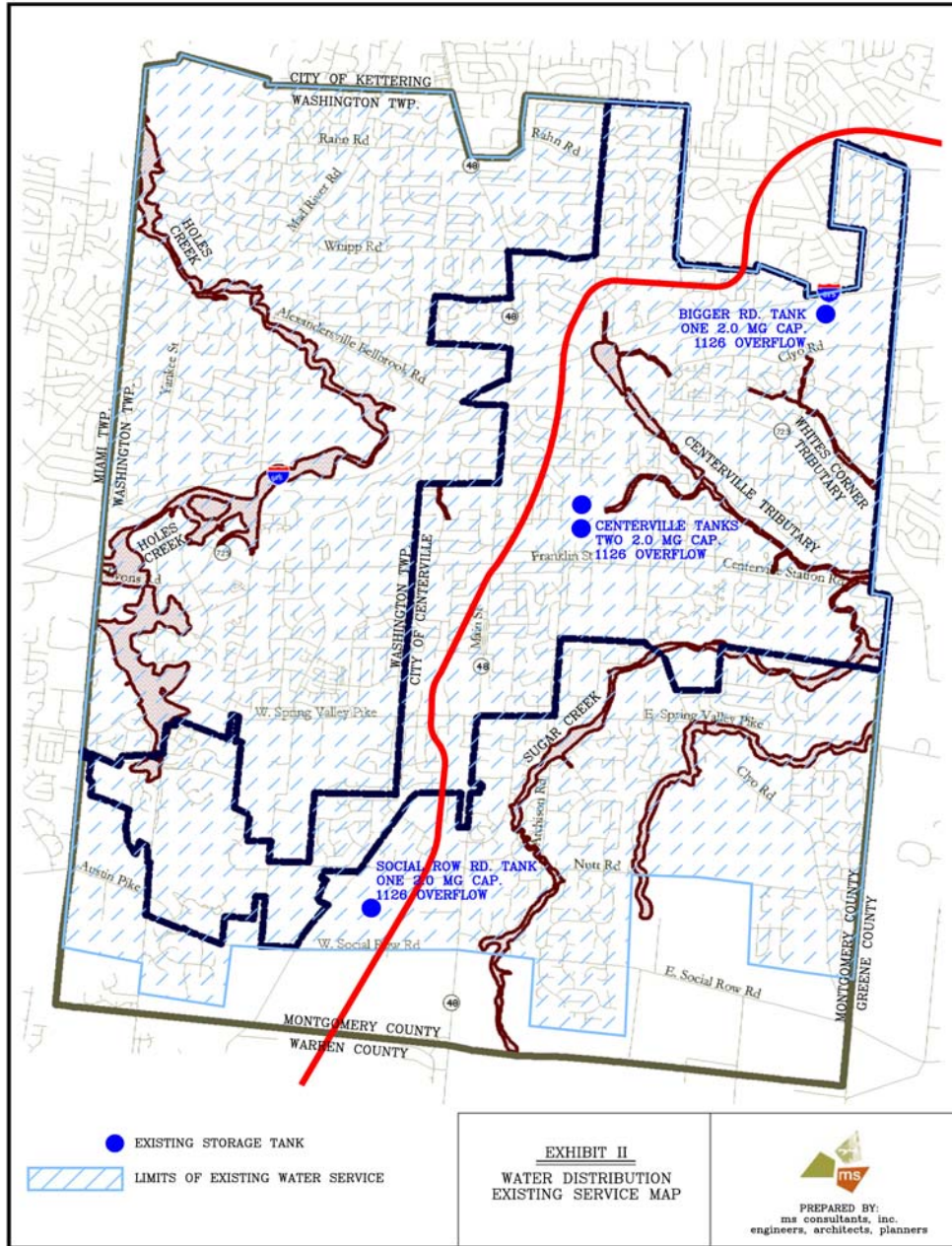
- MCSE Drinking Water Consumer Confidence Report 2001
- Greater Moraine Water System – Hydraulic and Power Management Study August 1988
- Master Plan Report on Water Pollution Control System for MCSE – 1990
- City of Centerville Stormwater Management Master Plan – September 1991



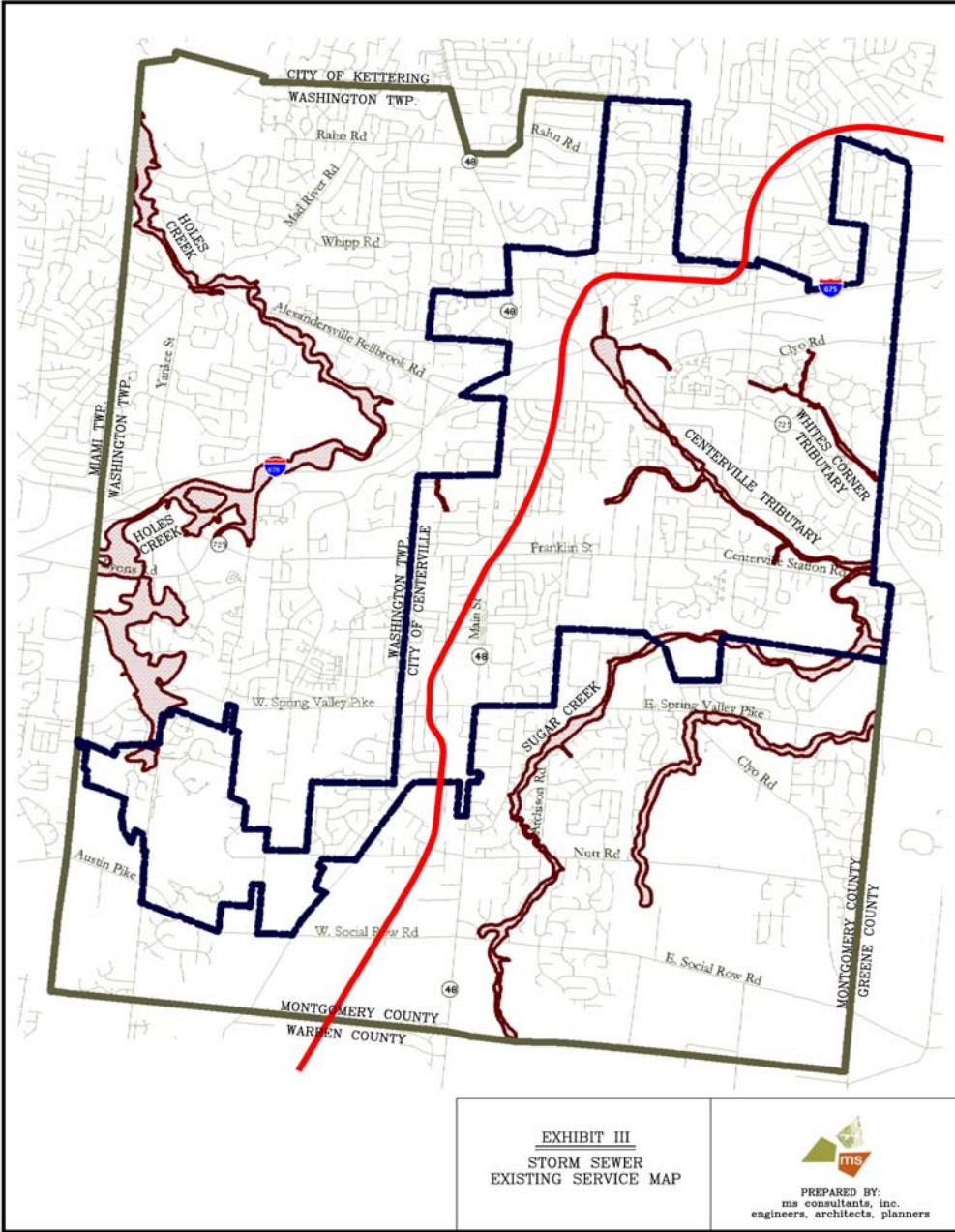
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OUR COMMUNITY

8. Housing Competitiveness

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8. HOUSING COMPETITIVENESS

This report provides an overview of issues impacting on the competitiveness of housing in Centerville and Washington Township. A full market potentials analysis was not completed. Rather, this assessment provides input on the two communities' role in the regional housing market and factors that may impact on their competitiveness for housing in the near-term. Housing stock in both communities is also projected to indicate a sense of the scale of likely development through 2007.

Market Area & Sub-Markets

The Dayton housing market is roughly equivalent to the Dayton-Springfield Metropolitan Area. This market extends into four counties, including Montgomery, Greene, Clark, and Miami. However, nearby Warren County is rapidly merging into the Dayton housing market. Sub-markets are generally defined along school district boundaries, since school reputation plays a critical role in housing choice in the Dayton market. Key competitive sub-markets are described below.

Oakwood

An older, high-income community, Oakwood is home to white-collar "baby boom" professionals with high-school age children. Oakwood high school is among the highest-rated high schools in the region. Houses in the area, built primarily in the 1920s, range broadly in price from \$100,000 to \$1.0 million. The city attracts homebuyers looking for the "small town" neighborhood feel of the community and access to city services. Some are also attracted by the "charm" and "character" of older homes, although homebuyers sometimes complain that the older houses lack certain amenities like walk-in closets and big yards.

Kettering

Kettering has attracted blue-collar General Motors families, hospital and government workers, school teachers, and others to its post-war housing stock. Many are first-time buyers or retirees. Newer homes in Kettering are generally priced in the \$300,000 to \$400,000 range. Kettering-Moraine schools are not as well regarded as those in surrounding communities like Oakwood or Centerville.

Bellbrook / Sugarcreek Township

This area has an attractive location for further residential development. However, builders blame a restrictive land use plan and one-acre minimum lot size requirements for reducing opportunities for development in Sugarcreek Township. Housing prices range from \$180,000 to \$300,000 at newer projects like Cables Mill.

Beaver Creek

One of the most active residential sub-markets in the area, Beaver Creek is very competitive with Centerville-Washington Township. The area has well-regarded schools and affordable home prices. A 300-acre residential project is proposed.

Springboro / Warren County

Warren County is an attractive, central location for families with workers in both Cincinnati and Dayton. Relatively low prices had attracted developers, but there is rapid escalation in land prices up to \$60,000 per acre. Still, Warren is among the fastest growing counties in Ohio, due largely to an influx of relocations from both Dayton and Cincinnati. Area schools have a good reputation and Springboro has a new high school. Home prices range from \$150,000 to \$300,000 or more in Springboro.

Centerville-Washington Township

Centerville and Washington Township are frequently considered part and parcel of one housing market. Among the most important factors impacting on housing choice in the Dayton market is the quality of schools. Since Centerville and Washington Township share the same school system (as well as Fire Department, Recreation Center, and other key services), the two communities are often considered as one market. Still, there are some unique characteristics of each community:

Centerville. The city of Centerville has attracted white collar professionals, particularly doctors and managers. Single-family housing has been primarily developed in the late 1960s and multi-family housing in the 1970's and 1980's. The average resale values are in the \$150-\$160,000 range. Some older homes sell in the low \$100s. Centerville schools are rated highly and their reputation attracts families to both Centerville and Washington Township. Many of the Centerville developers are custom builders, rather than production builders.

Washington Township. Like Centerville, Washington Township attracts white collar professional workers. Housing has been built in the 1970s through

1990s. There are few houses listed for under \$130,000, with most new homes in the \$300,000 to \$500,000 range and re-sales in the \$170,000 range. Lot prices in Waterbury Woods range from \$110,000 to \$120,000 per lot (1/2 to 3/4 acres). One-third acre lots range from \$30,000 to \$40,000. Property tax rates are higher than in Centerville, but the township does not have an income tax. The latter is often cited in marketing flyers and may account for 5% or more of township home sales. Builders include Ryan Homes, Ryland Homes, and Drees Homes.

Housing Construction Trends

Permitted residential development has been very stable within the Dayton-Springfield Metropolitan Area, with about the same number of units permitted in 2001 as were permitted in 1991. On average, a total of 3,350 residential units have been permitted each year in the Dayton metropolitan area. However, not all of these permitted units are ever actually built.

Appendix Tables 2 and 3 illustrate the trends in single- and multi-family construction in Metro Dayton and Centerville. The Metro area has permitted a total of about 2,500 single family and 800 multi-family units per year between 1991 and 2001.

Table 1. TOTAL RESIDENTIAL BUILDING PERMIT TRENDS, METRO DAYTON AND CENTERVILLE, 1991-2002

Year	Number of Units by Area		Share
	Metro	C'ville	
1991	2,755	289	10.5%
1992	3,122	224	7.2%
1993	3,284	208	6.3%
1994	3,628	81	2.2%
1995	3,203	90	2.8%
1996	4,098	350	8.5%
1997	3,580	185	5.2%
1998	3,819	138	3.6%
1999	3,699	98	2.6%
2000	2,793	99	3.5%
2001	2,892	105	3.6%
thru 10/2002	NA	86	NA
Ave Annual	3,352	165	4.9%

Note: NA means data not available.

Sources: U.S. Bureau of the Census; City of Centerville; and Randall Gross / Development Economics.

Centerville

Centerville has permitted an average of 165 residential units per year since 1991. Development activity peaked in 1991 and again in 1996, when over 300 units were permitted. Centerville has permitted an average of 115 single-family units and 50 multi-family units each year since 1991. Overall, Centerville has accounted for about 5.5% of housing construction within the Metropolitan area.

Washington Township

Data was not available or substantiated for Washington Township. The U.S. Bureau of the Census has tracked an average of 19 units permitted per year in the township, but these numbers have not been corroborated with local authorities.

Washington Township recorded construction of 1,536 multi-family units and 258 assisted living units between 1990 and 1999, for an average of about 180 multi-family units per year. Approximately 73% of the multi-family units constructed in the township were rental units, with the remainder oriented to owner-occupancy.

Among the larger new rental developments in the township are Washington Place (336 units), Miller Farm (360 units), Washington Park (150 units), Arbors (140 units), and Spinnaker Cove Apartments (140 units). Condominium projects included Bridgeport Condominiums (100 units), Yankee Vineyards (100 units), Waterfront Place (72 units), and Turnberry Village (48 units).

Listings & Sales Prices

Overall in the Dayton market, there were 10,041 sales in 2000 and 10,437 in 2001, averaging 836 per month and 870 per month respectively. So far in 2002, there has been an average of 906 sales per month in the Dayton market. Prices averaged \$122,421 in 2000, \$126,363 in 2001, and \$129,000 so far in 2002. Still, Dayton housing prices remain lower than the statewide average of \$144,300 so far in 2002.

Centerville & Washington Township

Based on an assessment of Multiple Listing Service (MLS) data, there is a total of 93 homes for sale in Centerville and 104 listed in Washington Township, as of November 2002. The average list price was \$219,095 in Centerville and \$285,356 in Washington Township.

While prices are higher in the township, houses there are also larger (3,198 square feet on average) than in Centerville (2,407 square feet). On a square foot basis, prices are therefore higher in Centerville, with current listings averaging \$109.17 per square foot in Centerville and \$94.28 per square foot in Washington Township, based on a sample of current listings. Low-density development requirements have resulted in lower prices per square foot in Washington Township, with the resulting impact on investment returns for builders.

Demand & Housing Stock Forecasts

Housing demand is driven by household growth and replacement within the greater Dayton market. Demographic forecasts and resulting housing stock growth are discussed below.

Migration & Demographic Forecasts

The U.S. Census estimates 2001 Montgomery County population at 554,232, a decline of 4,830 or almost 1.0% in the one year since 2000. Census projections (made in 1999) have The Dayton-Springfield Metropolitan Area population declining over the long term by an average 0.3% per year through 2025. Much of the population decline results from out-migration. The Dayton-Springfield Metro Area lost an estimated 1,500 people due to net out-migration during the nine-month period from April through December 2000, and another 8,190 during all of 2001.

Dayton-Springfield Metropolitan Area population and households were forecasted through 2007, based on 2000 Census findings, 2001 estimates, and 2010 projections.

The Metro Area's population is forecasted to decline by almost 10,400 during the next five years, to 933,500 by 2007. This represents a 1.1% fall in the Dayton-Springfield area population. At the same time, the population of Washington Township and Centerville are expected to continue growing. Washington Township will add more than 2,600 people (8.4%) by 2007 and Centerville will add almost 1,000 people (4.1%) during the five-year period.

This population change was translated into households, with the Dayton-Springfield Metro Area gaining 3,480 households by 2007, or 0.9%. The number of households will increase even as population is declining because of shrinking average household size. Still, an increase of only 700 households per year is minute in relation to the size of the overall market, accounting for an increase of only 0.1% per year.

Table 2. DEMOGRAPHIC FORECASTS, DAYTON METRO, WASHINGTON TWP & CENTERVILLE, 2002-2007

Factor	2002	2007	2002-2007 Change	
			Number	Percent
<u>Population</u>				
Dayton Metro	943,859	933,496	(10,363)	-1.1%
Wash Twp	31,009	33,615	2,606	8.4%
Centerville	<u>23,409</u>	<u>24,373</u>	<u>964</u>	4.1%
Total C-WT	54,419	57,988	3,569	6.6%
<u>Households</u>				
Dayton Metro	377,544	381,019	3,475	0.9%
Wash Twp	12,416	13,630	1,214	9.8%
Centerville	<u>10,195</u>	<u>10,693</u>	<u>498</u>	4.9%
Total C-WT	22,612	24,323	1,711	7.6%

Sources: U.S. Bureau of the Census; American Communities Partnership (ACP); and Randall Gross / Development Economics.

Washington Township would gain 1,200 households and Centerville will gain 500 households during this same period, indicating a much more rapid growth rate in these two communities than in the region as a whole. Therefore the two communities will capture a relatively high share of the overall growth in the market.

Warren County. Unlike the Dayton-Springfield area, adjacent Warren County has been gaining population at a rapid pace. Since the 2000 Census, the U.S. Census Bureau estimates that Warren County has already gained 10,640 residents, or 6.7% in population. A large share of this increase is due to in-migration, no doubt from the Dayton-Springfield Metro. The Census Bureau estimates that 1,800 more people moved into Warren County than moved out, between April and December 2000. Another 6,800 people were added through net in-migration in 2001. These data are captured in Appendix Table 1.

Housing stock forecasts

Housing stock was forecasted through 2007, based on projected household growth, vacancy, and replacement factors. Building construction is expected to outpace household growth, resulting in gradually increasing vacancy levels. Metropolitan Dayton is expected to add about 10,500 housing units by 2007, or 2,100 per year. About 1,300 of these will be owner-occupied units and about 700 would be in rental units. A large share will be in replacement units.

Table 3. HOUSING STOCK FORECASTS, DAYTON METRO, CENTERVILLE, AND WASHINGTON TOWNSHIP, 2002 TO 2007

Factor	Dayton Metro	W Twp	Centerville	Total C-WT
Change 2002-07	10,448	1,228	473	1,700
Per Year	2,090	614	236	850
Replace/Yr	0.35%	0.09%	0.11%	0.10%
Replacement	14.8	2.8	1.3	4.2
Total Change	10,462	1,231	474	1,705
Share OO	64.7%	76.4%	73.5%	75.8%
Share RO	35.3%	23.6%	26.5%	24.2%
Owner Occ	6,760	940	348	1,289
Renter Occ	3,688	290	126	416

Sources: U.S. Bureau of the Census and Randall Gross / Development Economics.

Centerville & Washington Township. Based on a tenure trends analysis and household forecasts, Centerville will add about 470 units by 2007, of which 350 will be owner-occupied and 120 will be rental units. Washington Township would add 1,200 units by 2007, including 940 owner-occupied units and 290 rental units. Together, Washington Township and Centerville have a much higher share of owner-occupied housing than the region as a whole. More than three out of four homes in the two communities are owner occupied, versus two out of three in the Dayton metro region as a whole.

Key Market Segments

Based on demographic analysis, sales & marketing data, and interviews with realtors and brokers, key marketing segments have been identified for Centerville and Washington Township. These segments provide an indication of the current and near-term marketing niches for the two communities. However, they have not been tested, nor has the future market been identified through market analysis.

Empty Nesters / “Move-Downs”

Nationally and locally, home and investment prices have been driven up during the last decade in part as a result of demographics. Many in the so-called “baby boom” generation have reached their peak earning years during this period, and much of that income has been invested in housing. In coming years, consumers within this group are likely to divest themselves of larger, family-size “trophy” houses and move “down” into smaller homes, condominiums, and/or

homes on smaller lots. Moving down does not necessarily mean moving into lower-cost housing, especially while interest rates remain low and expensive houses are more affordable on a monthly basis.

Move-downs are still a relatively small segment of the market (5-10%), but Dayton-area realtors have already recognized this trend and foresee demand for higher-density housing units attractive to older couples without children that don't want to maintain yards. They see demand for housing in the \$125,000 to \$225,000 range and higher for this type of lifestyle-oriented product.

Centerville and Washington Township are attractive locations for these couples, many of whom might be moving down from within their community. The ability of developers and builders to provide this attractive, high-cost, and higher-density housing depends in large measure on the willingness of the community to allow it.

Product Types. Empty nesters (typically age 50-65) would be attracted to "cluster" homes and, in some cases, to the broad concept of "traditional neighborhood development" or TND. Cluster home developments are either gated or open planned-unit condominium developments with high-end, high-amenity, single-family detached housing on relatively small lots. These developments often have significant open space and other community amenities within walking distance to the residential areas. Oftentimes cluster homes are developed as infill upgrade projects on sites that may have previously accommodated lower-density or lower-quality housing.

The TND concept is also attractive to higher-income empty nesters who are looking for a "sense of community" as a lifestyle statement. TNDs often, but not always, include a mix of housing types and uses that mimic or replicate the "traditional" small town. A share of TND units is sometimes promoted as "live-work" spaces that target the growing market for home offices. These should not be confused with mixed-use units such as living units above retail storefronts. Oftentimes, the market for TND retail is weak, with such units being converted to pure office space. A more appropriate product in the Centerville-Washington Township market might be single-family homes that are designed or marketed specifically to accommodate home office space.

Detached and attached golf course housing, such as that located at Yankee Trace, has proven popular for empty nesters in Centerville-Washington Township. A large reason for the appeal of this product is proximity to "guaranteed" open space, in the form of the golf course. Homebuyers are attracted by the fact that space adjacent to their homes will remain undeveloped, even if they have no interest in playing golf, per se. Yankee Trace is planned to accommodate 1,100 units, with 400 more units still to be developed.

As the population ages, there is growing demand for retirement housing to accommodate independent living seniors (age 65 and over). In Centerville and Washington Township, there is increasing demand for “patio” homes or similar single-story product with no stairs, small yards, walking trails, and other senior-friendly healthy lifestyle amenities.

Move-Up Families

So long as interest rates remain low and as Centerville-Washington Township housing ages, the area will become increasingly attractive to “move-up” families from within the communities or from other parts of the Dayton market. This segment accounts for at least 50% of the current market for housing. Younger families with children are attracted to the communities’ good schools, access to shopping and amenities (such as the Recreation Center), easy commute, and good-quality housing stock. Housing in the \$70,000 to \$175,000 range or higher is attractive to families in this market segment.

Again, much of this demand is driven by the quality of Centerville Schools, which often receive the highest categorical rating on the Ohio schools report card. Lower interest rates have assured that housing, which may have been out of reach of young families, is now affordable to them. Price escalation in other communities nationally has driven many of these families out of the housing market altogether. Dayton’s relatively affordable, middle-income housing is still within reach of many of these families.

Product Types. Younger families would move up into existing housing as they are vacated by empty nesters and other “move downs.” Large homes that can accommodate family growth at an affordable price are most appealing. So long as Centerville schools remain strong, the area’s housing will remain relatively appealing for this market segment. The TND concept is also appealing to those families that can afford the generally higher prices in such planned communities.

Transfers & Relocations

A potential market for Centerville’s and Washington Township’s larger, more expensive homes includes transfers and other professionals who relocate from outside of the Dayton metro region. As discussed earlier, Dayton has seen a higher rate of out-migration than in-migration, so this market is relatively weak. Still, the market exists and the Centerville-Washington area is among the more competitive locations for capturing corporate transfers. Sample data from realtors indicate that 20% to 25% of sales in higher-end housing originate through transfers.

As the area’s housing ages and couples move up or down from larger homes, capturing the transfer market will become even more important. To

accomplish this would require a strong outreach marketing effort, including strengthening of corporate relations. This strategy is discussed further in the policy section of the comprehensive plan.

Product Types. Transfers would be attracted by cluster home, TND, golf course housing, and existing housing products depending on their particular lifestyle choice. A key is to provide diverse housing choices to capture the broadest possible range of buyers and renters in this market niche.

Key Issues

Key market issues identified through this competitiveness assessment are described below. These issues are addressed through strategic policy and planning recommendations in the policy section of the comprehensive plan.

- **Aging Housing Stock.** While there is still room for growth in the township, Centerville is largely built-out. Both communities will see the average age of their housing stock increase in the near future as new development winds down. Key issues relate to maintaining the competitiveness of this housing stock and pro-actively marketing the communities for target market niches, such as for move-ups and transfers.
- **Protecting & Promoting Lifestyle.** Both communities have protected and promoted a certain lifestyle through regulatory mechanisms such as zoning. A key issue is how to respect this lifestyle while ensuring that both communities remain competitive to attract emerging market niches. Markets constantly evolve and communities must remain responsive to this change if they are to remain competitive.
- **Diversity to Meet Community Needs.** There is a need to understand the needs of the community, with respect to housing. Communities envision a certain lifestyle and quality of housing. This vision should be protected and enhanced. Nevertheless, the community must ensure that it provides adequate opportunities for its own citizens to find housing that they can afford. Sometimes, this requires regulatory flexibility to allow more flexibility in density and to ameliorate development costs.

Appendix

Table A-1. POPULATION AND MIGRATION, 2000 & 2001, DAYTON METRO AND WARREN COUNTY

County	Census 2000	Jul-00 Estimate	Jul-01 Estimate	2000-2001 Change Number	2000-2001 Change Percent	Net Migration Est 2000	Net Migration Est 2001
Montgomery	559,062	558,400	554,232	(4,830)	-0.9%	(1,432)	(6,976)
Greene	147,886	148,151	148,426	540	0.4%	106	(379)
Clark	144,742	144,656	144,076	(666)	-0.5%	(180)	(863)
Miami	98,868	98,970	99,351	483	0.5%	10	29
TOTAL	950,558	950,177	946,085	(4,473)	-0.5%	(1,496)	(8,189)
<i>Warren</i>	<i>158,383</i>	<i>160,599</i>	<i>169,025</i>	<i>10,642</i>	<i>6.7%</i>	<i>1,809</i>	<i>6,844</i>

Sources: U.S. Bureau of the Census and Randall Gross / Development Economics.

**Table A-2. SINGLE-FAMILY PERMIT TRENDS,
METRO DAYTON AND CENTERVILLE,
1991-2002**

Year	Number of Units by Area		
	Metro	C'ville	Share
1991	2,305	185	8.0%
1992	2,457	164	6.7%
1993	2,680	196	7.3%
1994	2,639	81	3.1%
1995	2,486	90	3.6%
1996	2,475	78	3.2%
1997	2,367	97	4.1%
1998	2,920	98	3.4%
1999	2,671	82	3.1%
2000	2,281	99	4.3%
2001	2,612	105	4.0%
thru 10/2002	NA	86	NA
Ave Annual	2,536	115	4.5%

Note: NA means data not available.

Sources: U.S. Bureau of the Census; City of Centerville;
and Randall Gross / Development Economics.

**Table A-3. MULTI-FAMILY PERMIT TRENDS,
METRO DAYTON AND CENTERVILLE,
1991-2002**

Year	Number of Units by Area		
	Metro	C'ville	Share
1991	450	104	23.1%
1992	665	60	9.0%
1993	604	12	2.0%
1994	989	-	0.0%
1995	717	-	0.0%
1996	1,623	272	16.8%
1997	1,213	88	7.3%
1998	899	40	4.4%
1999	1,028	16	1.6%
2000	512	-	0.0%
2001	280	-	0.0%
2002	NA	-	NA
Ave Annual	816	50	6.1%

Note: NA means data not available.

Sources: U.S. Bureau of the Census; City of Centerville;
and Randall Gross / Development Economics.

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THE VISION

9. Office & Retail
Market Analysis

OUR FUTURE

9. OFFICE & RETAIL MARKET ANALYSIS

OFFICE ANALYSIS

An office market assessment was conducted to determine the overall potential for office space in Centerville and Washington Township. This analysis is based on the two communities' capture of the potential regional market for office space. The Phase II report provides further detailed analysis of the opportunities for office development in specific planning areas within Centerville and Washington Township. These areas are determined in consultation with the planning team, City and Township staff, and the community. Finally, recommendations on the future development and marketing of office space are included in the policy sections of the comprehensive plan.

Employment

Employment is an important indicator of the health of the overall economy and its implications for the market for office space. Employment trends for Metropolitan Dayton-Springfield, Montgomery County, Centerville and Washington Township, are discussed below.

Metro Dayton

Dayton has long been a center for manufacturing. Even though the sector has declined nationally and regionally, manufacturing still represents almost one in three jobs in the Dayton area economy. Appendix Table 1 shows the distribution of jobs in the region in 2000. There were about 87,000 people in Metro Dayton employed in manufacturing, out of a total 424,000 jobs. Dayton is also a center for health care, with Miami Valley Medical Center and other important medical institutions. This sector represented about 13% of the jobs in the metro area in 2000, followed closely by retail trade.

Wright-Patterson Air Force Base (WPAFB). WPAFB has a significant impact on the overall economy of the Dayton region and on Centerville and Washington Township in particular. The base employed approximately 18,400 people and generated almost \$900 million in payroll in 2001. Global security threats are likely to result in increased activity and employment at the base in coming years. Base facilities include more than 15 million square feet of space categorized as R&D, operations, training, supply, maintenance & production, administration, hospital, community, and other uses. A share of this space is in offices dedicated primarily to military-related functions.

Wright-Pat is the primary R&D center for the United States Air Force. As such, the base and its contractors employ significant numbers of professionals and technicians engaged in engineering, testing, research & development, and

related activities. About 55% of base employees are Montgomery County residents. Many of the professionals affiliated with the base or its contractors are residents of Centerville and Washington Township, as described later in this report. Nearly one-third of households receiving retirement assistance in the Dayton metropolitan area include WPAFB retirees.

Office Sectors. About 95,000 people, representing one-third of all Dayton-area employees, work in predominately office-oriented sectors. These sectors include finance, insurance, real estate, information services, professional and scientific services, management, and administrative support. Administrative support represents the largest of these sectors, having almost 7.0% of all area jobs.

Commutershed. Dayton is Ohio's fourth largest metropolitan center, but its employment commutershed is increasingly integrated with that of Cincinnati. An excellent north-south transportation system is encouraging the development of a bi-polar Dayton-Cincinnati labor market. Some of the fastest growth in the region is in Warren County, south of Dayton en route on I-75 to Cincinnati. The lack of water/sewer infrastructure in the central portions of Warren County is currently preventing what would probably be even more rapid development in that area.

Employment Projections. The Ohio Department of Job and Family Services is projecting overall average annual increase in Dayton-Springfield metropolitan area employment of 1.0% through 2008, although this may be somewhat optimistic. Goods producing industry employment would increase by about 0.1%, while service industries would increase by about 1.4% per year. State employment growth projections are summarized by major industry in Appendix Table 2.

Among industries in the overall service sector, transportation-communication (1.6%) and services (2.5%) growth would out-pace other industries like retail (0.7%) & wholesale (0.6%), finance (0.9%), insurance (-0.2%), and real estate (0.1%). Direct office-related service employment in several key sectors is expected to increase by about 3.0% per year during the period through 2008. Employment projections for key office sectors are shown below.

Table 1. KEY OFFICE SECTOR EMPLOYMENT PROJECTIONS, DAYTON MSA, 1998-2008

Office Sector	1998	2008	1998-2008 change		Ave Annual
			Number	Percent	
Finance	8,790	9,540	750	8.5%	0.9%
Insurance	4,640	4,550	(90)	-1.9%	-0.2%
Real Estate	3,830	3,870	40	1.0%	0.1%
Bus Svcs	32,140	47,190	15,050	46.8%	4.7%
Legal Svcs	2,220	2,400	180	8.1%	0.8%
Eng/Mgt	9,810	13,030	3,220	32.8%	3.3%
TOTAL	61,430	80,580	19,150	31.2%	3.1%

Sources: Ohio Department of Job and Family Services and Randall Gross / Development Economics.

The fastest growth would be in business services, followed by engineering, management and related professional services. Additional services, such as private medical practices, would also be included among office-related sectors.

Montgomery County

Montgomery County is the region's economic hub. The county has total employment of 290,000 or about 60% of the four-county region's employment base. The county's economy is somewhat more diversified than the metro area's as a whole. Manufacturing represents a much smaller share of overall employment in Montgomery County, where about 19% of the county's jobs are in the manufacturing sector. Still, like the metro area as a whole, manufacturing is still the largest employment sector in the Montgomery County economy.

Health care services and retail trade are also important, with 14% and 12% of Montgomery County's employment, respectively. There are about 73,000 jobs in the primary "office sectors," representing 25% of the county's economic base.

During the late 1990's, there was a slight shift upwards in employment, reflecting national economic prosperity. Over the last ten years, however, Dayton's economic base has remained relatively stagnant in comparison to national economic growth. Montgomery County at-place employment is shown by industry sector in the following table, for 1998 and 2000. Census at-place employment is based on the new North American Industrial Classification System (NAICS), introduced in 1998.

Table 2. AT-PLACE EMPLOYMENT BY SECTOR, MONTGOMERY COUNTY, 1998 & 2000

Sector	1998	2000	Share
Agriculture	69	119	0.0%
Construction	11,596	12,464	4.3%
Manufacturing	54,307	54,667	18.8%
Transport/Util	10,645	11,977	4.1%
Wholesale	12,948	13,249	4.6%
Retail Trade	34,652	34,043	11.7%
Finance/Ins	11,153	10,552	3.6%
Real Estate	4,051	3,503	1.2%
Info Services	8,978	9,627	3.3%
Prof/Scientific	13,938	14,233	4.9%
Management	10,903	10,365	3.6%
Admin Suppt	19,022	22,984	7.9%
Education	7,972	8,378	2.9%
Health	40,635	40,456	13.9%
Arts/Ent/Rec	1,750	2,326	0.8%
Accom/Food	22,966	23,256	8.0%
Other Svcs	15,593	16,212	5.6%
Auxiliary	1,749	1,665	0.6%
TOTAL	282,927	290,076	100.0%
Office Sectors	69,794	72,929	25.1%

Note: Agriculture, Transport, and Arts/Ent/Rec employment derived from census ranges in either 1998 or 2000.

Sources: U.S. Bureau of the Census, and Randall Gross / Development Economics.

Centerville

Centerville is an employment hub on Dayton’s south side. However, employment has shifted over time from the historic central business district to newer suburban locations along important arteries into the city. A detailed analysis of at-place employment is conducted as part of the fiscal analysis, based in part on income tax employment data.

The following table provides an indication of trends in the types of jobs held by Centerville’s residents, whether they work in the city or elsewhere. In examining ways to reduce commutation and increase the livability of the city, it is helpful to understand the types of jobs residents hold.

Table 3. RESIDENT EMPLOYMENT BY SECTOR, CENTERVILLE, 1990 AND 2000

Sector	1990	Share	2000	Share
Agriculture	72	0.7%	40	0.3%
Construction	274	2.7%	312	2.7%
Manufacturing	2,365	23.0%	1,695	14.4%
Transport/Util	319	3.1%	181	1.5%
Wholesale	532	5.2%	410	3.5%
Retail	1,771	17.2%	1,437	12.2%
FIRE	834	8.1%	975	8.3%
Info Services	NA	NA	369	3.1%
Prof/Sci/Mgt	895	8.7%	1,519	12.9%
Educ/Health	2,316	22.5%	3,142	26.7%
Arts/Ent/Rec	103	1.0%	748	6.4%
Public Admin	632	6.1%	519	4.4%
Other Svc	184	1.8%	412	3.5%
TOTAL	10,297	100.0%	11,759	100.0%
Office Sectors	1,729	16.8%	2,863	24.3%

Sources: U.S. Bureau of the Census and Randall Gross / Development Economics.

Resident employment increased by about 14% between 1990 and 2000. This is somewhat consistent with the overall increase in population. However, Centerville's resident employment in office sector jobs increased by almost two-thirds during the same period. During the same period, resident employment in low-wage service and in "blue-collar" sectors declined significantly. Employment in retail trade declined by 19%, wholesale trade by 23%, manufacturing by 28%, transport & utilities by 43%, and agriculture by 44%. Thus, the Centerville resident base shifted from blue-collar to white-collar jobs during the 1990s. Education, health, professional, scientific, and management services emerged as predominant industries employing Centerville residents. Still, more than 14% of Centerville's residents continued to work in manufacturing (down from 23% in 1990).

Washington Township

Washington Township has grown significantly to become an employment node in its own right. Even so, many of the township's residents commute away to work. In 2000, there were about 15,400 employed township residents. Approximately one-quarter worked in the education and health care fields. About an equal share (15%) of residents worked in manufacturing as in professional, scientific, and management services. The fourth largest group worked in retail trade.

**Table 4. RESIDENT EMPLOYMENT BY SECTOR,
WASHINGTON TOWNSHIP, 1990
AND 2000**

Sector	1990	Share	2000	Share
Agriculture	75	0.6%	40	0.3%
Construction	504	3.9%	411	2.7%
Manufacturing	3,172	3.9%	2,277	14.8%
Transport/Util	549	24.8%	379	2.5%
Wholesale	712	4.3%	571	3.7%
Retail	2,051	5.6%	1,652	10.8%
FIRE	1,067	16.0%	1,437	9.4%
Info Services	NA	8.3%	565	3.7%
Prof/Sci/Mgt	1,129	NA	2,417	15.7%
Educ/Health	2,538	8.8%	3,813	24.8%
Arts/Ent/Rec	150	19.8%	783	5.1%
Public Admin	665	1.2%	760	5.0%
Other Svc	180	5.2%	246	1.6%
TOTAL	12,792	100.0%	15,351	100.0%
Office Sector	3,118	24.4%	4,419	34.5%

Sources: U.S. Bureau of the Census
& Randall Gross /
Development Economics.

In general, residents in Washington Township and Centerville held similar jobs in 2000. Slightly fewer township residents worked in retail and more in professional jobs than in Centerville. The major office sectors employed a higher share of township residents than of Centerville residents, with 34.5% and 24.3% respectively.

Overall, the number of employed Washington Township residents increased by 20% between 1990 and 2000. As in Centerville, there was a dramatic shift in the types of jobs held by Washington Township residents during that period. In general, the number of township residents employed in “blue collar” professions – agriculture, construction, manufacturing, transport/utilities, wholesale, and retail trade – declined during the decade. At the same time, the number of township residents employed in “white collar” sectors such as finance, insurance, real estate, professional, scientific, management, education, health care, and others increased dramatically. Interestingly, the fastest growth has been in the number of residents employed in arts, entertainment and recreation sectors, which increased by 422% (633 jobs) during the 1990s.

The number holding professional, scientific, and management jobs increased by 114%, and also accounted for the largest numerical increase, at

1,288. The high share of scientific and engineering professionals in Washington Township relates in part to the impact of Wright-Patterson AFB on the area's economy. Many township residents commute to the base or to contractors near the base for work in computer and related engineering jobs.

In general, Washington Township residents were more likely to hold professional, scientific, & management positions (58.2%) than residents of Centerville (51.6%). Centerville residents were slightly more likely to work in sales or office support positions (28.3%) than were residents of the township (25.5%).

Office Market Trends

Characteristics and trends in the Dayton area office market are described below for the market as a whole and for area sub-markets, Centerville, and Washington Township. The Dayton-Montgomery County office market is typically disaggregated into four sub-markets:

- CBD:
Central Business District
- South:
The area south of Dorothy Lane, including Centerville, Washington Township, Miamisburg, Bellbrook, Sugarcreek Township, and most of Kettering.
- East:
The area east of Woodman Drive and south of Mad River, including Beavercreek, Riverside, and Fairborn.
- North/West:
The area north and west of Mad River and Great Miami River, including Huber Heights, Vandalia, Northridge, Englewood, Trotwood, and west Dayton.

Centerville and Washington Township are part of Dayton's south Sub-Market. Much of the south sub-market's office space is scattered among many individual projects, rather than in large office parks.

Regional & Sub-Market Office Supply

The Dayton market includes a total inventory of about 13.2 million square feet. Office supply has expanded in recent years, with the addition of about 1.3 million square feet in the five years between 1995 and 2000. Some of this expansion may be related to a larger sample size generated by GEM Real

Estate. However, a building-by-building review of the inventory data confirm the growth. Additional space has been added to the market since 2000.

Some of this expansion has been at the expense of the city’s central business district, where the office inventory declined by 70,000 square feet or 1.5% since 1995. Nevertheless, the CBD is still the largest office node in the Dayton region.

Table 5. DAYTON OFFICE INVENTORY TRENDS BY SUB-MARKET, 1995-2000

Sub-Market	1995	2000	1995-2000 Change	
			Number	Percent
South	3,742,508	4,447,744	705,236	18.8%
East	2,215,548	2,611,748	396,200	17.9%
North-West	1,155,047	1,428,662	273,615	23.7%
CBD	4,681,517	4,612,186	(69,331)	-1.5%
TOTAL	11,794,620	13,100,340	1,305,720	11.1%

Sources: The Gem Real Estate Group, Inc.; and Randall Gross / Development Economics.

The fastest growth in office supply has been in the North-West sub-market, which added 274,000 square feet or 23.7% between 1995 and 2000. However, the south sub-market added by far the largest amount of office space between 1995 and 2000, with an increase of 705,000 square feet or 18.8%. The south sub-market has the largest suburban office inventory, with almost 4.5 million square feet.

Vacancy. According to Gem Real Estate inventory data, the Dayton market had about 1.9 million square feet of vacant space in 2000, representing an increase of 12.5% from 1995. However, the amount of vacant space in the South sub-market increased by 30.6% and in the East sub-market, by almost 250%. The amount of vacant space downtown and in the north-west portions of the county actually declined during the five-year period. Overall trends in vacant square footage by sub-market are summarized in Table 6, below.

**Table 6. DAYTON OFFICE VACANCY TRENDS
BY SUB-MARKET, 1995-2000**

Sub-Market	1995	2000	1995-2000 Change	
			Number	Percent
South	368,965	481,716	112,751	30.6%
East	138,831	475,813	336,982	242.7%
North-West	220,431	185,276	(35,155)	-15.9%
CBD	924,219	715,969	(208,250)	-22.5%
TOTAL	1,652,446	1,858,774	206,328	12.5%

Sources: The Gem Real Estate Group, Inc.; and
Randall Gross / Development Economics.

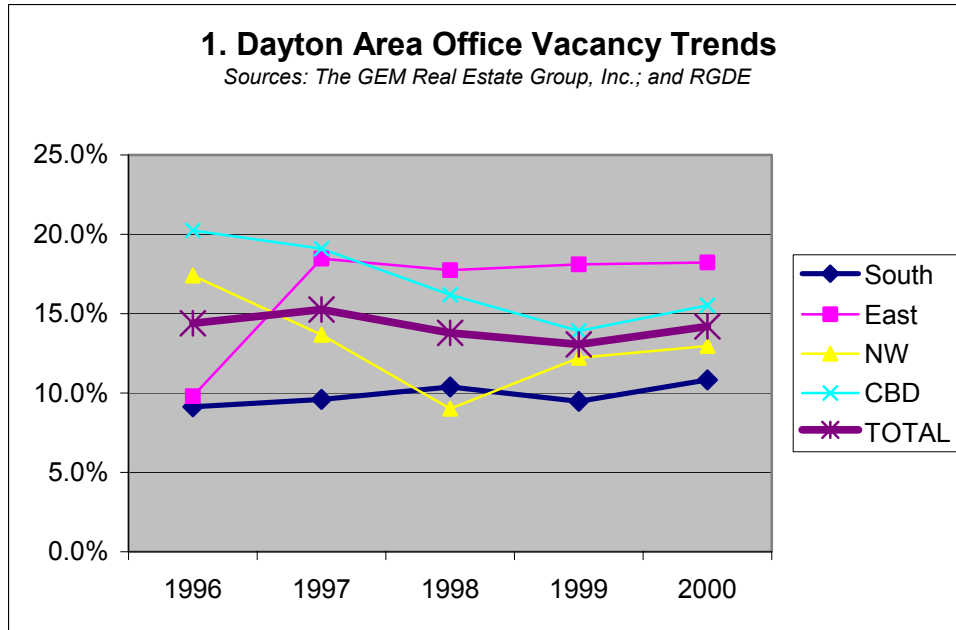
The overall vacancy rate remained relatively stable between 1995 and 2000, increasing only slightly from 14.0% to 14.2%. However, the vacancy rate in the east sub-market increased from 6.3% to 18.2% during that period. Some realtors / investors dispute the 2000 east side data, with Class A buildings performing relatively well. Vacancy rates in the south sub-market increased somewhat, from 9.9% in 1995 to 10.8% by 2000. The increase in vacancies is related in part to the significant increase in supply during this period. Vacancy rates in the north-west and downtown sub-markets declined during the period.

**Table 7. DAYTON OFFICE VACANCY RATE TRENDS,
BY SUB-MARKET, 1995-2000**

Sub-Market	1995	2000	1995-2000 Change	
			Number	Percent
South	9.9%	10.8%	0.01	9.9%
East	6.3%	18.2%	0.12	190.7%
North-West	19.1%	13.0%	(0.06)	-32.0%
CBD	19.7%	15.5%	(0.04)	-21.4%
TOTAL	14.0%	14.2%	0.03	18.5%

Sources: The Gem Real Estate Group, Inc.; and
Randall Gross / Development Economics.

Vacancy rate trends are summarized in the following chart, again showing that overall vacancy rates have remained around 14% but vacancy increasing the south and east sub-markets.



Since 2000, office vacancy rates have declined in the south Dayton market, according to data from a sample inventory of Miller-Valentine buildings. Sample vacancy rates fell from about 12% in 2000 to 7% by second quarter of 2002.

Class A & B Space. A stark difference in vacancy rates between A and B space implies an underlying weakness in the market. An analysis of Gem data from 1996 to 2001 indicate an average downtown vacancy rate of 10.7% in Class A space and 21.5% in Class B space. Similarly, Miller-Valentine sample data show a year-end 2001 south Dayton vacancy rate of 5.4% for Class A space and 16.6% for Class B space. In both cases, the vacancy rate in B space is more than double that of A space. Brokers and realtors agree that a large portion of the absorption in Class A space is attributable to move-ups among existing Class B Dayton tenants. Furthermore, there has been increasing vacancy in the smaller, single-tenant buildings that are typically not included in the inventories.

Sub-Market Tenant Mix. The tenant mix in south and east Dayton was determined based on a sample of Class A and B buildings in these two sub-markets. Tenants represent a broad range of uses. Corporate and Business Services represent the largest share of south Dayton office tenants, with about 29% of the tenants in the sub-market that includes Centerville and Washington Township. Financial services represents the second largest group in south Dayton, with 23.5%.

Military-related tenants are by far the largest tenant group in east Dayton's Wright Patterson Air Force Base-related market. There, almost 80% of tenants could be considered either military-dependent or military-related. Tenants in that market include computer engineering and R&D firms working with the military in

technology development. Because of their close relationship with the military, these contractors prefer to be located proximate to the base. Many Washington Township and Centerville residents are employed at the base or at the various base contractors located in the east Dayton sub-market. South Dayton is less proximate to the base and, as a result, military-related contractors play a much smaller role with 13.8% of the south Dayton market. Military tenants primarily occupy Class A space, regardless of location.

Other key office sectors in south Dayton include professional services, real estate, insurance, and medical services. A higher share of professional service and real estate tenants are in Class B space than in Class A. Conversely, doctors and other medical professionals tend to be in Class A space in this sub-market.

The south sub-market is an attractive location for businesses that serve clients both in Dayton and in the growing communities between Dayton and Cincinnati. As the two metropolitan regions gradually merge, areas on the south side of Dayton (along major regional commuter routes) will become increasingly attractive locations for professional, business service, and other regional client-serving firms.

Table 8. OFFICE TENANCY BY TYPE, SAMPLE SOUTH DAYTON SUB-MARKET, 2002

Tenant Type	Class A	Class B	Total
Corp/Bus Svcs	25.0%	34.5%	28.9%
Financial Svcs	30.1%	14.0%	23.5%
Military	22.8%	0.9%	13.8%
Professl Svcs	6.2%	13.4%	9.1%
Real Estate	4.7%	11.6%	7.5%
Insurance	5.4%	6.1%	5.7%
Medical	6.2%	1.9%	4.5%
Telecom	0.4%	3.6%	1.7%
Education	0.0%	4.3%	1.8%
Personal Svcs	0.0%	4.0%	1.6%
Empl Svcs	0.6%	2.4%	1.3%
Govt/Non-Profit	0.0%	2.8%	1.1%
Retail	0.1%	0.5%	0.2%

Sources: Miller-Valentine and Randall Gross
Development Economics.

Centerville & Washington Township

Centerville and Washington Township are important office centers within this south Dayton sub-market. Together, the two communities have a total supply

of almost 1.4 million square feet, or about 30% of the south sub-market's total office inventory.

Supply & Occupancy. Office supply increased by 113,200 square feet or 9.1% between 1995 and 2000. This amount represents relatively conservative growth, when compared with the south sub-market as a whole. While Washington Township-Centerville represents 30% of the total south market supply, the area only accounted for 16% of the growth in supply during that period. Due in part to the slower growth in supply, C-WT saw its office vacancy rates decrease from 10.0% to 8.3% during the five-year period at the same time that overall sub-market vacancy rates increased.

Centerville. Centerville had a total competitive (Class A & B) office inventory of about 370,000 square feet in 2000, with an increase of 18,000 square feet from 1995. The vacancy rate increased significantly in Centerville, from 5.7% to 9.1%, even though there was very little growth in supply.

Washington Township. The township had about 880,000 square feet in 2000, with an increase of 107,000 or 13.9% from 1995. The township has become an attractive location for office in part due to the income tax incentive. The township's office vacancy rate declined significantly during this period, from 13.6% to 9.1%, or exactly equal to that in Centerville. Thus, the health of the township's office market came more in line with Centerville's during this period.

Table 9. CLASS A/B OFFICE INVENTORY TRENDS, CENTERVILLE & WASHINGTON TWP, 1995-2000

Sub-Market	1995	2000	1995-2000 Change	
			Number	Percent
Centerville				
Total Sq. Ft.	347,500	365,573	18,073	5.2%
Vacant	19,712	33,138	13,426	68.1%
%	5.7%	9.1%	0.03	59.8%
Wash Twp				
Total Sq. Ft.	773,190	880,490	107,300	13.9%
Vacant	105,355	79,765	(25,590)	-24.3%
%	13.6%	9.1%	(0.05)	-33.5%
TOTAL				
	1,245,757	1,358,966	113,209	9.1%
Vacant	125,067	112,903	(12,164)	-9.7%
%	10.0%	8.3%	(0.02)	-17.2%

Sources: The Gem Real Estate Group, Inc.; and Randall Gross / Development Economics.

Office Construction. Centerville's and Washington Township's office construction peaked during the 1980's, when over 650,000 square feet of office

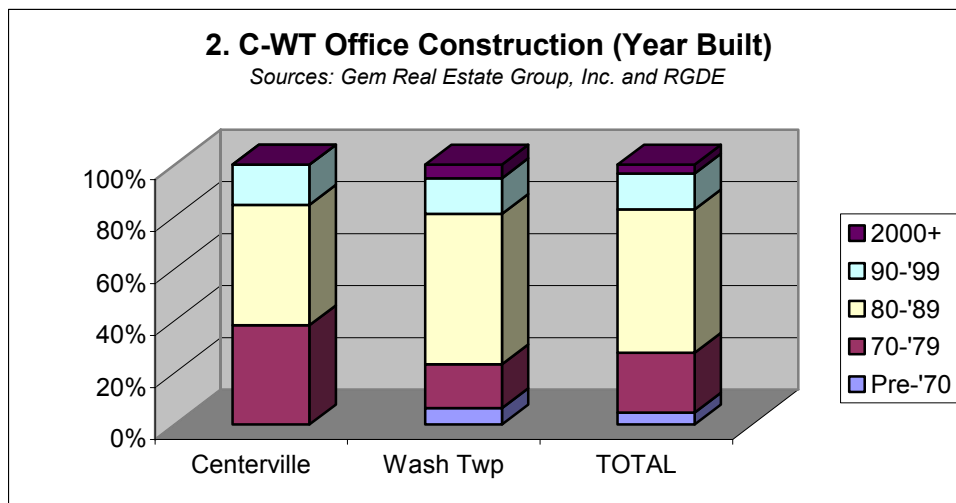
space was brought on line in the two communities. Almost 500,000 square feet was added in Washington Township alone. Based on the inventory of Class A and B space in the two communities, there is only 55,000 square feet of space built prior to 1970. A total of 275,000 square feet was added in the 1970s, increasing to the 650,000 square feet in the 1980s, but then falling to 169,000 square feet in the 1990's. The average age of C-WT office space is six years.

Table 10. OFFICE CONSTRUCTION TRENDS, CENTERVILLE & WASHINGTON TWP

Year	Sq Ft		TOTAL
	Centerville	Wash Twp	
Pre-1970	-	55,000	55,000
1970-1979	134,552	140,459	275,011
1980-1989	164,948	488,422	653,370
1990-1999	56,000	112,927	168,927
2000	-	40,500	40,500
Ave Year Blt	1987	1986	1986

Sources: The Gem Real Estate Group, Inc.; and Randall Gross / Development Economics.

A new office project known as Creekside Commons is currently under construction. This project will include 35,000 square feet in a campus style setting at Alex-Bell and Clyo roads in Centerville. Other new C-WT projects planned or in development since 2000 will have a total of 228,500 square feet.



Office Rents. Area rents averaged \$13.24 per square foot in 2000, up 7.0% from 1995. Within Centerville however, rents only increased by 4.9% during this period. Washington Township rents increased by 7.5% to \$13.24, but remain lower than those in Centerville.

Table 11. AVE OFFICE RENT TRENDS, CENTERVILLE & WASHINGTON TOWNSHIP, 1995-2000

Sub-Market	Average Rent PSF		1995-2000 Change	
	1995	2000	Amount	Percent
Centerville	\$ 12.68	\$ 13.30	\$ 0.62	4.9%
Wash Twp	\$ 12.31	\$ 13.24	\$ 0.92	7.5%
Both Areas	\$ 12.38	\$ 13.24	\$ 0.86	7.0%

Notes: Average Rents are based on midpoints of survey ranges. Both Areas is weighted average. Rents expressed in current dollars. PSF is per square foot.

Sources: The Gem Real Estate Group, Inc.; and Randall Gross / Development Economics.

Average rental rates had increased from approximately \$13.00 in 2000 to \$14.00 per square foot by second quarter 2002, based on the sample Miller-Valentine inventory of office space in the south sub-market.

Tenant Mix. The tenant mix in Centerville is somewhat different than that found in the rest of the sub-market. An assessment of sample buildings conducted by RGDE found that Centerville’s tenant mix is oriented heavily to medical tenants, accounting for perhaps 40% of office tenants in Centerville Business Park, Interstate Executive Center, and the many small office buildings. Corporate and business services account for another 15%, followed by financial services, insurance, and real estate. The RGDE survey also found an estimated 13% vacancy among Centerville office buildings, including smaller single-tenant buildings that are not part of the Gem inventory.

Although Washington Township’s tenant mix is also weighted heavily to medical uses (22%), the mix is generally more diversified than it is in Centerville. About 22% of the tenants provide corporate and business services, 18% are in real estate, 14% financial services, 8% insurance, 5% professional services, and 2% in other services. About nine percent is vacant, consistent with the Gem inventory.

Key Office Nodes, Buildings & Sites. Important office nodes and projects in Centerville and Washington Township are discussed below. Additional office space is found along Kentshire Drive, adjacent to Centerville Place Shopping Center, and in other locations.

- *The Pavilions.* Among the newer office projects in the area is The Pavilions, with the first 36,000 square feet built in 1999. The project is planned to include 120,000 square feet in nine new buildings, built campus style. Units are offered for sale as office condominiums (at \$150 to \$165 per square foot) or as rentals (at about \$16 per square foot plus taxes, insurance and common area maintenance-CAM).
- *Centerville Business Park.* With visibility from I-675 and Clio Road, the Centerville Business Park includes 100,000 square feet in four Class A buildings including the Parkway Professional Building, United Health Care Building, Parkway I and Parkway II. These buildings were built between 1989 and 1995 and rent for \$13 to \$14 per square foot. Several of the buildings are owner occupied. United Health Care vacated its 54,000 square-foot building in 2001 when the company merged the Dayton office with its Cincinnati operations. Smaller buildings in the park house individual businesses, such as the State Farm Service Center, Evergreen Veterinary Hospital, Gateway Mortgage, and others. Only about 7,000 square feet of the Class A building space was vacant in 2000, but by 2002 number of the buildings had vacant space (estimated at 26,000 square feet), not including the 54,000 square foot United Health Care Building that was since sold. Some businesses in the park have scaled back operations.
- *Centerville CBD.* Centerville's historic center includes a mix of retail and office space. An estimated 20% of the office space is vacant. Existing office uses include primarily medical and business services, as well as insurance agents. A more detailed assessment of the historic district is included in the retail analysis.
- *I-675 @ Miamisburg-Centerville.* A key office node in Washington Township is located in areas surrounding the intersection of I-675 and Miamisburg-Centerville Road. There is a diversity of space in this area, from one-story flex-style buildings to mid-rise corporate office park buildings. Among the latter are Washington Park I & II, three-story buildings on Washington Park Drive built in 1988 and 1989. These buildings remain among the larger and more competitive buildings in the south sub-market. Rents are comparatively high, at \$13.00 Triple Net. The buildings have a total of 152,000 square feet and excellent access to nearby amenities. Office land in this area can cost as high as \$150,000 per acre. Altogether, there is about 500,000 square feet of office space in this area (including The Pavilions).
- *I-675 @ Alex-Bell (Corporate Way).* Much of Washington Township's office space is also concentrated in Corporate Way and surrounding areas. This office complex on I-675 (Alex-Bell Road) in Washington Township includes 200,000 square feet in a number of smaller buildings.

Among the premier existing office locations in the Dayton market is along Paragon Road, between the Alex Bell and Miamisburg-Centerville exits from I-675. Unfortunately, office design is somewhat haphazard along this important corridor. Altogether, there is 270,000 square feet of office space at the Alex-Bell / I-675 intersection.

- *Creekside Commons Office Park.* This project has an excellent location, near I-675, I-75, and other major arteries at the intersection of Alex-Bell and Clio roads. The first 35,000 square feet is under development to house medical and professional tenants and suites are fit-out according to tenant needs.
- *Miami Valley Hospital & Other Proposed.* MVH has 100 acres near I-675 and Wilmington Pike for proposed development of a satellite medical center and professional space. Other new projects include a medical condominium complex approved at Alex-Bell Pike and Clio Road in Centerville. There is increasing interest in sites along Clio Road south-east toward Greene County.

Office Demand

Demand for office space was determined based on regional and sub-market absorption patterns, office employment forecasts, and the competitive framework.

Absorption Trends

Office space absorption trends have been calculated for each of the four sub-markets based on available data from Gem Real Estate Group, Inc. The market experienced generally positive absorption during the prosperous late 1990's. There was negative absorption in two years, 1997 and 2000. A significant share of the market's volatility was concentrated in the east sub-market, where downsizing of military contracts may have had a negative impact on absorption during the late 1990's. The east sub-market has had negative absorption for five of the past six years.

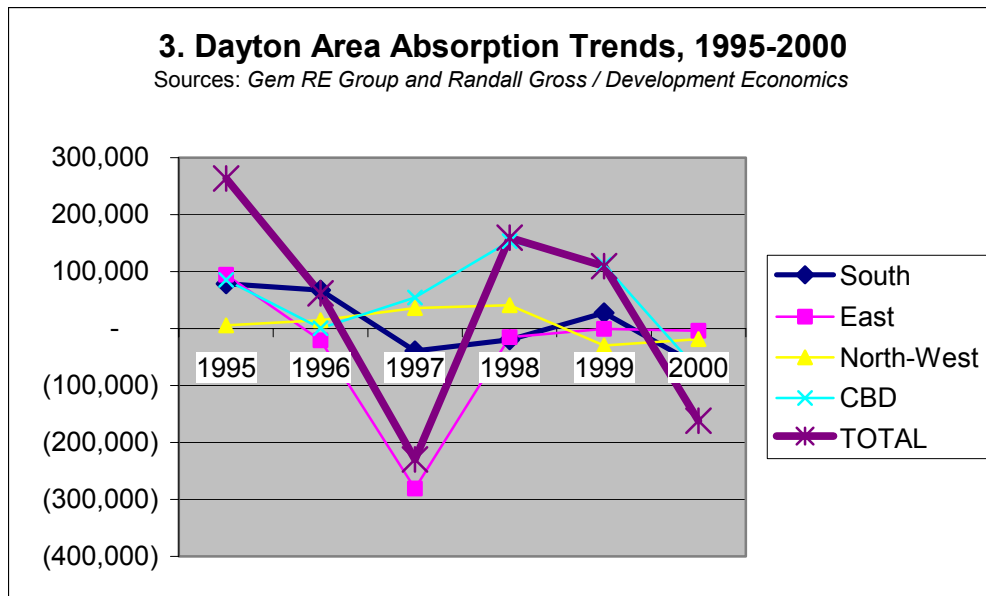
A total of 202,600 square feet of office space was absorbed into the market between 1995 and 2001, for an average of 33,800 square feet per year. Positive absorption in most sub-markets has balanced the decline in occupancy in the east sub-market. Adjusting for outlying years, absorption has averaged closer to 55,000 to 60,000 per year, marketwide.

Table 12. OFFICE ABSORPTION BY SUB-MARKET, DAYTON, 1995-2000

Year	South	East	North-West	CBD	TOTAL
2000	(65,437)	(3,825)	(18,669)	(73,948)	(161,879)
1999	27,510	(525)	(29,693)	112,199	109,491
1998	(19,730)	(15,340)	41,188	153,520	159,638
1997	(39,226)	(281,142)	35,962	54,483	(229,923)
1996	67,392	(20,809)	14,538	599	61,720
1995	78,417	94,395	5,355	85,376	263,543
TOTAL	48,926	(227,246)	48,681	332,229	202,590
Annual Ave	8,154	(37,874)	8,114	55,372	33,765

Sources: The Gem Real Estate Group, Inc.; and Randall Gross / Development Economics.

The south sub-market that includes Centerville and Washington Township, has had total Class A & B office absorption of 48,930 square feet over the five-year period or about 8,200 square feet per year. This amount is almost identical to the performance of the North-West sub-market over this same period. By comparison, the CBD absorbed a healthy 55,400 square feet during the late 1990s. The south sub-market, like all other sub-markets, had negative absorption in 2000.



The south sub-market has had more stable absorption than the market as a whole, which fluctuated significantly between 1995 and 2001. In general, however, all of the city's sub-markets trended downward in absorption between 1995 and 2001. Three-year moving averages indicate declining average absorption trends in the south sub-market, as shown below:

1995-1997:	35,528 SF
1996-1998:	2,812 SF
1997-1999:	-10,482 SF
1998-2000:	-19,219 SF

Data on Miller-Valentine (MV) buildings confirm this trend, with absorption in the most recent available 3-year period (1999 through 2001) of -7,079 square feet out of a total MV south Dayton inventory of about 1.0 million square feet. Buildings in Centerville and Washington Township fared somewhat better than other south Dayton buildings, showing positive absorption in the MV inventory.

Demand Forecasts

Demand was forecasted based on projected growth in office employment, the ratio of annual absorption trends to employment growth, and average square foot-per-employee ratios for specific office sectors.

Table 13. AVERAGE ANNUAL OFFICE SPACE DEMAND, DAYTON AREA MARKET, 2003-2008

Office Sector	Office Workers	Annual Growth Rate	Sq Ft Demand
Finance	4,564	1.8%	1,700
Insurance	2,142	-0.4%	(200)
Real Estate	1,723	0.2%	100
Bus Svcs	13,907	9.9%	27,600
Legal Svcs	1,217	1.7%	400
Eng/Mgt	4,528	7.0%	6,300
TOTAL	28,080	6.6%	35,900

Note: Demand based on growth in office employment, ratio of annual absorption trends to employment, and average square foot-per-employee ratios for specific sectors.

Source: Randall Gross / Development Economics

Dayton Area. Based on this analysis, the Dayton market should expect net demand for an additional 35,000 to 45,000 square feet of office space per year from 2003 to 2008. Much of this demand would be generated in the business services sector, assuming growth rates remain consistent with employment projections. Recent sluggish growth in many of these sectors is likely to continue under current economic conditions at least into 2003.

The possible impact of war, terrorism, and other geo-political events on Dayton's office market is less significant than that of local economic factors. However, these events may already result in the re-positioning of activities at Wright-Patterson Air Force Base, which in turn effects demand for contractor space in the area's office buildings. Military impacts are felt most in the city's east and, to a lesser extent, south sub-markets.

South Sub-Market. The south sub-market has about 34% of the area's office inventory but only captured 15% of its absorption during the 1995-2000 period. The competitiveness of south-side locations, especially those areas accessible to the growing commuter base south of Dayton, suggests that the south sub-market can increase its share of total office absorption by 5% to 10% within the next five years. This would result in average net annual absorption of 7,000 to 10,000 square feet within the south sub-market.

Competitive Framework

Office locations in Centerville and Washington Township compete for a share of the south sub-market and regional demand. The two communities are both considered among the more competitive locations for office space in the region, in part due to accessibility to shopping and other amenities, professional workers, and an emerging commuter base.

Office space in the central business district is competitive for financial and corporate tenants, while east Dayton is competitive for base-related contractors. The north-west sub-market is relatively inactive, with few new buildings constructed since 1987. Several other locations in the south sub-market are also competitive with Centerville and Washington Township, including Kettering and other areas. Some of the competitive buildings and locations are described below.

East Dayton

Due to its proximity to Wright-Patterson AFB, east Dayton has attracted contractors and corporate tenants with Class A office space. Much of this space is concentrated in Beaver Creek, in such projects as Acropolis, developed for high-end medical and corporate tenants. Acropolis is a planned office park with plans for a total of 130,000 square feet, renting at \$16 per square foot. The project offers substantial amenities for tenants, such as in-house health club

facilities. While Acropolis has an attractive location, increasing traffic from the nearby Mall of Fairfield Commons has impacted on the marketability of the project.

The Miami Valley Research Park on the border of Kettering and Dayton has been developed and promoted by foundation formed by a consortium of local universities. Even so, there is limited spin-off from university-related facilities and much of the space is occupied by information technology firms with military contracts. Covenants restrict development to a higher-end product within the park. The location is less accessible than several areas of Washington Township.

Wright Point on Springfield Pike offers proximity to WPAFB, and is thus attractive to base contractors. Two buildings in the project have a total of 144,000 square feet, occupied by military-related, aviation and technology firms such as Applied Sciences, Honeywell, ITT Avionics, Information Spectrum, Pratt & Whitney, and Anteon Corporation.

Apple Valley, located in Beavercreek, has 450,000 square feet in four buildings with visibility from Route 35. These offices have a number of large defense-related contractor tenants like Defense Resources Associates, General Dynamics, Litton, Lockheed-Martin, Compaq, and others. Additional competitive Beavercreek projects include Ashford Center, Signal Hill, and others.

South Dayton

Kettering and Miami Township have a large supply of office space, although much of the existing space is less accessible than in Washington Township. 500 & 580 Lincoln Park are buildings built in 1987 and 1988 in Lincoln Park. The buildings have a number of medical tenants, but have relatively limited access to shopping and other amenities. Kettering is redeveloping the former mall site across from Point West (on Kettering Boulevard) for retail and restaurants, which will increase the marketability of that older office space.

In Miami Township, Omni Office Center offers 50,000 square feet across from Newmark Center on Springboro Pike. Several area projects are less competitive due to lack of amenities (Dryden Center on Springboro Pike in Moraine), difficult access (Imperial Plaza on Miamisburg-Centerville Road in West Carrollton), or limited access to I-675 (Woodman Center on Woodman Drive in Kettering). The 85,000 square-foot, high-rise Dayco Building adjacent to Dayton Mall is more than 50% vacant.

There are several prospective plans or proposals for office park development, particularly on land adjacent to I-675 at the border with Greene County and Sugar Creek Township. Approximately 200 acres are available at that location for a development envisioned as two- and three-story office buildings, strip retail, and hotels.

Centerville / Washington Township Market Potentials

Demand for office space in Centerville & Washington Township was determined based on absorption trends and capture of the competitive market. As discussed earlier in this report, both communities are competitive for office space because of their location in the regional market, and their access to the professional workforce.

WT-C currently have about 30% of the supply of office space in the south Dayton market. However, office space has been developed at a more conservative rate in the two communities than in other portions of the sub-market. WT-C have only generated 16% of the office construction between 1995 and 2000. As a result, the office market has remained relatively healthy, and occupancy is tighter than in other parts of the south Dayton market.

Given the communities' competitiveness as an office location, and the availability of land for further development in Washington Township, it is likely that the two can sustain the current level of office development and absorption. Thus, while overall office employment growth is slowing and market absorption is declining, Washington Township in particular can increase its share of the market just by maintaining the current level of office development. With 9% average vacancy rates in both Washington Township and Centerville, it is likely that their markets would not bare a significant *increase* in supply in a given year, above and beyond the current rate of construction.

Based on this assessment, Centerville would absorb 3,000 square feet *on average* per year in new office development or redevelopment. Washington Township should be able to absorb an additional 5,000 to 8,000 square feet of office space per year (on average). Together, the two communities would capture a large share of the south Dayton market and 16% to 20% of absorption in the overall Dayton market. Attempting to increase the supply above and beyond this absorption pattern would ultimately result in more "move-up" transfers of existing tenants within the greater Dayton market from single-tenant buildings and Class B space to newer Class A space, but would not necessarily result in net new occupancy in the market.

Summary

The Dayton office market is relatively diversified, thanks in part to the presence of WPAFB & defense contractors, corporate offices, and a strong institutional base including universities and hospitals. In general, however, growth in Dayton's office sectors is conservative, with a significant share of absorption generated by in-town move-ups and transfers among the existing businesses. Older and smaller Class B and C buildings have increasingly lost tenants to newer, Class A properties.

Centerville and Washington Township are part of the competitive south Dayton sub-market, which benefits from its excellent north-south access and strategic location in the emerging Cincinnati-Dayton commutershed. Both C-WT communities are viewed favorably as locations for office tenants because of proximity to professional households and shopping amenities. The comparatively favorable tax structure in Washington Township has also helped attract and retain office tenants to the area.

While the Dayton office market will see only marginal growth in coming years, Centerville and Washington Township can increase their share of the overall market, especially for Class A space, during that time. Conservative supply trends have allowed the two communities to maintain a relatively healthy office market, although too much additional building can upset the existing balance between supply and demand. The two communities should expect absorption of 8,000 to 11,000 square feet of office space between them each year (on average) through 2008.

Slow growth in the greater Dayton market constrains further office development within Centerville and Washington Township. Efforts to increase demand for space in the area might require a broad-based outreach marketing effort to attract targeted businesses to the Dayton area, and specifically to Centerville-Washington Township. This and other marketing strategies are addressed in the policy sections of the comprehensive plans.

Appendix

**Table A-1. AT-PLACE EMPLOYMENT BY SECTOR,
DAYTON-SPRINGFIELD MSA, 2000**

Sector	Number	Share
Agriculture	383	0.1%
Construction	17,869	4.2%
Manufacturing	87,086	20.5%
Transport/Util	15,735	3.7%
Wholesale	18,585	4.4%
Retail Trade	56,071	13.2%
Finance/Ins	13,901	3.3%
Real Estate	4,640	1.1%
Info Services	10,984	2.6%
Prof/Scientific	21,477	5.1%
Management	11,857	2.8%
Admin Suppt	28,984	6.8%
Education	13,674	3.2%
Health	56,844	13.4%
Arts/Ent/Rec	4,037	1.0%
Accom/Food	36,789	8.7%
Other Svcs	22,422	5.3%
Auxiliary	2,529	0.6%
 TOTAL	 423,866	 100.0%
Office Sectors	94,372	32.5%

Note: Agriculture, Transport, and Arts/Ent/Rec employment derived from census ranges

Sources: U.S. Bureau of the Census, and Randall Gross / Development Economics.

**Table A-2. Employment Projections by Major Industry,
Dayton MSA, 98-08**

Industry Title	1998 Annual Employment	2008 Projected Employment	Change in Employment 1998-2008	Percent Change 1998-2008
Total Employment	502,800	553,300	50,500	10.0%
Goods Producing Industries	123,640	124,920	1,280	1.0%
Agriculture, Forestry and Fishing	7,550	7,810	260	3.4%
Mining	360	320	(40)	-11.1%
Construction	17,030	18,820	1,790	10.5%
Manufacturing	98,700	97,970	(730)	-0.7%
Durable Goods Manufacturing	72,540	71,300	(1,240)	-1.7%
Nondurable Goods Manufacturing	26,160	26,670	510	1.9%
Service Producing Industries	347,550	396,640	49,090	14.1%
Transportation, Communications & Utilities	20,960	24,230	3,270	15.6%
Trade	107,960	115,170	7,210	6.7%
Wholesale Trade	20,470	21,700	1,230	6.0%
Retail Trade	87,490	93,470	5,980	6.8%
Finance, Insurance & Real Estate	18,330	19,250	920	5.0%
Services	132,430	165,860	33,430	25.2%
Government	67,870	72,130	4,260	6.3%
Nonfarm Self-Employed & Unpaid Family Workers	30,630	30,940	310	1.0%

Source: Ohio Department of Job and Family Services, Bureau of Labor Market Information, May 2001.

RETAIL ANALYSIS

This section focuses on retail market issues in Centerville / Washington Township and Dayton. A brief description of current supply is followed by a discussion of key nodes and a demand assessment. While not designed as a full market analysis per se, this illustrative demand assessment identifies the level of retail potential generated by residents of the two communities. Niche marketing opportunities that could build on this demand are presented based on this assessment.

Supply & Rent Trends

Gem Real Estate Group, Inc. conducts an annual survey of retail shopping centers in the Dayton region. This inventory is divided into a "Dayton-Area Market" and a "Regional Market." The latter includes the Dayton area, plus Springfield, the Upper Miami Valley, Xenia, Franklin-Springboro, and Lebanon-Middletown. Based on Gem's inventory, the Regional Market has a total supply of 26.5 million square feet of retail space in 250 shopping centers.

The "Dayton Area Market" has a total estimated inventory of about 18.5 million square feet, up 16% since 1994. The area's supply is divided into four sub-markets – North, East, South, and West. The North Dayton sub-market includes Butler Township, Englewood, and Huber Heights and areas of the City of Dayton north of Mad River. The east sub-market includes Downtown Dayton, Beavercreek, and Fairborn. The west sub-market includes west Dayton, Germantown, and New Lebanon. The south sub-market includes Centerville and Washington Township, as well as Kettering, Miamisburg, Moraine, Sugarcreek Township, south Dayton neighborhoods, and West Carrollton.

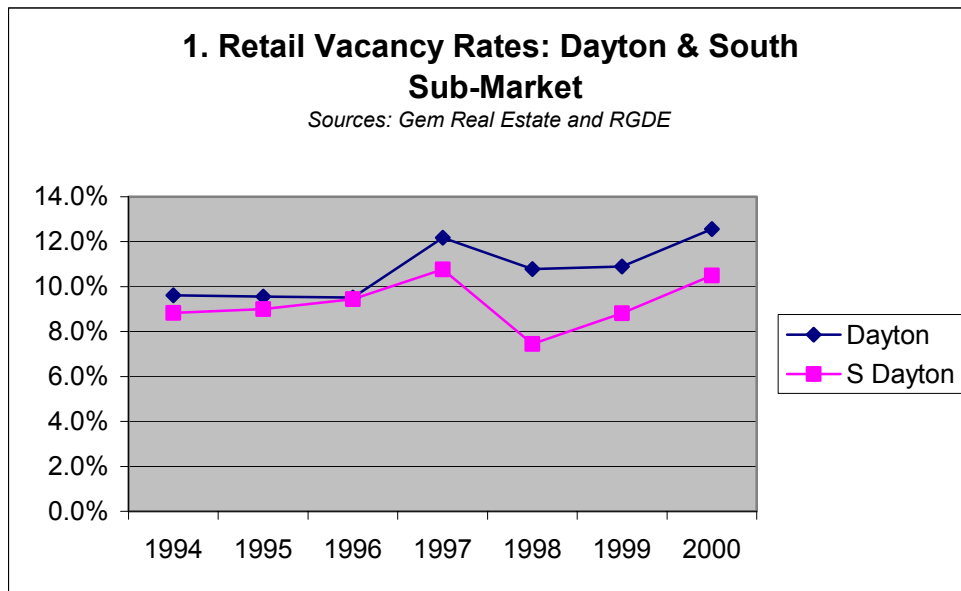
More than 44% of the Dayton Area Market's retail supply (8.2 million square feet) is located within the south sub-market. Centerville, Washington Township, and other south Dayton suburbs are attractive retail locations due to a variety of reasons, not the least of which is the area's higher-income household base.

Vacancy

An increase in the supply of retail space has been accompanied by a similar increase in vacancy rates. The overall Dayton Area retail vacancy rate was 9.6% in 1994, increasing steadily during the next six years to almost 13% by 2001. This weakening of the market occurred at the same time that the national and regional economies were expanding at a rapid pace. The demand for retail space is related to overall demographic growth. The Dayton-Springfield metropolitan area population base has declined at an average annual rate of 0.1% since 1970. Montgomery County's population base has declined by 0.3%

per year during that same period. As Dayton’s population base stagnates, retail demand also remains relatively flat.

Within the south sub-market, retail occupancy has wavered up and down during the same period. Vacancy rates increased from 1994 through 1997, to a height of 10.8%. Since then, vacancy rates fell and increased again, to 10.5% by 2001.



Gem has inventoried shopping centers in Centerville and Washington Township. Within Centerville, there is a total of about 1.1 million square feet of space in shopping centers, of which 72,000 square feet or 6.7% was vacant at the end of 2000 / beginning of 2001. Washington Township had a total inventory of 650,000 square feet in shopping centers. About 67,000 square feet or 10.2% of this space was vacant. The city’s centers had a relatively low vacancy rate, when compared with those in the Township, the remainder of the south sub-market, and the Dayton market as a whole.

The Gem list does not include other retail space outside of shopping centers. Non-center retail space in the two communities was sampled in early 2002 through site reconnaissance and a cursory review of tax records. Based on this sample inventory, there was an estimated 250,000 square feet of competitive non-center retail space in Centerville and another 200,000 square feet in Washington Township.

Rents

Retail shopping center rents in south Dayton have increased from an average \$9.39 per square foot in 1994 to \$10.46 by the beginning of 2001. However, rents actually declined by about 0.6% during this period in real dollar

terms, after controlling for inflation. Thus, stagnant real rents are another indication of underlying weakness in the retail market. Average center rents ranged from \$9.12 to \$11.81 per square foot at the end of 2000.

Rents within Centerville and Washington Township are almost identical, averaging \$11.06 and \$11.03, respectively in 2000. Retail center rents generally ranged from about \$10.00 to \$12.00 in the two communities.

Key Retail Nodes & Centers

Important retail nodes and centers in both Washington Township and Centerville are described below.

- Centerville Place. The largest shopping center in Centerville is Centerville Place, with almost 320,000 square feet. This complex has remained relatively strong since its opening in 1979, with only about 4,800 square feet vacant (1.5%) at the end of 2000. Rents ranged from \$12.00 to \$14.00, net of common area maintenance, taxes, insurance, and marketing costs. Thus rents were higher than average for the south Dayton sub-market.
- Cross Pointe Center. This Centerville complex has 217,000 square feet built in 1985. About 6,100 square feet was vacant, or about 2.8% in 2000. Rents ranged from \$12.00 to \$15.00. There is also Centerville at Cross Pointe Center (115,000 square feet), and Cross Pointe IV (19,700 square feet).
- Township Square. The Township Square shopping center in Centerville was built in 1989 and has a total of about 168,000 square feet. There were no vacancies in 2000, even with rents at the high end of the market, \$14.00 to \$18.00 per square foot.
- Washington Square. Washington Square has 102,000 square feet, anchored by a Dorothy Lane Market. About 6,700 square feet (6.6%) was vacant in 2000 and rents ranged from \$11.00 to \$15.00 per square foot.
- Washington Park Plaza. Located in Washington Township, Washington Park Plaza is one of the newer shopping centers in the area. The center has a total of about 170,000 square feet, of which 24,000 square feet (14%) was vacant at the end of 2000. Rents ranged from \$10 to \$12 per square foot.
- Centerville Historic District / CBD. The historic Centerville business district is not included in the inventory of shopping centers but is nevertheless a key commercial node in the area. Site reconnaissance identified 68 retail and personal service businesses in the CBD, many of which are located

within the historic district defined as the “Architectural Preservation District” - APD. These businesses occupy a total of about 175,000 to 200,000 square feet. About one-third of these businesses are shopper goods stores, including nine specialty retailers, several apparel stores, and a handful of automotive, furniture/home furnishings, and building supply stores.

**Table 1. CENTERVILLE HISTORIC DISTRICT AREA
RETAIL INVENTORY, 2002**

Use	Share of Space (Est)
Convenience	23%
Shopper Goods	33%
Eating/Drinking	10%
Entertainment	5%
Personal Service	<u>29%</u>
TOTAL	100%

Source: Randall Gross /
Development Economics.

Almost 30% of the downtown businesses provide personal services (such as hair salons or locksmiths). Another 23% are convenience businesses, including several food stores, gas stations, cleaners, florists, and others. Finally, there are several businesses or organizations providing cultural or entertainment services, including a theater and a museum.

- Other retail includes Royal Swiss Village, Home Center Shopping Center, Sam’s Club, and others in Centerville and Washington Township. Altogether, there were 22 shopping centers in the two communities, plus the historic Centerville central business district and other non-center retail areas.

Key Issues

Several of the key issues affecting retail marketing in Centerville and Washington Township are summarized below.

- Declining Regional Household Base. The most important issue impacting on the marketability of retail, not only in Centerville and Washington Township, but throughout the Dayton market, is the stagnant regional population base. The U.S. Bureau of the Census is projecting a continuing decrease in the region’s population base, which can translate

- into stagnant or declining purchasing power. Only rapidly increasing disposable incomes can overcome the effects of demographic loss.
- Increasing Competition. Despite the stagnant household base in Dayton, there is an ever-increasing inventory of retail space on the market. While Centerville and Washington Township are both well-positioned to capture retail demand, including that generated by their own residents, some areas have been negatively impacted by competition.
 - o One such area is Far Hills Avenue, between Whipp Road and I-675. This area has seen higher than average turnover and generally declining overall retail mix. Some centers such as Swiss Village, Washington Square, Lamplighter Square have generally retained occupancy and automotive dealerships have performed well. However, higher-end retailers favor the newer retail centers and nodes over this strip retail location.
 - o Another area buffeted by competition is the historic Centerville business district. This area has been impacted by the development of newer, more competitive retail space for some time. Competition has resulted in higher turnover rates, lack of anchor retail, flat rents, and a lower-grade mix in the area. There is a need for defining a marketing niche that enhances the area's unique qualities and sets it apart from the newer retail centers.
 - Traffic Congestion. High traffic volume is a two-edged sword for retailers. More traffic brings better exposure and visibility to a larger number of commuters, but can also repulse both convenience and destination shoppers and even prevent impulse purchasing. The key is to ensure a balance with enough retail to support and attract residents and employers; but not so much as to ensure ease of access.
 - Overbuilding. Clearly, the Dayton market cannot easily absorb large retail projects. The development of new retail space is important in order to maintain the competitiveness of the area for attracting retailers. However, new retail development in Dayton's demographic situation will invariably impact on older, existing retail areas.

Retail Demand

A full market potentials analysis is included in the scope as an input to this comprehensive planning effort. However, the gross demand for retail goods and services generated locally by the *residents* of Centerville and Washington Township was determined in order to identify key local market niches.

Given the issues of competition and overbuilding in a declining regional market, as well as the need to reduce the impacts of traffic congestion, an important retail marketing objective would focus on how to attract and encourage residents from within Centerville and Washington Township to shop locally. Since the local household base in Centerville and Washington Township is growing, this can help boost the market for existing and potential businesses while buffering the community from cross-town commutation. Thus, the demand analysis focuses on identifying key local markets and reducing leakage to competitive retail areas.

Demographic Forecasts

Centerville and Washington Township’s population has been projected by the ACP team. Based in part on these projections, the number of households and household income has also been forecasted.

Table 2. DEMOGRAPHIC FORECASTS, WASHINGTON TOWNSHIP & CENTERVILLE, 2002-2007

Factor	2002	2007	2002-2007 Change	
			Number	Percent
<u>Population</u>				
Wash Twp	31,009	33,615	2,606	8.4%
Centerville	<u>23,409</u>	<u>24,373</u>	<u>964</u>	4.1%
Total	54,419	57,988	3,569	6.6%
<u>Households</u>				
Wash Twp	12,416	13,630	1,214	9.8%
Centerville	<u>10,195</u>	<u>10,693</u>	<u>498</u>	4.9%
Total	22,612	24,323	1,711	7.6%
<u>Income</u>				
Wash Twp	\$ 72,600	\$ 74,600	\$ 2,000	2.8%
Centerville	\$ 55,600	\$ 56,800	\$ 1,200	2.2%
Average	\$ 64,900	\$ 66,800	\$ 1,900	2.9%

Note: Income is median household income, expressed in constant 2002 dollars.

Sources: U.S. Bureau of the Census; ACP; and Randall Gross / Development Economics.

Within the next five years, population is projected to increase by 8.4% in Washington Township and 4.1% in Centerville. The two areas will add another 3,600 people within their respective boundaries. This population increase translates into the addition of about 1,700 households, based on the continuing decrease in average household size. The number of households will increase by almost 10% in the Township and about 5% in Centerville, within the next five years.

Median 2002 household income is estimated at \$72,600 in Washington Township and \$55,600 in Centerville. The weighted average for the two communities is \$64,900. Incomes are expected to continue increasing in the Centerville-Washington Township area, but not as rapidly (in real dollar terms) as in the past ten years. By 2007, household incomes are forecasted to increase by 2.9% in real dollars to \$66,800. Washington Township incomes would increase to \$74,600 and Centerville incomes to \$56,800.

TPI and Expenditure Potential

Total Personal Income (TPI) is forecasted based on these demographic projections. Within Washington Township, TPI is about \$901,400,000 in 2002, increasing to over one billion dollars by 2007. The township will see an increase of \$115,400,000 in real income during the next five years, representing a 12.8% increase over the current level of TPI.

Table 3. TOTAL PERSONAL INCOME FORECASTS, CENTERVILLE AND WASHINGTON TWP, 2002-2007

Area	TPI (000)		2002-2007 Change	
	2002	2007	Amount	Percent
Wash Twp	\$ 901,400	\$1,016,800	\$ 115,400	12.8%
Centerville	\$ 566,800	\$ 607,400	\$ 40,600	7.2%
TOTAL	\$1,468,200	\$1,624,200	\$ 156,000	10.6%

Note: TPI expressed on constant 2002 dollars.

Source: Randall Gross / Development Economics.

Centerville has a total personal income of \$566,800,000. TPI will increase by \$40,600,000 to over \$600 million by 2007. This amount represents a 7.2% increase in total income within the next five years. Thus, TPI within the two communities together will increase by almost \$160 million or 10.6% within five years.

These communities have a total household retail expenditure potential of about \$517 million, of which \$200 million is in Centerville households and \$317 is in the Township Total Centerville-Washington Township expenditure potential will increase by about **\$55 million** within the next five years.

Locally-Generated Demand

Locally-generated demand was forecasted for retail goods and services through 2007. This demand analysis does not account for leakage or inflow, but rather identifies demand for retail space assuming that the local market is maximized. Under this scenario, traffic flow would be limited to that generated within Centerville and Washington Township. Appendix Table 1 identifies demand by retail category, further summarized below in the major categories.

Table 4. WARRANTED TOTAL DEMAND, CENTERVILLE-WASHINGTON TWP, 2002 & 2007

Type of Good	Gross Demand (Square Feet)		
	2002	2007	Increase
Convenience	661,657	731,959	70,303
Shopper Goods	802,342	887,593	85,251
Eating/Drinking	197,158	218,107	20,949
Entertainment	41,949	46,406	4,457
Personal Service	124,797	138,057	13,260
TOTAL	1,827,903	2,022,122	194,219
Existing	1,889,247	1,889,247	
Warranted	(61,344)	132,875	

Notes: Based on local-generated demand only. Does not account for leakage or inflow.

Source: Randall Gross / Development Economics.

This analysis forecasts gross demand for about two million square feet of retail space in 2007, an increase of almost 200,000 square feet from 2002. Based on the existing local inventory of about 1.9 million square feet, there would be warranted locally-generated demand for a maximum of another 133,000 square feet within the next five years. Again, this analysis maximizes dependence on the local shopper.

This scenario finds demand for an additional 70,000 square feet of convenience goods, 85,000 square feet of shopper goods, and 21,000 square feet of restaurants by 2007. There would also be additional demand for personal services (13,000 square feet) and entertainment (5,000 square feet).

Competitive Framework

Centerville and Washington Township must compete with a significant and growing inventory of retail space, which captures demand generated by residents of the two communities. The largest and most competitive nearby retail node includes Dayton Mall, located in Miamisburg. The mall has almost two million square feet of retail space near the intersection of Miamisburg-Centerville Road and I-675. Dayton Mall has performed relatively well, with historic vacancy rates of five percent or less and rents ranging from \$25.00 to \$50.00 per square foot. The mall anchors a large retail district with about four million square feet of space.

Other competitive retail nodes are located in Sugarcreek Township, Kettering, Beavercreek and, increasingly, Springboro. The growing Springboro household base will generate significant demand for retail uses in Centerville and Washington Township, but a share of this demand will be captured by the growing number of retailers locating in that area. The Franklin-Springboro market had a competitive inventory of about 470,000 square feet in 2000, much of which was concentrated in two areas – Midway Business Park and Springboro Center.

Niche Marketing Opportunities

The local Centerville-Washington Township market is growing. There will be increasing locally-generated demand for a maximum of 200,000 square feet of retail space within the next few years, some of which will be captured by retail projects already under development. By increasing the competitiveness of the communities' retail areas, local merchants can capture a higher share of this growth potential, not to mention the opportunity to attract inflow from other areas.

In particular, there will be increasing demand for restaurants, as well as for grocery/pharmacy, apparel & accessory, and home furnishings stores. There will also be sufficient demand in support of gas stations and miscellaneous convenience stores, hardware, specialty shopper goods stores (books/records, fabrics, etc), and personal services. It is in the interests of Centerville and Washington Township to maximize their capture of this locally-generated demand for retail space. This demand can be captured either by existing businesses (through expanded sales growth), or by attracting new businesses including those higher sales requirements (such as higher-end specialty merchants) into existing or new retail space. Either way, a key objective is to ensure a strong market for the communities' retail space.

Key marketing issues revolve around the need to upgrade and strengthen older strip and downtown retail spaces. Strengthening these areas requires proactive efforts in marketing, management, and improvement of the physical space. Marketing should focus on serving the local customer base. Growing demand for restaurants might be harnessed to attract popular chain or unique specialty restaurants to historic Centerville as an anchor for attracting shoppers, especially

pedestrians, back to the area. The combination of eating and drinking, theater, music/entertainment, and museum would form the basis for more targeted marketing of the historic district as a unique, pedestrian-oriented activity center for local residents and others from throughout the south suburban Dayton area. The City is already having some success in attracting such merchants to the CBD, with Graeter's Ice Cream and Panera Bread Company expected to open within the historic district.

Far Hills Avenue could capture a larger share of the growing locally-generated demand for home furnishings, hardware, and other goods that compliment existing uses but also create a special home furnishing identity marketing niche. The area might also be marketed to residents of the growing residential areas south of Dayton, where there is demand for home furnishings that accompanies home construction.

Strategic recommendations for development and investment that build on these retail marketing opportunities are developed in the policy section of the comprehensive plan.

Appendix

**Table A-1. WARRANTED TOTAL DEMAND,
CENTERVILLE-WASHINGTON TWP,
2002 & 2007**

Type of Good	Gross Demand (Square Feet)		
	2002	2007	Increase
<u>Convenience</u>			
Grocery	260,606	288,296	27,690
Food	58,728	64,968	6,240
Pharmacy	112,938	124,938	12,000
Gas	100,183	110,828	10,645
Misc Conv	129,202	142,930	13,728
Sub-Total	661,657	731,959	70,303
<u>Shoppers Goods</u>			
Apparel/Access	164,438	181,910	17,472
Footwear	58,728	64,968	6,240
Furniture/Home	162,275	179,517	17,242
Hardware	123,981	137,155	13,173
General Mdse	65,253	72,187	6,933
Auto Supply	64,067	70,874	6,807
Electronics	46,143	51,046	4,903
Misc S.G.	117,456	129,936	12,480
Sub-Total	802,342	887,593	85,251
<u>Eating/Drinking</u>	197,158	218,107	20,949
<u>Entertainment</u>	41,949	46,406	4,457
<u>Personal Svces</u>	124,797	138,057	13,260
TOTAL	1,827,903	2,022,122	194,219
<i>Existing</i>	1,889,247	1,889,247	-
Warranted	(61,344)	132,875	

Note: Based on local-generated demand only.
Does not account for leakage or inflow.

Source: Randall Gross / Development Economics.

OUR COMMUNITY

10. Fiscal Analysis

CREATE
THE VISION

OUR FUTURE

**1. Memorandum, from
Randy Gross, April 24,
2003**

MEMORANDUM

April 24, 2003

TO: Centerville & Washington Township
Community Plan Steering Committee

FROM: Randy Gross

SUBJECT: Fiscal Cost-Benefit Analysis
Follow-up

This memorandum responds to questions and concerns raised during the most recent fiscal existing conditions presentation, held on April 9, 2003. At that meeting, serious questions were raised regarding specific numbers, but without sufficient lead-time for the consultant to review the models and provide a satisfactory response to those specific questions.

Following the meeting, the fiscal models were reviewed and the outputs were confirmed as generally correct for the purposes of communicating that which they were originally intended.

Nevertheless, there is a need to communicate the output of the fiscal models in a way that better illustrates the impacts on the community. Therefore, this memorandum also provides a summary of revisions that were made to the fiscal cost-benefit reports, discussion from the follow-up meeting held between the consultant and staff, and a schedule for completion of further revisions suggested by staff.

Response to Steering Committee Questions

The following information responds to questions raised by the Steering Committee on the fiscal cost-benefit reports for Centerville and Washington Township. The information is provided in a way that responds to related questions for each particular topical issue.

Issue 1. Overlapping Jurisdictions: “Discrepancy” Between City and Township

Many of the questions raised by the Steering Committee relate to the issue of how to account for over-lapping services between the various governing jurisdictions. For example, it was noted that there appears to be a significant difference in retail impacts on Centerville compared with those in Washington Township. Steering Committee members raised their concern that the entire cost

for certain overlapping services (such as fire protection) may have been only included in the Township impacts and not in the City's. The following responds to a variety of questions that relate back to the issue of overlapping jurisdictions and to the discrepancy between Township and City impact numbers.

Who Provides Services? Services are provided to the residents of Centerville and Washington Township through a network of jurisdictions, summarized as follows:

(A) Independent local jurisdictions:

1. City of Centerville
2. Washington Township
3. Centerville City Schools
4. Centerville-Washington Park District
5. Washington-Centerville Public Library (with separate budget, but governing authority from the School Board)

(B) Washington Twp agencies funded by property owners in both jurisdictions

1. Washington Township Fire Department
2. Washington Township Recreation Center

(C) Agencies operated and funded primarily by one jurisdiction but providing services to residents of Centerville, Washington Twp, and other jurisdictions:

3. The Golf Club at Yankee Trace (City of Centerville)
4. Roads and Streets that residents of both communities use
5. Most other agencies in both Centerville and Washington Township

(D) County, State, Federal, and other government entities

1. County, State, and Federal highways
2. Health Department (Montgomery County)
3. United States Postal Service (U.S. Government)
4. Dayton International Airport (City of Dayton)
5. Miami Valley Regional Transit Authority (Independent)
6. Wright State University (State of Ohio)
7. Etc.

Impacts on Which Jurisdictions? The purpose of the land-use fiscal impact (cost-benefit) analysis is to determine the net benefit of different types of land use on the operating budgets of the governments of Centerville and Washington Township. These two government entities are also the clients for this work. As part of a comprehensive planning process, it is hoped that the fiscal information can help guide zoning and land use decisions made by the governments of Centerville and Washington Township.

As such, the impacts reflect the costs and benefits of land uses on the budgets of the two jurisdictions. For illustrative purposes, impacts were also

determined for the Centerville City Schools, which is a separate agency independent of both the Centerville and Washington Township governments.

What About Overlap? Where there is direct overlap, such as in the provision of fire and recreation center services by Washington Township agencies, only that portion of such services and funds attributable to Township residents and businesses has been included in the Washington Township impact analysis. Thus, only the Township portion of the Fire Department and Recreation Center cost-benefits are included in the Township fiscal model.

The portion of Fire and Recreation Center funding and services attributable to residents and businesses in Centerville has been deliberately excluded from the Centerville impact analysis *because those funds and services do not fall under the jurisdiction of the City of Centerville*. In other words, the funding and cost of providing fire and recreation services do not impact on the budget of the City of Centerville, even though *property owners* within the City are paying for and using those services.

This deliberate exclusion has led to confusion among Steering Committee members when comparing fiscal impacts in Centerville to those in Washington Township, where there are dramatic differences because of the impacts of fire and recreation activities on the Washington Township budget.

The Steering Committee also raised the question of school impacts and their apparent inclusion in the City of Centerville's fiscal cost-benefits. There were two fiscal cost-benefit reports produced, one for Centerville and one for Washington Township. The Schools are an independent agency, and land-use impacts on the Schools were not included in any way in the City's fiscal model. The summary of School impacts was only included in the City report for the purposes of brevity, but obviously this has contributed to the confusion.

Improving Communication. To alleviate confusion and clarify the fiscal impacts for the community at large, the fiscal cost-benefit reports were revised to separate out the Fire and Recreation impacts from the Washington Township cost-benefit model.

In addition, the description of land-use impacts on the Schools were separated out so as not to be misinterpreted as being part of the City's fiscal analysis. References to "the City" in the Schools report were removed.

What About Other Jurisdictions? The Steering Committee raised the issue of why the fiscal impact analysis does not include other jurisdictions, such as the independent Centerville-Washington Park District and the Washington-Centerville Public Library.

Again, the original purpose of this analysis was to determine the fiscal impacts of land uses and development on the governments of the City of Centerville and Washington Township. These are the jurisdictions that have the legal authority to plan, make zoning decisions, and approve development. Other agencies (such as the Park District) do not have this authority. Therefore, the City and the Township are the most relevant for the purpose of determining the fiscal impacts of various land uses.

Impacts on the Schools are important, from the extent that land use decisions in the City and Township have a direct impact on the School budget, but also because the Schools themselves have such a significant impact on the market and the fiscal health of the City and the Township. As discussed in the Housing Competitiveness Report produced by this consultant, the high quality of the schools is ranked as the most important reason that residents locate in the Centerville-Washington Township area. Thus, land use decisions that impact on the budget for Centerville City Schools also has the eventual effect of impacting on the market for housing and the fiscal health of both the City of Centerville and Washington Township. Because of this undeniable relationship, the deliberate decision was made early on to conduct a separate fiscal cost-benefit analysis for the Schools.

The Library and the Park District are obviously important assets for the community at large. However, it can be argued that Interstate 675 is also a critical asset, as are County and State roads that wind through both Centerville and Washington Township. Land use decisions can affect the fiscal health of all agencies at the local, County, State, and Federal government levels.

Nevertheless, the scope of this fiscal analysis is confined to those jurisdictions that have the most direct impact on land use decisions. In addition, resources were allocated only to cover this scope. Assessing the fiscal impacts on additional entities requires additional time and resources for the process of conducting staff interviews, collecting and interpreting budgetary information, collecting and analyzing usage data, conducting site visits, designing an appropriate model, analyzing the results, and drafting separate reports.

Since the Steering Committee desires to illustrate the scope of impacts on the broader community, then the consultant is providing such services at the behest of staff and in the absence of additional resources.

Other City-Twp Comparison Issues. As has been stated throughout the fiscal reports and in presentations, the City and the Township have very different fiscal structures. For this very reason, it is difficult to compare fiscal impacts in Centerville with those in Washington Township. Centerville has a fiscal structure more similar to other Ohio municipalities than to its neighboring township.

It is also important to note that Centerville and Washington Township have different land use densities. These densities affect the overall per-acre numbers and make it more difficult to compare across jurisdictions.

Issue 2: Centerville Wage Comparison

The Power Point presentation on April 9th included a slide with information on wages that was not discussed in the written report. The purpose of this information was merely to illustrate the *average individual income* on which City income taxes are derived for each land use. The description of this data as the “average wage” for each land use was misleading, as the numbers are weighted to account for part-time and full-time employment. Therefore, the numbers actually represent weighted income averages for Centerville workers.

Issue 3: Housing Values & Benefits

A question was raised regarding the average housing values used in the fiscal cost-benefit analyses. Specifically, the Property Tax Benefit from single-family housing to the Schools appeared to be too small, given the housing values in the area. The housing values used in all of the fiscal models were based on actual 2000 U.S. Bureau of the Census Median Housing Values for owner-occupied units, adjusted upwards for consistency with the change in 2000-2001 housing price data. The model has been reviewed and the single-family housing values confirmed as correct. The single-family values used in the models are:

Centerville (Per SF Unit):	\$151,674
Washington Twp (Per SF Unit):	\$166,566

However, in reviewing the School impact model specifically, a mathematical error was identified in the calculation of the overall per-unit tax benefit to Schools, which inadvertently utilized the incorrect number of single-family residential *zoning categories*. This error was not found in the other models. The School impact model has since been re-calibrated and the “benefit” factor corrected.

In addition, the School impact model has been adjusted so that property tax impacts are based on the weighted average of Centerville and Washington Township values for each land-use category. Previously, the impacts were based on Centerville average single- and multi-family housing values, which are lower than those in the area as a whole. This revised version provides a more appropriate view of the fiscal impacts on Schools of land uses throughout the community at large.

Revised Impacts. Despite these revisions in the School impact model, there is no change in the overall findings on the fiscal impacts of each land use on the Schools: Residential uses generate a negative fiscal impact on schools,

while commercial and industrial uses generate a positive fiscal impact. These findings are summarized below, comparing the initial impact numbers distributed in the Draft report to the numbers generated in a revised model:

<u>Land Use</u>	<u>Former Impact / Acre</u>	<u>Revised Impact / Acre</u>
Residential-SF	(\$ 2,867)	(\$ 1,619)
Residential-MF	(\$ 9,415)	(\$ 1,776)
Industrial	\$ 8,158	\$ 9,923
Office	\$21,007	\$34,517
Retail	\$ 9,687	\$15,856

As discussed under Issue 1, the discussion of School impacts was only included within the Centerville fiscal cost-benefit report for the sake of brevity. These impacts will be discussed separately in the revised fiscal impact report.

Issue 4: Pupil Yields

Several Steering Committee members took issue with the methodology for determining pupil yields for single-family housing, used in the School impact analysis.

Centerville City Schools did not provide the consultant with direct pupil yield calculations by residential land use (single versus multi-family) and informed the consultant that these calculations were not available. Rather, the Schools provided the consultant with data on the number of pupils picked up by school busses at several *sample* multi-family developments, to be compared with data on the total number of units within those developments. Based on that sample data, the consultant calculated an estimated pupil yield for multi-family housing.

Since no single-family pupil yield data had been provided, the consultant used an estimate based on the average yield for single-family housing in other suburban jurisdictions in Ohio.

Steering Committee members offered an alternative methodology for the consultant to calculate single-family pupil yield by “subtracting the multi-family number.” The consultant has since applied this methodology by calculating the total number of pupils in multi-family housing (based on the sample estimate) and subtracting that number from the total enrollment to determine the number of pupils generated by single-family dwellings in the district. This number was then applied to the fiscal model to determine revised School cost-benefits.

Issue 5: Budget “Balance Sheet” (Existing Conditions Report)

Steering Committee members requested that the Fiscal Existing Conditions report illustrate not only the percentage share of the budget allocated for each function, but also the actual budget amounts for each jurisdiction. This information had been requested previously and was in fact added into the body text of the revised report that has been distributed to the Steering Committee. However, a new table showing this information more explicitly will also be added to the report to make the budget numbers more accessible to the reader.

Other Issues

Several other issues were raised during the Steering Committee meeting that will be addressed in a revised report. One question relates to a sentence that confused some readers with regards to the property tax benefits of each land use to the Schools (page 5 of the Centerville cost-benefit report):

“This analysis does not account for income taxes that would only serve to further boost commercial and industrial uses over residential ones in generating a net benefit to local schools.”

Since income taxes are not used for Schools, the point is irrelevant and the sentence will be removed from the revised report.

Steering Committee members also requested more information on the assumptions used in the analysis (such as the housing values). A list of these assumptions was provided last month to Washington Township staff, but was not distributed to the Steering Committee.

Revised Product and Schedule

Revisions were made to the fiscal cost-benefit or fiscal existing conditions reports as indicated above. These revisions included:

1. Reformatting of the documents into a single Fiscal Impact Assessment Report, to include separate sections as outlined below:
 - a. City of Centerville
 - b. Washington Township
 - i. Township
 - ii. Fire Department
 - iii. Recreation Center
 - c. Centerville City Schools
 - d. Methodology & Assumptions
 - e. Appendix Tables

2. Fire Department and Recreation Center impacts were separated from Washington Township (and discussed separately, as indicated in the outline, above).
3. Schools cost-benefits were revised as indicated in this memorandum (impact calculation, average valuations, pupil yield) and discussed in a separate section as illustrated in the outline, above.
4. More detailed assumptions were provided as part of an Appendix to the revised fiscal report.
5. In addition, the Fiscal Existing Conditions report will be revised to include a table summarizing the actual Centerville and Washington Township budget numbers.

Revisions 1 through 4 were made during the weekend of April 12-13th and provided to City and Township staff by Tuesday, April 15th for their review. The consultant met with staff in person on Friday, April 18th to discuss the revised draft. Based on these discussions, the product and schedule were revised as follows:

1. City and Township staff requested a “prototypical” model or example of the fiscal model so that they could better understand the details of how it works. Gary Huff had a specific question about the Fire Department model, so this was the one used as the prototype. This information was written during the weekend of April 19-20th and provided in a 13-page description of the Fire Department model on Monday, April 21st. It should be emphasized that the Fire Department is only one of five models used in the baseline fiscal analysis.
2. Glossary to explain more of the terminology, included in the revised fiscal report.
3. A better explanation of the definitions of single- and multi-family, included in the “prototypical” model, and also to be included in the revised fiscal report.
4. City and Township staff requested that the Park District impacts also be included in the fiscal impacts, but that a simplified model would be acceptable given the lack of scope or budget for this work.
5. Similarly, City and Township staff requested that the Library impacts also be included, through a simplified model as above.
6. Gary Huff recommended that the information be presented in a new format, to make the impacts easier to understand, as shown below:

- a. Washington Township Net Fiscal Model, including Washington Township Fire Department & Washington Township Recreation Center.
- b. Washington Township Net Fiscal Model, including W.T. Fire, W.T. Recreation, Washington-Centerville Public Library, and Centerville-Washington Park District.
- c. Washington Township Net Fiscal Model, including W.T. Fire, W.T. Recreation, W-C Public Library, C-W Park District, and Centerville City Schools
- d. Centerville Net Fiscal Model.
- e. Centerville Net Fiscal Model, including Washington Township Fire Department & Washington Township Recreation Center.
- f. Centerville Net Fiscal Model, including W.T. Fire, W.T. Recreation, W-C Public Library, and C-W Park District.
- g. Centerville Net Fiscal Model, including W.T. Fire, W.T. Recreation, W-C Public Library, C-W Park District, and Centerville City Schools.

This effort requires time to set up the Park District and Library calculations and to reconfigure the models into the various combinations, as requested. These various configurations are to be included in the fiscal cost-benefit report.

7. Additional tables or charts, as requested by the Steering Committee Chair, included in the fiscal report:
 - a. Levy revenues to the City and Township, respectively.
 - b. Levy revenues to the Schools, Recreation Department, Fire Department, and Park District.
 - c. Income tax revenues to the City for Police, etc.
 - d. Millage rates.
8. Improved linkages between the two fiscal reports (Existing Conditions and Cost-Benefit), to include a clearer statement of purpose in the introduction to the Cost-Benefit report.
9. A more detailed explanation of the different fiscal structures in the Existing Conditions report.

Information from Item #1 was shared with City and Township staff during the week of April 21st for their review. Items 2 through 9 are to be included in the revised fiscal reports due by the end of April. A sub-committee of the Steering Committee will discuss all of these revisions and provide written comment or additional revisions to the consultant by May 7th. The consultant will make any additional revisions or changes in time for ACP to send the revised reports to the Steering Committee at least one week prior to their meeting on May 21st.

**2. Prototypical Land Use
Fiscal Cost-Benefit
Analysis,
April 30, 2003**

Prototypical Land-Use Fiscal Cost-Benefit Analysis: Washington Township Fire Department (April 30, 2003)

Inputs: **Number** **Notes / Sources**

I. Annual Gross Benefits to Fire Dept

(A) Residential Property Taxes

1. Housing Units

The source of data for housing units in the Centerville-Washington Township fiscal model is illustrated below.

Centerville:

Single-Family-detached units	5,930	(2000 Census)
Attached units	1,337	(2000 Census)
Multi-Family units	<u>3,178</u>	(2000 Census)
TOTAL	10,445	

Washington Township:

U.S. Census does not disaggregate units for the unincorporated area.

Data is imputed by subtracting out City of Centerville from Township totals.

Single-Family-detached units	7,952	(2000 Census)
Attached units	1,547	(2000 Census)
Multi-Family units	<u>2,988</u>	(2000 Census)
TOTAL	12,487	

Community Total:

Single-Family-detached units	13,882	(2000 Census)
Attached units	2,884	(2000 Census)
Multi-Family units	<u>6,166</u>	(2000 Census)
TOTAL	22,932	

For the purposes of consistency and simplicity, the Centerville-Washington Township fiscal model is designed to differentiate only between single-family and multi-family, and not between specific zoning categories. The numbers of single-family (SF) and multi-family (MF) units were determined based on the ACP definition of single- and multi-family. In this definition, single-family includes primarily detached units. Multi-family includes attached units and multi-unit buildings. Thus, the numbers of units for each use in the RGDE fiscal model are consistent with the developed acreages provided by ACP for single- and multi-family. As a result, 13,882 single-family units and 9,050 multi-family units were used as the housing base in the Fire Department model:

Fire Department Housing - Model Base

Single-Family Acres	9,711	(ACP)
Multi-Family Acres	1,615	(ACP)
Single-Family Units	13,882	(2000 Census)
Multi-Family Units	9,050	(2000 Census)

2. Housing values

ACP and RGDE have included attached units in the definition of multi-family. Many of the community's "pinwheel" attached units (built with four units per building) share certain characteristics of density, value, and market with units in multi-family apartment complexes. Census data on median housing values are only available based on tenure. For the purposes of consistency, and to assign value and communicate general land use impacts, single-family detached housing is generally equated with owner-occupied housing in this model. Multi-family is equated with rental housing. There is, of course, overlap in these definitions. About 4.0% of the community's detached single-family housing is rented. Conversely, about 20% of the community's multi-family housing (mostly the attached units) is owner-occupied. Nevertheless, the values for the cross-tenure uses are likely to be consistent with the housing type.

SF Weighted Ave Value: \$160,205 (see below)

Based on weighted average of adjusted 2000 Census for Centerville and Washington Township (disaggregated) owner-occupied housing values:

Centerville	\$151,674	(2000 Census, adjusted)
Washington Township	\$166,566	(2000 Census, disag & adjusted)

MF Weighted Ave Value: \$111,865 (see below)

The RGDE model determines the value for renter-occupied units based on the property income-approach for appraising property value. Contract rents (incomes) average \$671, based on adjusted 2000 Census weighted average for Centerville and Washington Township:

Centerville	\$654	(2000 Census, adjusted)
Washington Township	\$687	(2000 Census, disag & adjusted)

3. Tax (millage) Rates - Residential

1976 Fire Residential	1.500	Eff Rate	0.469569
1998 Fire/EMS Res	3.000	Eff Rate	2.814948

Applied to 35% of Assessed Value
Assumed at 95% of FMV

4. Residential Property Tax Benefit:

Amount of Fire Department Levy Paid Per Unit:

SF	\$184	(Model)
MF	\$129	(Model)

Based on the previous assumptions in the model, with the effective tax rates applied to the average values for SF and MF to determine the amount of tax that is expected.

However, this amount must then be checked & adjusted against *actual* tax collections, based on the total 2001 assessed value and actual property tax revenues to the Fire Department, in order to ensure consistency with the cost side of the model.

Residential assessed value	\$987,149,870	(Montgomery Cty Auditor)
Fire Dept property tax revenue	\$ 4,358,739	(Washington Township)
Revenue attributed to residential	\$ 3,242,311	(see below)

The actual revenue attributed to residential is determined by multiplying the residential assessed value by the tax rate.

Based on the fiscal model, the total "expected" Fire Department revenue should be \$3,720,440. However, this amount is \$478,130 more than would be assumed based on actual 2001 assessed value and actual tax collected (\$3,242,311). Thus, the model has to be adjusted for consistency with actual collections.

The share of "expected" Fire Department residential property tax revenues attributed respectively to single- and multi-family is determined:

This is accomplished first by dividing the total "expected" tax amount for all single-family units (\$2,566,629) by the total "expected" tax that would be paid by both SF and MF residential units together (\$3,720,440). Thus, approximately 68.7% of residential taxes for the Fire Department would be paid by single-family dwellings. This percentage is applied to the total *actual* residential property tax revenue figure for 2001 and divided by the number of single-family units to

estimate the actual tax collected per single-family unit in 2001, or \$161. The same process is then applied to multi-family.

SF property tax benefit:	\$161	(model)
MF property-tax benefit:	\$112	(model)

The resulting property tax benefits are lower because they have been adjusted to reflect actual tax revenue collections in order to remain consistent with the cost side of the model.

(B) Non-Residential Property Taxes

1. Square Footage

The source of data for square footage of non-residential uses in the Centerville-Washington Township fiscal model is illustrated below.

Centerville

Retail	1,269,300	(RGDE, GEM)
Office	531,780	(RGDE, Miller-Valentine, GEM)
Industrial	350,000	(RGDE, Govt Staff)

Retail square footage was estimated based on GEM and RGDE shopping center inventories and RGDE site analysis of *non*-shopping center retail space, collected as an input to the RGDE retail market overview. Office square footage was estimated based on GEM, Miller-Valentine, and RGDE multi-tenant office building inventories and on the RGDE rental Office Market Analysis. These data were supplemented with an RGDE site analysis and estimate of owner-occupied single-tenant & professional office buildings. Industrial inventory was estimated based on RGDE site analysis, and on interviews with brokers and government staff.

Township inventories were estimated using the same approach as described above for the city.

Washington Township

Retail	850,000	(RGDE, GEM)
Office	1,380,000	(RGDE, GEM)
Industrial	175,000	(RGDE)

Total Community

Retail	2,119,300 Sq. Ft.
Office	1,911,780
Industrial	<u>525,000</u>
TOTAL	4,556,080

2. Floor-Area Ratios

All three inventories were checked against ACP estimates of developed land acreage, yielding floor-area ratios (FAR) that were *generally consistent* with ACP assumptions and with standard FARs.

Floor-Area Ratios (FAR)

Retail	0.13	(model)
Office	0.14	(model)
Industrial	0.11	(model)

3. Non-Residential Values

Non-residential values were determined based on total actual assessed value (taxed at 25%).

Commercial + Industrial	\$221,544,000	(Mntgmry Cty Auditor)
Tangible Personal	\$ 89,111,500	(Mntgmry Cty Auditor)

Commercial and industrial values were disaggregated based on their respective shares of total square footage, adjusted for higher per-foot values in commercial uses. Adjustments in value were based on comparables provided by Montgomery County Auditor. Adjustments were also made to account for hotels and other commercial uses other than office and retail.

Commercial	\$199,893,000	(model)
Industrial	\$ 21,651,000	(model)

4. Tax (millage) Rates – Non-Residential

1976 Fire Non-Residential	1.5	Eff Rate	0.457716
1998 Fire/EMS Non-Res	3.0	Eff Rate	2.866215

Tangible / Personal property includes machinery, equipment, fixtures, inventory, and supplies used in business. Ohio House Bill 283 will reduce the assessed valuation on the inventory component of tangible property from 25% to 0% by 2031. For retailers, most tangible property is in the form of inventory, for which valuations are being reduced to 0%. Many small retailers are exempt from the tax because valuations fall under the \$10,000 threshold. Most tangible property is concentrated in industrial and office uses.

5. Non-Residential Property Tax Benefit

Total per use:

Commercial Total	\$664,400	(model)
Industrial Total	\$ 72,000	(model)
Tangible / Personal Total	\$296,200	(model)

Commercial is further disaggregated into retail and office based on square-footage share of total commercial. Tangible / Personal is disaggregated and distributed primarily to office and industrial uses based on square footage share of total for those two uses. Totals for real property taxes for retail, office, and industrial are then divided by the square footage for each use to illustrate the real property tax benefit per square foot. Totals for tangible property taxes for office and industrial are then divided by the square footage for each of those uses to illustrate the tangible property tax benefit per square foot. The real and tangible tax benefits are then added together:

Resulting Factor Per Square Foot: (Real + Tangible Tax Benefit)

Retail		\$0.18	(model)
Office	\$0.16+\$0.11 =	\$0.27	(model)
Industrial	\$0.14+\$0.12 =	\$0.26	(model)

C. Other Revenue Benefits

Centerville and Washington Township land uses also generate other benefits to the Fire Department, beyond property taxes. The Fire Department receives revenues from fines, fees, permits, and other revenue.

1. Other Revenues

Other Revenue	\$68,500	(Washington Township)
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2. Distribution of Revenues by Use

This revenue was distributed to residential and non-residential uses based on their respective shares of total acreage among the selected uses. Thus, permits and similar revenues are related back to the share of property (and by extension, development), between residential and non-residential land uses.

Residential revenues are then disaggregated between single-family and multi-family based on their respective shares of total assessed residential value, thus relating the value of permits to the value of construction (assessed value). Non-residential revenues are also disaggregated.

Other Revenues by Use

SF Other Rev to Fire Dept	\$3.08 / unit	(model)
MF Other Rev to Fire Dept	\$2.15 / unit	(model)
Retail	\$0.001 / SF	(model)
Office	\$0.001 / SF	(model)
Industrial	\$0.001 / SF	(model)

D. Gross Revenue Factors

These relatively small amounts were then added to the property tax benefits to derive the total (Gross) benefit from each major private land use to the Fire Department.

Gross Revenue Factor (output) by Use

SF Residential	\$164 / unit	(model)
MF Residential	\$114 / unit	(model)
Retail	\$0.18 / Sq. Ft.	(model)
Office	\$0.27 / Sq. Ft.	(model)
Industrial	\$0.26 / Sq. Ft.	(model)

The “factors” were then translated into per-acre measures using the FARs derived from the models based on ACP acreages:

Gross Revenue per Acre by Use

SF Residential	\$234 / acre	(model)
MF Residential	\$640 / acre	(model)
Retail	\$1,035 / acre	(model)
Office	\$1,654 / acre	(model)
Industrial	\$1,223/ acre	(model)

Derivation of gross benefits to the Fire Department is relatively simple because there is only the one primary source of revenues – property taxes. **This is not the case for the other fiscal models.** Even Recreation derives a substantial share of its revenues from non-property tax sources (user fees and charges), which are distributed to the various land uses based on a very different methodology.

II. Annual Cost for Fire Service

A. Budget (Annual Recurring Expenditures)

The operating budget used as the base for this analysis is derived as follows:

Total Expenses	\$5,445,275
Less Capital Expenses	<u>-\$1,037,388</u>
Operating Expenses	\$4,407,887

Initially, the model (and the fiscal trends analysis) excluded only what were assumed to be the large capital expenditures for equipment (e.g., fire engines), property (new fire station), and other “sunk” capital. Smaller annual purchases (e.g., minor office equipment) were initially (and logically) considered as part of the operating budget. However, detailed data were not initially provided to the consultant to substantiate these assumptions and, for the sake of simplicity, all expenses deemed by the Township to be “capital” have now been removed from the operating models.

B. Indicator of Demand: Calls for Service

Calls for service are used as an indicator of demand for Fire Department services. As such, they provide a direct link to the operating budget for department services.

1. Calls by Type of Service

The Fire Department provides two primary types of service:

- Fire & Rescue
- Emergency Medical Services (EMS)

The number of calls for each of these services was determined, based on information provided by the Washington Township Fire Department. Certain calls that included both fire and EMS services were distributed to both. Calls to nursing homes and other institutional uses were excluded from the call base.

Number of Calls (for Model Uses only)

Fire Calls	172 (4.5%)	(WTFD, RGDE)
EMS Calls	<u>3,644</u> (95.5%)	(WTFD, RGDE)
TOTAL	3,816 (100%)	

2. Call Hours

As an indicator for cost-of-service, the number of calls is translated into call hours. The time (and therefore cost) used for each call varies by type of call. Fire calls require more time on average than emergency medical calls. Data on average time per call was not available from Washington Township. Therefore, the data were based on averages for time-per-call among other suburban Ohio fire departments (adjusted based on information from W.T. Fire Department staff and on national data as available).

Time per call

Fire Call	3.8 Hours	(OH Comps, RGDE)
EMS Call	2.2 Hours	(OH Comps, RGDE)

Total Call Hours (for model uses)

Fire Call Hours	654 Hours	(model)
EMS Call Hours	<u>8,008 Hours</u>	(model)
TOTAL	8,662 Hours	

C. Cost per Call

Cost per call was determined by dividing the total operating cost (less costs associated with institutional uses) by the total calls for each type of call.

1. Share of Budget for Modeled Uses

First, the total budget for model uses is determined, based on the number of call hours by type:

Share of Budget by Type of Call

Model Uses:

Fire	6.9%	(WTFD, RGDE)
EMS	84.2%	(WTFD, RGDE)
Other Uses: (institutional)	<u>8.9%</u>	(WTFD, RGDE)
TOTAL	100.0%	

Other (institutional) uses are excluded from the analysis, so that model costs and revenues are consistent.

Amount of Budget for Model Uses

Fire (Model uses only)	\$ 304,140	(model)
EMS (Model uses only)	<u>\$3,711,440</u>	(model)
TOTAL Non-institutional	\$4,015,580	

2. Cost per Call

Cost per call is then determined based on the number of calls:

Cost per Call for Model (non-institutional) Uses

Fire	\$1,767 / call (model)
EMS	\$1,018 / call (model)

For the purposes of this analysis, other operating services (e.g., training and education) are wrapped into the total cost-per-call.

D. Residential Costs

Calls were distributed for residential uses based on available Fire Department data on source of call. Calls for residential included both fire and EMS calls.

1. Shares for Residential Uses

The Washington Township Fire Department indicated that traffic is the primary generator for EMS calls, with most emergency medical services provided as a result of automobile accidents. Again, this excludes medical calls related to nursing homes, hospitals, or other institutions.

The shares of calls generated by each land use were therefore determined based on the land use share of total trips generated.

The share of trips is determined using standard trip multipliers detailed below:

Trip multipliers:

SF Residential	9.57 / DU	(ODOT)
MF Residential	6.63 / DU	(ODOT)
Retail	68.17 / Employee	(ODOT)
Office	18.31 / Employee	(ODOT)
Industrial	6.96 / Employee	(ODOT)

Total Trips (trip multiplier by total DU or employment)

SF Residential	132,851 (20%)	(model)
MF Residential	60,002 (6%)	(model)
Retail	361,182 (55%)	(model)
Office	101,071 (15%)	(model)
Industrial	<u>6,090 (1%)</u>	(model)
TOTAL	661,195 (100%)	

2. Commutation Allowance

Centerville and Washington Township land uses are not the only generators of traffic through the community. People from outside of the community use local roads to commute to work, shopping, or other activities outside of Washington Township and Centerville. This “through” traffic must be accounted for so that the model does not attribute these costs to local land uses. Based on interviews with Fire Department staff and Township officials, it was determined that 30% of EMS calls may relate to traffic generated by land uses outside of the community. Therefore, the total EMS call volumes have been reduced by 30% overall.

The remaining 70% of calls can relate to trips generated from land uses within the community (such as retail, office, or industrial uses that attract residents or commuters to destinations inside of the community) as well as community residents commuting to work, shopping, or other activities both within and outside of the community.

3. Calls per Residential Unit

Calls per unit were determined based on the share of non-through commuter trips generated by each residential use (see above), multiplied by the number of calls by type (for modeled uses), divided by the number of residential units by type.

SF Residential	0.0365	(model)
MF Residential	0.0253	(model)

4. Cost per Residential Unit

Cost per unit is determined based on the average cost per fire and EMS call and the average calls per unit, by type of residential unit.

SF Residential	\$38.40 / DU	(model)
MF Residential	\$26.61 / DU	(model)

E. Non-Residential Costs

Non-residential calls were distributed based on available information on actual calls for service by type.

1. Share per Non-Residential Use

As with residential uses, the share of calls in each non-residential use was determined in part based on trip generation factors.

Trip Factors: (see residential)

Total Trips: (see residential)

For non-residential uses, trip factors were applied to employment numbers for each use. Employment is not available from the U.S. Census, State of Ohio, or other sources at the township level and therefore had to be calculated through its own model based in part on employee-per-square-foot ratios and other factors.

Employment by Use

Retail	5,298	(RGDE)
Office	7,647	(RGDE)
Industrial	<u>875</u>	(RGDE)
TOTAL in these uses	13,820	

2. Calls per Square Foot

Calls per square foot were determined based on share of all trips for each land use applied to total number of calls and divided by square footage per use.

Retail	0.000929	(model)
Office	0.000399	(model)
Industrial	0.000063	(model)

3. Cost per Square Foot

Cost per square foot is determined based on the average cost of calls and the average number of non-though trip-related calls per square foot, per land use.

Retail	\$0.63	(model)
Office	\$0.27	(model)
Industrial	\$0.04	(model)

F. Cost per Acre

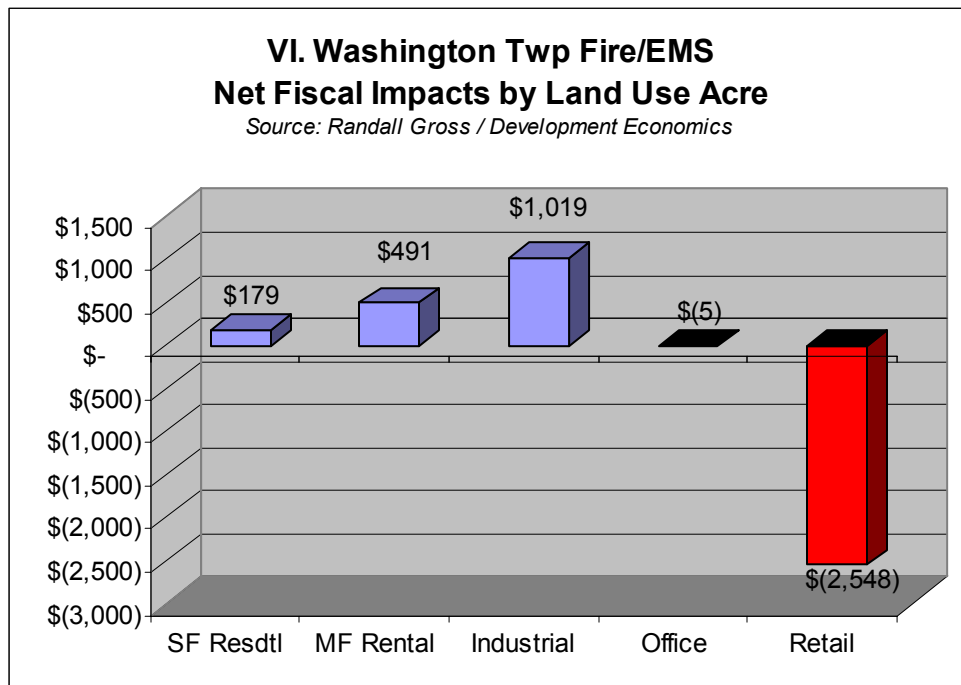
Cost per acre were determined based on the cost per residential unit or per square foot and the FARs generated through the model.

SF Residential	\$55 / acre	(model)
MF Residential	\$149 / acre	(model)
Retail	\$3,581 / acre	(model)
Office	\$1,657 / acre	(model)
Industrial	\$206 / acre	(model)

G. Fiscal Net Benefits

The net benefit “factors” were derived by subtracting the gross costs from gross benefits.

SF Residential	\$125 / DU or \$179 / acre (model)
MF Residential	\$88 / DU or \$491 / acre (model)
Retail	-\$0.45 / SF or -\$2,548 / ac (model)
Office	-\$0001 / SF or -\$5 / acre (model)
Industrial	\$0.22 / SF or \$1,019 / acre(model)



**3. Existing Conditions
Report,
(Fiscal Report 1 of 2)
June 26, 2003**

FISCAL IMPACT ASSESSMENT

Existing Conditions Analysis

Centerville and Washington Township
Fiscal Report 1 of 2

Prepared for ACP-Visioning & Planning, Ltd. (ACP),
The City of Centerville, and Washington Township

Final Report
June 26, 2003
Randall Gross / Development Economics

Fiscal Conditions

1. Overview

The following section provides a brief overview of fiscal trends in both Centerville and Washington Township. Ten years of each jurisdiction's popular budgets were analyzed in terms of operating revenue and expenditure trends, fiscal incentive programs, capital budgeting process, and capital funding sources. Interviews were conducted with representatives of Township and City departments, Centerville Schools, County Auditor, and others to provide further input to this analysis. The report provides key findings on the fiscal situation as an input to the planning and visioning process and to help guide fiscal planning.

The following topics are included in this report for each jurisdiction, after a summary of key findings:

- Local Government Functions
- Operating Budget
 - o Revenues
 - o Expenditures
- Capital Improvements & Infrastructure
 - o Capital Project Planning
 - o Funding Sources
 - o Projects and Expenditures
- Communication

2. Key Findings

Key findings from the baseline fiscal analysis are:

- **Fiscal Structure & Development Policy.** A community's fiscal *structure* has an impact on its planning and development policy objectives. It is in local government's interest to encourage development that maximizes net fiscal revenues. Since Centerville and Washington Township have fiscal structures that rely primarily on different sources of revenue, planning and development objectives naturally diverge. Washington Township is heavily dependent on property taxes, which generate 72% of its revenues. Thus, the Township is naturally keen on protecting and enhancing residential property values as a primary fiscal concern. While Centerville shares this objective, the City generates 41% of its revenues from income taxes. Therefore, it is naturally concerned about creating and protecting high-wage jobs, thereby generating higher income tax revenues.

This fiscal divergence has resulted in some disagreements between the two jurisdictions over development policies and project implementation. Conflict is exacerbated by competition for development in a slow-growth market (see market analyses); and by competition for resources to fund separate operating and capital programs, which can *possibly* result in higher overall costs to taxpayers in both jurisdictions. Regardless of these issues, services provided by the two jurisdictions and by Centerville Schools receive consistently high ratings from community residents.

- **City Income Tax Revenues.** Like most Ohio jurisdictions, Centerville is relatively dependent on income tax revenues. City income tax revenues increased in real dollars by \$2.2 million or 33% between 1992 and 2001, after adjusting for inflation. However, income tax revenue growth is slowing and has *declined* in real dollars since 2000. The City has not increased its income tax rate since 1981. Residents of Centerville and Washington Township who work in Dayton pay a much higher income tax rate than those who work in Centerville.
- **Township Property Tax Revenues.** Washington Township is even more dependent on property taxes, which account for 71% of the jurisdiction's revenue stream. As the Township gradually builds-out, growth in its assessment base will slow. Given the Township's dependence on residential property taxes and the gradual aging of its housing stock, there may eventually be a need to either enhance the value of existing properties, increase development densities (to allow for development of more homes), or diversify the tax structure away from dependence on property tax revenues.
- **Healthy Fund Balances.** Both Centerville and Washington Township maintain healthy fund balances as a protection against future financial crises. Washington Township had a cash balance in excess of \$15 million as recently as January 2001. More typically, the Township aims to maintain a General Fund balance of at least \$1.0 million, plus balances of 25% of other funds' annual operating budgets. Centerville generally maintains a total fund balance of \$12.0 to \$15.0 million.
- **Capital Project Funding.** As well-managed, relatively affluent jurisdictions, both Centerville and Washington Township have the luxury of using a "pay-as-you-go" approach for financing certain capital projects, without having to rely as heavily on debt. As such, both communities are able to reduce long-term project costs to taxpayers. This frees up more operating funds for services desired by residents. On the other hand, there is some dependence on unreliable revenue sources (e.g. inheritance taxes) to fund capital improvements.

3. Local Government Functions

Residents in the community receive their local government services through the City of Centerville and / or Washington Township. As different types of government structures, the two jurisdictions rely on different sources of revenue and generally specialize in providing different types of services. Centerville provides many of the urban services expected of municipal governments in Ohio (such as police protection), and in turn derives much of its revenue from income taxes. Washington Township has evolved from the original rural township structure to provide more urban services (such as fire protection), and yet it still derives the largest share of its revenue from property taxes.

The primary functions and revenue sources for the two jurisdictions are summarized in the following chart.

LOCAL GOVERNMENT FUNCTIONS & REVENUE SOURCES			
Primary Services	Washington Twp	Centerville	Other
Police 1/ Fire	(X) X	X	
Parks & Recreation Parks 2/ Golf Course & Club Recreation Center	X	(X) X	X
Streets	X	X	
Waste Collection		X	
Health Care			X
Transportation			X
Water/Sewer			X
Main Revenue Source			
Property Tax	X		X
Income Tax		X	
Notes:	1/ Washington Twp funds police services, which are provided through a branch of the Montgomery County Sheriff. 2/ Centerville funds Stubbs Park from its General Fund.		
Source:	Randall Gross / Development Economics.		

Not surprisingly, issues of competition, redundancy, or cost inefficiency occur most often where the two communities provide similar services, such as in police protection and street maintenance. Both communities also have a large

investment in recreation facilities, although each offers a distinctive “product” – with the recreation center in Washington Township and the golf course / club in Centerville. There are fewer opportunities for conflict where only one jurisdiction provides a service: I.e., fire protection (provided community-wide by Washington Township) and waste collection (provided by Centerville within the city).

4. Operating Budgets

As a municipal government, Centerville produces a popular budget as well as a Comprehensive Annual Financial Report (CAFR), in addition to its Capital Improvement Program (CIP). The City received the Certificate of Achievement for Excellence in Financial Reporting, presented in 2000 by the Government Finance Officers Association. Centerville had an unencumbered cash balance of \$15.2 million in December 2001. This balance is invested in Government securities and generates significant interest income for the City.

The City of Centerville operates a General Fund that includes administrative functions as well as Public Works, Safety (Police), and Recreational Services. There are also 11 Special Revenue Funds, accounting for proceeds generated by specific sources that are restricted in their use. Another 8 funds are designated for Debt Service & Capital Projects. Finally, 5 funds are set aside as Enterprise, Internal Service & Agency Funds. Enterprise funds, such as waste collection services, are designed as self-sustaining activities that recover most of their expenses through user charges and fees.

Washington Township produces a budget, an Annual Report, and a five-year Financial Plan that includes an annual operating plan. Washington Township also operates a General Fund and 11 special (operating) funds. The latter includes Fire, Police (Montgomery County Sheriff’s Department), Recreation, Road & Bridge, Lighting, Cemetery, Vehicle Maintenance, and several revenue funds. Development Services is included in the General Fund. The Township had an unencumbered cash balance of over \$12.5 million in 2000, with outstanding debt of only \$600,000.

As an input to the community planning process, City and Township operating revenue and expenditure trends are summarized here. The annual operating budget provides a context for prioritizing the delivery of local services as they relate to the community’s evolving goals and objectives. Operating budget totals exclude internal transfers, major infrastructure & capital improvement funds, and reimbursements.

A. Revenues

For the purposes of this report, revenues supporting the General Fund and various Revenue Funds are combined in order to better understand the overall sources of each jurisdiction’s operating income. The 2001 budget is used as a

baseline in this analysis, since 2001 is the most recent year for which actual (versus estimated) revenue data is available.

Centerville. Centerville generated total operating revenues of about \$21.7 million in 2001 (excluding internal transfers, sale of notes, refunds, and reimbursements). Centerville derives the largest share of its funding from local income taxes, which accounted for 41% of the City's operating revenues in 2001. Like most cities in Ohio that rely on income taxes, revenues are impacted by fluctuations in the local economy. However, the City's income tax rate, at 1.75%, has remained unchanged since 1981.

User charges are the second largest source of revenues to the City, accounting for 21% of income in 2001. Most of this revenue is generated through charges for services at the Golf Club at Yankee Trace, totaling almost \$3.4 million in 2001. These charges include greens fees, food & beverage sales, merchandise sales, cart rentals, driving range fees, banquet tips, and other charges for service. Since the Golf Course Operations Fund is an Enterprise Fund, these revenues are *restricted* for use in recovering the costs of operating the golf course and club. Use of the Golf Club for business functions declined during 2001 probably as a result of the economic recession. However, use of the club for social functions increased. Overall, Yankee Trace posted a net loss of \$152,396 after debt service in 2001, partly because of reduced market demand. The Golf Club at Yankee Trace was developed and opened in 1995 as a public amenity available to residents and businesses in the area.

The City generated slightly over 6.2% of its revenues from inheritance (estate) taxes re-distributed from the State in 2001. These revenues represent a windfall to many jurisdictions that would probably grow as the relatively affluent "baby boom" population ages and the number of large estates increases. However, estate tax revenue streams are inherently difficult to predict. Furthermore, State legislators perennially consider abolishing the "death" tax on which many Ohio local governments now depend.

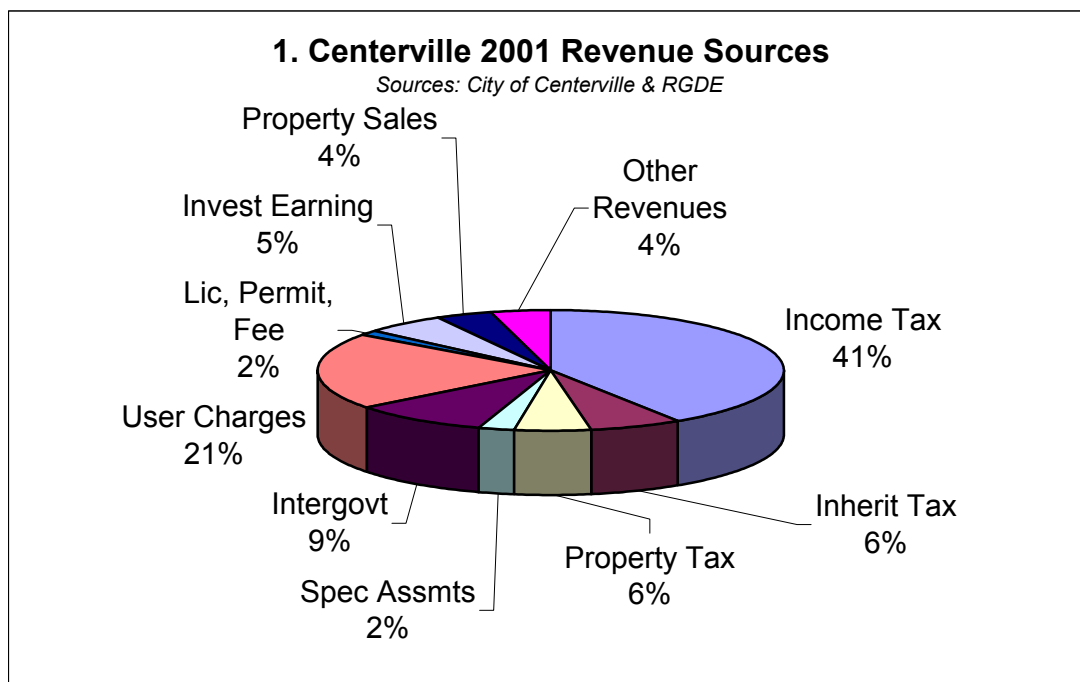
Since only a small share of local property tax millage is allocated by the City (with the remaining millage targeted to the Township, Schools, County and other jurisdictions), the City government only generates a small portion (5.5%) of its funding from property taxes. It is interesting to note that the City derives more revenue from estate tax than from taxes on property. The City's property tax rate has actually been reduced over time, from \$3.81 per \$1,000 of assessed value in 1978 to \$2.35 per \$1,000 of assessed value in 2003. This now places Centerville's among the lower property tax rates in the region.

Other inter-governmental revenues account for 9.2% of the City's income. These funds include allocation of revenues from motor vehicle license fees, gasoline taxes, permissive tax fees, federal safety / education grants, O-DOT highway

funds, and other monies returned to the community by State, County, and Federal Government agencies.

The City raised 4.1% of its funds through the sale of residential building lots at Yankee Trace. The revenues from these lot sales is used to help pay down the long-term debt associated with the construction of the golf club. Revenues from lot sales may have peaked in 2001, with lower revenues estimated in 2002.

Centerville's other revenue sources primarily include Interest (earned on the investment of its fund balance in Government securities) (5%), Licenses / Permits & Fees (2%), and Special Assessments (2%). 2001 operating revenues are summarized in Chart 1, below.



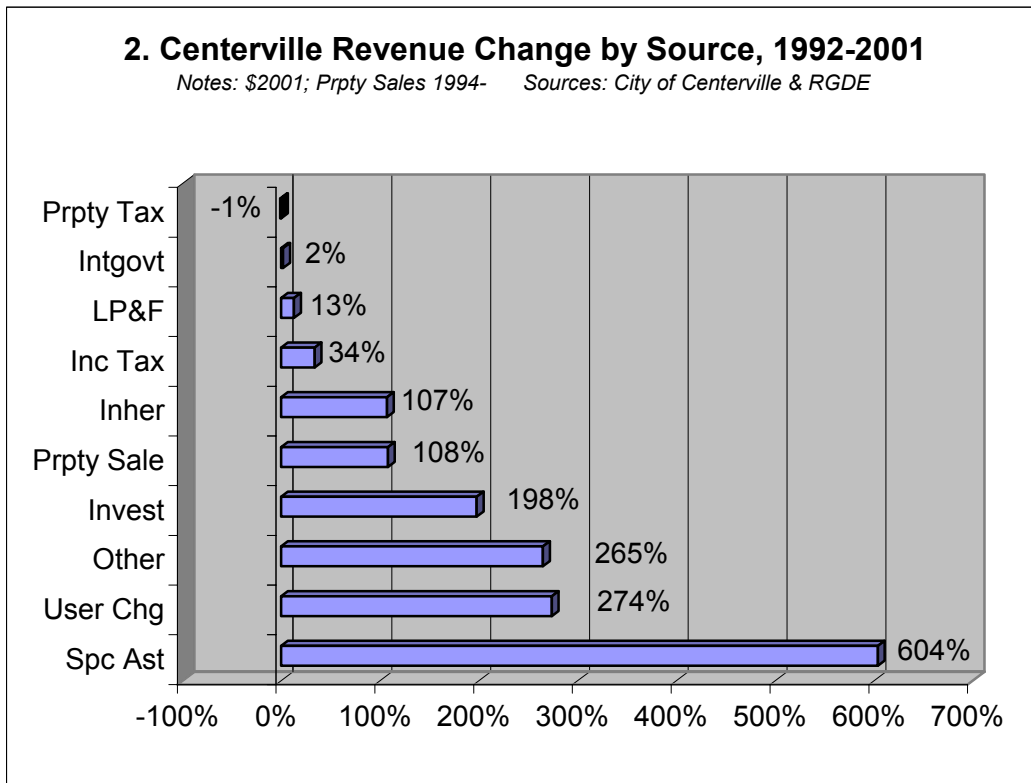
Selected actual revenues to the City of Centerville totaled \$10.0 million in 1992, increasing to \$21.7 million by 2001. This represents an increase of about \$11.7 million, or 117%, over the 10-year period.

After accounting for inflation during this period, Centerville's revenues increased by about \$9.1 million (72%) in constant dollars. This translates into a substantial annual increase of 7.2% in constant dollar terms.

Revenues did not increase at the same rate among all sources between 1992 and 2001. Aside from Special Assessments and User Charges (which increased because new revenue sources like Yankee Trace were introduced during the period), the fastest revenue growth resulted from investment earnings (20.6% per year, in constant dollars). Thus, the City benefited substantially by earning interest on the investment of its fund balance. There was also significant growth

in inheritance tax revenues (10.7% per year), due to growth in the number and size of estates.

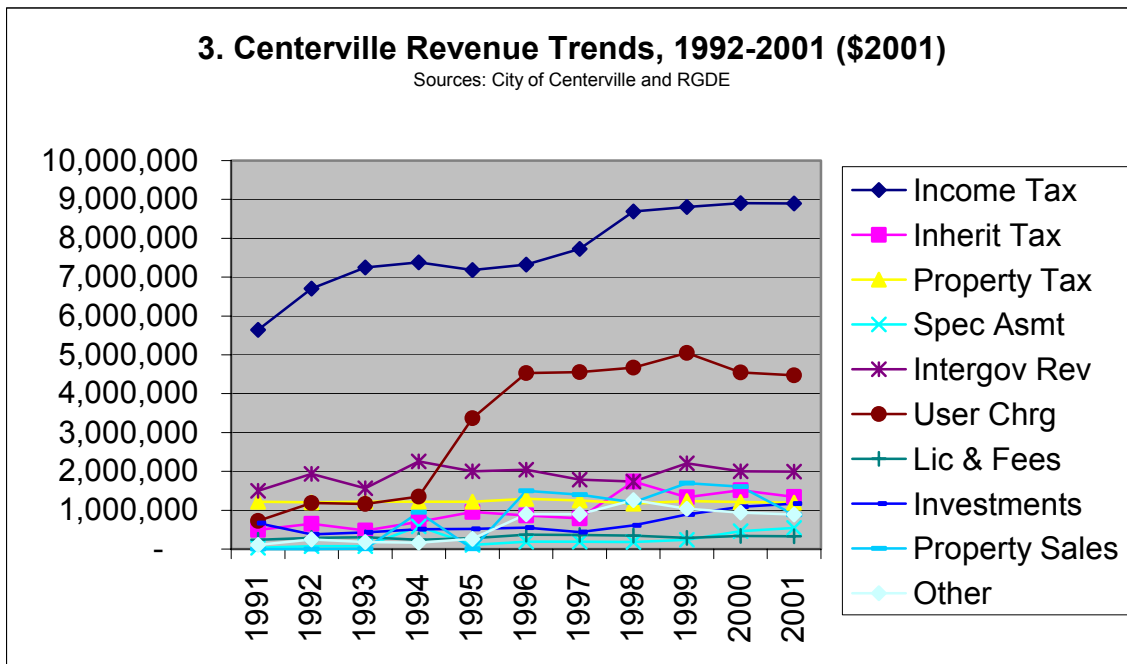
Income tax revenues increased moderately, by 3.4% per year in real dollars, even though the tax rate had not changed during the period. This suggests moderate overall real income growth. Income taxes consistently generated the largest share of revenues overall. By contrast, property tax revenues actually declined by almost 1.0% in real dollar terms in the ten years between 1992 and 2001. While property values increased during this period, the City's property tax rate has declined, yielding slightly less revenues over the ten-year period. The 1992 and 2001 revenues are compared to illustrate the change shown below.



The overall annual revenue trends are illustrated in Chart 3. Again, these figures are adjusted for inflation to illustrate the change in constant dollars. As shown below, income tax revenues increased steadily until 1998, when they began to stagnate in real dollar terms.

Revenue from user charges increased dramatically during the first year of operations at Yankee Trace in 1995. Yankee Trace income peaked in 1999, but fell back slightly in 2000 and 2001. The completion of another 9 holes at the golf course is expected to increase greens fees and other income once again. While a major income source, most of the City's user charge revenues are restricted in their use to funding Yankee Trace operations.

Despite the fluctuation in grants due to application cycles, the total amount of intergovernmental income has remained remarkably consistent since 1992. Property tax revenues have remained nearly constant in real dollar terms over the entire ten-year period. Investment income increased sharply, starting in 1997/1998 and continuing into 2001. Recent investment cycles are moving in the opposite direction. Inheritance tax revenues increased to a peak in 1998, but have since fallen back somewhat. Still revenue levels are higher than in 1992.



1. Income Tax

Centerville is very dependent on revenues generated through its 1.75% income tax, which constituted 41% of the City's revenues and 64% of its unrestricted income in 2001. Income tax revenues increased by 3.4% per year in real dollars during the 10-year period, but have stagnated since 2000. Actual 2002 income tax revenues of \$8.9 million represent an increase of only 0.04% in real dollars from 2001.

Stagnant income tax revenues can result from any combination of national recession, slow at-place employment growth in the city, stagnating wages, increasing delinquency, increasing out-commutation, or out migration of higher-income households. The national recession and slow economic growth during 2000-2002 has no doubt impacted revenues locally.

Income taxes are collected based on place of work, so Centerville (and Washington Township) residents who work in Dayton pay income taxes (through withholding by their employer) to the City of Dayton. Dayton's income tax rate is 2.25%, and thus higher than the Centerville rate.

Dayton, Centerville, and other cities receive a credit for their residents who work in another jurisdiction without an income tax (such as Washington Township). There were 11,760 Centerville residents working in 2000, according to the U.S. Census. There were over 1,300 Centerville residents working in unincorporated areas of Montgomery County (including Washington Township) in 1990, according to data available from the U.S. Census.

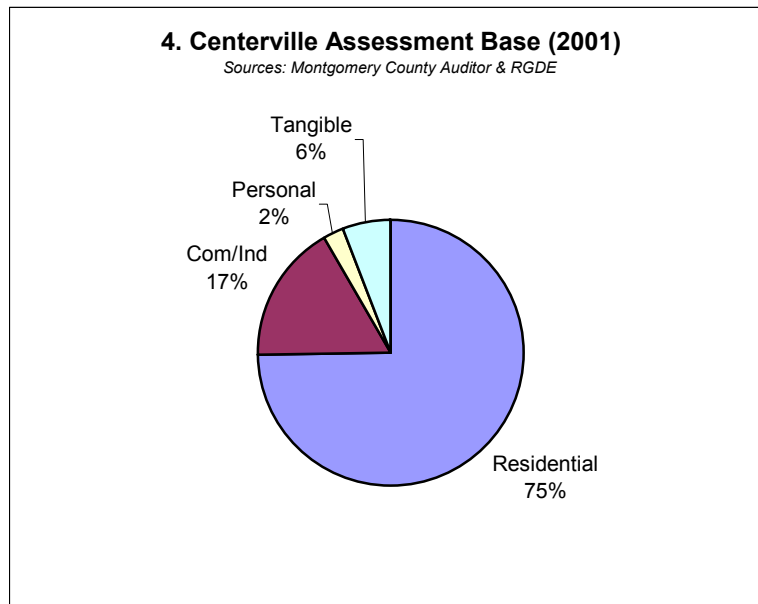
Among the largest employers in the City of Centerville are the Centerville School District, Wright-Patterson Air Force Base, Lexus-Nexus, National City Mortgage, and Delphi Automotive.

Centerville residents' wages resemble regional averages. Based on an analysis of State wage and employment data, annual retail salaries in the area average approximately \$19,800. Salaries average \$51,600 for professional office workers and \$40,800 for manufacturing workers. These wages provide the base for income tax revenues.

Data on employment and wages for people working *within* the City of Centerville (place-of-work) were unavailable from the City. However, 1990 Census data on commutation, provided by the Miami Valley Regional Planning Council, was analyzed to calculate the number of Centerville residents and non-residents who work in Centerville. Based on this analysis, there were 9,982 people employed in the city in 1990. Of these, 17% were Centerville residents and 83% were non-residents. There were 961 unincorporated Washington Township residents working in Centerville in 1990. It is assumed that the share of non-resident workers in Centerville in 2003 is either the same or higher than it was in 1990.

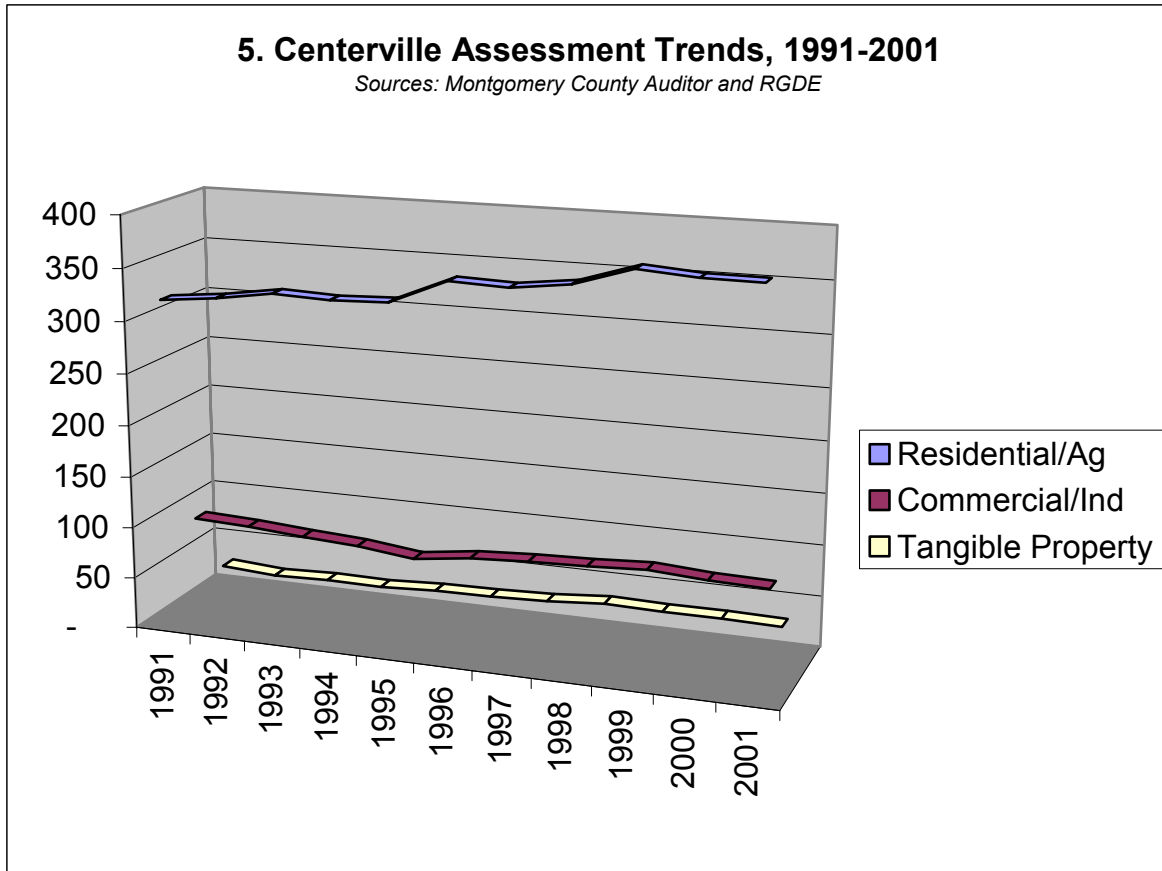
2. Property Tax

Centerville's property assessment base is dominated by residential uses, which account for 75% of the total. Commercial and industrial uses together account for 17%. Personal and tangible property together account for about 8% of the assessment base.



Centerville's property tax revenues increased at the rate of 3.7% per year in real dollars during the 1992-2001 period. This compares favorably with an overall decline of 0.1% countywide, over this same period. Tax revenues are a function of several factors, including real property assessments, personal/tangible property assessments, and the tax rate structure.

The City's share of the property tax levy is 0.235% (2.35 mills) of assessed value. The City's millage represents just 2.7% of the total 87.87 mills levied on Centerville's residents by all local jurisdictions combined. The Schools receive 60.75 (69%) of the millage, with the remainder distributed to the County, Washington Township, and Washington-Centerville Public Library.

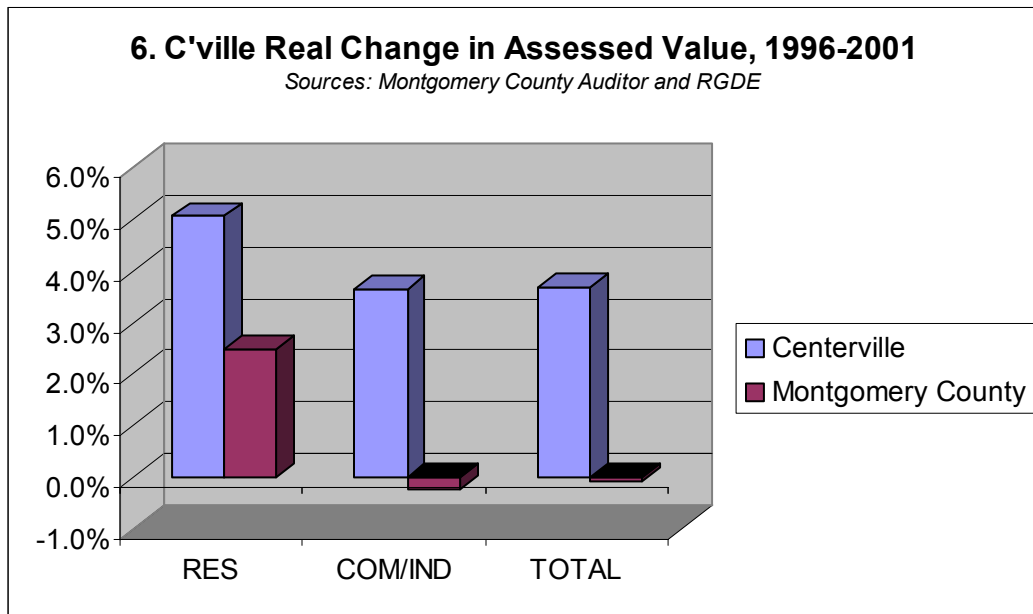


Centerville’s real and tangible property assessment base increased by \$144.2 million or 43.2% between 1992 and 2001. After accounting for inflation however, the City’s real and tangible tax base only increased by 3.7%. The value of real property increased by 4.8% during this period, and tangible property by 15.8%, but personal property value actually declined by 36.7%. Inventories and equipment were previously assessed at 35% of actual value, but are now assessed at 25% of value.

As shown in Chart 5, there is a growing gap between the residential and business-related property base. Commercial property is not increasing in value as rapidly as residential property. Between 1996 and 2001, residential values increased by 5.0%, while commercial/industrial values increased by 3.6%.

Assessment data confirm trends identified in the market analysis that suggest that Centerville is competing for a share of a declining Montgomery County commercial market. During the 1996-2001 period, the county’s residential property assessment base increased by 2.5%, but commercial and industrial values fell by 0.1%. Overall, Centerville accounted for 5.5% of the county’s total real property base in 2001, up from 5.3% in 1996.

Chart 6, below, tracks this change and compares the city's assessment base with that of the county.



Washington Township. As discussed earlier, Washington Township's fiscal structure is more dependent on property taxes to support its programs, since the Township does not have an income tax. Of the \$16.6 million in operating revenues generated by the Township in 2001, \$11.8 million or 71% was derived from property taxes.

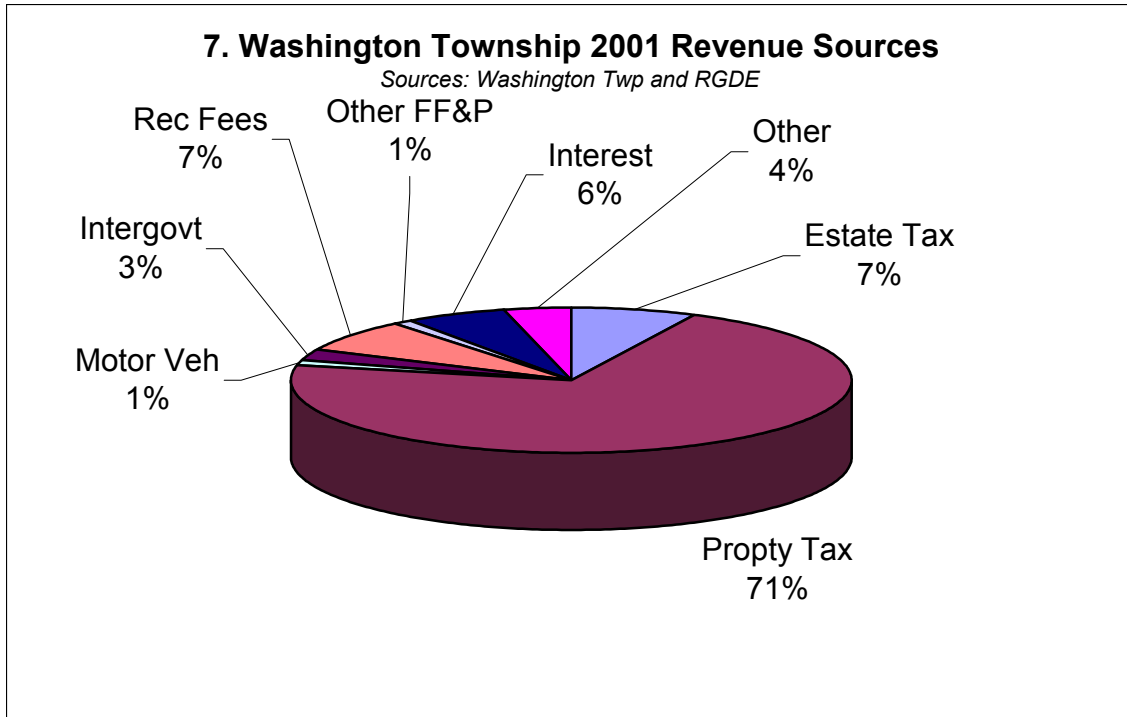
The Township levies eight separate property tax levies, including the following:

- General Fund 0.70 mills
- Road & Bridge 2.35 mills
- Road & Bridge (5-year) 1.70 mills
- Police 2.00 mills
- Police (5-year) 2.00 mills
- Fire 1.50 mills
- Fire (5-year) 3.00 mills
- Recreation (5-year) 0.70 mills

TOTAL 13.95 mills

As indicated, these taxes help support the General Fund, as well as roads, police, fire, and recreation services. The effective tax rate on residential property increased from 12.79 in 1992 to 14.01 by 1998, but has since dropped back to 11.81 mills.

Inheritance (estate) taxes are the second, much smaller, source of Township revenues, accounting for \$1.2 million or 7.3% of the total. As discussed earlier, estate taxes are difficult to forecast as a revenue stream and the use of estate taxes is under threat by State legislators.

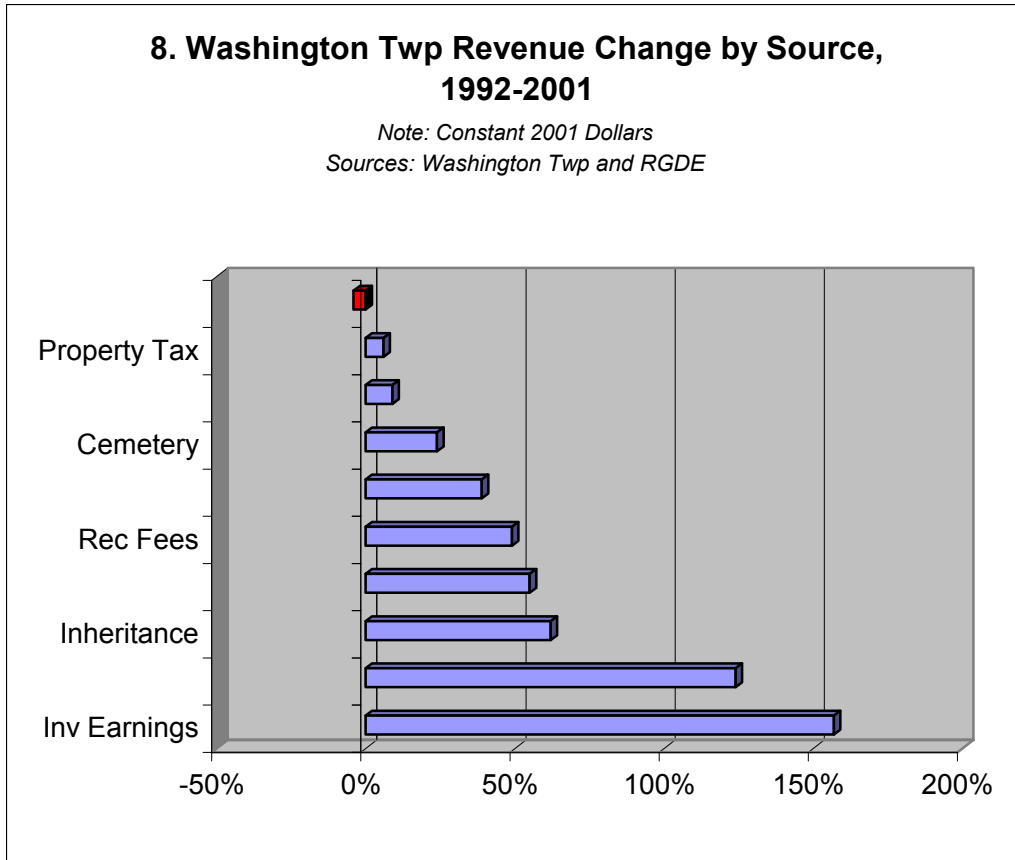


Recreation fees account for another 7.0% of the Township's budget. These user fees and memberships support about 60% of Recreation Center operations. The self-operating property tax levy is used to support the remaining 40% of Recreation Center operations.

As in Centerville, interest income generated through investment of fund balances generates about 6.0% of the Township's income. Intergovernmental sources account for only one-third as much of the Township budget as in the City, since certain government grant funds are designated for municipal governments. Motor vehicle taxes, other fines, fees, and permits together only account for about 2.0% of the Township's budget.

During the ten-year period from 1992 to 2001, property tax revenues only increased by 6.0% in real dollar terms. Property taxes are a relatively stable source of revenue. As such, the Township is somewhat insulated from economic expansions and contractions. Over the past ten years, the Township has not shared in the revenues generated to other Ohio jurisdictions through rapid income growth. At the same time, the Township may be less impacted by the effects of the recent recession.

As in Centerville, investment earnings and estate tax revenues increased rapidly during the ten-year period (157% and 62%, respectively). But also like Centerville, the Township's estate tax revenues have leveled off in the last few years after accounting for inflation.



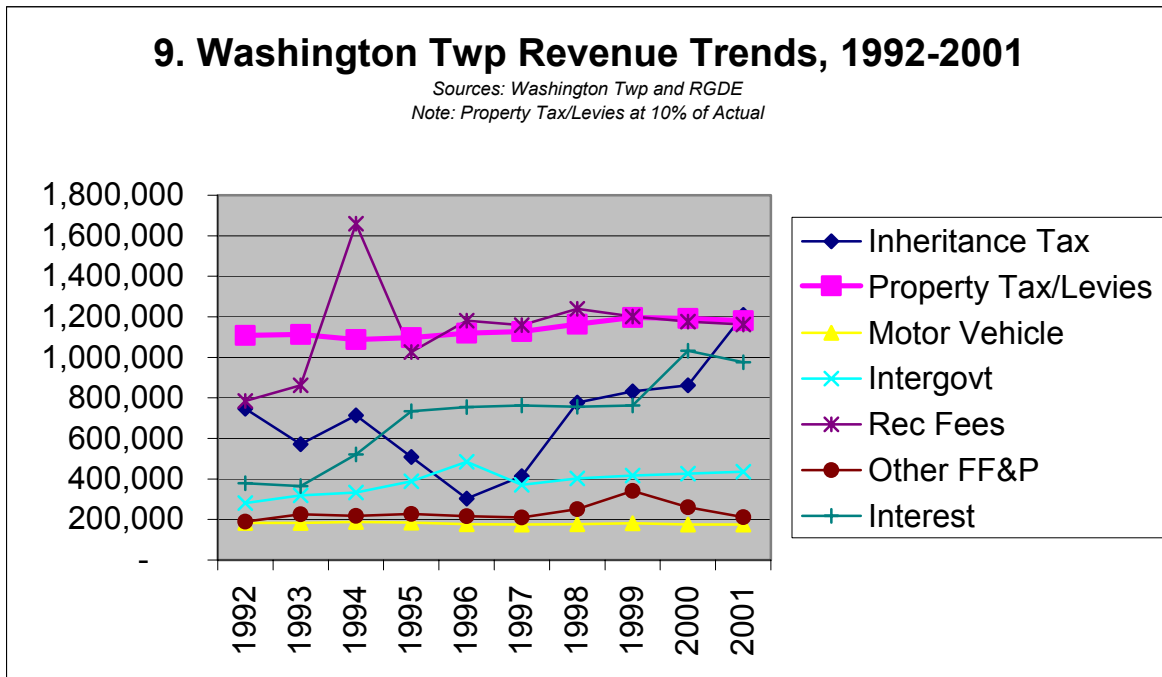
Revenues generated through the State's motor vehicle registration and gas taxes have declined slightly since 1992, after accounting for inflation. Such revenues fell by 4.0% in real dollars during the ten-year period.

The following chart illustrates the ten-year revenue trends among each source. Since property tax revenues are so much larger than other sources, the chart was adjusted to reflect property taxes at 10% of their true value so that revenue trends can be compared.

The chart clearly illustrates the relative stability of property tax revenues as compared with most of the Township's other revenue sources. Property taxes remain relatively constant during the ten-year period.

By comparison, highly volatile inheritance tax revenues show a decrease between 1992 and 1996, but a steep ascent starting in 1996. Fluctuations in

inheritance tax revenues can result from the impact of only one or several large estates.

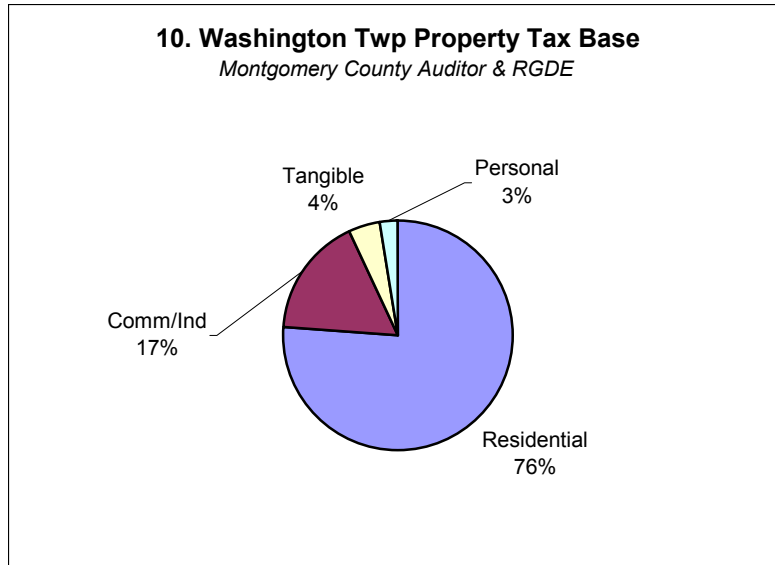


Revenues generated by recreation fees increased in 1994, with the opening of new facilities. Investment interest income increased rapidly in the period from 1993 to 1995 and again from 1999 to 2000. However, Township investment income has fallen slightly since then, after accounting for inflation. Intergovernmental revenues have increased slightly, but steadily, over the ten-year period.

Property Tax

Washington Township's assessment base is dominated by residential property, accounting for 76% of the total. Commercial property (there is very little industrial) accounts for 17% of Washington Township's assessment base. Tangible and personal property together represent about 7% of the total. Thus, Centerville and Washington Township share a similarly proportioned property tax base.

Since Washington Township is heavily dependent on property taxes, the Township is naturally keen on protecting and enhancing residential property values as a primary fiscal concern. While Centerville shares this objective, the City would naturally be more concerned about creating and protecting its high-wage jobs, thereby generating income tax revenues.



Washington Township's assessed values have increased by about 4.2% in real dollars between 1992 and 2001. The Township's residential property base has performed well, with residential assessments increasing by 12.3% or 1.2% per year over the ten-year period. Part of this increase is explained by growth in valuations, while part of it is also due to growth in the number of residential units.

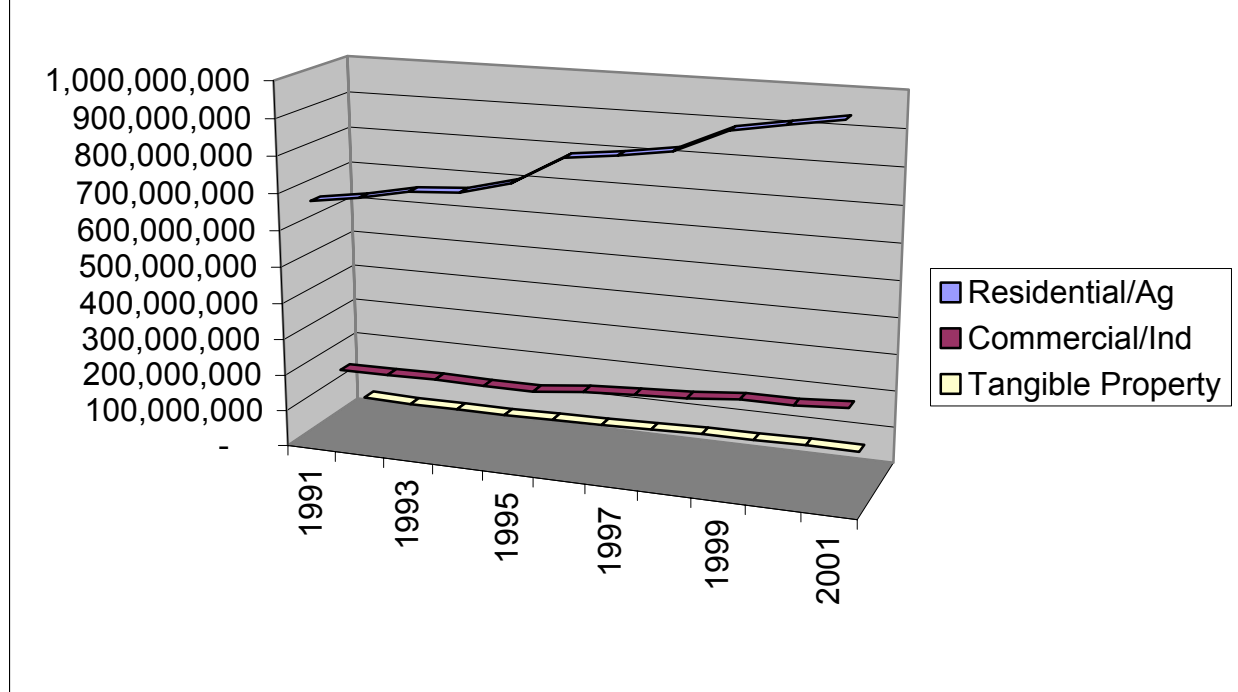
Commercial property valuations increased relatively slowly between 1992 and 2001, increasing by only 4.2% in real dollars. This slow growth occurred despite the addition of new commercial properties during the ten-year period. Tangible property values increased somewhat faster, at 12.9% over the ten-year period.

As the Township gradually builds-out, growth in its assessment base will slow. Given the Township's dependence on residential property taxes and the gradual aging of its housing stock, there may eventually be a need to either enhance the value of existing properties, increase development densities (to allow for development of more homes), or diversify the tax structure away from dependence on property tax revenues.

The following chart summarizes the real growth in property assessment trends in Washington Township between 1992 and 2001.

11. Washington Twp Property Assessment Trends, 1992-2001

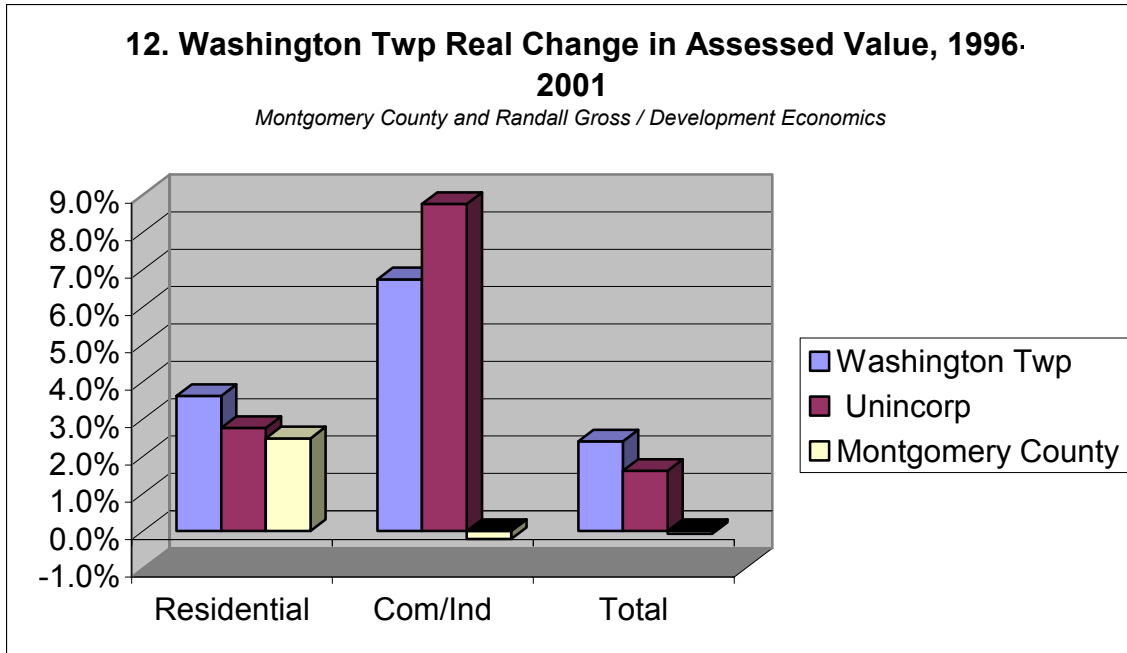
Montgomery County and RGDE



The following chart compares the change in assessed value from 1996 to 2001, between Montgomery County, the unincorporated portion of Washington Township, and Washington Township as a whole.

Growth in the commercial base accelerated during this more recent five-year period, increasing by 6.7%. Most of that growth was probably due new commercial development occurring outside of Centerville in the unincorporated portion of Washington Township.

Interestingly, the lion's share of growth in residential valuations occurred within the Centerville portion of the Township, since the rate of growth in the unincorporated area was slower than that of the Township as a whole. This would seem to counter the assumption that older housing values increase slower than housing values in the newer areas. Assessed values in the unincorporated area increased just slightly faster (2.8%) than in Montgomery County as a whole (2.5%).



B. Expenditures

Operating expenditures and trends are delineated below for each of the two jurisdictions. In order to illustrate annual costs for basic services provided by each jurisdiction, major capital costs and transfers were separated out from recurring costs. This effort is made difficult by the fact that both Centerville and Washington Township have the luxury to “pay-as-you-go” for major capital projects with cash funds passed through the fund balance. Occasionally, the purpose of project-related cash transfers is difficult to track through the popular (public) budget, especially when these funds are transferred explicitly to a special “operating” fund.

Centerville. Operating expenditures (excluding debt retirement, capital improvements, and other major new capital facilities & infrastructure) totaled \$15.3 million in 2001, the latest year for which actual expenditures were recorded. This includes \$8.4 million for General Fund expenditures and \$6.9 million in special (operating) fund expenditures. General Fund departments include various administrative functions such as legislative, management, finance, legal, development, “general government,” and boards & commissions. The General Fund also includes recreation, public works, and safety (police).

In this analysis, the various special operating funds are grouped by basic function: streets & highways, law enforcement education, waste collection, golf course operations, and other activities.

In 2001, Safety (police) accounted for 25% of the City’s budget expenditures. If the golf course expenditure is removed, the share for police protection is

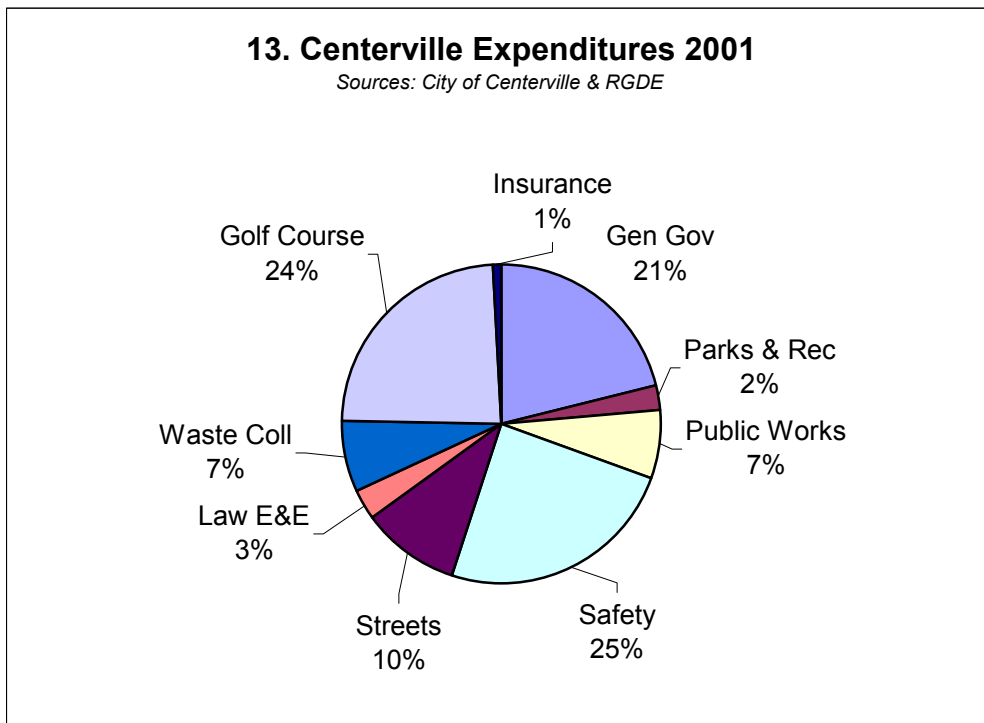
consistent with that of several other Ohio communities for which this fiscal analysis has been completed.

Yankee Trace operations account for about 24% of the City's operating expenditures. Again, the Golf Course Operating Fund is a largely self-supporting enterprise fund. Thus, most of the costs for operating the golf course and club are recovered directly through user charges.

General Government accounts for about 21% of Centerville expenditures. The City began allocating a separate economic development ED budget in 1999. Prior to that time, ED was funded through the City's General Government Fund.

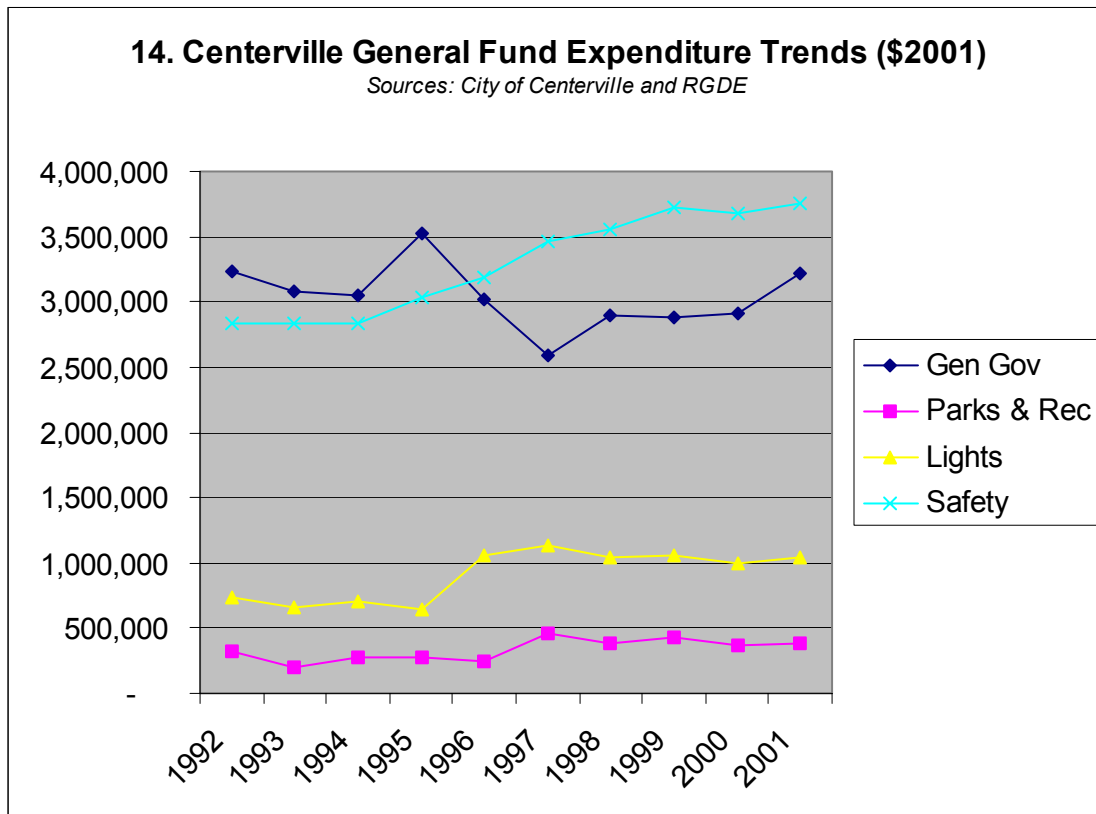
Streets account for 10% of the budget. Waste collection and public works each accounts for 7% of the budget. Another 3% is allocated for law enforcement education programs and 2% for parks & recreation. While there is a regional park district, the City maintains Stubbs Park and Benham's Grove recreational complex as local amenities. Stubbs Park is retained as the City's only passive green space.

The following chart summarizes the City's primary operating expenditures by type.



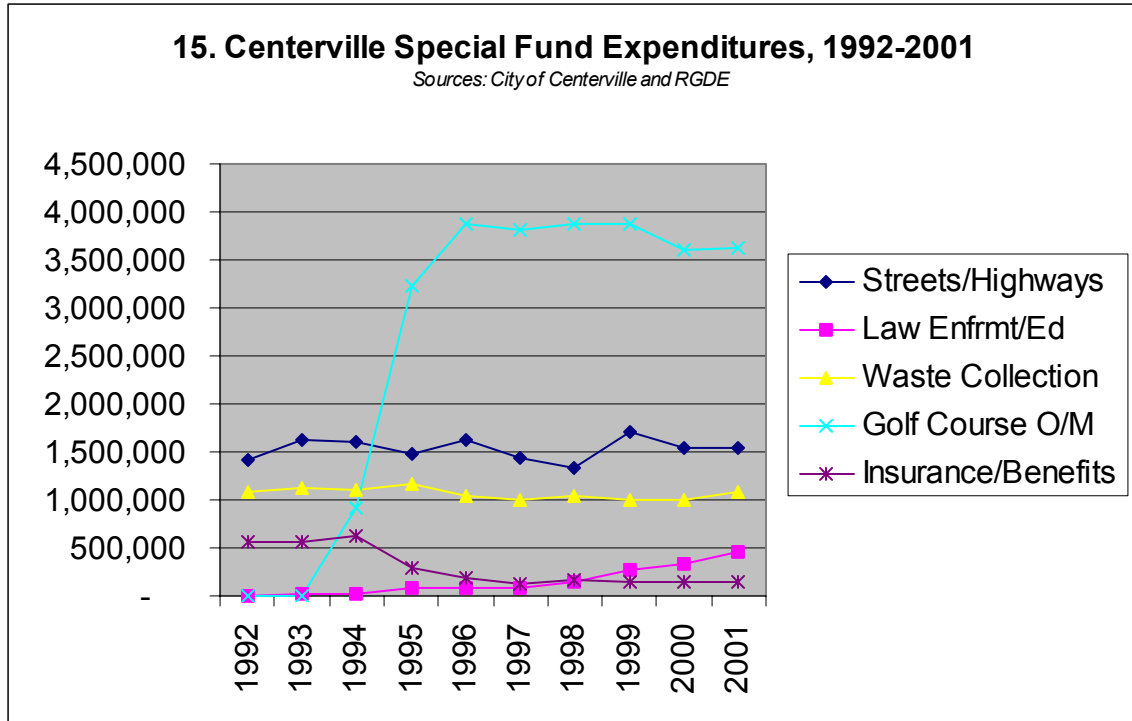
Centerville General Fund expenditures increased by \$1.3 million (18.0%, or 1.8% per year) in constant dollars, between 1992 and 2001. Despite the relatively small increase in General Fund expenditures overall, there has been a 42.9%

increase in public works expenditures during this period, after accounting for inflation. Safety operating expenditures increased by 32.4% over the ten-year period, while recreation expenditures increased by 16.8%. Administrative costs have fluctuated during the period, but basically returned to 1992 levels (after accounting for inflation) by 2001. Overall, General government expenditures showed only a slight decrease of 0.2% over the 10-year period, after accounting for inflation.

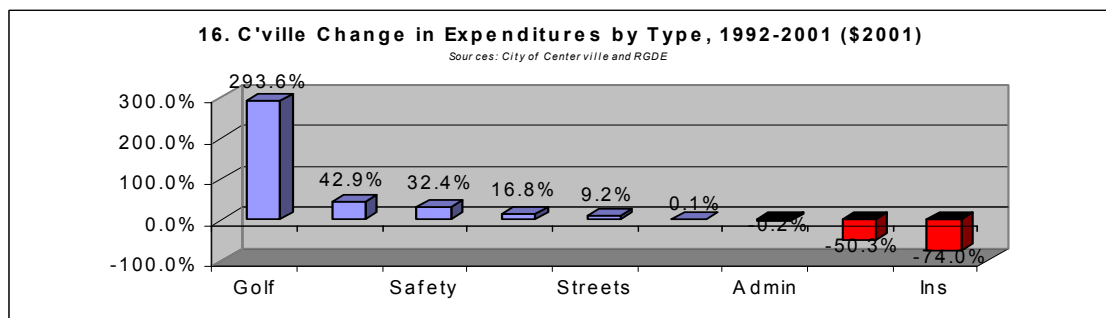


Special and other fund expenditures increased by more than 124% during the ten-year period. However, this period saw the addition of several new activities, including the Golf Club at Yankee Trace. Overall, special operating fund expenditures increased by about \$1.9 million over the ten years, mainly because of the \$2.7 million increase in operating expenditures added for Yankee Trace (in real dollars).

Aside from the addition of Yankee Trace, most of the City’s other operating costs remained relatively constant, in real dollar terms. Once Yankee Trace was fully operational, it’s operating expenditures also leveled off and remained relatively constant, as shown below in Chart 15.



In comparing 2001 to 1992 expenditures, the fastest expenditure growth has been for golf (Yankee Trace opened during period), public works, safety, parks/recreation, streets and waste. Administration, law enforcement education, and insurance/other costs were lower in 2001 than in 1992. The comparison only provides a snapshot of change between two years during the 10-year period.



1. Yankee Trace

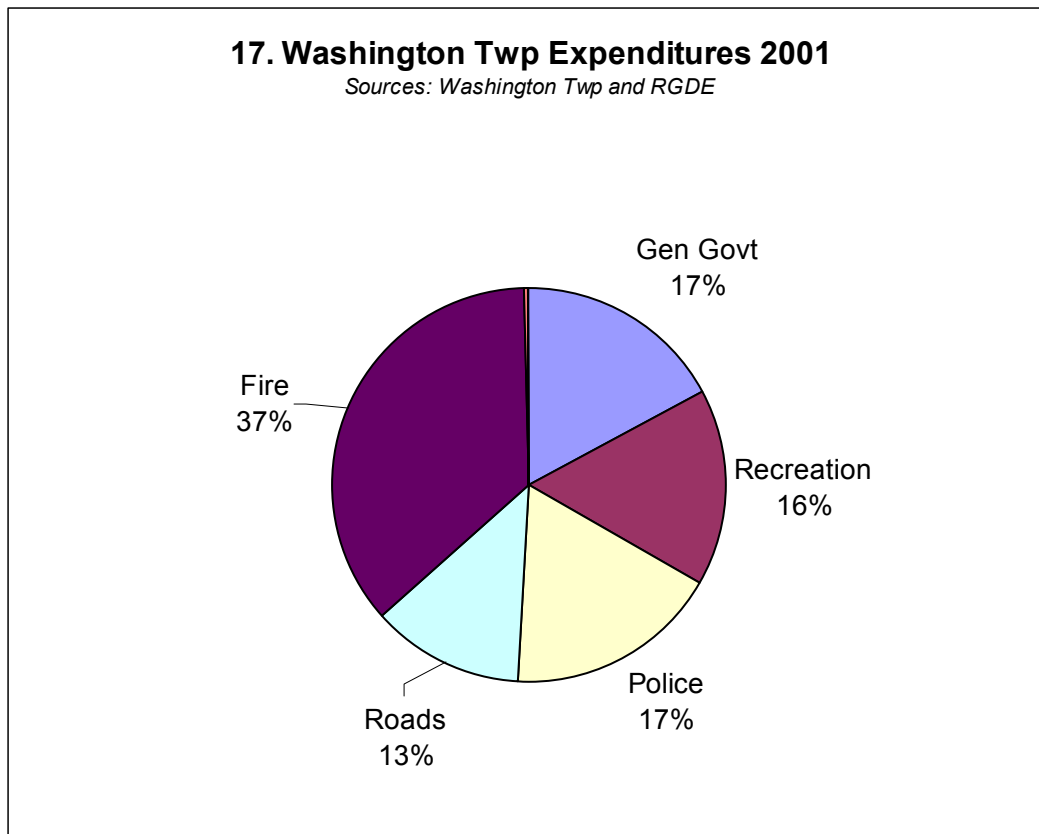
Yankee Trace is a 27-hole championship golf course and club. Nine holes were added to the course in 2002. The 35,000 square-foot club includes a 72-seat restaurant, pro shop, and banquet room available for accommodating up to 250 people. Golf Course Operations are divided into expenditures relating to the Pro Shop, Maintenance, Food Service, (and Capital & Equipment Fund). The Pro Shop had 2001 annual expenditures of \$1.4 million. Maintenance required expenditures of about \$730,000. Food & Beverage Service expenditures totaled

about \$1.6 million. Since opening in 1995, Yankee Trace gradually reached the operating break-even point by 1999, but demand for golf has since dropped nationally and locally, impacting on golf revenues.

2. Administration

The City's administrative expenditures fluctuated but did not increase measurably between 1992 and 2001, in constant dollar terms. Expenditures for Development - Planning were lower in 2001 than in 1992. This may have resulted from certain functions or programs being shifted out of the department during the 1990s. The Development Planning department had total expenditures of about \$220,000 in 2001.

Washington Township. Operating expenditures (excluding most capital costs) totaled \$12.1 million in 2001. This includes about \$2.1 million for General Government (including Administrative Services, Clerk Treasurer's Office, Development Services, etc). The Township's 2001 operating expenditures are disaggregated by function in Chart 17.

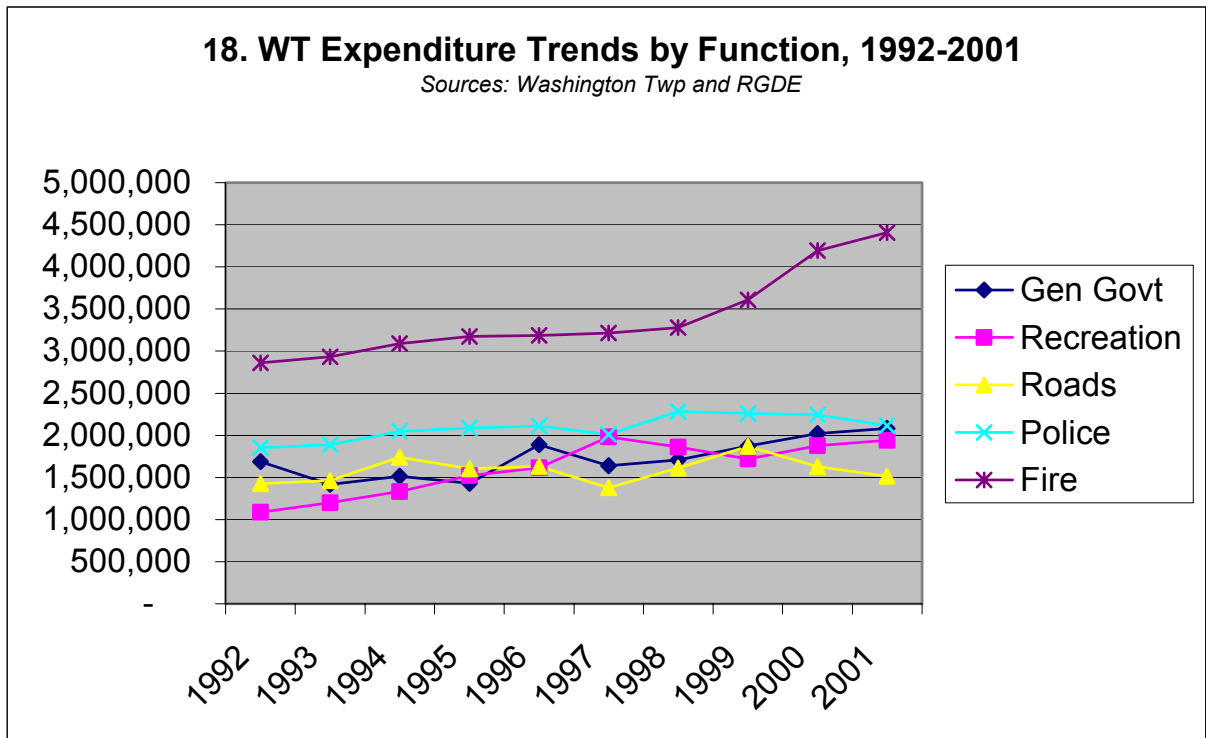


The Township had public safety expenditures of about \$6.5 million in 2001, accounting for more than 50% of the Township budget. This amount included \$2.1 million for safety (police services provided through the Montgomery County

Sheriff), and \$4.4 million for fire protection. The Township provides fire protection for both Centerville and unincorporated areas. However, police protection is only provided in the unincorporated areas, since Centerville has its own municipal police department.

Roads, Bridges and Lighting together accounted for \$1.5 million or 13% of 2001 expenditures. Recreation generated expenditures of about \$1.9 million, or 16% of Township spending.

Township operating expenditures have increased by about 26.7% after inflation, or 2.7% per year between 1992 and 2001. Operating expenditures on roads increased by only 6.4%, while recreation expenditures increased by 78.5%. The Fire Department saw the largest numeric increase in operating expenditures, rising by \$1.6 million or 54% in real dollars, during the 10-year period. Much of the Fire Department increase has been since 1999.



The Township is projecting operating costs (including utilities, repairs, minor equipment, supplies, and miscellaneous items) to increase by 4.0% annually (in current dollars). It is assumed that non-union employees would receive a 2.0% annual cost-of-living increase. Health insurance costs are projected to increase by 5.0% annually.

5. Capital Improvements & Infrastructure

Major capital improvements and infrastructure are examined separately from the operating budget because they provide an indication of how each jurisdiction is addressing long-term physical improvements within the community. Commitment of long-term resources is considered an investment in the community's future. Capital expenditures are an important investment in the physical health of the community and act as an "insurance policy" against future infrastructure problems.

A. Centerville

Capital Project Planning. The City prepares a Five-Year Capital Improvements Plan (CIP) that is updated annually. This plan proposes funding for capital projects in the following areas:

- Streets & Sidewalks (including Stormwater)
- Traffic Control
- Land Acquisition
- Buildings & Improvements
- Vehicles & Equipment

The City's CIP has allocated a total of \$28.7 million for capital projects during the 2003-2007 period, for an average of about \$5.7 million per year. This amount includes more than \$1.0 million per year dedicated to street and sidewalk repair. About 84.5% of capital projects will be financed through City funding, with the remainder from other sources.

For example, the City anticipates using either Ohio DOT funds or Issue 2 funds to pay 85% of the total \$3.4 cost of widening a portion of Alex-Bell Road (State Route 725) in 2007. On the other hand, the City would fund 100% of the \$5.4 million cost of a new public works facility, planned for 2005.

Centerville has dedicated funding for capital projects that are targeted to meet specific financial or community objectives. For example, the City allocates capital funds specifically for street construction & maintenance, golf course expansion, and various capital improvements. Funds for the new 38,000 square-foot Centerville Police Building were allocated on a pay-as-you-go basis through the Police Operations Project Fund, which accounts for "various police related operations."

Capital Project Funding by Source. In 2001, the Capital Improvements Fund received 88.3% of its revenue through transfers from the General Fund (General Government). It is anticipated that the balance in the Capital Improvements Fund will be used to pay for the new public works facility. The City also constructed its new police facility without issuing any debt. This pay-as-you-go approach can

significantly reduce the city's overall debt burden and reduce overall costs (such as interest) in the long-term. On the other hand, inheritance taxes are a somewhat unreliable source of capital revenues that could be reduced or eliminated in the State legislature.

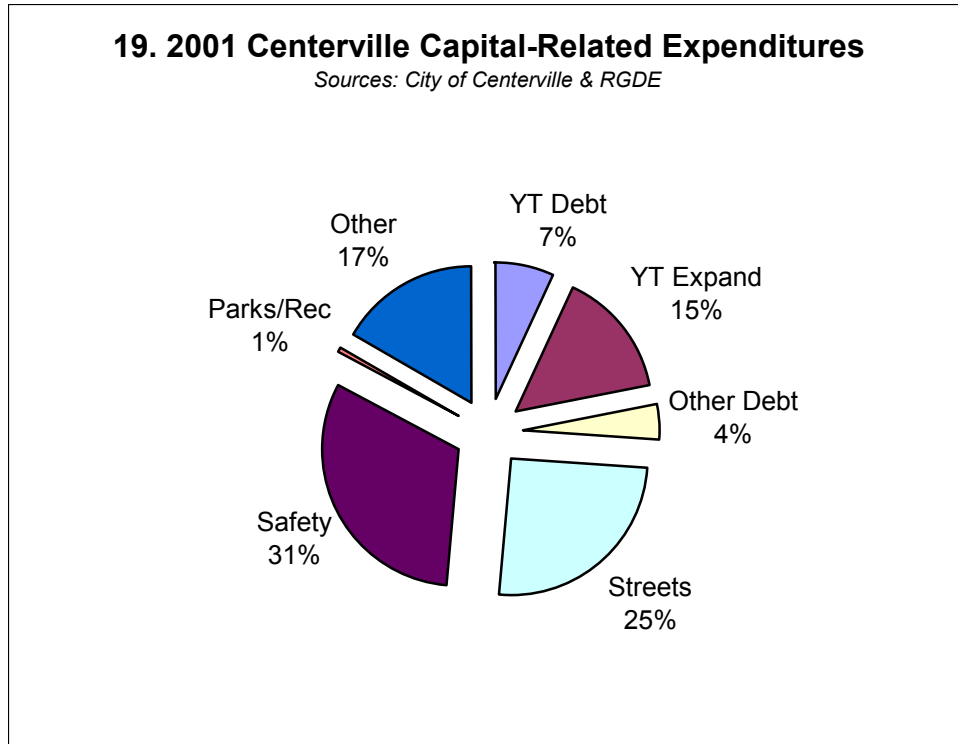
Some of the City's capital projects are funded through general obligation bonds. The City has a number of localized capital projects that are funded through Special Assessments on individual property owners. These special assessments pay the debt service of bonds used to finance the projects.

The City has also financed Yankee Trace development through bonds. The Golf Course Debt Retirement Fund includes four Yankee Trace-related issues totaling \$19,245,000. The remaining principal balance as of January 1, 2003 was \$16,860,000. Total annual debt service is about \$2.1 million. The first of these bonds (for \$8.2 million) will reach maturity in 2020, with the last (for \$3.3 million) in 2026.

The Yankee Trace bonds are financed through a combination of land & lot sales revenues and golf course operating revenues. The City sold land to developers at \$10,000 per acre (inflated at 4.0% per year thereafter) and also received \$13,000 (now inflated to \$18,000) per lot sold. Land and lot sales are expected to generate about 48% of income for golf course debt retirement over the next five years. The City has chosen not to finance golf course development or operations through its fund balances.

The City anticipates that there will be another ten years of additional debt service payments after land and lot sales are completed. The City also anticipates that the golf club will be generating enough income (an additional one million dollars) to pay the full amount of debt service at that time. If this does not occur, the City will need to determine alternative sources of financing when there are no more lots available to generate sales revenues.

Capital Expenditures. An analysis was conducted of the City's expenditures for major capital improvements or investments made in 2001. The largest amounts of capital expenditures were allocated for safety, including primarily the development of the new police center, accounting for 31% of total capital expenditures. Street construction and maintenance accounted for 25%. Debt service and expansions at Yankee Trace together accounted for 22% of the City's major capital expenditures. Other capital expenditures (including non-Yankee Trace debt service) accounted for the other 22%.



In the 2003-2007 CIP, Streets & Sidewalks will account for about 56% of new capital expenditures (excluding debt service), while Buildings and Improvements (including the new public works facility) will account for 27%.

The City does not maintain a capital contingency fund to finance emergency needs. Rather, financial resources accumulate in the various capital funds.

The City's municipal bond rating has been upgraded from A1 to Aa3 by Moody's Investor Services. As stated in the City's CAFR, this improved bond rating will help the City gain access to lower interest rates on future bonds.

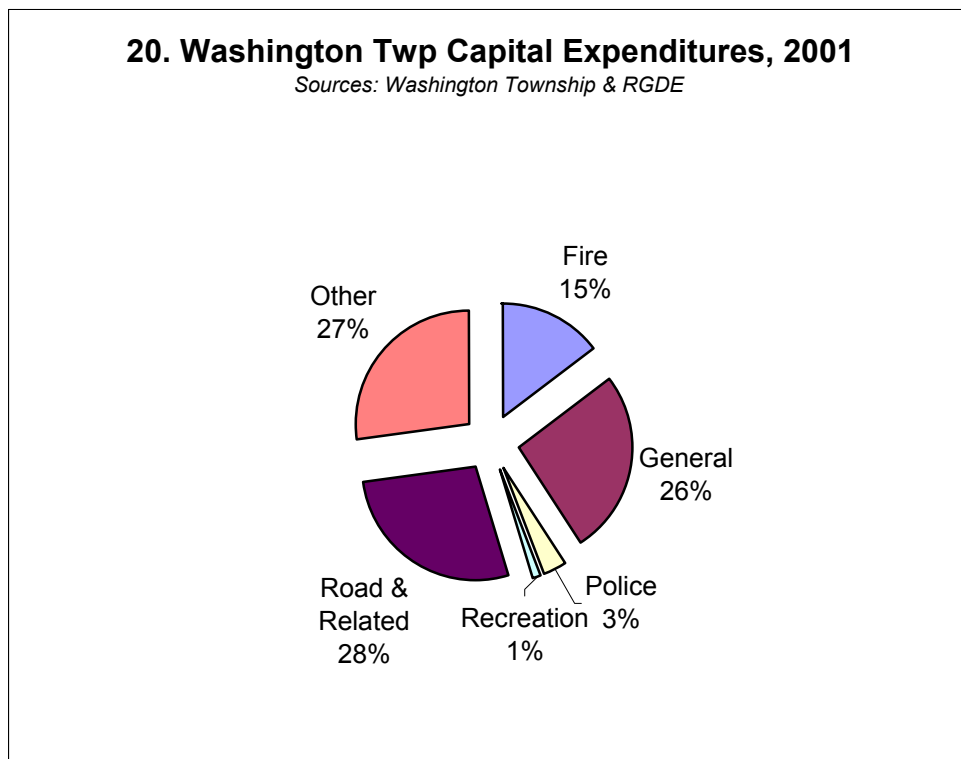
B. Washington Township

Capital Project Planning. Washington Township produces a Capital Improvement Plan (CIP) for each of the following as part of its 5-year Financial Plan:

- Fire Protection
- General
- Police Protection
- Recreation
- Road & Related
- Other

Capital Project Funding by Source. Washington Township has avoided financing capital improvements through the use of public debt. The Township's capital expenditures are generally funded through revenues generated by the various levies and taxes. For example, road & related capital costs are generally funded through the Road & Bridge levies, gas taxes, motor vehicle license taxes, etc. The Township only rarely pays for certain capital improvements (such as renovation of a cinema for expansion of the rec center) through bank loans, in order to avoid taking on public debt. The Township has also used the "windfall" in funds from the estate tax to purchase and convert a school building for use as a senior facility, as well as to provide funds for the Fire Department.

Capital Expenditures. In 2001, Roads & related expenditures accounted for 28% of the Township's capital expenses. About \$700,000 per year is spent on road maintenance as part of the Township's ongoing Street Improvement Program. Capital improvements financed through the General Fund included expenditures for Spring Valley and others. While few large capital projects were generated directly through the Recreation Fund, \$2.2 million was passed through the General Fund for expansion of the Recreation Center. Other capital expenditures related to the cemetery, lighting, and other project funds.



The 2002-2006 CIP includes a total of \$10,953,000 in anticipated capital expenditures for any type of fixed asset. Almost two-thirds of these expenditures

are targeted for road and related infrastructure improvements, primarily through the Street Improvement Program or the Sidewalk Installation Program.

6. Communication

Centerville's popular budget provides a good summary of the City's financial status. Centerville received the Certificate of Achievement for Excellence in Financial Reporting from the Government Finance Officers Association for its 2000 and 2001 CAFR, which is the highest recognition for governmental financial reporting. Washington Township produces an informative Financial Plan that is comparable to a popular budget. The Township also produces a helpful quarterly newsletter with stories that explain information on each department of the local government.

At the same time, it would be helpful if the City and the Township took the additional step of communicating more clearly to constituents the purpose and flow of project-related "pay-as-you-go" capital expenditures through the use of their popular budgets.

Washington Township's Board of Trustees and the Centerville City Council created a joint Financial Analysis Committee to review financial issues and potential cost savings between the two jurisdictions.

Efforts that encourage residents and officials of both communities to come together to discuss a broad range of fiscal issues are necessary and urgent. Such efforts can help Centerville and Washington Township clarify, collaborate, and resolve important issues that are impacting on the fiscal health and development of both communities.

APPENDIX TABLES

Appendix Table 1. PRIMARY REVENUE SOURCES, CITY OF CENTERVILLE, 2001

Source	Share	Amount
Income Tax	40.9%	\$ 8,895,555
Inheritance Tax	6.2%	1,345,167
Property Tax	5.5%	1,195,754
Special Assessmts	2.5%	543,179
Intergovernmental	9.2%	1,995,316
User Charges	20.6%	4,476,795
Lic, Permit, Fee	1.5%	329,104
Investment Earning	5.4%	1,173,593
Property Sales	4.1%	882,156
Other Revenues	4.1%	891,241
TOTAL	100.0%	\$ 21,727,860

Sources: City of Centerville and
Randall Gross /
Development Economics.

Appendix Table 2. EXPENDITURES BY TYPE, CITY OF CENTERVILLE, 2001

Type of Expenditure	Share	Amount
General Government	21.1%	\$ 3,220,124
City Parks	2.5%	378,838
Lights	6.8%	1,044,141
Police	24.6%	3,754,558
Streets	10.1%	1,538,044
Law Enfrcmnt/Eductn	3.0%	464,960
Waste Collection	7.1%	1,078,983
Golf Course	23.8%	3,632,765
Insurance	1.0%	148,025
TOTAL	100.0%	\$ 15,260,438

Sources: City of Centerville and
Randall Gross / Development
Economics.

Appendix Table 3. PRIMARY REVENUE SOURCES, WASHINGTON TOWNSHIP, 2001

Source	Share	Amount
Estate Tax	7.3%	\$ 1,210,147
Property Tax	71.0%	11,807,957
Special Assessment	0.1%	23,915
Motor Vehicle Tax	1.1%	175,998
Intergovernmental	2.6%	435,849
Recreation Fees	7.0%	1,161,813
Cemetery	0.2%	34,950
Other Fines & Fees	1.1%	176,022
Interest	5.9%	975,964
Other	3.8%	631,924
TOTAL	100.0%	\$16,634,539

Sources: Washington Township and Randall Gross / Development Economics.

Appendix Table 4. EXPENDITURES BY TYPE, WASHINGTON TOWNSHIP, 2001

Type of Expenditure	Share	Amount
General Government	17.2%	\$ 2,081,997
Recreation	16.0%	1,942,053
Roads	12.5%	1,515,736
Police	17.5%	2,114,968
Fire	36.4%	4,407,887
Other	0.3%	38,684
TOTAL	100.0%	\$12,101,325

Sources: Washington Township and Randall Gross / Development Economics.

Property Tax Millage Rates

Unincorporated Washington Township Millage (Except Centerville)			
Road & Bridge Rate	2.35	Effective Rate	2.350000
1982 Police Residential	2.00	Effective Rate	1.177916
1982 Police Non-Res		Effective Rate	1.154396
1997 Road & Bridge Res	1.75	Effective Rate	1.652959
1997 R&B Non-Residential		Effective Rate	1.655692
2000 Police Residential	2.00	Effective Rate	1.984384
2000 Police Non-Res		Effective Rate	1.953448
Incorporated Washington Township Millage (in Centerville)			
General Residential Rate	0.70	Effective Rate	0.700000
General Non-Residential	0.70	Effective Rate	0.700000
1976 Fire Residential	1.50	Effective Rate	0.469569
1976 Fire Non-Residential		Effective Rate	0.457716
1998 Fire/EMS Res	3.00	Effective Rate	2.814948
1998 Fire/EMS Non-Res		Effective Rate	2.866215
1998 Recreation Res	0.70	Effective Rate	0.656821
1998 Recreation Non-Res		Effective Rate	0.668783
Independent Agency Millage (Community-Wide)			
Centerville Schools-Res	60.75	Effective Rate	35.10788
Centerville Schools-Non-R		Effective Rate	36.27901
W-C Public Library –Res	1.30	Effective Rate	0.422093
W-C Public Library –Non-R		Effective Rate	0.402815
C-W Park District – Res	2.00	Effective Rate	1.876632
C-W Park District – Non-R		Effective Rate	1.910810

**4. Fiscal Impact
Assessment: Executive
Summary
June 27, 2003**

**Township, Fire Department and Recreation
FISCAL IMPACT ASSESSMENT**

Land Use Cost-Benefit Analysis
Centerville/Washington Township

June 27, 2003

(This document is based on the detailed information found in "Fiscal Impact Assessment, Fiscal Report 2 of 2, June 26, 2003.)

EXECUTIVE SUMMARY

The efficient operation of local government relies on a healthy balance between revenues and the cost of providing local services. As such, local governments occasionally seek information on the fiscal costs and benefits of development in order ensure that land use planning and zoning supports the fiscal health of their community.

Fiscal impact analysis is a tool used to determine the general fiscal costs and benefits to local government of various land uses or development decisions. Impacts are expressed in terms of the annual, incremental operating costs and benefits, rather than the one-time revenues or expenditures required to support large capital projects. The fiscal impact model designed for the Centerville-Washington Township community provides a general measure for comparing the impacts of primary land uses including housing, retail, office, and industrial. The model provides one tool among many to help the community balance overall zoning and land-use.

Community residents are provided public services through a network of local agencies, some of which are operating independently of the City and Township governments. The specific impacts of land use on the City, Township, Fire Department, Recreation Center, Park District, Public Library, and Schools are illustrated in this report. In addition, the fiscal impacts are "layered" to help communicate the impacts of various land uses on the community as a whole.

Community-Wide Impacts

Summary Table A. NET FISCAL BENEFITS BY LAND USE AND LOCAL JURISDICTION, PER ACRE, 2001							
Land Use	Centerville	Washing- ton Twp	Fire	Rec- reation	Library	Park District	Schools
Single Family Residential	\$ 401	\$ 435	\$ 179	\$ (3)	\$ (260)	\$ (49)	\$ (1,619)
Multi-Family Residential	\$ (118)	\$ 525	\$ 491	\$ 103	\$ (502)	\$ (54)	\$ (1,776)
Industrial	\$ 3,337	\$ 1,524	\$ 1,019	\$ 37	\$ 247	\$ 61	\$ 8,174
Office	\$ 10,399	\$ (943)	\$ (5)	\$ -	\$ 346	\$ 247	\$ 22,703
Retail	\$ (883)	\$ (1,259)	\$ (2,548)	\$ -	\$ 196	\$ 41	\$ 12,002
Note:	Individual per-acre impacts from the separate models cannot be added together due to differences in densities.						
Source:	Randall Gross / Development Economics.						

Summary Table A illustrates the impacts of various land uses on each of the local jurisdictions. The impacts are expressed on a “per-acre” basis. It is important to note that Centerville’s and Washington Township’s per-acre impacts are calculated based on average development densities within each community. Impacts in the other jurisdictions (e.g., schools, park district) are calculated based on densities in the community as a whole. Therefore, the individual impacts from the separate models cannot be added together on a per-acre basis.

In general, the Fiscal Impact Analysis finds that retail uses have a negative fiscal impact on the local budgets of the City of Centerville and Washington Township, as well as on the Fire Department. However, retail has a positive impact on the Library, Park District, and in particular, the Schools.

Single-family residential uses have the exact opposite effect, with a positive fiscal impact on the City, Township, and Fire Department, but a generally negative impact on Parks & Recreation, Library, and Schools. Office uses have a very positive effect on all jurisdictions except in the Township, where they generate some negative impacts because of the cost of traffic-related road maintenance. Industrial is the only use that has a positive fiscal impact on all jurisdictions, mainly because of its relatively low service cost requirements. Industrial uses can have non-fiscal costs, such as environmental degradation, that are not accounted for in a fiscal model.

Centerville

The impacts of the various uses on Centerville, Fire Department, Recreation Center, Library, Parks District, and Schools were layered together in Summary Table B to illustrate the net fiscal effect for residents within the city of Centerville.

Summary Table B.		NET FISCAL BENEFITS BY LAND USES IN CENTERVILLE, CITY+FIRE+REC+LIBRARY+PARK+SCHOOLS			
Use	Model Output	Measure	Density	Per Acre	
Single-Family Residential	\$ (991)	Dev Unit	1.71	\$	(1,695)
Multi-Family Residential	\$ (331)	Dev Unit	6.08	\$	(2,013)
Industrial	\$ 2.69	Square Foot	0.11	\$	12,889
Office	\$ 5.53	Square Foot	0.14	\$	33,724
Retail	\$ 1.55	Square Foot	0.13	\$	8,777
Notes:	Densities for residential uses are expressed in units per acre. Densities for industrial, office, and retail uses are floor-area ratios.				
Source:	Randall Gross / Development Economics.				

For residents within the city, office use generates a substantial net fiscal benefit, thanks to a combination of high revenue yields from income and property taxes, and lower costs associated with providing services for office uses. Retail and industrial uses have a positive, if somewhat lower overall return. Residential uses, on the other hand, generate an overall negative fiscal impact due to the costs associated with schools.

Washington Township

The impacts of the various uses on Washington Township, the Fire Department, Recreation Center, Library, Park District, and Schools were layered together in Summary Table C to show the net fiscal effect for residents of unincorporated Washington Township.

Use	Model Output	Measure	Density	Per Acre
Single Family Residentl	\$ (847)	Dev Unit	1.15	\$ (974)
Multi-Family Residentl	\$ (210)	Dev Unit	5.12	\$ (1,075)
Industrial	\$ 2.32	Square Foot	0.11	\$ 11,117
Office	\$ 3.77	Square Foot	0.14	\$ 22,991
Retail	\$ 1.49	Square Foot	0.13	\$ 8,438
Notes:	Densities for residential uses expressed in units per acre. Densities for industrial, office, and retail uses are floor-area ratios.			
Source:	Randall Gross / Development Economics.			

As in Centerville, residential uses generate negative fiscal impacts in Washington Township due to the cost of schools. Office, industrial, and retail uses generate an overall positive impact.

It should be emphasized that fiscal impacts are only one small piece of information that the community should consider as an input to a visioning and long-term planning process. Land use decisions cannot and should not be predicated on fiscal impacts alone.

**5. Fiscal Impact
Assessment: Land Use
Cost-Benefit Analysis,
(Fiscal Report 2 of 2)
June 26, 2003**

FISCAL IMPACT ASSESSMENT ***Land Use Cost-Benefit Analysis***

Centerville and Washington Township

Report
June 26, 2003
Randall Gross / Development Economics

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INTRODUCTION

Local governments rely on input from a variety of sources to inform land use and planning decisions. Private development pressures and market demand, infrastructure requirements, environmental constraints, community vision, political will, resident needs, economic development, and quality of life concerns all play a role in these decisions. As shown in the Existing Conditions report, the efficient operation of local government also relies on a healthy balance between revenues and the provision of local services. As such, local governments occasionally seek information on the fiscal costs and benefits of development in order to ensure that land use planning and development supports the fiscal health of their budgets.

This information is typically derived by using a fiscal “impact” or “net cost-benefit” analysis. Impact models utilize literally thousands of calculations to determine the general fiscal costs and benefits to the local government budget of various land uses or development decisions. The models relate primarily to annual operating or “recurring” costs and benefits, rather than one-time revenues or expenditures required to support large capital projects. The models are meant to provide a general measure for comparing the impacts of primary land uses including housing (both single- and multi-family), retail, office, and industrial. Since they are averages across the community, they should not be applied to examine the impacts of a specific project. Rather, they provide one tool among many to help the community balance overall zoning and land-use.

The Existing Conditions report (Fiscal Report 1 of 2) illustrates the various sources of revenues and the expenditures of local government in Centerville and Washington Township. Clearly, the Township and City governments perform somewhat different functions and rely on different sources of revenue to support their respective activities. Two fiscal impact analyses were originally designed, one to illustrate the impact of development on the budget of Centerville (incorporated portion of Washington Township), and the other to examine impacts on the budget of unincorporated Washington Township. A separate model for Centerville City Schools was also developed for illustrative purposes, since Schools help underpin the community’s housing market, and thus any impact on the Schools has a ripple effect on the overall fiscal health of both Centerville and Washington Township.

As discussed in the Existing Conditions analysis, the residents of this community are provided public services through a network of local agencies, some of which are operating independently of the City and Township governments. In addition, there are Township agencies that provide services to City residents who, in turn, pay for these services through tax levies.

In order to better illustrate an overall “community” impact, additional fiscal models were designed and run to accommodate all of these local services. This information may be useful when planning and visioning for the community as a whole. However, it should be cautioned that not all impacts to the community actually impact on the local governments of Washington Township and Centerville. For example, impacts to the Fire Department do not have a direct impact on the budget of the City of Centerville, even though residents of Centerville pay the Fire Department levy and receive Fire Department services. It is the Township government that receives the direct fiscal impacts on Fire Department services, since the Township is the government entity that provides those services. Similarly, neither Centerville nor Washington Township are directly impacted fiscally by land use impacts on the Park District.

The specific impacts of land use on the City, Township (without Fire and Recreation), Fire Department, Recreation Center, Park District, Public Library, and Schools are illustrated in this report. In addition, the fiscal impacts are provided according to a format recommended by the local governments. In this format, various services are “layered” to help communicate the impacts to the community-at-large. The various models and layers are described below:

1. Impacts by Jurisdiction
 - a. City of Centerville
 - b. Washington Township (excluding Fire & Recreation)
 - c. Washington Township Fire Department
 - d. Washington Township Recreation Department
 - e. Centerville-Washington Park District
 - f. Washington-Centerville Library
 - g. Centerville City Schools
2. Summary of “Layered” Impacts (Community-wide Services)
 - a. City of Centerville:
 - i. Government Entity: City of Centerville
 - ii. City of Centerville + WT Fire Department + WT Recreation
 - iii. City of Centerville + WT Fire Department + WT Recreation + CW Park District + WC Public Library
 - iv. City of Centerville + WT Fire + WT Recreation + CW Park + WC Library + Centerville City Schools
 - b. Washington Township:
 - i. Government Entity: Washington Township (including Fire + Recreation)
 - ii. Washington Township + WT Fire Department + WT Recreation + CW Park District + WC Public Library
 - iii. Washington Township + WT Fire + WT Recreation + CW Park + WC Library + Centerville City Schools

Again, it should be emphasized that fiscal impacts are only one small piece of information that the community should consider as an input to a visioning and long-term planning process. Land use decisions cannot and should not be predicated on fiscal impacts alone.

1. CITY OF CENTERVILLE

This section summarizes the findings from an assessment of the net fiscal impacts of development by land use type on the Government of the City of Centerville. Detailed fiscal cost-benefit analyses and assumptions are found in Appendix Tables A-1 to A-5. A comparison of Centerville fiscal impacts with those in other Ohio cities is found in Appendix Table A-6.

The chart shown below summarizes the net fiscal impacts per acre of major land uses to the budget of the City of Centerville. The “net” fiscal benefits result from revenues (such as taxes) generated annually to the City of Centerville, less the annual *municipal* costs (such as City administration, police, etc) generated by each type of development. Land use impacts on community-wide services are discussed separately later in this section.

Table 1. NET FISCAL BENEFITS BY LAND USE, CENTERVILLE, OHIO, 2001				
Use	Model Output	Measure	Density	Per Acre
SF Residential-Average	\$ 235	DU	1.71	\$ 401
MF Residential	\$ (19)	DU	6.08	\$ (118)
Industrial	\$ 0.70	SF	0.11	\$ 3,337
Office	\$ 1.71	SF	0.14	\$ 10,399
Retail	\$ (0.16)	SF	0.13	\$ (883)
Notes:	Densities for residential uses expressed in units per acre. Densities for industrial, office, and retail uses are floor-area ratios.			
Source:	Randall Gross / Development Economics.			

In general, single-family residential uses produce a marginal net fiscal benefit to Centerville in that the revenues generated are generally higher than the costs for supplying services. Multi-family development (including senior housing) generally produces a negative fiscal impact on the City, albeit a small one at \$300 per acre. This means that multi-family dwellings generally result in higher costs to the city on a per-acre basis while revenues, such as those derived from income and property taxes, are insufficient to cover higher costs.

The difference between the fiscal impacts of single-family and multi-family housing is relatively small. On a per-unit basis, single-family dwellings generate an average annual positive benefit of about \$240 to the City, while multi-family units generate an annual fiscal loss of about \$20. One factor influencing this differential is the property value (and resulting tax revenues) of multi-family,

versus single-family units. If higher-cost multi-family housing were to be developed in Centerville, such housing might yield sufficient tax revenues to generate positive net fiscal impacts on the City.

Commercial and industrial uses generate a relatively high fiscal gain to the city, primarily because of the benefit of income taxes generated by workers. These uses also produce lower per-acre costs for providing city services. For example, office and industrial tenants require less park and recreation use than do households. Centerville's retail uses fail to recoup their costs in part because the city's retail wages are lower than industrial and office wages and, therefore generate lower income tax benefits to the City.

Office uses generate the greatest annual fiscal return on a per-square-foot basis, at \$1.71. Even though office uses generate more costs to the City than either retail or industrial, they also generate by far the highest revenues. Industrial space generates a net fiscal benefit of about \$0.70 per square foot. Industrial uses result in very low operating impacts on the City's budget, but also generate only moderate revenues per square foot. Lagging behind both office and industrial is retail, generating a net loss of \$0.16 per square foot. Tax revenues generated by retail space are insufficient to overcome the annual fiscal costs generated by retail space in Centerville.

Summary

For City Government, single-family residential uses generate a slight net benefit, above and beyond the cost of providing services to those units. However, multi-family residential uses generally lag behind in generating sufficient revenues to recover the cost of City services to those units. Detailed fiscal cost and benefit analyses are included in Appendix Tables A-1 through A-5, with the comparison to other cities found in Appendix Table A-6.

Office uses generate a significant net fiscal benefit to the City. This benefit is primarily due to the number and wage levels of jobs that accompany office space. These jobs and wages translate into income taxes, which are the City's single largest source of income, at 41%. Since many of the office tenants that locate in this area are medical uses – doctors, dentists, and specialists – the wage impact is especially high.

Retail uses generate a slight loss to the City Government, when measured in purely fiscal terms. This finding is consistent with the impact of retail in other municipal jurisdictions in Ohio. Nevertheless, healthy retail activity is important for generating revenue to the Schools. Plus, retail can be an important asset for the community and can help enhance the marketability of housing. Comprehensive planning should consider the fiscal ramifications of land use, but other factors – such as quality of life – must also come into play.

2. WASHINGTON TOWNSHIP (Except Fire & Recreation)

This report summarizes the findings from an assessment of the net fiscal impacts of development by land use type on Washington Township. The Township has a very different tax and operating structure from the City of Centerville, with a resulting difference in fiscal return from various types of development.

The fiscal model was run for cost of service and fiscal benefits generated by land uses to the unincorporated portion of Washington Township. Township services such as Fire / EMS and Recreation that are funded (through property taxes in both Centerville and Washington Township) and provided to the community as a whole. These services are separated out and analyzed as discrete units.

The chart shown below summarizes the net fiscal impacts *per acre* of major land uses to the Washington Township government, excluding fire and recreation impacts.

Use	Model Output	Measure	Density	Per Acre
SF Residential-Ave	\$ 379	DU	1.15	\$ 435
MF Residential	\$ 102	DU	5.12	\$ 525
Industrial	\$ 0.32	SF	0.11	\$ 1,524
Office	\$ (0.15)	SF	0.14	\$ (943)
Retail	\$ (0.22)	SF	0.13	\$ (1,259)
Notes:	Densities for residential uses expressed in units per acre. Densities for industrial, office, and retail uses are floor-area ratios.			
Source:	Randall Gross / Development Economics.			

The “net” fiscal benefits result from revenues (such as real or tangible property taxes) generated annually to Washington Township, less the annual costs (such as Township administration, police, etc) generated by each type of development. Detailed cost-benefit inputs are found in Appendix Tables A-7 through A-10 for unincorporated Washington Township.

Almost 95% of developed land in Washington Township is used for residential. Therefore, even a small fiscal benefit generated per-acre of residential has a large annual impact on the Township’s budget. In general,

single-family residential uses produce a marginal *net* fiscal benefit of \$435 per acre in that the revenues generated are \$435 higher than the costs for supplying services to an acre of residential uses. Revenues include property taxes generated by the Township millages (excluding those that are also levied in Centerville), plus fines, permits, fees, user charges, inheritance taxes, and other revenues.

Single-family units generate a significantly higher return than multi-family, on a per-unit basis. Single family generates almost \$400 per unit in net benefits, versus less than \$100 for multi-family units. However, since multi-family has higher densities, the overall return per-acre is somewhat higher for multi-family (at \$525) than for single-family (\$435).

Township single-family property values are higher than in Centerville, so the gross fiscal return is generally higher per unit in the Township than in Centerville. However, The lower density of housing in Washington Township results in a lower fiscal return on a *per-acre* basis than in Centerville. If high-cost, higher-density single-family housing were developed in the Township, then the fiscal return *per acre* would increase substantially.

Industrial uses generate a high net fiscal benefit to the Township on a per-acre basis, partly because of the relatively low cost of providing services to these uses. For example, industrial tenants generate less constituency (administrative) service costs than do residential households and less road maintenance cost than retail or office uses.

Retail and office uses generate a negative return mainly because of the relatively high costs associated with providing retail and offices with Township road maintenance services. These costs relate to the higher traffic generated by retail and office uses, since traffic impacts on the quality of roads.

So long as fiscal costs do not increase or property values decline markedly, residential uses will continue to produce a positive fiscal impact on the Township. The substantial fiscal benefits generated by residential uses have helped the Township generate a positive operating fund balance.

Industrial uses generate a positive annual fiscal return on a per-square-foot basis, at \$0.32. Industrial uses are also generating higher fiscal returns per acre than other uses. The township's industrial uses generate lower real property tax revenues than pure office space, but also generate low fiscal costs because of lower traffic demand than office or retail uses.

Office and retail uses generate higher costs to the Township in part because they have more employees per square foot, and therefore more traffic and more demand for Township services. The revenues generated by office and retail space in the Township is insufficient to overcome the costs associated with

traffic. Office space generates a net fiscal loss of about \$0.15 per square foot. Retail uses generate a net loss of about \$0.22 per square foot. Property & other tax revenues generated by retail space are moderately high, but so are fiscal costs (more police protection, more traffic impacts on roads, etc). Therefore, the net return for retail use is lower than it is for other uses in Washington Township.

3. FIRE DEPARTMENT

Washington Township Fire Department is the largest service of Washington Township government but is funded primarily through property tax millage levied on property owners in both Washington Township and Centerville. Since the department provides fire and emergency medical services to both jurisdictions, fiscal land use impacts on this agency were determined separately.

The chart shown below summarizes the net fiscal benefits *per acre* of major land uses on the Washington Township Fire Department. Detailed inputs are found in Appendix Tables A-11 to A-12.

Use	Model Output	Measure	Density	Per Acre
SF Residential-Ave	\$ 125	DU	1.43	\$ 179
MF Residential	\$ 88	DU	5.60	\$ 491
Industrial	\$ 0.22	SF	0.11	\$ 1,019
Office	\$ (0.001)	SF	0.14	\$ (5)
Retail	\$ (0.45)	SF	0.13	\$ (2,548)
Notes:	Densities for residential uses expressed in units per acre. Densities for industrial, office, and retail uses are floor-area ratios.			
Source:	Randall Gross / Development Economics.			

Data provided by the Washington Township Fire Department attribute most calls for service to road-related accidents requiring emergency medical services (EMS). The average cost for these calls is also higher on average than those for other services. The fiscal model relates EMS road-related calls to traffic generated by each use in order to attribute such costs to different land uses. Because of the emphasis on traffic-generated costs, and due to the fact that retail generates higher traffic levels than the other uses, retail generates a significant fiscal loss to the Department.

Office uses generate traffic at somewhat lower levels than retail. Industrial uses generate significantly less traffic and thus account for a much smaller share of the EMS calls. Therefore, the net return to the Fire Department from industrial uses is higher than that of other uses.

Nursing homes also generate a significant share of calls for EMS services. Nursing homes and hospitals are not included in this analysis because they are institutional uses. Other residential uses generally cover their costs for Fire Department services.

4. RECREATION DEPARTMENT

Like the Fire Department, Recreation is a Township agency that is funded by residents in both the Township and the City and provides services to both. However, the Township receives only about 42% of its funding from property taxes. Another 55% of the Recreation Center’s funding is derived from membership and other usage fees, which are generated by residents from throughout the area.

The chart shown below summarizes the net fiscal impacts per acre of major land uses on Washington Township’s Recreation Center.

Table 4. RECREATION NET FISCAL BENEFITS BY LAND USE, WASHINGTON TWP-CENTERVILLE, 2001					
Use	Model Output	Measure	Density	Per Acre	
SF Residential-Ave	\$ (2)	DU	1.43	\$	(3)
MF Residential	\$ 17	DU	5.60	\$	103
Industrial	\$ 0.01	SF	0.11	\$	37
Office	\$ 0	SF	0.14	\$	0
Retail	\$ 0	SF	0.13	\$	0
Notes:	Densities for residential uses expressed in units per acre. Densities for industrial, office, and retail uses are floor-area ratios.				
Source:	Randall Gross / Development Economics.				

Most Recreation Center usage, and therefore operating cost, is attributed to single-family residential uses. Industrial and multi-family housing uses generate a small net benefit to the recreation center. Multi-family housing generates a net benefit of about \$100 per acre, partly because of lower costs but also because of higher densities of units per acre. Non-residents generate costs that are partly recovered through usage fees, but they do not pay taxes in support of the center. Fiscal cost-benefit inputs are detailed in Appendix Tables A-13 through A-14.

5. WASHINGTON-CENTERVILLE PUBLIC LIBRARY

Fiscal impacts on the Washington-Centerville Public Library were determined based on information provided by staff of Washington Township Government. The methodology for attributing costs is similar to that of schools, with costs generated in large measure based on pupil yields within the community. Local government staff provided information on the share of Library usage from within the community. The net benefits are illustrated below:

Table 5. LIBRARY NET FISCAL BENEFITS BY LAND USE, CENTERVILLE-WASHINGTON TWP, 2001					
Use	Model Output	Measure	Density		Per Acre
SF Residential-Average	\$ (182)	DU	1.43	\$	(260)
MF Residential	\$ (90)	DU	5.60	\$	(502)
Industrial	\$ 0.05	SF	0.11	\$	247
Office	\$ 0.06	SF	0.14	\$	346
Retail	\$ 0.03	SF	0.13	\$	196
Source:	Randall Gross / Development Economics.				

Residential uses generate a loss to the library because of the costs associated primarily with residents and students (pupils). Since industrial and commercial uses are assumed to not generate significant cost to the Library, and yet generate substantial property tax revenues, such uses generate a net gain to the Library overall. Library costs and benefits are specified in Appendix Tables A-15 and A-16.

6. CENTERVILLE-WASHINGTON PARK DISTRICT

The Park District serves the entire community. In the impact model, costs were determined based on similar assumptions about usage as found in the Washington Township Recreation Center model. Local government staff provided information on the Park District budget and methodology.

Table 6. PARK DISTRICT NET FISCAL IMPACTS WASHINGTON TWP-CENTERVILLE, 2001					
Use	Model Output	Measure	Density	Per Acre	
SF Residential-Ave	\$ (34)	DU	1.43	\$	(49)
MF Residential	\$ (10)	DU	5.60	\$	(54)
Industrial	\$ 0.01	SF	0.11	\$	61
Office	\$ 0.04	SF	0.14	\$	247
Retail	\$ 0.01	SF	0.13	\$	41
Notes:	Densities for residential uses expressed in units per acre. Densities for industrial, office, and retail uses are floor-area ratios.				
Source:	Randall Gross / Development Economics.				

Based on the fiscal impact model, office uses generate the highest net fiscal benefit to the community, at almost \$250 per acre. Again, commercial and industrial activities do not generate the same level of usage or cost as residential. Thus, net benefits from industrial, office and retail uses are high, while residential generates a net loss. Park District costs and benefits are specified in Appendix Tables A-17 and A-18.

7. CENTERVILLE CITY SCHOOLS

Centerville City Schools are an independent jurisdiction separate from both the City of Centerville and Washington Township. As such, a separate fiscal analysis was conducted for the School District, which covers both Centerville and Washington Township. This section summarizes the findings from an assessment of the net fiscal benefits of development by land use type on the Centerville City Schools.

Centerville schools generate a large portion of their income from local property tax millage. The net benefit to schools from each type of land use was also determined. In this case, costs are generated only by residential uses, the source of school enrollment. Commercial and industrial uses do not generate students and, as a result, help cross-subsidize school operating costs.

School operating costs were allocated to residential uses based on the pupil yield per housing unit. The school district provided detailed information on the number of students in various multi-family developments throughout the City. This information provided a basis for allocating costs to multi-family. Centerville School District pupil yields from the sample multi-family units averages 0.22.

Information was not provided on the number of students in single-family units. Pupil yield in single-family housing was estimated using the analysis of sample multi-family pupil yields to generate a total estimate of students in multi-family housing, which was then subtracted from total school enrollment to derive the student population in single-family housing and the pupil yield per unit. The resulting single-family pupil yield is about 0.41, much higher than that of multi-family housing. However, the overall tax and other revenues generated by single family is higher than that generated by multi-family units. Thus, single family generates less of a “net” drain on the school budget.

The result of the net impact analysis for Centerville City Schools is summarized in the following chart. Both single and multi-family residential uses fail to recoup their share of the cost for operating schools. Much of that benefit is provided by non-residential uses such as office, retail and industrial.

Table 7.		NET SCHOOLS FISCAL BENEFITS BY LAND USE, CENTERVILLE-WASHINGTON TWP, OHIO, 2001			
Use	Model Output	Measure	Density	Per Acre	
SF Residential-Average	\$ (1,133)	DU	1.43	\$ (1,619)	
MF Residential	\$ (317)	DU	5.60	\$ (1,776)	
Industrial	\$ 1.71	SF	0.11	\$ 8,174	
Office	\$ 3.72	SF	0.14	\$ 22,703	
Retail	\$ 2.12	SF	0.13	\$ 12,002	
Source:	Randall Gross / Development Economics.				

Residential property tax revenues do not support the cost of operating Centerville’s schools. Multi-family residential uses generate a net fiscal loss of more than \$1,800 per acre, while single-family residential generates a net fiscal loss of about \$1,600 per acre. School operating costs are cross-subsidized by other land uses (aside from intergovernmental transfers and other revenues). The fiscal costs and benefits of land uses on Centerville City Schools are detailed in Appendix Tables A-19 through A-20.

8. COMMUNITY-WIDE IMPACTS

This section provides a summary of community-wide impacts. These impacts are summarized in a “layered” approach that adds various services into the totals for Centerville and Washington Township. This approach does not show the impact to local government, but rather, is meant to illustrate the impacts of land uses on the community as a whole. In general, it is assumed that costs for operating the community-wide services are the same regardless of whether development is in Centerville or in the unincorporated portions of Washington Township. Since most of the community-wide services are funded primarily through property taxes, revenues differ based on property values between the incorporated and unincorporated areas.

Centerville

In addition to the land use impacts on Centerville’s municipal government operations, there are also impacts on the community-wide services that are provided either by Township Government or by independent agencies. These services include Fire / EMS and Recreation, provided by Township Government, as well as Library, Parks, and School services, provided by independent agencies. All of these services are funded in whole or in part by property owners from both the incorporated and unincorporated portions of Washington Township.

(a) Net Fiscal Benefits with Fire and Recreation Services

Washington Township Government provides Fire / Emergency Management, and Recreation services to the incorporated areas. These services are paid for through a property tax levy by residents and businesses in all parts of the Township. The following table summarizes Centerville city impacts, while adding in the impacts on fire and recreation services in the incorporated area.*

****It is important to note that the impacts per acre are calculated based on Centerville’s densities in these summary tables. Therefore, the individual per-acre impacts from the separate models cannot be added together since some are determined based on average densities in the community as a whole. Impacts are added on a per-unit (model output) basis.***

Use	Model Output	Measure	Density	Per Acre
SF Residential-Average	\$ 358	DU	1.71	\$ 612
MF Residential	\$ 86	DU	6.08	\$ 522
Industrial	\$ 0.92	SF	0.11	\$ 4,408
Office	\$ 1.71	SF	0.14	\$ 10,434
Retail	\$ (0.61)	SF	0.13	\$ (3,454)

Source: Randall Gross / Development Economics.

(b) Net Fiscal Benefits with Fire, Recreation, Library & Park Services

The following table adds the library and park district impacts to the other fiscal impacts described above.

Use	Model Output	Measure	Density	Per Acre
SF Residential-Average	\$ 142	DU	1.71	\$ 243
MF Residential	\$ (14)	DU	6.08	\$ (85)
Industrial	\$ 0.98	SF	0.11	\$ 4,696
Office	\$ 1.81	SF	0.14	\$ 11,038
Retail	\$ (0.57)	SF	0.13	\$ (3,228)

Source: Randall Gross / Development Economics.

(c) Net Fiscal Benefits Fire, Recreation, Library, Parks, and Schools

The final table adds in the impacts of the schools.

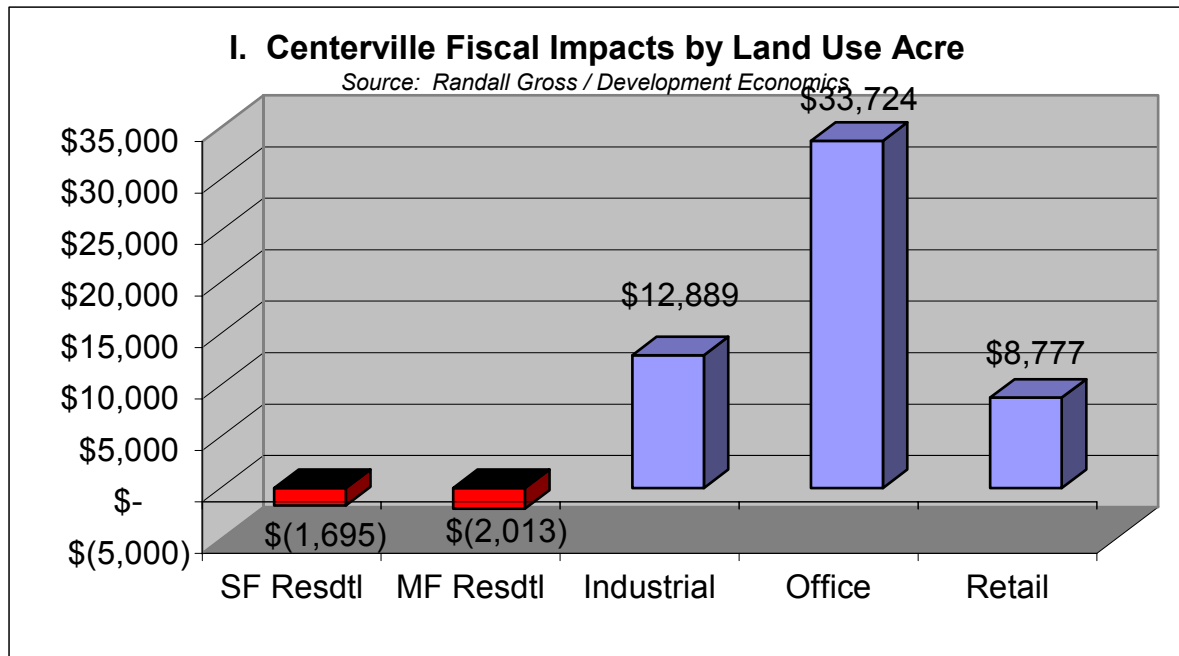
Use	Model Output	Measure	Density	Per Acre
SF Residential-Average	\$ (991)	DU	1.71	\$ (1,695)
MF Residential	\$ (331)	DU	6.08	\$ (2,013)
Industrial	\$ 2.69	SF	0.11	\$ 12,889
Office	\$ 5.53	SF	0.14	\$ 33,724
Retail	\$ 1.55	SF	0.13	\$ 8,777

Notes: Densities for residential uses are expressed in units per acre.
Densities for industrial, office, and retail uses are floor-area ratios.

Source: Randall Gross / Development Economics.

Summary

If all services are taken together, residential uses generate a net loss in Centerville. This primarily results from the impact of housing on the Schools, with all school costs attributed to pupils generated by residential uses. The impact of single-family housing is greater because of the higher pupil yield among single-family units versus multi-family units.



Office use generates a substantial gain in Centerville, thanks to a combination of high revenue yields from income and property taxes, and lower costs associated with providing various services for office uses. Retail and industrial have a positive, if somewhat lower overall return.

Washington Township

As with Centerville, community-wide service impacts were also added to those of the unincorporated portions of Washington Township. There combined impacts are described below. ***It is important to note that impacts per acre are calculated based on the Township's densities in the summary tables. Therefore, individual per-acre impacts from the separate models cannot be added together since some are determined based on densities in the community as a whole.***

Net Fiscal Benefits with Fire and Recreation Services

Use	Model Output	Measure	Density	Per Acre
SF Residential-Ave	\$ 502	DU	1.15	\$ 577
MF Residential	\$ 207	DU	5.12	\$ 1,060
Industrial	\$ 0.55	SF	0.11	\$ 2,635
Office	\$ (0.15)	SF	0.14	\$ (921)
Retail	\$ (0.67)	SF	0.13	\$ (3,794)
Notes:	Densities for residential uses expressed in units per acre. Densities for industrial, office, and retail uses are floor-area ratios.			
Source:	Randall Gross / Development Economics.			

Net Fiscal Benefits with Fire, Recreation, Library & Park Services

Use	Model Output	Measure	Density	Per Acre
SF Residential-Ave	\$ 286	DU	1.15	\$ 329
MF Residential	\$ 107	DU	5.12	\$ 548
Industrial	\$ 0.61	SF	0.11	\$ 2,923
Office	\$ 0.05	SF	0.14	\$ 305
Retail	\$ (0.63)	SF	0.13	\$ (3,568)
Notes:	Densities for residential uses expressed in units per acre. Densities for industrial, office, and retail uses are floor-area ratios.			

Source: Randall Gross / Development Economics.

Net Fiscal Benefits Fire, Recreation, Library, Parks, and Schools

Table 13. NET FISCAL BENEFITS BY LAND USE, WT + FIRE + REC + LIBRARY + PARKS + SCHOOLS

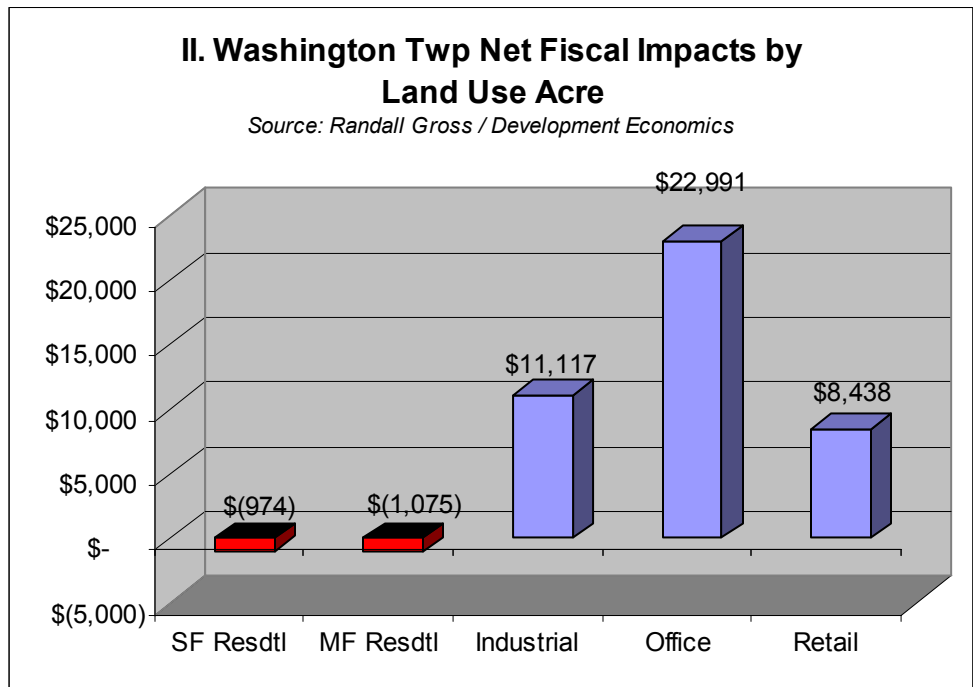
Use	Model Output	Measure	Density	Per Acre
SF Residential-Ave	\$ (847)	DU	1.15	\$ (974)
MF Residential	\$ (210)	DU	5.12	\$ (1,075)
Industrial	\$ 2.32	SF	0.11	\$ 11,117
Office	\$ 3.77	SF	0.14	\$ 22,991
Retail	\$ 1.49	SF	0.13	\$ 8,438

Notes: Densities for residential uses expressed in units per acre.
Densities for industrial, office, and retail uses are floor-area ratios.

Source: Randall Gross / Development Economics.

Summary

Industrial and housing uses generate a positive fiscal benefit to Washington Township, contributing annually to its operating fund. .



This positive fiscal impact is due to a combination of relatively low-cost / fewer services and relatively high tax revenues generated by taxes and other revenues. Retail and office uses generate significant revenues, but also substantial traffic-related costs. Detailed cost-benefit inputs are shown in Appendix Tables A-7 through A-10 for unincorporated Washington Township.

9. Methodology

These analyses tested the annual, stabilized costs and benefits of each of the typical land use types in Centerville and Washington Township. The net fiscal benefit (revenues minus costs) generated by each land use was determined. More detail on specific inputs to the various models is included in the Appendix of this report.

Marginal Revenue and Cost Impacts

The specific marginal revenue and cost for typical administrative line items in the City and Township budgets were determined per employee or per household. These factors were then revised to reflect specific type of land use, such as retail, office, and different densities of housing. The factors were then translated into a per-acre, per-square-foot, or per housing unit measure.

Other Revenue and Cost Impacts

The net benefits of land uses for non-administrative functions were determined on a case-by-case basis. For example, police department costs were determined based on analyses of the deployment of City and Township forces within their respective jurisdictions and the impact of various land uses on manpower requirements. Street maintenance costs were determined based on trip generation factors for each land use, as a percentage of the total trips. This ratio was then applied for each land use to the respective jurisdiction's street maintenance budget.

Washington Township's Fire and Recreation department impacts were each determined separately from other Township functions because these departments generate revenues through taxes paid by both City and Township property owners; and these departments provide services to both the City and the Township.

School impacts were also determined separately. Centerville City Schools is an independent agency funded partly through taxes paid by property owners in both Centerville and Washington Township; and providing services to households in both Centerville and Washington Township. The School impacts were determined based on student generation factors and the *local share* of per-pupil costs in the School district. Similarly, Park District and Library impacts were determined separately, as these are independent agencies serving the community.

Infrastructure Assumptions

Infrastructure impacts are normally determined in several different ways. First, there are the capital costs associated with new development or redevelopment on-site. Second are off-site capital costs resulting from the impact of development. Third are ongoing annual maintenance costs associated with both the on-site development and its impacts off-site.

On-Site Capital Costs. These costs can include new streets, structured or surface parking, stormwater, and other improvements. For this analysis, it is assumed that these capital costs would be 100% paid by the developer (or are otherwise not included).

Offsite Impacts and O/M Costs. The off-site capital costs associated with new development, if one-time costs, are also excluded from this analysis in order to provide a general city-wide measure. However, recurring impacts such as maintenance and replacement, resulting directly from the site's development, are captured in the fiscal impact analysis. Regular maintenance and replacement costs associated with a stabilized program are included on a marginal basis, similar to other types of operating costs. However, any additional road & street costs above and beyond those averages would need to be determined on a case-by-case basis with engineering input and added into any fiscal impact analysis for a specific project, by type of cost.

Glossary

Fiscal Impacts (or Net Fiscal Benefits or Cost-Benefits)

Marginal revenues less marginal costs generated by selected land uses to local government. In this particular study, impacts to the community as a whole (regardless of government jurisdiction) was also determined).

Model Output

The result of formulas embedded within a model to test fiscal revenues and/or costs on a per-unit basis. Revenues and costs are translated into property units (square feet (SF) or housing development units (DU)) in order to illustrate them in land use terms.

Density

Density is the number of housing units per acre or the ratio of floor space area to acres. FAR is floor-area ratio. Density merely translates the model output from a per-unit or per square-foot basis into a per-acre basis.

Single-Family versus Multi-Family

In this analysis, single-family includes primarily detached units. Multi-family includes attached units and multi-unit buildings.

10. Appendix

Appendix Tables

CENTERVILLE CITY ANALYSIS

Centerville Gross Fiscal Benefits by Land Use

Table A-1.		GROSS FISCAL BENEFITS BY LAND USE, CENTERVILLE, OHIO, 2001			
Use	Model Output	Measure	Density	Per Acre	
SF Residential Average	\$ 1,314	DU	1.71	\$	2,246
MF Rentals	\$ 1,115	DU	6.08	\$	6,781
Industrial	\$ 1.27	SF	0.11	\$	6,098
Office	\$ 4.01	SF	0.14	\$	24,441
Retail	\$ 1.10	SF	0.13	\$	6,247
Source:		Randall Gross / Development Economics.			

Sample Centerville Fiscal Costs by Land Use (Tables A-2 through A-5)

Table A-2.		ADMINISTRATIVE / O&M FISCAL COSTS BY LAND USE, CENTERVILLE, OHIO, 2001			
Use	Model Output	Measure	Density	Per Acre	
SF Residential- Average	\$ 764	DU	1.71	\$	1,307
MF Rentals	\$ 764	DU	6.08	\$	4,645
Industrial	\$ 0.52	SF	0.11	\$	2,472
Office	\$ 2.13	SF	0.14	\$	12,973
Retail	\$ 0.89	SF	0.13	\$	5,040
Source:		Randall Gross / Development Economics.			

Table A-3. POLICE DEPARTMENT COSTS BY LAND USE, CENTERVILLE, OHIO, 2001				
Use	Model Output	Measure	Density	Per Acre
SF Residential-Average	\$ 305	DU	1.71	\$ 521
MF Rentals	\$ 337	DU	6.08	\$ 2,049
Industrial	\$ 0.05	SF	0.11	\$ 235
Office	\$ 0.17	SF	0.14	\$ 1,031
Retail	\$ 0.36	SF	0.13	\$ 2,034
Source: Randall Gross / Development Economics.				

Table A-4. CITY PARK COSTS BY LAND USE, CENTERVILLE, OHIO, 2001				
Use	Model Output	Measure	Density	Per Acre
SF Residential-Average	\$ 10	DU	1.71	\$ 17
MF Rentals	\$ 34	DU	6.08	\$ 206
Industrial	\$ 0.01	SF	0.11	\$ 55
Office	\$ 0.01	SF	0.14	\$ 38
Retail	\$ 0.01	SF	0.13	\$ 56
Source: Randall Gross / Development Economics.				

Table A-5. TOTAL FISCAL COSTS BY LAND USE, CENTERVILLE, OHIO, 2001				
Use	Model Output	Measure	Density	Per Acre
SF Residential-Average	\$ 1,079	DU	1.71	\$ 1,845
MF Rentals	\$ 1,135	DU	6.08	\$ 6,900
Industrial	\$ 0.58	SF	0.11	\$ 2,762
Office	\$ 2.30	SF	0.14	\$ 14,042
Retail	\$ 1.26	SF	0.13	\$ 7,130
Source: Randall Gross / Development Economics.				

Comparison of Net Fiscal Benefits - Centerville versus Sidney, Dublin, Stow, Newark and Upper Arlington, Ohio

Table A-6. NET FISCAL BENEFIT COMPARISON, CENTERVILLE, STOW, DUBLIN, NEWARK, SIDNEY, AND UPPER ARLINGTON, OH				
City	Industrial/ SF	Office/ SF	Retail/ SF	Residential/ AC
CENTERVILLE	\$0.70	\$1.71	-\$0.16	\$401.13
Dublin	\$1.47	\$2.83	-\$0.66	N/A
U. Arlington	N/A	\$2.91	-\$1.25	\$899.00
Sidney	\$0.44	\$0.98	-\$0.49	\$285.96
Newark	\$0.97	\$2.40	\$0.56	\$386.00
Stow	\$0.64	\$1.08	-\$0.38	\$588.36
Note:	N/A means Not Available. SF is square feet. AC is acres.			
Sources:	Randall Gross / Development Economics and Tischler & Associates, Inc.			

WASHINGTON TOWNSHIP ANALYSIS
Excluding Fire and Recreation

Washington Township (Unincorporated)
Gross Fiscal Benefits by Land Use

Table A-7. GROSS FISCAL BENEFITS BY LAND USE, WASHINGTON TOWNSHIP UNINCORP, OHIO, 2001					
Use	Model Output	Measure	Density	Per Acre	
SF Residential Ave	\$ 699	DU	1.15	\$	802
MF Residential	\$ 437	DU	5.12	\$	2,240
Industrial	\$ 0.66	SF	0.11	\$	3,102
Office	\$ 0.68	SF	0.14	\$	4,118
Retail	\$ 0.53	SF	0.13	\$	2,995
Notes:	Densities for residential uses expressed in units per acre. Densities for industrial, office, and retail uses are floor-area ratios.				
Source:	Randall Gross / Development Economics.				

Sample Washington Township (Unincorporated)
Fiscal Costs by Land Use *(Tables A-8 through A-10)*

Table A-8. ADMINISTRATIVE / O&M FISCAL COSTS BY LAND USE, WASHINGTON TOWNSHIP UNINCORP, OHIO, 2001					
Use	Model Output	Measure	Density	Per Acre	
SF Residential-Ave	\$ 179	DU	1.15	\$	205
MF Residential	\$ 179	DU	5.12	\$	916
Industrial	\$ 0.29	SF	0.11	\$	1,384
Office	\$ 0.71	SF	0.14	\$	4,304
Retail	\$ 0.44	SF	0.13	\$	2,498
Notes:	Densities for residential uses expressed in units per acre. Densities for industrial, office, and retail uses are floor-area ratios.				
Source:	Randall Gross / Development Economics.				

Table A-9. POLICE DEPARTMENT COSTS BY LAND USE, WASHINGTON TOWNSHIP UNINCORP, OHIO, 2001

Use	Model Output	Measure	Density	Per Acre
SF Residential-Ave	\$ 141	DU	1.15	\$ 162
MF Residential	\$ 156	DU	5.12	\$ 800
Industrial	\$ 0.04	SF	0.11	\$ 195
Office	\$ 0.12	SF	0.14	\$ 757
Retail	\$ 0.31	SF	0.13	\$ 1,757

Notes: Densities for residential uses expressed in units per acre.
Densities for industrial, office, and retail uses are floor-area ratios.

Source: Randall Gross / Development Economics.

Table A-10 TOTAL FISCAL COSTS BY LAND USE, WASHINGTON TOWNSHIP UNINCORP, OHIO, 2001

Use	Model Output	Measure	Density	Per Acre
SF Residential-Ave	\$ 320	DU	1.15	\$ 367
MF Residential	\$ 335	DU	5.12	\$ 1,716
Industrial	\$ 0.34	SF	0.11	\$ 1,578
Office	\$ 0.83	SF	0.14	\$ 5,061
Retail	\$ 0.75	SF	0.13	\$ 4,255

Notes: Densities for residential uses expressed in units per acre.
Densities for industrial, office, and retail uses are floor-area ratios.

Source: Randall Gross / Development Economics.

FIRE DEPARTMENT ANALYSIS
Community-Wide Average

Table A-11. FIRE DEPARTMENT GROSS FISCAL BENEFITS BY LAND USE, WASHINGTON TWP - CENTERVILLE, OHIO, 2001

Use	Model Output	Measure	Density	Per Acre
SF Residential Ave	\$ 164	DU	1.43	\$ 234
MF Residential	\$ 114	DU	5.60	\$ 640
Industrial	\$ 0.26	SF	0.11	\$ 1,221
Office	\$ 0.27	SF	0.14	\$ 1,652
Retail	\$ 0.18	SF	0.13	\$ 1,032

Notes: Densities for residential uses expressed in units per acre.
Densities for industrial, office, and retail uses are floor-area ratios.

Source: Randall Gross / Development Economics.

Table A-12. FIRE DEPARTMENT COSTS BY LAND USE, WASHINGTON TWP - CENTERVILLE, OHIO, 2001

Use	Model Output	Measure	Density	Per Acre
SF Residential-Ave	\$ 38	DU	1.43	\$ 55
MF Residential	\$ 27	DU	5.60	\$ 149
Industrial	\$ 0.04	SF	0.11	\$ 202
Office	\$ 0.27	SF	0.14	\$ 1,657
Retail	\$ 0.63	SF	0.13	\$ 3,580

Notes: Densities for residential uses expressed in units per acre.
Densities for industrial, office, and retail uses are floor-area ratios.

Source: Randall Gross / Development Economics.

RECREATION CENTER ANALYSIS
Community-Wide Average

Table A-13. RECREATION GROSS FISCAL BENEFITS BY LAND USE, WASHINGTON TWP-CENTERVILLE, OHIO, 2001					
Use	Model Output	Measure	Density		Per Acre
SF Residential Ave	\$ 73	DU	1.43	\$	105
MF Residential	\$ 60	DU	5.60	\$	336
Industrial	\$ 0.04	SF	0.11	\$	194
Office	\$ 0.04	SF	0.14	\$	256
Retail	\$ 0.04	SF	0.13	\$	202
Notes:	Densities for residential uses expressed in units per acre. Densities for industrial, office, and retail uses are floor-area ratios.				
Source:	Randall Gross / Development Economics.				

Table A-14. RECREATION FISCAL COSTS BY LAND USE, WASHINGTON TWP-CENTERVILLE, OHIO, 2001					
Use	Model Output	Measure	Density		Per Acre
SF Residential-Ave	\$ 75	DU	1.43	\$	108
MF Residential	\$ 41	DU	5.60	\$	232
Industrial	\$ 0.03	SF	0.11	\$	157
Office	\$ 0.04	SF	0.14	\$	252
Retail	\$ 0.04	SF	0.13	\$	205
Notes:	Densities for residential uses expressed in units per acre. Densities for industrial, office, and retail uses are floor-area ratios.				
Source:	Randall Gross / Development Economics.				

LIBRARY FISCAL ANALYSIS
Community-Wide Average

Table A-15. CENTERVILLE LIBRARY PROPERTY TAX BENEFIT BY LAND USE, CENTERVILLE-WASHINGTON TWP, OHIO, 2001

Use	Model Output	Measure	Density	Per Acre
SF Residential-Average	\$ 63	DU	1.43	\$ 90
MF Rentals	\$ 44	DU	5.60	\$ 245
Industrial	\$ 0.05	SF	0.11	\$ 247
Office	\$ 0.06	SF	0.14	\$ 346
Retail	\$ 0.03	SF	0.13	\$ 196

Source: Randall Gross / Development Economics.

Table A-16. CENTERVILLE LIBRARY FISCAL COSTS BY LAND USE, CENTERVILLE-WASHINGTON TOWNSHIP, OHIO, 2001

Use	Factor	Measure	Density	Per Acre
SF Residential-Average	\$ 244	DU	1.43	\$ 350
MF Rentals	\$ 133	DU	5.60	\$ 747
Industrial	\$ -		0.11	\$ -
Office	\$ -		0.14	\$ -
Retail	\$ -		0.13	\$ -

Note: Single family factor based in part on comparables.

Source: Randall Gross / Development Economics.

PARK DISTRICT FISCAL ANALYSIS
Community-Wide Average

Table A-17. PARK DISTRICT GROSS FISCAL BENEFITS BY LAND USE, WASHINGTON TWP-CENTERVILLE, OHIO, 2001					
Use	Model Output	Measure	Density	Per Acre	
SF Residential Ave	\$ 47	DU	1.43	\$	68
MF Residential	\$ 35	DU	5.60	\$	197
Industrial	\$ 0.06	SF	0.11	\$	263
Office	\$ 0.06	SF	0.14	\$	355
Retail	\$ 0.04	SF	0.13	\$	229
Notes:	Densities for residential uses expressed in units per acre. Densities for industrial, office, and retail uses are floor-area ratios.				
Source:	Randall Gross / Development Economics.				

Table A-18. PARK DISTRICT FISCAL COSTS BY LAND USE, WASHINGTON TWP-CENTERVILLE, OHIO, 2001					
Use	Model Output	Measure	Density	Per Acre	
SF Residential-Ave	\$ 82	DU	1.43	\$	117
MF Residential	\$ 45	DU	5.60	\$	252
Industrial	\$ 0.04	SF	0.11	\$	203
Office	\$ 0.02	SF	0.14	\$	108
Retail	\$ 0.03	SF	0.13	\$	188
Notes:	Densities for residential uses expressed in units per acre. Densities for industrial, office, and retail uses are floor-area ratios.				
Source:	Randall Gross / Development Economics.				

SCHOOLS FISCAL ANALYSIS
Community-Wide Average

Table A-19. CENTERVILLE SCHOOLS PROPERTY TAX BENEFIT BY LAND USE, CENTERVILLE-WASHINGTON TWP, OHIO, 2001

Use	Factor	Measure	Density	Per Acre
SF Residential-Average	\$ 1,969	DU	1.43	\$ 2,814
MF Rentals	\$ 1,375	DU	5.60	\$ 7,701
Industrial	\$ 1.71	SF	0.11	\$ 8,174
Office	\$ 3.72	SF	0.14	\$ 22,703
Retail	\$ 2.12	SF	0.13	\$ 12,002

Source: Randall Gross / Development Economics.

Table A-20. CENTERVILLE SCHOOLS FISCAL COSTS BY LAND USE, CENTERVILLE-WASHINGTON TOWNSHIP, OHIO, 2001

Use	Factor	Measure	Density	Per Acre
SF Residential-Average	\$ 3,101	DU	1.43	\$ 4,433
MF Rentals	\$ 1,692	DU	5.60	\$ 9,477
Industrial	\$ -		0.11	\$ -
Office	\$ -		0.14	\$ -
Retail	\$ -		0.13	\$ -

Note: Single family factor based in part on comparables.

Source: Randall Gross / Development Economics.

**Fiscal Analysis –
Selected Model Input Assumptions**

Washington Township

Selected Primary Land Use by Type

Residential	7,817 Acres	(95.0%)
Industrial	37 Acres	(0.5%)
Retail	150 Acres	(1.8%)
Office	<u>226 Acres</u>	(2.7%)
TOTAL	8,231 Acres	(100.0%)

Single Family DUs	7,952
Multi-Family DUs	4,535
Residential Densities	
SF (Average)	1.15 DU/Acre
MF (Average)	5.12 DU/Acre

Total Estimated Square Footage		
Industrial	FAR: 0.11	175,000 Sq. Ft.
Retail	FAR: 0.13	850,000 Sq. Ft.
Office	FAR: 0.14	1,380,000 Sq. Ft.

Note—Excludes certain public & other non-revenue generating functions. Other factors impact on model—i.e., occupancy.

Revenues

Property Taxes

Washington Township Millage (Except Centerville)

Road & Bridge Rate	2.350	Effective Rate	2.350000
1982 Police Residential	2.000	Effective Rate	1.177916
1982 Police Non-Res		Effective Rate	1.154396
1997 Road & Bridge Res	1.750	Effective Rate	1.652959
1997 R&B Non-Res		Effective Rate	1.655692
2000 Police Residential	2.000	Effective Rate	1.984384
2000 Police Non-Res		Effective Rate	1.953448

Washington Township Millage (Including Centerville)

General Residential Rate	0.700	Effective Rate	0.700000
General Non-Residential	0.700	Effective Rate	0.700000
1976 Fire Residential	1.500	Effective Rate	0.469569
1976 Fire Non-Residential		Effective Rate	0.457716
1998 Fire/EMS Res	3.000	Effective Rate	2.814948
1998 Fire/EMS Non-Res		Effective Rate	2.866215
1998 Recreation Res	0.700	Effective Rate	0.656821
1998 Recreation Non-Res		Effective Rate	0.668783

Real estate portion taxed	35%
Personal property portion taxed	25% (inventory will be taxed at 0% over time)
Average ratio assessed/FMV	95%

Real property value (2001)	
Residential	\$612,587,740
Commercial	\$128,016,676
Industrial	\$ 8,601,225
Tangible+Personal	\$ 46,965,546

Property Value / DU (average) – U.S. Bureau of the Census, 2000 (inflated)	
Single-Family	\$166,566
Multi-family Unit	\$114,666

Based primarily on this information, the property taxes per DU and per acre were determined for the Township. Washington Twp Fire Department, Washington Twp Recreation, and Centerville City Schools revenues were based on totals for Centerville and Washington Township.

Other Revenues

(See Budget)

Distributed on marginal per-household or per-employee basis. (See marginal Costs, below).

- Motor Vehicle / License (Distributed to households)
- Intergovernmental (Distributed to households)
- Recreation Charges (Distributed primarily to households, based on Analysis of memberships)
- Licenses, Permits, Fees (Distributed per household & employee As appropriate to the fee)
- Misc Revenues (Distributed per household & employee As appropriate to the source)

Costs

Marginal Cost Functions

Marginal costs are determined based on actual (2001) department budget expenditures per household or per employee. In general, legislative and administrative functions are oriented towards households in providing constituency services. However, O&M costs are aligned more consistently with usage generated on a per-capita basis. Streets are detailed separately, due to the extreme variation in usage (passenger trips) generated per land use.

Census Population	29,967
Estimated Employment	7,937 (for following uses only)
Retail	2,125 (27%)
Office	5,520 (70%)
Industrial	292 (4%)
Per capita share in households	61%
Per capita share in employees	39%

Administrative Departments (60% - 70% HH constituency)

O&M (25 – 55% HH constituency)
 Service Center
 Roads, Bridges, Lighting (see below)

Roads

Trip Generation Factors* (ITE – ODOT)	
Single-Family Residential	9.57
Multi-Family Residential	6.63
Industrial	6.96
Office	18.31
Retail	68.17
(Hotel)	8.23

*Household & Employee Trips	
Share of total trips / impact on streets	
Households	30%
Commercial (employees)	70%
Industrial	<1%
Office	29%
Retail	41%

Other Cost Functions

Police

2001 Budget \$2,351,673

Residential Cost/Unit

SF	\$141.20
MF	\$156.07

Retail Cost/Sq. Ft.	\$0.31
Office Cost/Sq. Ft.	\$0.12
Indust Cost/Sq. Ft.	\$0.04

Police costs based on Washington Twp patrol activities, weighted by units per day based on total time (in hours). Hours attributed to land uses based on average number of calls by land use type in sample Ohio communities. Employee portion of traffic/DUI only attributed to commercial uses. Costs include personnel-related, vehicle-related, and O&M (rents, utilities, professional services, etc). It should be noted that Police service is provided through the local office of the County Sheriff and as such, direct comparison between City and County/Township police service impacts is discouraged.

Fire / EMS (Community-wide Function)

Residential Fire-related expenditures distributed based on 2001 actual calls to single- and multi-family residential (less calls to nursing homes). Commercial & industrial Fire & ALL EMS calls distributed to uses based on trip generation factors (excluding calls to nursing homes). Cost per call based on standard time-per-call factors. Costs distributed based on resident & employment factors:

Total Housing Units	23,030	(Centerville & Washington Twp)
Total Occupied Units	21,971	"
Total Population	53,210	"
Employment in uses	13,745	"

Residential property tax revenues based on weighted average housing values in Centerville-Washington Township.

Recreation (Community-wide Function)

90% of Recreation budget was distributed to households, 10% to commercial and industrial employees.

Costs distributed based on resident & employment factors as discussed Under Fire/EMS.

Within residential categories, recreation costs were distributed based on Pupil ratios as a share of total.

Pupil generation (See Schools)

MF Rental	0.22	(Based on Sample)
SF	0.41	(Based on Total less MF)

Residential property tax revenues based on weighted average housing values in Washington Township-Centerville.

City of Centerville

Selected Primary Land Use by Type

Residential	4,211 Acres	(91.6%)
Industrial	74 Acres	(1.6%)
Retail	224 Acres	(4.9%)
Office	87 Acres	(1.9%)
TOTAL	4,597 Acres	(100.0%)

Single Family DUs	5,930
Multi-Family DUs	4,515
Residential Densities	
SF (Average)	1.71 DU/Acre
MF (Average)	6.09 DU/Acre

Total Estimated Square Footage		
Industrial	FAR: 0.11	350,000 Sq. Ft.
Retail	FAR: 0.13	1,269,300 Sq. Ft.
Office	FAR: 0.14	531,780 Sq. Ft.

Note—Excludes certain public & other non-revenue generating functions. Other factors impact on model—i.e., occupancy.

Revenues

Property Taxes

2001 Centerville City Millage	
General Fund-Residential & Non-Residential:	2.350

Real estate portion taxed	35%
Personal property portion taxed	25%
Average ratio assessed/FMV	95%

Real property value (2001)	
Residential	\$374,562,130
Commercial	\$ 84,926,440
Industrial	\$ 13,818,293
Tangible+Personal	\$ 42,145,951

Property Value / DU (average) – U.S. Bureau of the Census, 2000 (inflated)

Single-Family	\$151,674
Multi-Family Unit	\$ 11,732

Based primarily on this information, the property taxes per DU and per acre were determined for the City.

Income Taxes

2001 Income tax revenue: \$8,895,555

Employment in Selected Uses:

Based on a model derived from ratios of employment per square foot, modified based on Ohio employment and other available data. Census at-place employment data are available at the County level.

Retail	3,173
Office	2,127
Industrial	507

Weighted average income base for uses (based on W-2 income (as available), actual tax revenues, and County annual wage data for specific industry sectors attributed to each land use). These data are annualized as a base for determining income tax receipts.

Retail	\$19,813
Office	\$51,572
Industrial	\$40,805

Other Revenues

(See Budget)

Distributed on marginal per-household or per-employee basis. (See marginal Costs, below).

- Motor Vehicle / License (Distributed to households)
- Intergovernmental (Distributed to households)
- Recreation Charges (Distributed primarily to households, based on Analysis of memberships)
- Licenses, Permits, Fees (Distributed per household & employee As appropriate to the fee)
- Misc Revenues (Distributed per household & employee As appropriate to the source)

Costs

Marginal Cost Functions

Marginal costs are determined based on actual (2001) department budget expenditures per household or per employee. In general, legislative and administrative functions are oriented towards households in providing constituency services. However, O&M costs are aligned more consistently with usage generated on a per-capita basis. Streets are detailed separately, due to the extreme variation in usage (passenger trips) generated per land use.

Census Population	23,243
Estimated Employment	5,808 (for following uses only)
Retail	3,173 (54%)
Office	2,127 (37%)
Industrial	507 (9%)
Per capita share in households	64%
Per capita share in employees	36%

Administrative Departments (60% - 70% HH constituency)

O&M (25 – 55% HH constituency)

 Service Center
 Roads, Bridges, Lighting (see below)

Roads

Trip Generation Factors* (ITE – ODOT)	
Single-Family Residential	9.57
Multi-Family Residential	6.63
Industrial	6.96
Office	18.31
Retail	68.17
(Hotel)	8.23

*Household & Employee Trips

Share of total trips / impact on streets

Households	30%
Commercial (employees)	70%
Industrial	2%
Office	22%
Retail	77%

Other Cost Functions

Police

2001 Budget \$4,219,548

Residential Cost/Unit

SF	\$305.00
MF	\$337.00

Retail Cost/Sq. Ft.	\$0.36
Office Cost/Sq. Ft.	\$0.17
Indust Cost/Sq. Ft.	\$0.05

Police costs based on patrol activities and information as provided by the Centerville Police Department prior to completion of fiscal impact model.

Centerville City Schools (Independent Community-Wide)

Total Housing Units	23,030 (Centerville & Washington Twp)
Total Occupied Units	21,971 “
Total Population	53,210 “
Employment in uses	13,745 “

Residential property tax revenues based on weighted average housing values in Centerville-Washington Township.

Weighted Average SF	\$160,205
Weighted Average MF	\$ 63,313

Pupil Yields

Pupil Yields were determined based on a sample of multi-family housing units. Centerville City Schools provided information on students collected by school busses at this sample of multi-family units. Based on the number of students and the total number of units in the multi-family dwellings, a pupil yield figure was estimated at approximately 0.221 pupils per multi-family unit.

Given the multi-family yield and the total number of multi-family units, the total number of students in multi-family housing was estimated. This number was subtracted from the total Centerville City Schools 2001 enrollment to determine the number of students in single-family housing, estimated at 5,624. Based on this number, the pupil yield for single-family housing was estimated at approximately 0.405.

Residential Fiscal Cost/Unit

SF	\$3,101
MF	\$1,692
Retail Cost/Sq. Ft.	\$0
Office Cost/Sq. Ft.	\$0
Indust Cost/Sq. Ft.	\$0

Washington-Centerville Public Library (Indpt-Community)

Library budget information and usage assumptions (including Community usage as share of total) provided by local government staff. Costs distributed based in part on pupil yield model for schools.

Centerville-Washington Park District

Park District budget information provided by local government staff. Key assumption relates primary usage to families with school-age children. Costs distributed based in part on Recreation Center model (again relating to pupil yields).