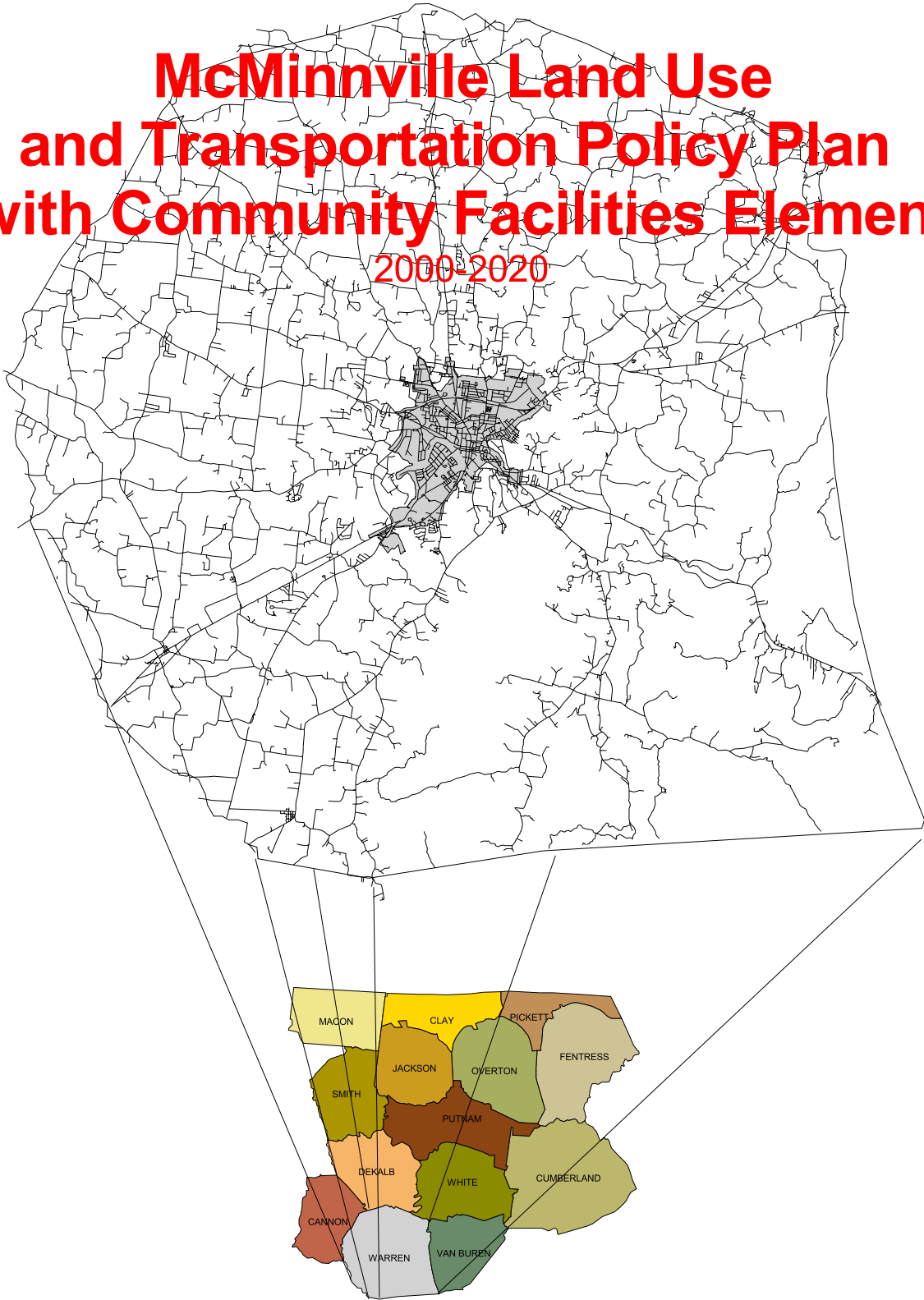


McMinnville Land Use and Transportation Policy Plan with Community Facilities Element 2000-2020



October, 2001

**LAND USE AND TRANSPORTATION POLICY PLAN
WITH COMMUNITY FACILITIES ELEMENT**

MCMINNVILLE, TENNESSEE

2000 – 2020

**PREPARED BY THE
MCMINNVILLE REGIONAL PLANNING COMMISSION**

**Jerry Williamson, Chairman
Royce Davenport, Mayor
David Martalla, Vice-Chairman
Julia Dyer, Secretary
Ricky Jones
Roy Pierce, III
Charles Bogle**

**ASSISTED BY THE
TENNESSEE DEPARTMENT OF ECONOMIC AND COMMUNITY DEVELOPMENT
LOCAL PLANNING ASSISTANCE OFFICE**

Joe B. Barrett, Principal Planner

OCTOBER, 2001

**RESOLUTION OF THE MCMINNVILLE REGIONAL PLANNING
COMMISSION**

**A RESOLUTION TO ADOPT THE MCMINNVILLE LAND USE AND
TRANSPORTATION POLICY PLAN WITH COMMUNITY FACILITIES 2000-2020**

WHEREAS, recognizing that it is the function and duty of a regional planning commission to make and adopt a general regional plan for the physical development of the territory of the McMinnville Planning Region; and

WHEREAS, the McMinnville, Tennessee Comprehensive Plan 1984-2004, is now out-of-date and no longer functions as an effective general regional planning document for the City of McMinnville; and

WHEREAS, the McMinnville Regional Planning Commission has completed a study and prepared a general regional plan for the purpose of guiding and accomplishing a coordinated, adjusted, efficient and economically sound means of development for the McMinnville Planning Region; and

WHEREAS, the McMinnville Land Use and Transportation Policy Plan with Community Facilities 2000-2020, with accompanying maps, charts, and descriptive matter, will best promote the health, safety, morals, order, convenience, prosperity and welfare of the inhabitants, as well as efficiency and economy in the process of development, in accordance with present and future needs and resources; and

NOW, THEREFORE BE IT RESOLVED BY THE MCMINNVILLE REGIONAL PLANNING COMMISSION that pursuant to Section 13-4-202 of the *Tennessee Code* the McMinnville Land Use and Transportation Policy Plan with Community Facilities 2000-2020 is hereby adopted.

AND BE IT FURTHER RESOLVED that copies of said plan be subsequently certified to the City of McMinnville Board of Mayor and Alderman.

APPROVED:

Secretary, McMinnville Regional Planning Commission

Date

TABLE OF CONTENTS

**MCMINNVILLE LAND USE AND
TRANSPORTATION POLICY PLAN**

WITH COMMUNITY FACILITIES ELEMENT

	<u>PAGE</u>
<u>CHAPTER 1</u>	
<u>INTRODUCTION</u>	
Purpose of Plan	1
Scope of Plan	1
Community Goals, Process and Methodologies	2
Companion Planning Documents	2
 <u>CHAPTER 2</u>	
<u>BACKGROUND FOR PLANNING</u>	
Introduction.....	3
Location and Size.....	3
Early Settlement.....	3
Major Events Affecting Development	5
Governmental Structure	6
Municipal Finances	7
Municipal Planning Commission.....	8
Summary of Findings.....	9
 <u>CHAPTER 3</u>	
<u>NATURAL FACTORS AFFECTING DEVELOPMENT</u>	
Introduction.....	10
Climate.....	10
Air Quality and Water Resources	10
Topography	12
Drainage and Flooding.....	12
Soils and Geology	13
Summary of Findings.....	18
 <u>CHAPTER 4</u>	
<u>SOCIO-ECONOMIC FACTORS AFFECTING DEVELOPMENT</u>	
Introduction.....	19
Trends Summary	19
Population	19
Employment.....	24
Future Land Use.....	25
Land Use Requirements.....	26
Summary of Findings.....	26
 <u>CHAPTER 5</u>	
<u>EXISTING LAND USE AND TRANSPORTATION ANALYSIS</u>	
Introduction.....	28
Existing Land Use and Transportation.....	28
Land Use Categories.....	28
Planning Neighborhoods.....	29
Analysis of Existing Land Use by Planning Neighborhoods.....	31

Analysis of Residential Units by Planning Neighborhoods.....	34
Analysis of Existing Land Use by Land Use Category.....	38
Residential.....	40
Commercial.....	41
Industrial.....	42
Public Facilities.....	43
Utilities.....	43
Vacant Land	44
Land Analysis Summary of Urban Growth Area.....	47
Transportation Analysis	48
Thoroughfare Classification.....	48
Traffic Circulation Patterns.....	49
Impediments to Traffic.....	50
Traffic Generators	53
Parking	53
Air/Rail/Port.....	54
Mass Transit.....	54
Pedestrian/Non-Vehicular Circulation.....	54
Summary of Findings.....	55

CHAPTER 6

THE DEVELOPMENT PLAN

Introduction.....	56
Major Assumptions, Factors, Issues & Trends	56
Development Goals.....	57
Objections and Development Policies	58
General Development & Growth Management	58
Residential	61
Commercial Services	63
Industrial	64
Public and Semi-Public.....	65
Utilities.....	66
Vacant Land and Open Space.....	68
Transportation.....	69
The Development Plan Concept	70
The Major Thoroughfare Plan.....	70
Conceptual Land Use and Spatial Patterns	74

CHAPTER 7

PLAN IMPLEMENTATION

Introduction.....	75
Methods for Implementation.....	75
Planning Commission Project Review.....	75
Zoning.....	75
Subdivision Regulations	76
Codes Enforcement.....	76
Utility Extension Policies.....	76
Public Improvements Program and Capital Budget.....	77
Infill Development	77
Annexation	77
Citizen Participation.....	78
Local Leadership.....	78
Implementation Schedule.....	78

CHAPTER 8
COMMUNITY FACILITIES PLAN

Introduction.....	88
Purpose.....	88
Scope.....	88
Governmental Background.....	88
Municipal Administrative Facilities.....	88
Summary of Findings.....	89
Public Works Department.....	92
Streets and Transportation.....	92
Sidewalks, Signalization, and Street Signage.....	94
Stormwater Drainage Improvements.....	96
Solid Waste Collection.....	98
Landfill.....	99
Water System.....	101
Sewerage System.....	106
Natural Gas.....	109
Electric System.....	109
Cable Television.....	109
Police Protection.....	112
Fire Protection.....	113
Hospital Facilities and Services.....	117
Nursing Homes.....	118
County Health Department.....	119
Ambulance, Emergency Rescue, and Civil Defense.....	120
Rescue Squad.....	120
Civil Defense.....	121
Parks and Recreation Department.....	121
Parks and Recreation Facilities.....	121
Other Recreation Facilities.....	139
Pistole Park Soccer Complex.....	139
Rock Island Rustic State Park.....	139
Cumberland Caverns.....	139
Education System.....	139
Other Education Facilities.....	145
Summary of Findings.....	146
Elementary Schools.....	146
Middle School.....	146
High School.....	147
Library System.....	147
Day Care Facilities.....	148

LIST OF ILLUSTRATIONS, GRAPHS & TABLES

<u>Illus.</u>	<u>Name</u>	<u>PAGE</u>
1	Regional Setting: McMinnville	4
2	Natural Factors Affecting Development.....	11
3	Planning Neighborhoods	30
4	Existing Land Use: McMinnville and Growth Area.....	45
5	Water and Sewer Service Area	46
6	1999 McMinnville Traffic Counts.....	51
7	Major Thoroughfare Plan	52
8	Areas Most Suitable for Development	72
9	Development Plan Concept	73
10	McMinnville Community Facilities	90
11	Proposed Transportation Projects: McMinnville and Growth Area	97
12	Existing Waterlines: McMinnville and Growth Area.....	105
13	McMinnville Existing Sewer Lines	108
14	Existing Gas System.....	110
15	Existing Electric System.....	111
16	Existing and Proposed Fire Service Areas.....	116
17	Park Service Areas.....	122
18	Public School Service Area	141

<u>Graph</u>	<u>Name</u>	
1	Warren County Net Migration 1950 - 1990	20
2	McMinnville Population Projections 2000 - 2020.....	22
3	Warren County Population Projections 2000 - 2020	22
4	Selected Age Groups: McMinnville	23
5	McMinnville Zoning Districts	38
6	Total Residential Land by District.....	39
7	Percentage of Housing Units by Type	41
8	Water Main Sizes.....	102

<u>Table</u>	<u>Name</u>	
1	Assessed Taxes for Selected Years.....	7
2	Soil Characteristics.....	17
3	Historic Population Counts and Percent Change 1950 to 1990.....	20
4	1999 Incorporated Certified Population Counts	21
5	Current and Projected Population: Warren County, Tennessee.....	21
6	Warren County and McMinnville Percentage Population Change.....	22
7	Household Characteristics 1960 to 2000.....	24
8	Existing Land Use Acreage by Planning Neighborhood.....	32
9	McMinnville Housing Unit Structural Conditions.....	37
10	2001 McMinnville Existing Land Use.....	38
11	McMinnville Urban Growth Area Existing Land Use.....	48
12	Implementation Schedule.....	79
13	Government Organization: McMinnville, Tennessee.....	91
14	Street Rights-of-Way and Surfacing Widths.....	93
15	Prioritized Street Paving Schedule.....	93
16	Waste Oil and Auto Fluids Drop-Off Sites.....	99
17	Classification System: Local and Regional Recreation Space.....	124

18	Existing Recreation Facilities.....	128
19	McMinnville Park Acreage Analysis.....	130
20	Recommended Standards for Specific Recreational Facilities.....	133
21	Specific Recreational Facilities Analysis.....	138
22	Public Education System Inventory.....	140
23	Standards for School Site Size.....	142
24	School Site Acreage Analysis.....	143
25	Maximum Walking Distances and Travel Times.....	144
26	Operating Capacities: McMinnville Educational Facilities.....	145
27	Standards for Classroom Size: McMinnville, Tennessee.....	146
28	McMinnville Day Care Facilities.....	149

CHAPTER 1

INTRODUCTION

PURPOSE OF PLAN

The purpose of this study is to provide McMinnville, Tennessee with a long-range general plan for the future development of the municipality. The objective of such a plan, as outlined in Section 13-3-302 of the *Tennessee Code Annotated*, is to serve as a guide for "accomplishing a coordinated, adjusted and harmonious development of the municipality which will, in accordance with existing and future needs, best promote public health, safety, order, convenience, prosperity, and general welfare as well as efficiency and economy in the process of development."

The McMinnville Land Use and Transportation Policy Plan with Community Facilities covers a planning period of approximately twenty years, 2000-2020. The information presented in this plan should be used as a framework to guide municipal and county officials, community leaders, businessmen, industrialists, and others as they make decisions which affect the future growth and development of McMinnville. The plan is not intended to supersede the responsibility or authority of local officials and department heads. Instead, it is intended to be utilized as a general framework to guide future development and designed to give the public and private sectors a basis to constructively use and assess the interdependencies which exist between the various elements and organizations in the community. The development goals, objectives, and policies and the implementation strategies evident in this plan should be periodically reviewed, and when necessary, updated to reflect unanticipated occurrences or trends.

Therefore, this planning document is not a static document, but dynamic in nature, changing as local and regional community changes occur providing the flexibility to be revised as factors and issues within the community also change.

SCOPE OF PLAN

This plan is designed for the formulation of a coordinated, long-term development program for the City of McMinnville and its growth area. The preparation of a development program requires gathering and analyzing a vast array of information and assessing the different values obtained from citizen feedback. It is essential to have a well-informed and active citizen group that is involved within the process of drafting such a plan. This plan deals with the physical and economic development of a community. The development process primarily involves the integration of physical, economic, and social impacts within the community and developing a framework for future planning of the community. This plan, as present herein, consists of several interdependent elements: the first and foremost being the identification of development goals and objectives and the establishment of policies for achieving them. The primary method for guiding the planning process, based on the identifiable goals of the citizens and community leaders, is adherence to the goal statements in all activities, whether physical, economic, or social. In addition to these elements of the plan, the population and economy is evaluated for the future growth and current characteristics and a land use plan and transportation plan are established for the twenty year planning period. The goals and objectives of this plan need to be both feasible and financially practical. Therefore, a capitol improvements program would be the next logical step to provide the city with a systematic approach for planning future public improvements. Such a program is outside the scope of this plan and the plan should be utilized to establish a capital improvements program in the future. Lastly, to achieve the goals and objectives identified in the development plan, specific strategies or measures are outlined in an implementation schedule.

COMMUNITY GOALS, PROCESS AND METHODOLOGIES

The development of community goals and objectives is a primary product of this plan. Essential to the development of these goals and objectives is citizen participation. Citizen participation is necessary to identify local needs and problems perceived by the community at large. Several methodologies are available for obtaining citizen input. The methodologies utilized in this plan included public hearings, surveys, interviews, and study groups. From citizen participation, goals and objectives addressing the recognized needs and problems were identified.

COMPANION PLANNING DOCUMENTS

There are five companion planning documents which should be used in conjunction with this McMinnville Land Use and Transportation Policy Plan with Community Facilities. These are:

1. The McMinnville Comprehensive Plan, 1984-2004. This plan covers a 20 year planning period. It is based on 1980 Census data and is generally outdated. Although many of the recommendations called for in this plan have been implemented, some of the information may still be valid.
2. The McMinnville Revised Land Use Plan, 1993-2010. This plan amended and updated the Land Use Plan Element of the 1984 Comprehensive Plan.
3. The 1996 McMinnville Fringe Area Study. This study examines that portion of the McMinnville Planning Region located outside the corporate limits with the intent of identifying those properties with the highest feasibility for incorporation.
4. The Warren County Comprehensive Plan, 1987-2007. This plan covers all of Warren County, including McMinnville, but concentrates on the rural, unincorporated areas.
5. The 2000 McMinnville Growth Boundary Report. This report establishes the location and limits of projected growth and development for the next twenty years.

CHAPTER 2

BACKGROUND FOR PLANNING

INTRODUCTION

To effectively plan for any community, gathering information concerning its background is necessary. The size and location of a community are important aspects of any community. Information on a municipality's early settlement and events affecting past development assists in planning for its future development. An understanding of the community's political history and governmental structure helps to reveal the atmosphere in which future planning will take place. Background data for the City of McMinnville is presented in this chapter.

Location and Size

The City of McMinnville, comprising a total land area of approximately 6,801.67 acres or 10.62 square miles, is situated in the center of Warren County, Tennessee. Warren County embraces an area of approximately 443 square miles located near the southeastern center of Tennessee on the edge of the physiographical area known as the Highland Rim. It is one of fourteen counties in the Upper Cumberland Region, and is situated in Middle Tennessee some 72 miles southeast of Nashville and 69 miles northwest of Chattanooga. The county is bounded on the south by Grundy and Sequatchie Counties, on the west by Cannon and Coffee Counties, on the north by DeKalb and White Counties, and on the east by Van Buren County. Highways located in McMinnville include U.S. Highway 70S, State Primary Highways 8, 55 and 56 and State Secondary Highways 1, 108, and 286. Interstate 24, the nearest Interstate Highway, is located approximately 23 miles to the southwest via State Highway 55. Illustration 1 depicts the regional setting for McMinnville and Warren County.

Early Settlement

The first known settler at the site of present-day McMinnville was Thomas Wilcher, Jr., in 1800. Others quickly followed in pursuit of the fertile soil, an excellent supply of water, an abundance of timber, and the scenic beauty of the area. Warren County was officially created in November of 1807, following the signing of the Third Treaty of the Tellico with the Cherokee Indians in 1805. The county was settled largely by Revolutionary War veterans, comprised predominantly of Scotch-Irish, English, German, and French Huguenots. The county was named in the honor of Joseph Warren, a general in the Revolutionary Army, who was killed at the Battle of Bunker Hill in 1775.*

Three years after the Tennessee General Assembly established Warren County, a 41 acre tract of land was purchased on the north bank of the Barren Fork River and the City of McMinnville was laid out. It was originally designed with a large public square at the intersection of Main and College Streets. The municipality was established as the county seat in 1810 after a county-wide election. It was named for Joseph McMinn who was the state treasurer at the time and later became governor of Tennessee.

Agricultural, as in most pioneer settlements, was the primary economic activity in the early development of McMinnville and Warren County. The abundance of water, timber, and minerals quickly led to the creation of industry and manufacturing, and, as early as 1816 a cotton mill was operating on Charles Creek at Faulkner's Springs. The discovery of potash and iron ore prompted the manufacturing of gunpowder and iron in the Rock Island area before 1830.

*Hale, William T., Early History of Warren County, ed. by J. A. Womack, Jr., McMinnville Standard 1930.

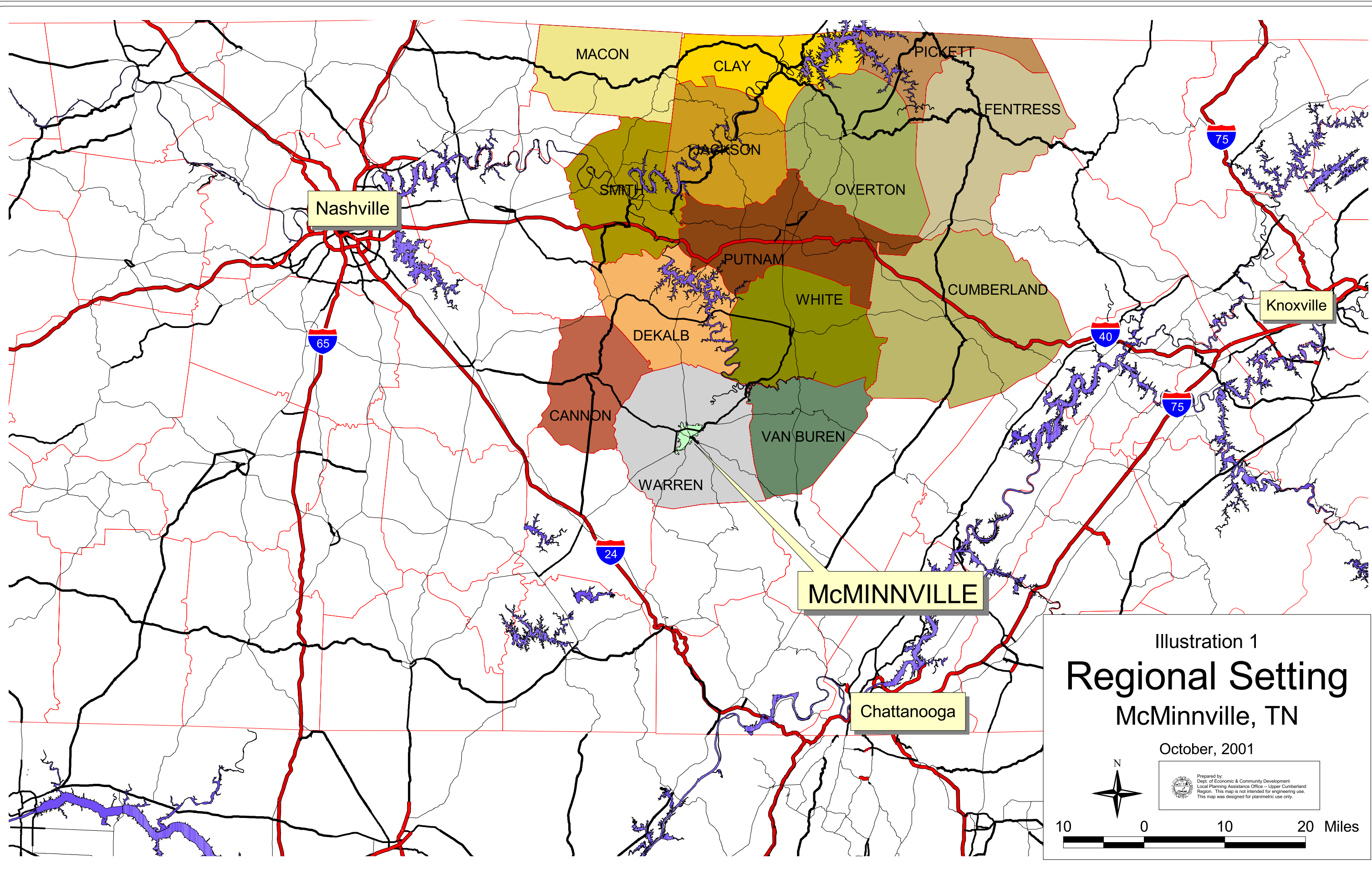


Illustration 1
Regional Setting
 McMinnville, TN
 October, 2001

Prepared by:
 Dept. of Economic & Community Development
 Local Planning Assistance Office - Upper Cumberland
 Region. This map is not intended for engineering use.
 This map was designed for planimetric use only.

10 0 10 20 Miles

Major Events Affecting Development

During the first decades of the 19th century, settlement was rapid in McMinnville and Warren County. The major inducement to growth in McMinnville in the early 1800's continued to be availability of the prime farmlands and abundant streams. As water power was in abundance, many mills were built in the county giving rise to a prosperous textile industry which remained the foremost industry in McMinnville for several decades.

An important early event affecting growth in McMinnville was the development of the McMinnville and Manchester Railroad which connected with the Nashville, Chattanooga, and St. Louis Railway. This railroad line, established in 1855, profoundly affected trade around McMinnville and provided a larger market for locally produced goods.

Perhaps no event in its history had a greater impact on McMinnville and Warren County than the Civil War. Overwhelmingly pro-Confederacy in its allegiance during the conflict, the county furnished almost 2,000 young men to the Confederate Army. The county changed hands 9 times during the war and the marauding armies laid waste to the land, leaving in their wake a starving, decimated people.

Following the Civil War, McMinnville and Warren County became noted as growers of excellent apples and distillers of excellent apple brandy. This became the prime cash crop. At the same time, the timber and lumber industry became firmly established and continues today as a major industry. Probably as an outgrowth of the orchard industry, coupled with a favorable climate and fertile soil, the nursery industry was born. Presently, the county is one of the nation's great nursery centers.

By 1897, according to the Sanborn Map Company, the City of McMinnville had an estimated population of 2,500. The company's 1897 maps indicated that the community contained at least five churches, a high school, a public school, a rail road depot, a jail, a theater, two hotels, several liverys, several groceries, numerous small businesses, a female college, a furniture factory, a foundry, a tannery, a spoke and handle factory, a stave mill, a saw and planing mill, a flour mill, and four textile mills. The same maps also indicated that in 1897 a county courthouse was under construction at the site of the present day courthouse.

After the turn of the century there were a number of events which affected development in McMinnville and Warren County. In 1901, a basic charter for the City of McMinnville was adopted under a private act of the State of Tennessee, Chapter 186. By 1910, the United States Census estimated the population of McMinnville at 2,299, making it the largest community in the Upper Cumberland Region. In 1911 the Memphis to Bristol Highway was started in McMinnville and by 1923 it was the first paved thoroughfare in the municipality. The municipality's first modern water filtration system began operation in 1927.

By 1930, according to the United States Census, the population of McMinnville was 3,914. In that year the Sanborn Map Company noted that the municipality had a public water system with a 100,000 gallon storage tank and approximately eight miles of water mains. The mapping company also estimated that there were approximately six miles of paved streets in McMinnville.

There were two major events affecting development in McMinnville circa 1950. The McMinnville Airport was dedicated in 1949 and the McMinnville-Warren County Chamber of Commerce was started in 1950.

During the decade of the 1960's a significant number of major events affecting development took place. The completion of Interstate 40 in 1966 was perhaps the most significant event affecting development in McMinnville and Warren County during this time period. The construction of this highway, approximately 40 miles north of McMinnville, took the municipality off the main east-west artery between Knoxville and Nashville and left Highway 70S a secondary highway for cross state travel. By

the end of the decade, the City of Cookeville, which is located on Interstate 40, surpassed the City of McMinnville as the largest municipality in the Upper Cumberland Region.

In the early 1980's the closure of several textile related industries resulted in unemployment rates in Warren County approaching 25 percent. To address the employment needs of the county the Warren County Commission in 1984 purchased 100 acres of land near the Town of Morrison which led to the development of the Mountain View Industrial Park and also purchased 54 acres of land off the Highway 70S Bypass in McMinnville for industrial development. The Mountain View Industrial Park, in which several large industries have located, has become the center for industrial development in Warren County.

A number of significant transportation improvements occurred in the late 1980's through the mid 1990's. The four-laning of Highway 55 to Manchester and of Highway 70S to Highway 111 connected the municipality to Interstates 24 and 40. The completion of the Highway 55 Bypass has the potential as a catalyst for encouraging future development within the McMinnville Planning Region. Additionally, this Bypass, which is located on the western edge of the municipality, has already alleviated some of the traffic problems in the downtown area and is expected to open up existing vacant land for development.

Other recent major events which have the potential for affecting development include the construction of the Warren County High School in 1994 and the completion of the Columbia River Park Hospital in 1996.

Findings. Several of the major events affecting development in McMinnville in the past will continue to affect, both positively and negatively, development in the future. Also the negative affects of such events as the removal of the municipality from the main east-west state highway and the abandoning of McMinnville as the industrial center of the county must be mitigated if the municipality is to continue to thrive as a vibrant community with a strong local economy.

GOVERNMENTAL STRUCTURE

Knowledge of the governmental structure of the municipality is an important aspect of planning for its future. A municipality's form of government, financial capability, and Planning Commission status directly affect its ability to plan for growth and development. The purpose of this section is to provide a general examination of the governmental structure of McMinnville, to briefly describe its functions, and to assess its potential influence on future development.

McMinnville was established as the county seat of Warren County in 1810. In 1901, the municipality was incorporated under a basic charter act under the General Law Mayor-Aldermanic charter, Tennessee Code Annotated, title 6, chapters 1-17. It called for the qualified voters of the municipality to elect a city council consisting of a mayor and six aldermen at large. The municipality operates under the mayor-aldermanic form of government with the mayor serving as chief executive officer and presiding member of the Board of Mayor and Aldermen. Since 1970, the citizens of McMinnville have elected the mayor and aldermen to staggered four year terms with the terms of the aldermen staggered so that an election for three aldermen is held every two years. The regular meetings of the Board of Mayor and Aldermen are held on the first and third Mondays of each month at the Franklin Blue Municipal Building.

Since 1988 the day-to-day activities of the municipality have been overseen by a city administrator appointed by the Board of Mayor and Aldermen. According to the McMinnville Municipal Code of 1995 it is the duty of the administrator to directly supervise all department heads, supervise and coordinate all activities of each department of the city according to the policies and directives of the board of mayor and aldermen. Under the authority specified in the Municipal Code, the administrator can have significant influence on plans for future development.

The aldermen serve on six standing committees that carry out the various responsibilities and functions of the government. These committees, on which three aldermen each serve, consist of the finance, water and

sewer, safety, street and sanitation, building, and parks, recreation and cemeteries committees. Three other boards advise the Board of Mayor and Aldermen on various matters. The Board of Mayor and Aldermen also appoint officials to assist in carrying out the functions of the committees. These are the recorder who is accountable to the finance committee, the superintendent of the water and wastewater department who is accountable to the water and sewer committee, the police and fire chiefs who are accountable to the safety committee, the superintendent of streets and sanitation who is accountable to the street and sanitation committee, a codes enforcement official who is accountable to the building committee, and the superintendent of parks, recreation, and cemeteries who is accountable to the parks, recreation, and cemeteries committee. The City of McMinnville employs approximately 160 persons who carry out the various municipal functions. Table 13 depicts the governmental organization for the City of McMinnville.

Municipal Finances

The financial stability and capability of a municipality directly affects its ability to accomplish planning goals. An analysis of its revenues and expenditures is necessary to determine the financial stability and capability of the municipality. According to the City of McMinnville Audited Financial Statements for the years ending June 30, 1995, June 30, 1998, and June 30, 1999, the municipality's total revenues increased from \$5,636,344 in fiscal year 1995 to \$6,950,251 in fiscal year 1999, and for the same period total expenditures increased from \$4,579,414 to \$5,943,004.

The largest source of revenue for the municipality is the local property tax. For fiscal years 1995 and 1999 revenues from property taxes increased from \$2,220,963 to \$2,735,424. This is an increase of \$514,461 or 23 percent over the four year period. The current municipal tax rate is \$1.94 per \$100.00 of assessed valuation. This certified municipal tax rate was increased from the previous rate of \$1.67. Total assessed values have increased from \$2,231,000 in 1995 to \$160,403,039 ending June 30, 1999, which is an overall increase of 4,158,172,039. This amounts to an average increase of \$164,549.

**TABLE 1
ASSESSED TAXES
FOR SELECTED YEARS**

1995	1996	1997	1998
+\$59,725	+\$72,319	+\$192,409	+\$333,741

Although the average increase is substantial, as Table 1 depicts, it has primarily been within the last couple of years that the city has undergone a dramatic increase in taxes assessed. Consequently, this has boosted the overall annual average for the four-year period.

The second largest source of revenue for the City of McMinnville comprises state-sales taxes. For fiscal year 1999, the total state-sales taxes amounted to \$697,400, an increase of \$28,577 from the previous year. From 1995 to 1999 the state sales tax revenue increased from \$585,027 to \$697,400, or by approximately 19 percent, and the local sales tax revenue increased from \$463,558 to \$617,098, or by approximately 33 percent. The total amount of state-shared tax revenues for 1999 amounted to \$1,014,531, a decrease of \$898,994 from 1998. Combined, the total sales tax levy increased by \$265,913 or by 25 percent over the four year period.

The largest expenditure for the municipality in fiscal year 1999 totaled \$1,808,064 and was under the miscellaneous category, which comprises health insurance, unemployment insurance, medical claims, medical premiums and employee related programs and benefits.

The second highest expenditure for the municipality in fiscal year 1999 was for the police department, which totaled \$1,169,419 and was a decrease of \$55,460 from the previous year. These expenditures include wages earned, utilities, equipment, legal fees, a 911 fee, maintenance and repair for buildings, vehicles, and equipment. The total increase in expenditures from 1995 was \$19,578, or an increase of less than 2 percent for the four-year period.

Expenditures for waste collection were the next largest expenditure by the municipality in fiscal year 1999. For fiscal years 1995 and 1999 expenditures for waste collection increased from \$811,127 to \$1,050,671 or by about 30 percent. This category includes solid waste disposal, employment wages, benefits and programs, repairs and maintenance, and equipment and supplies. Of these total expenditures solid waste disposal accounted for 44 percent of the department expenditures.

The fourth largest expenditure in 1999 amounted to \$827,659 for the fire department. This was an increase of only \$14,176 from 1998. These expenditures include costs for wages, utilities, repairs and maintenance, clothing, equipment, etc. Between 1995 and June 30, 1999, expenditures for the department increased by \$209,634 or by about 40 percent.

Perhaps the most note worthy findings of the analysis of the financial stability and capability of the City of McMinnville is the relatively small annual increase in state sales taxes comparable to the increase in local sales taxes from 1995 to 1999. It is also significant that the property tax rate had not been increased during the same period. There is a need for a capital budget system, which this document would supplement. This also would allow the municipality to implement a Public Improvements Program.

Municipal Planning Commission

On October 3, 1947, the McMinnville City Council, through Ordinance No. 104, created and established the McMinnville Planning Commission. This ordinance created a five member Planning Commission consisting of the mayor, one alderman selected by the City Council, and three citizens appointed by the mayor. On May 26, 1965, the Tennessee State Planning Commission created by resolution the McMinnville Regional Planning Commission. This action created a planning region which extended approximately five miles out from the McMinnville corporate limits. In 1971, through Ordinance Nos. 390 and 393, the McMinnville City Council increased the Planning Commission membership to seven, consisting of the mayor, one alderman, and five citizens. On August 11, 1976, the Local Government Planning Advisory Committee reduced the size of the McMinnville Planning Region to its current configuration.

The McMinnville Planning Commission experienced several periods of inactivity from 1947 until 1968, when the City recontracted with the Tennessee State Planning Commission. Since 1968, the McMinnville Regional Planning Commission has been very active in carrying out its functions and in its role as advisor to the Board of Mayor and Aldermen. In addition to various official planning documents, including long range development plans and zoning, subdivision and floodplain regulations, the Planning Commission has also prepared numerous special studies, short and mid-range plans, and grant applications addressing public facilities, housing, transportation and recreation improvements.

McMinnville is served by the Upper Cumberland Regional Office of the Local Planning Assistance Office, Tennessee Department of Economic and Community Development. The officers of the Planning Commission are chairman, vice-chairman, and secretary. The regular meetings of the Planning Commission are held monthly at the McMinnville Municipal Building.

Findings. The city administrator, under the authorities granted by the McMinnville Municipal Code, can significantly influence the direction of the municipality's planning program. The current board of Mayor and Aldermen appear to be committed to a quality planning program and to be fully supportive of the role of the Planning Commission. This allows the McMinnville Regional Planning Program to operate in an atmosphere, which is very conducive to effective planning. The municipality appears to be in sound

financial condition and it has the capability to address public improvement needs. The adoption and implementation of a Public Improvements Program and Capital Budget should be a primary goal of the Planning Commission and Board of Mayor and Aldermen.

SUMMARY OF FINDINGS

The City of McMinnville is the county seat of Warren County, Tennessee, having developed as a river community on an inland peninsula defined by the Barren Fork River approximately 70 miles southeast of Nashville. For nearly two centuries the community has been the center for commerce and government in Warren County. Milling and textile related industries were the county's first large employers. Since the 1980's major industrial development in Warren County has occurred primarily in the Mountain View Industrial Park which is located near the Town of Morrison.

The proximity of the state's major east-west route, Highway 70S, had a major affect on past development. The construction of Interstate 40, which removed the municipality from the main east-west state highway, had an opposite affect on development. The location of a new transportation highway, the Highway 55 Bypass, is expected to have a positive affect on future development.

The municipality operates under a mayor-aldermanic form of government with the day to day activities of the municipality overseen by a city administrator. Financially, the municipality has the capability to address some public improvement needs, however, there is a need for a Public Improvements Program and Capital Budget. The planning program in McMinnville is effective and is fully supported by the local government. Having authority over a planning region allows the municipality to effectively plan for its potential growth areas.

CHAPTER 3

NATURAL FACTORS AFFECTING DEVELOPMENT

INTRODUCTION

The natural environment often dictates the pattern of land use or development in a community. The climate, air and water quality, topography, drainage and flooding, and soils are significant natural factors which affect development. Ignoring these factors can prove to be extremely costly to specific property owners as well as the entire community. Not all land is suitable for development. Natural factors, which cannot be altered, must be considered prior to land development. The limits and type of land use should be responsive to the natural factors in order to protect the welfare of the general populace. Through increased knowledge of these natural factors and the appropriate use of land, future development can avoid the mistakes of the past. The purpose of this chapter is to review and evaluate the natural factors influencing the land use patterns in McMinnville and its planning region. Illustration 2 depicts the natural factors affecting development.

CLIMATE

The climate of McMinnville and Warren County is described as humid-sub-tropical, characterized by relatively mild winters and warm summers. Although McMinnville is located well inland, it lies in the path of cold air moving southward from Canada and warm moist air currents moving northward from the Gulf of Mexico. These alternating currents frequently bring sharp daily changes and are chiefly responsible for seasonal variations.

There is normally an abundant amount of rainfall in McMinnville. Based on the standard United States Weather Bureau 35-year mean, the normal annual rainfall for the Barren Fork River Basin is 52 inches. Precipitation is usually heaviest in late winter and early spring, as a result of frequent low pressure weather systems. The most widespread flooding occurs during this period; but flooding on a smaller scale can occur during any month. Warren County is subject to locally heavy storms in which as much as five inches of rain may fall during a very short period. Precipitation is generally lightest in late summer and early fall as high pressure systems are most frequent at this time of year. Thus, the periods of drought are offset by periods of ample to excessive precipitation throughout the year.

The mean annual temperature of the McMinnville area is 59 degrees Fahrenheit, and the average relative humidity is 70 percent. Extremes in temperature are uncommon, seldom above 100 degrees Fahrenheit or below -5 degrees Fahrenheit. There is some variation in relative humidity during a given year with the highest average daily values recorded in winter. Although winters are not severe (the ground seldom freezing below four inches) they are often wet, and outside work may be hampered around construction sites. The first fall freeze is usually in late October and the last spring freeze is usually in early April.

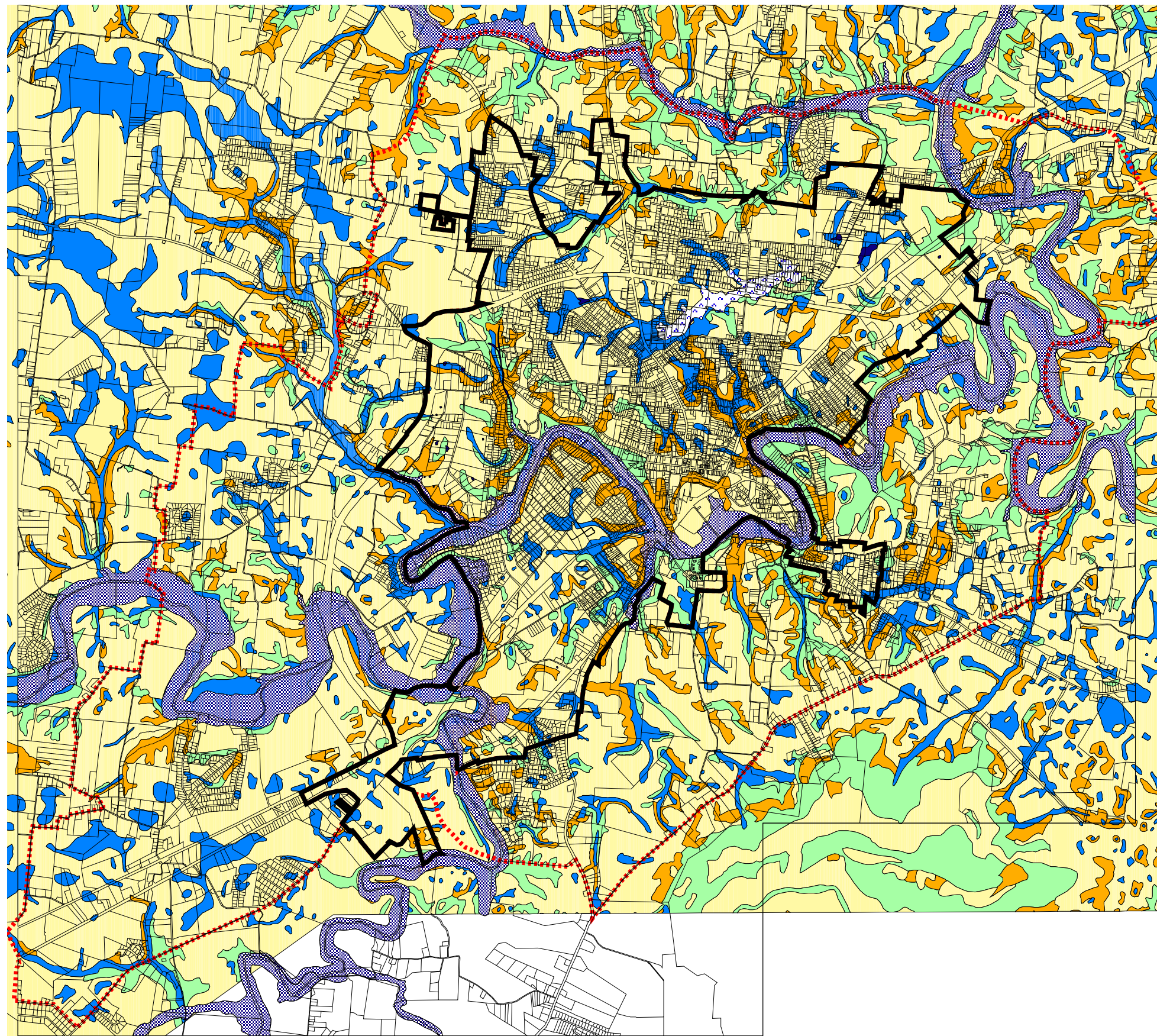
Findings. The climate of McMinnville and the affect that it has on development can best be described as moderate. Of the various climatic factors, the periodic heavy rainfalls, which can lead to inundations of floodplain and sinkhole areas, have had the greatest impact on development. In general, however; climate has no great affect on development in the municipality.

AIR QUALITY AND WATER RESOURCES







At present, the air and water quality in the McMinnville area is excellent. Warren County is located in a non-attainment air quality area. An abundance of open space and a lack of highly urbanized areas is conducive to the maintenance of the purity of the air.

Illustration 2
**Natural Factors
 Affecting Development
 McMinnville, TN**

October, 2001

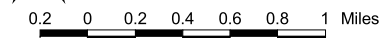


LEGEND

-  Corporate Boundary
-  Proposed Urban Growth Boundary
-  Parcel Boundaries
- Factors Affecting Development**
- Soil Factors**
-  Soils With No Limitations
-  Soils With Slight To Moderate Limitations
-  Soils With Slope Limitations
-  Soils With Wet Soil Limitations
- Flood Plain, Wetlands, and Sinks**
-  100 Year Flood Plain
-  Predominate Sink Area
-  Wetlands



Prepared by:
 Dept. of Economic & Community Development
 Local Planning Assistance Office - Upper Cumberland Region
 This map is not intended for engineering use.
 This map was designed for planimetric use only.



The primary water source for the City of McMinnville is the Barren Fork River. According to the latest information provided by the Tennessee Department of Environment and Conservation, the City of McMinnville is under no moratoriums due to water and wastewater treatment problems. The municipality has an approved National Pollutant Discharge Elimination System (NPDES) permit for discharging its treated wastewater into the Barren Fork River.

Findings. Presently, there are no air quality or water resource quality problems which would directly affect future land use in the McMinnville Planning Region.

TOPOGRAPHY

Topography is defined as the general configuration of the earth's surface, including its slope, geological characteristics, and other natural features. Warren County, located on the edge of the Tennessee Highland Rim, occupies an area which has an approximate median elevation of 1,000 feet. The elevation at the Warren County Courthouse, which is located in McMinnville near the geographic center of the county, is 976 feet. The surface of the county varies from flat lands and gently rolling hills to rough, steep, and rocky escarpments to the levelness of the Cumberland Plateau. In the McMinnville Planning Region, the surface is generally level or undulating. There are, however, a few slopes that exceed 20 percent, primarily along the Barren Fork River.

Slope is a major topographic consideration impacting the developmental potential of sites. It affects access, floodability, erosion potential and soil capabilities. The rate of erosion increases exponentially with increases in the degree of slope and steepness. Slopes in McMinnville and its projected growth areas range from below 5 percent to over 20 percent. In areas of greater than 20 percent slope, limitations to development are severe and development should occur only under the most guarded conditions under strict design guidelines and extremely low densities. Areas with the most significant topographic constraints in the McMinnville Planning Region are located primarily along the Collins and Barren Fork Rivers and along Charles Creek. The areas within McMinnville and its planning region with greater than 20 percent slope are depicted on Illustration 2, Natural Factors Affecting Development.

The variety of Tennessee's topography is related to the rocks that underlie each section of the state and to their geological history. The Highland Rim Region, in which McMinnville is located, is underlain by rocks of the Mississippian Age. According to Tennessee's Division of Geology, Mississippian rocks in Tennessee are dominated by limestone.

Karst topography is common in much of Warren County where soluble limestones form the landscape. Sinkholes are numerous in and around McMinnville. One of the largest sinkholes in the county is located in McMinnville along U. S. Highway 70S.

Findings. The topography in McMinnville is generally characterized as level or undulating. Primary constraints to development are steep slopes along the Collins River and its tributaries and sinkholes scattered throughout the area. There are numerous areas still available in McMinnville Planning Region with terrain favorable for development.

DRAINAGE AND FLOODING

The drainage pattern for the McMinnville area is well defined, and is accommodated by the Collins and Barren Fork Rivers, Charles Creek, Hickory Creek, Pepper Creek, and a large number of sinkholes located throughout the municipality. The municipality has experienced a significant amount of flooding in the past. The principal flood season for the streams in the McMinnville area extends from late winter through early spring. These floods are caused by prolonged heavy rainfall covering large areas. All streams rise rapidly following heavy rainfall and have dangerously high flow velocities. Sinkhole flooding within McMinnville is caused by large depressions in the ground, having little or no outlets, which simply store rainwater over periods of time.

Severe flooding, that which causes significant property damage, is rare in McMinnville. The last floods causing extensive damage in the vicinity of McMinnville occurred in 1969 and 1973. Less severe flooding occurs more frequently. In the past 20 years minor floods in McMinnville have occurred in 1979, 1980, 1982, 1986, 1989, 1990, 1991 and 1994. With no absolute solution for preventing the community's recurring flood problems, it has been imperative for McMinnville to consistently practice sound floodplain management techniques.

McMinnville has been a participant in the National Flood Insurance Program since December of 1977. This program identifies potential flood hazard areas within the community and provides the residents with the opportunity to purchase flood insurance. Floodable areas in the City of McMinnville have been delineated by the Federal Emergency Management Agency. Identified flood hazard areas in the McMinnville area are located primarily along the Collins River, Barren Fork River, Charles Creek, Hickory Creek and Pepper Creek. Flood hazard areas also constitute several areas containing sinkholes with lower elevations than the regulatory flood elevations. These flood hazard areas are depicted on Illustration 2, Natural Factors Affecting Development. Detailed flood boundaries and flood elevations may be obtained from the Flood Insurance Rate Maps prepared for Warren County and McMinnville by the Federal Emergency Management Agency and dated March 16, 1988. Development in the identified flood hazard areas is regulated by the McMinnville Floodplain Zoning Ordinance, adopted in 1980, and amended in 1987 and 1992.

In 1995 the municipality submitted an application for a matching grant from the Federal Emergency Management Agency's Flood Hazard Mitigation Program. This grant was used to acquire and remove a repetitively flooded residential structure located in a frequently flooded sinkhole area on Sharpe Street. More detailed information concerning flooding in McMinnville can be found in the Floodplain Information, Collins River, Barren Fork, Hickory and Charles Creeks, 1973, McMinnville, Tennessee, prepared by the Nashville District Corps of Engineers, Department of the Army; City of McMinnville Drainage Policy Plan, 1976, prepared by the Tennessee State Planning Office; and the Flood Insurance Study, Warren County, Tennessee, and Incorporated Areas, March 1988, prepared by the Federal Emergency Management Agency/Federal Insurance Administration. Prior to any development within McMinnville, these publications should be reviewed.

Findings. Flooding has significantly affected development in McMinnville in the past and will continue to do so in the future. The restrictions placed on the several hundred acres of land in the municipality as flood hazard or sinkhole areas, significantly limit their availability for future development. Fortunately, due to the availability of nonfloodable land with terrain favorable for development, future pressure for development in the flood hazard areas in the McMinnville Planning Region is not expected.

SOILS AND GEOLOGY

One of the most important factors affecting development in any community is the content and capability of the various soils. Knowledge of the various characteristics of the soils, such as flood potential, septic tank capability, drainage qualities, depth to water table, load bearing strength, stability, shrink-swell potential, and soil depth are important in determining the appropriate land use for particular sites. The primary source for information on soils and geology in the McMinnville Planning Region is the Soil Survey of Warren County, Tennessee which was prepared by the United States Department of Agriculture Soil Conservation Service in 1967. The General Soils Map for Warren County presented in the soil survey indicates that the City of McMinnville and its planning region are located entirely within the Waynesboro-Cumberland Soil Association. Land located in this association is characterized as gently rolling or rolling with a few areas of steep, choppy hills. In places the surface is pitted by oval and irregularly shaped sinkholes and depressions.

The previously mentioned soil survey of the McMinnville Planning Region, depicts the general location of the various soil series in the Waynesboro-Cumberland Soil Association situated in and around the

municipality. This map is a useful guide in planning for various types of development on large tracts of land or for providing general information on the location of soils, but it does not identify the specific soils on individual tracts of land. Two major soil series and approximately 18 minor soil series have been identified in the McMinnville Planning Region. Many of these soil series are subdivided into soil types and some are further subdivided into soil phases. For detailed information on these soil types and soil phases the 1967 Soil Survey of Warren County, Tennessee should be consulted. Descriptions and interpretations of the major and minor soils series located in the McMinnville Planning Region are presented as follows:

Major Soils Series

According to the soil survey, about 70 percent of the total acreage consists of Waynesboro and Cumberland soils, all of which are very deep over bedrock and occupy the smooth, undulating hilltops and mild side slopes. Descriptions of these two major soil series are presented in the following:

Waynesboro Series. The Waynesboro Series consists of deep well-drained, loamy soils. Slopes range from 0 to 30 percent. Depth to bedrock is 5 to 30 feet. This series is by far the most dominant soil series in the McMinnville Planning Region and the bulk on the development in the area has occurred on soils in this series.

Cumberland Series. The Cumberland Series consists of deep, well-drained soils on high terraces. Slopes range from 0 to 20 percent, but are 2 to 5 percent in most areas. Depth to bedrock is from 6 to 30 feet. This series is located primarily through the center of the planning region and a significant amount of development has occurred on these soils.

Minor Soils Series

The soil survey indicates that about 30 percent of the Waynesboro-Cumberland association in the McMinnville Planning Region is composed of at least 18 minor soils. Descriptions of these 18 soils series, which have extents ranging from a few acres to hundreds of acres, are presented in the following:

Baxter Series. The Baxter Series consists of deep, well-drained soils that were derived from cherty limestone and are on rolling to steep uplands. Slopes range from 5 to 50 percent, but they are less than 30 percent in most areas. Depth to bedrock ranges from 5 to 30 feet. Soils in this series have probably the third largest extent in the planning region. They are located primarily south of the Barren Fork River and to the northwest of the municipality along Charles Creek. Little development has occurred on these soils in the McMinnville Planning Region.

Bruno Series. The Bruno Series consists of very sandy soils on bottom lands. These soils lie in narrow strips next to stream channels, mostly along Hickory Creek and the Barren Fork River. The soil generally is flooded for short periods every year or two. No development has occurred on these soils in the McMinnville Planning Region.

Captina Series. The soils of the Captina Series are moderately well drained and have a fragipan. They are mostly on low foot slopes and second bottoms. Slopes range from 1 to 3 percent but are nearly level in most places. The depth to bedrock ranges from 5 to 30 feet. There are relatively few acres of soils in this series located in the McMinnville Planning Region, the largest concentration is situated along the Highway 70S Bypass.

Christian Series. The Christian Series consists of deep, well-drained soils on ridgetops and hillsides. These soils occupy slopes of 2 to 20 percent. The depth to bedrock ranges from 2 to 10 feet. Soils in this series in the McMinnville Planning Region are located primarily along Bybee Branch and north of Charles Creek.

Dickson Series. In the Dickson Series are light-colored, silty soils that have a fragipan at a depth of about 2 feet. Above the fragipan the soil is waterlogged in the winter and early spring. These soils occupy slopes of 1 to 4 percent in areas of undulating relief. The largest concentration of these soils in the McMinnville Planning Region is located to the north of Highway 70S and Highway 55 Bypasses.

Etowah Series. The Etowah Series consists of deep, productive, well-drained soils. These soils lie on terraces 15 to 100 feet above the floodplain. Slopes in most places range from 2 and 20 percent. In the McMinnville Planning Region soils in this series are primarily located to the east of South Chancery Street and north of the Barren Fork River.

Guthrie Series. The Guthrie Series consists of poorly drained, gray, silty soils that have a fragipan at a depth of about 2 feet. These soils occur on broad flats and in slight depressions on nearly level uplands that commonly lack a drainage outlet. Slopes in this series range from 0 to 2 percent. Although there are small pockets of soils in this series scattered throughout the planning region, the largest concentration is located along North Chancery Street stretching south from the site of the Wal Mart Supercenter to the intersection of the Smithville Highway.

Huntington Series. The soils in the Huntington Series are deep, friable, and well drained. Slopes generally range from 0 to 2 percent, but they range from 10 to 25 percent along streambanks. The depth to bedrock ranges from 5 to 25 feet. Soils in this series are located in the planning region primarily in floodplains along the Barren Fork River and Charles and Hickory Creeks.

Jefferson Series. The Jefferson Series consists of deep, well-drained, loamy soils on high stream terraces and on mountain foot slopes. Slopes range from 2 to 20 percent. The small amount of these soils located in the McMinnville Planning Region are situated mainly to the northeast of the Collins River.

Lawrence Series. The Lawrence Series consists of somewhat poorly drained, silty soils on slopes of 0 to 2 percent. These soils are around the rim of large wet depressions, on nearly level upland plains, and along intermittent drains. Bedrock is 15 to 30 feet below the surface. In many cases soils in this series in the McMinnville Planning Region are located adjacent to the poor soils in the Guthrie Series.

Lindside Series. The Lindside Series consists of moderately well drained and somewhat poorly drained, loamy soils on bottom lands. Slopes range from 0 to 2 percent. Most areas are flooded occasionally, especially in winter and spring. Small pockets of soils in this series are scattered throughout the planning region.

Melvin Series. In the Melvin Series are gray, poorly drained soils on nearly level first bottoms. In most places it occurs on the outer rim of the flood plain. Slopes range from 0 to 2 percent. There are less than approximately 50 acres of soils in this series located in the planning region.

Minvale Series. The Minvale Series consists of well-drained, loamy soils on foot slopes. Slopes range from 2 to 12 percent. The depth to bedrock ranges from 5 to 30 feet. There are only three or four pockets of these soils, consisting of less than 10 acres each, located in the planning region.

Mountview Series. The Mountview Series consists of well-drained, silty soils on gently sloping and rolling uplands. Slopes range from 2 to 12 percent. The depth to bedrock is 8 to 30 feet. There are several hundred acres of soils in this series located in the McMinnville Planning Region with the largest concentrations situated to the west and northwest of the municipality.

Sequatchie Series. In the Sequatchie Series are deep, loamy, friable, well-drained soils situated on low stream terraces. Slopes range from 0 to 12 percent but commonly are 1 to 3 percent. Depth to bedrock is 5 to 12 feet. These soils, which are located primarily along Charles Creek and the Collins and Barren Fork Rivers, are occasionally flooded. Little if any development has occurred on these soils in the McMinnville Planning Region.

Staser Series. The Staser Series consists of well-drained, sandy loams on bottom lands. Slopes range from 0 to 25 percent. Depth to bedrock is 5 to 15 feet. These soils, which are occasionally flooded, are primarily located in the flood plains along the Collins and Barren Fork Rivers and Charles and Peppers Creeks. Little if any development has occurred on these soils in the McMinnville Planning Region.

Talbott Series. In the Talbott Series are well-drained, clayey soils that formed in material weathered from limestone. Slopes range from 5 to 30 percent. Bedrock lies at an average depth of 2 to 5 feet below the surface with out crops in some places. There are only a few acres of soils in this series located in the planning region mainly along Hickory Creek and the Barren Fork River.

Whitwell Series. The Whitwell Series consists of moderately well-drained and somewhat poorly drained soils on low terraces. Slopes range from 0 to 2 percent. Depth to bedrock is 5 to 25 feet. Soils in this series are located in the McMinnville Planning Region near the Faulkner Springs area and south of Peppers Creek.

Soil Limitations. The soils in the McMinnville area have been rated according to their limitations for residential, commercial, industrial, recreation and open space, and street uses. Awareness of the limitations for each soil area is useful in recommending the capabilities of a parcel of land for development. Soil limitations for a particular use do not necessarily mean that the land cannot be developed for that use. It does mean that measures may have to be taken to overcome the limitations. Table 1 presents detailed information on the characteristics and features of the soils in McMinnville and its planning region. In this table the ratings of slight, moderate, and severe have the following meanings:

Slight limitations--Soils have properties available for the rated use. Limitations are so minor that they can be easily overcome. Good performance and low maintenance can be expected.

Moderate limitations--Soils have properties moderately favorable for the rated use. Limitations can be overcome or modified with planning, design or special maintenance.

Severe limitations--Soils have one or more properties unfavorable for the rated use. Limitations are difficult and costly to modify or overcome, requiring major soil reclamation, special design and/or intense maintenance.

The soil characteristics which have had the greatest impacts on development in McMinnville are steep slopes, drainage and permeability, and flood potential. The greatest extent and intensity of development in the McMinnville Planning Region has occurred on soils in the Waynesboro and Cumberland Series which have less than 12 percent slope, are well-drained, and have low flood potential. In general, the soil series in the McMinnville area with characteristics that severely limit development include the Bruno, Guthrie, Huntington, Lawrence, Lindside, and Melvin Series. Each of these particular soil series has experienced very little development. The Guthrie and Lawrence soils, which are poorly drained soils with fragipans, have had the most severe affect on development in McMinnville.

The geology of an area can also play a significant role in determining the direction and extent of development. Of particular importance is the depth of the soil covering the underlying rock strata, or the depth to bedrock. The depth to bedrock for most of the soils in the McMinnville Planning Region is generally greater than five feet and there are relatively few areas with development problems due to depth to bedrock.

TABLE 2

SOIL LIMITATIONS FOR MCMINNVILLE AND ITS PLANNING REGION
DEGREE AND KIND OF LIMITATIONS
FOR SELECTED COMMUNITY USES

SOIL SERIES	PUBLIC SEWERAGE	SEPTIC TANK	COMMERCIAL/ LIGHT INDUSTRIAL	STREETS	DEVELOPED RECREATIONAL
	DWELLINGS AND NONINTENSIVE USES				
Baxter	Slight to moderate; slope	Moderate to severe: slope, percolation	Moderate to severe: slope, shrink-swell	Moderate: slope	Moderate to severe: slope, small stones
Bruno	Severe: flooding	Severe: flooding	Severe: flooding	Severe: flooding	Severe: flooding
Captina	Slight	Severe: percolation	Moderate: shrink-swell, wetness	Moderate: shrink-swell, wetness	Moderate to severe: slope, wetness, percolation, wetness
Christian	Slight	Moderate: slope, percolation	Moderate: slope, shrink-swell	Moderate: slope, shrink-swell	Moderate to severe: slope, erosion
Cumberland	Slight	Moderate to severe: percolation, slope	Moderate: slope, shrink-swell	Slight	Slight to severe: slope, erosion
Dickson	Slight	Severe: percolation, wetness	Moderate: shrink-swell, wetness	Moderate	Moderate to severe: wetness, erosion, percolation
Etowah	Moderate: slope	Moderate to severe: percolation, slope	Moderate to severe: slope	Slight	Slight to severe: slope, erosion
Guthrie	Severe: flooding	Severe: flooding, percolation	Severe: flooding, wetness	Severe: flooding, wetness	Severe: flooding, wetness
Jefferson	Slight to moderate: slope	Slight to moderate: slope	Slight to moderate: slope	Slight	Slight to moderate: slope
Huntington	Moderate: flooding	Moderate: flooding, percolation	Slight to moderate: flooding	Moderate: flooding	Slight: erosion
Lawrence	Slight to moderate: wetness	Severe: percolation, wetness	Moderate to severe: flooding, wetness	Moderate to severe: flooding, wetness	Moderate to severe: wetness, erosion
Lindside	Moderate: flooding	Severe: flooding, wetness	Severe: flooding	Moderate to severe: flooding	Moderate to severe: flooding, wetness
Melvin	Severe: flooding	Severe: flooding, percolation	Severe: flooding, wetness	Moderate to severe: flooding	Moderate to severe: flooding, wetness
Minvale	Slight	Slight to moderate: slope, percolation	Moderate: slope, shrink-swell	Slight	Moderate: slope
Mountview	Slight	Moderate: percolation	Moderate: slope, shrink-swell	Slight	Slight to severe: slope, erosion
Sequatchie	Moderate to severe: flooding	Moderate to severe: flooding	Moderate to severe: flooding	Moderate to severe: flooding	Moderate to severe: flooding
Staser	Severe: flooding	Severe: flooding	Severe: flooding	Severe: flooding	Moderate to severe: flooding
Talbott	Severe: slope	Severe: slope, percolation	Severe: slope	Moderate: rock outcrops	Severe: slope
Waynesboro	Slight	Moderate: slope, percolation	Moderate: slope, shrink-swell	Slight	Moderate to severe: slope
Whitwell	Moderate to severe: flooding	Moderate to severe: flooding	Moderate to severe: flooding	Moderate to severe: flooding	Moderate to severe: flooding

SOURCE: Natural Resources Conservation Service.

Findings. The McMinnville Planning Region is located entirely within the Waynesboro-Cumberland Soil Association. In general the characteristics of the soils series within this association pose very few significant limitations for future development. The most severe limitations are severe slope, poor drainage, and flooding. Fortunately, soils with these limitations are not widespread in the McMinnville Planning Region.

SUMMARY OF FINDINGS

The climate, air and water quality in McMinnville and its planning region are favorable to development. Like most communities, the pattern of land use or development in the City of McMinnville has been affected by natural factors. The natural factors most significantly affecting development in the McMinnville Planning Region are drainage and flooding. In most cases, however, flooding, topographic, depth to bedrock and soil constraints have not significantly restricted areas for growth and development in the municipality and its planning region.

CHAPTER 4

SOCIO-ECONOMIC FACTORS AFFECTING DEVELOPMENT

INTRODUCTION

This chapter will present a summary of the socio-economic trends pertinent to the preparation of this land use and transportation policy plan. Strategies for community development, projections of land use and transportation needs, and discussions of land use issues are dependent upon population and employment characteristics. These demographics provide future trend projections, which can be affected by many unforeseen factors. Nevertheless, the trends must be understood to be of planning significance to the community.

TRENDS SUMMARY

For the purposes of this plan, the past changes in population and employment were examined for their implications for development within the City of McMinnville. Of most significance are the changes in the population and employment within Warren County and McMinnville during the 1980's.

POPULATION

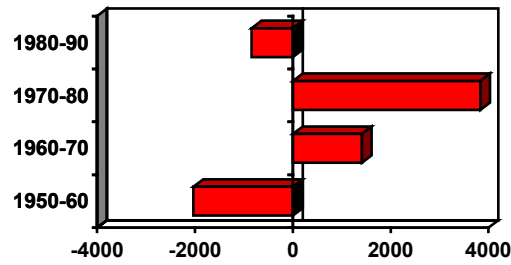
The population of McMinnville grew from 7,577 in 1950 to 11,194 in 1990. During the same period the Warren County population increased from 22,271 to 32,992. Historic population counts for McMinnville and Warren County are presented in Table 2. Of significance are the slight population increases from 1970 to 1980, and 1980 to 1990 in McMinnville and from 1980 to 1990 in Warren County. Graphs 2 and 3 graphically present the trends for the municipality and the county.

Table 4, Population Projections to 2020, reflects an anticipated growth for McMinnville from 12,557 in the year 2000 to 13,629 in the year 2010, and a subsequent increase to 14,715 in the year 2020. This is graphically depicted in Graph 2. Graph 3 shows that the Warren County population is projected to grow from 36,291 persons in the year 2000, to 39,408 by the year 2010, to 42,096 by the year 2020.

It is significant to note these projections are based on historical population trends and are significantly impacted by the slight growth indicated in the 1990 Census. The projections appear to be acceptable when compared to the 1996 Census Bureau estimates which reflect a population of 35,556 for Warren County and of 12,060 for McMinnville. Furthermore, the projected population increase of 1,108 for McMinnville by the year 2000 is in line with the annual average increase of approximately 55 residential customers that the McMinnville Electric System has experienced from 1992 to 1997.

Migration represented a significant factor in population changes in Warren County during the forty-year period from 1950 to 1990. As Graph 1 depicts, Warren County has experienced considerable migration changes during the past four decades.

Graph 1



**WARREN COUNTY NET MIGRATION
1950 TO 1990**

While the period from 1970 to 1980 saw an in-migration of nearly 4,000 people, the following decade saw this trend reverse with a net out-migration of almost 850 people, or over 2.5 percent of the county population. This is a radical departure from the average of the counties of the Upper Cumberland Region and the State as a whole. The out-migration trend for 1980 to 1990 can be attributed to the high unemployment rate for most of the 1980's for the county. Toward the end of this decade there was a resurgence of new industries within the region that provided employment to local residents while simultaneously attracting new residents to the area.

**TABLE 3
HISTORIC POPULATION COUNTS AND PERCENT CHANGE
1950 TO 1990**

Incorporated Place/County	1950	Percent Change 1950-60	1960	Percent Change 1960-70	1970	Percent Change 1970-80	1980	Percent Change 1980-90	1990
McMinnville	7,577	18.95	9,013	18.29	10,662	.19	10,683	4.78	11,194
Centertown	(X)	(X)	169	7.10	181	65.74	300	10.66	332
Morrison	301	-2.32	294	28.91	379	54.88	587	-2.89	570
Viola	223	-7.62	206	-6.31	193	-22.79	149	17.44	123
Total Incorporated	8,101	19.51	9,682	17.89	11,415	2.66	11,719	4.26	12,219
Warren County	22,271	3.73	23,102	16.75	26,972	21.06	32,653	1.03	32,992
UCR	198,382	-7.66	183,190	5.75	193,719	24.72	241,605	4.43	252,301
Tennessee	3,291,718	8.37	3,567,089	10.06	3,926,018	16.94	4,591,023	6.23	4,877,185

Source: Tennessee Statistical Abstract (1991) with addition of 1950 figures.

Note: Population is as counted in each Decennial Census year. No provision has been made for comparable land areas.

(X) Unincorporated at the time.

**TABLE 4
1999 INCORPORATED
CERTIFIED POPULATION COUNTS**

Municipality	Population
McMinnville	11,741
Morrison	656
Centertown	332
Viola	123

Source: Department of Economic and Community Development 1999 Certified Population Data.

**TABLE 5
CURRENT AND PROJECTED POPULATION
WARREN COUNTY, TENNESSEE**

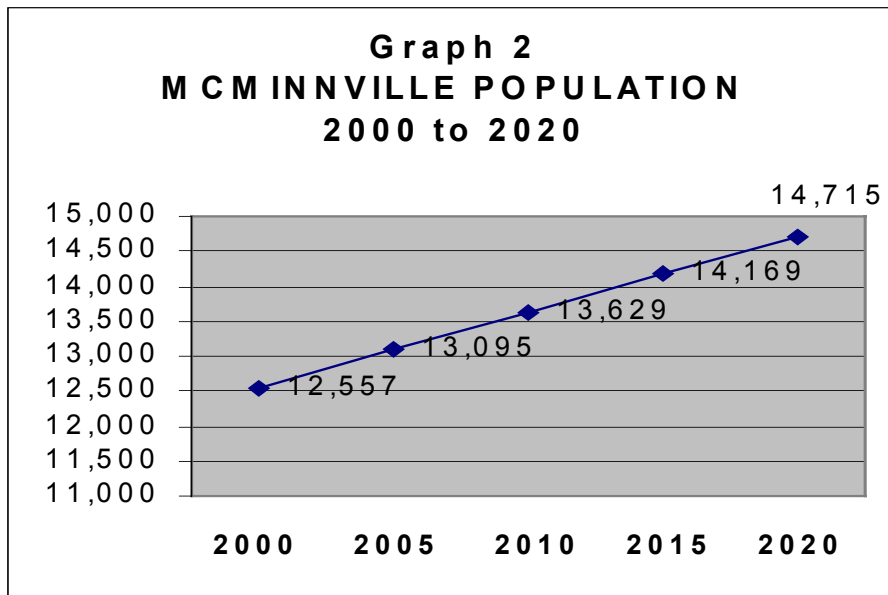
	1990	2000	2005	2010	2015	2020
Warren County Population Count and Projections	32,992	36,695	38,066	39,408	40,751	42,096
Morrison	570	667	692	716	740	765
McMinnville	11,194	12,557	13,095	13,629	14,169	14,715
Centertown	332	371	387	402	417	432
Viola	123	130	132	133	135	136
Total Incorporated	12,219	13,725	14,306	14,880	15,461	16,048
Incorporated as % of Whole County	37%	37.4%	37.5%	37.7%	37.9%	38%
Unincorporated	20,773	22,970	23,760	24,528	25,290	26,048
Unincorporated as % of Whole County	63%	62.6%	62.5%	62.3%	62.1%	62%
McMinnville as % of Whole County	33.9%	34.2%	34.4%	34.5%	34.7%	34.9%
McMinnville Increase from 1990		1,363	538	534	540	546
Percent of Increase Average Per Year		12.1%	4.2%	4.0%	3.9%	3.8%
			108	107	108	109

Source: Calculations were derived from population projections of the Center of Business and Economic Research, College of Business Administration, University of Tennessee.

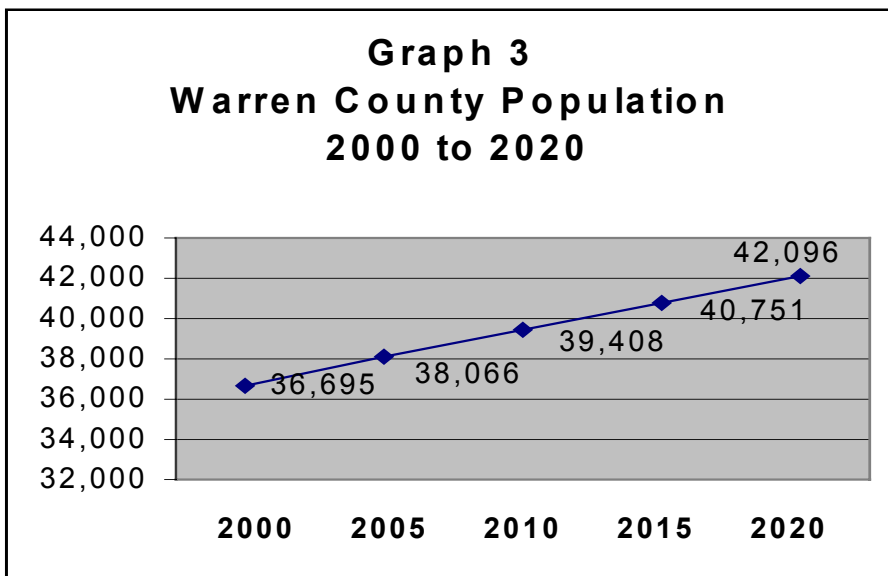
**TABLE 6
WARREN COUNTY AND MCMINNVILLE
PERCENTAGE POPULATION CHANGE**

COMMUNITY	% CHANGE 2000 TO 2005	% CHANGE 2005 TO 2010	% CHANGE 2010 TO 2015	% CHANGE 2015 TO 2020
Warren County	+3.7	+3.5	+3.4	+3.3
McMinnville	+4.2	+4.0	+3.9	+3.8

Calculations were derived from population projections of the Center of Business and Economic Research, College of Business Administration, University of Tennessee.



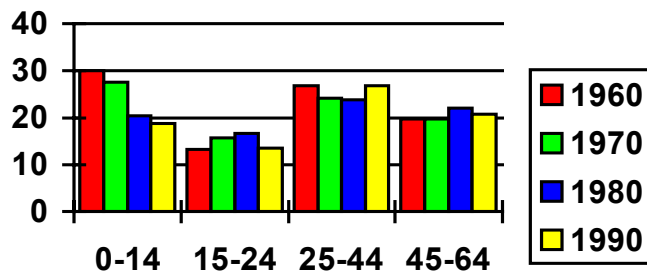
Source: Center of Business and Economic Research, College of Business Administration, University of Tennessee



The population of McMinnville for the year 2000 is listed as 12,557 people. More precise figures will be available at a later date when the population figures are published for the dicennial federal census. Current population figures indicate that McMinnville will experience a steady growth rate over the twenty-year period while constituting a larger proportion of the unincorporated population of Warren County. In addition to McMinnville, the three other municipalities combined, Morrison, Centertown and Viola, will also constitute a greater proportion of the county population in the next twenty-years. These figures imply that a greater proportion of residents that reside within Warren County will be residing within one of the incorporated municipalities by the year 2020.

An analysis of the cohort age distribution in McMinnville from 1960 to 1990 indicates considerable declines, from 43.3 percent of the total population to 32.3 percent, in the age groups of under 24 years. The reductions in the categories of 24 years and under have long-term implications. These declines suggest a loss of population in excess of natural factors. It is significant that the age group of between 25 and 64, which is the primary working cohort, has actually increased slightly from 46.6 percent in 1960 to 47.5 percent in 1990. These figures indicate that the working cohort group is opting to remain living in Warren County but, the residents within this age group are having less children then in previous decades. The age group over 64 increased substantially both in numbers and as a percentage of total population rising from 907, or 10.1 percent in 1960, to 2,262 or 20.2 percent in 1990. These figures indicate that Warren County residents are residing within the county for long terms and are also living longer. These trends, which are depicted in Graph 6, reflect the moderate population growth projected for the municipality and county.

Graph 4



**SELECTED AGE GROUPS
MCMINNVILLE
1960 TO 1990**

**TABLE 7
HOUSEHOLD CHARACTERISTICS
1960 TO 2000**

MCMINNVILLE and WARREN CO.

Year	Total Households	Persons per Household		Total Households	Persons per Household
1960	2,822	3.18		6,758	3.41
1970	3,605	2.93		8,669	3.10
1980	4,244	2.48		11,869	2.73
1990	4,738	2.29		12,681	2.57
2000	5,419	2.35		15,181	2.52

Source: U.S. Bureau of Census

Findings. The moderate historic population increase for both Warren County and McMinnville has been supported by the decline in the younger population, the decrease in household size, and the growing numbers of elderly as indicated in the 1990 Census. These parallel trends, if they continue through the planning period, will have significant implications for planning within the City of McMinnville, in both land use and the delivery and types of services required by the resulting population. These planning implications will consist of planning for smaller households in the housing choices of future residents and the provision of greater amount of support services for the elderly. Demands and type of recreational services will also be impacted as will the need for educational facilities. Housing demand may ultimately be reduced and growth pressures minimal.

EMPLOYMENT

Employment has changed significantly within McMinnville and Warren County during the past four decades. From 1950 to 1990 employment in all sectors grew from 2,840 to 4,844 in McMinnville and from 7,454 to 15,619 in Warren County. While agriculture has declined in importance in the county, employing 35 percent of the work force in 1950, it dropped to 10 percent in 1990, actually increasing in McMinnville from almost four percent to nearly seven percent during this period of time. At the same time, the percent of employment in manufacturing grew from 23 to 34 percent in the county and from 30 to 32 percent in this municipality. Surprisingly, the percentage of employment in the wholesale and retail trade sector declined in McMinnville from 25 percent in 1950 to 20 percent in 1990. Accordingly, it increased in the county from 15 percent to 19 percent. The industrial sector with the largest increase in the percentage of total employment in McMinnville and Warren County from 1950 to 1990 was services, which increased from 24 percent to 28 percent in McMinnville and from 14 to 29 percent in the county.

A comparison of employment in Warren County and McMinnville to the state employment pattern is important to understand current trends. Manufacturing and wholesale and retail trade account for the largest percentage of employment for all three government levels in both 1980 and 1990. The percentage of total employment in the manufacturing sector, however, dropped in all three levels. Both Warren County and McMinnville employ a higher percentage of persons in the agriculture sector, which is reflective of the strong nursery industry. Employment in the agriculture sector in McMinnville actually doubled from 1980 to 1990. Of significance in McMinnville is the employment growth in the health services and other professional services sectors. This reflects McMinnville's growing importance as a health care and

professional service center. Perhaps the most unexpected change from 1980 to 1990 was the decline in McMinnville in the percentage of total employment in the wholesale and retail trade sector. Both of these sectors of the economy constitute a smaller percentage of the overall workforce. However, these sectors are continuing to increase in the number of employees and establishments. This indicates that while there are an increasing number of employees in both these sectors, there has been a transition out of these sectors by employees to the nursery, health and professional services sectors of the economy during this time period.

Employment and place of work, are important issues. In 1990, Warren County employed 87.6 percent of its working population, with 12.4 percent commuting to surrounding counties. Coffee, Rutherford, DeKalb, Davidson, Cannon and White Counties, in that order, employ the highest percentage of commuting Warren County workers. The number of persons commuting to Warren County for employment in 1990 was 3,103 or 1,193 more people than lived in Warren County and worked elsewhere during that same period of time.

Unemployment rates, income levels and poverty rates are also significant characteristics of employment pertinent to long range planning. The 1997 annual average unemployment rate in Warren County was 8.1 percent, which was higher than the State average of 5.4 percent and was the same as the region average for the Upper Cumberland Area. Per capita personal income in Warren County in 1995 was \$17,049, which was lower than the state average of \$21,060 but was the fourth highest in the region. The 1993 poverty rate in Warren County was 18.4 percent, which was the slightly lower than the region average of 19 percent and slightly higher than the State average of 17.8 percent. These employment characteristics reflect a stable but changing economy in Warren County. The status of employment in a community has long term planning implications, and is significant in both land use decisions and decisions of economic strategy.

Findings. Employment characteristics indicate a stable economy in Warren County and the City of McMinnville. Neither locality lags significantly behind State trends in employment. There is still a heavy reliance on manufacturing for employment. Employment in the wholesale and retail trade sector continues to be very similar to the state average. The higher percentage of persons employed in the agriculture sector reflects the strength of the nursery industry in McMinnville and Warren County.

FUTURE LAND USE

McMinnville is a progressive city that is concerned about the future growth and development of the city and the surrounding areas. With the passage of Public Chapter 1101, the city must actively plan for future growth and development for the next twenty years. The future land use requirements are based on conservative population projections formulated and published by the University of Tennessee College of Business Administration. The demographic data within this plan is consolidated within one chapter for ease in revising this data once census data becomes available within the next year.

Future land use requirements herein are based primarily on the additional residents that will be residing within the city for a given period of time. For this plan, the population figures that were formulated and distributed to cities and counties within Tennessee for growth planning purposes were used as a basis for projections for the next twenty years. The population estimate for the year 2000, as utilized for the land use requirements, is 12,557 residents. Future land use requirements are based on the current proportion of existing land uses as they relate to the current population and the assumption that this trend will continue to occur during the twenty-year planning period.

LAND USE REQUIREMENTS

Residential

There will be a need for approximately 1,314 new households on 632 acres based on the projected population increase of 3,009 additional residents by the year 2020.

Commercial

Based on the proportion of existing commercial land to the population base the city will need approximately 147 additional acres of commercial land in the next twenty years.

Industrial

There is no precise method of calculating future industrial land requirements because of the regional nature of industrial uses. Therefore, to estimate the amount of additional industrial land that can be utilized was calculated as a guide for future industrial development. The city will need 60 acres of additional industrial land within the next twenty-year planning period.

Public Facilities

Public facilities include public/semi-public uses, utilities and transportation uses. Within this broad category, the city will need 378 additional acres within the next twenty years.

SUMMARY OF FINDINGS

Based on historic population trends and the latest population projections, the population of McMinnville is projected to increase by 8.5 percent from 2000 to 2010 and by approximately eight percent from 2010 to 2020. This represents a slow but steady population increase over the twenty-year period. The population base of McMinnville is projected to experience an overall population increase of 17 percent for the twenty-year period. The City of McMinnville will also constitute a larger proportion of the county population and there will be an increase in the percentage of residents that will reside within a municipality than in the unincorporated areas of the county. The increase in population for the city and the county will coincide with a decrease in the average household size of the residents living within the area.

A continued decline in the average persons-per-household will have a significant impact on planning issues. The decrease in persons-per-household reflects smaller family sizes and an increasing age of the McMinnville and Warren County populations. This will influence the housing and educational choices of a smaller household in the future and likely increase the amount of health related services for residents who are living longer lives.

The creation of employment opportunities within McMinnville and Warren County offers an opportunity to affect long term population trends. The past balance of jobs, weighted heavily toward manufacturing, is reflective of the non-metropolitan nature of Warren County. Trends indicate less dependency on the secondary sector of the economy, primarily manufacturing, and more toward health and professional services within the tertiary sector of the economy. State averages reflect a similar percentage as McMinnville and Warren County, in regard to wholesale and retail sales employment. Employment in the agricultural sector is significantly higher than the state average, which reflects the importance of the nursery industry in McMinnville and Warren County. Moreover, the primary sector of the economy has increased only within the nursery industry subsector relative to other subsectors such as mining, logging and other agricultural activities. Increases in job opportunities in the service sectors may balance the current employment mix. The fact that McMinnville is the county seat may emphasize employment in services such as health and other professional services, which typically require higher educational levels and provide higher wages to employees.

Moderate but steady population growth that Warren County is experiencing reflects a transition to a more urbanized region, which is anticipated to occur in the twenty-year planning period for the city and Warren County in general. The need for expanded housing, commercial areas, or industrial sites will be required during the next twenty years to accommodate the expansion in population growth. The requirements for the various land use categories for the city were established to provide a mathematical methodology of planning for the future land uses that are anticipated during the next twenty years. Although these figures represent a sound method for calculating the anticipated need for certain land uses, there are many factors that influence these land use categories that can not be calculated by numbers alone. Therefore, these figures for the future land use requirements should be utilized by the city to establish certain parameters for the minimum land use requirements within each land use category. These land use requirements are incorporated within the development plan for the future land uses of the city and depicted in Illustration 9, Development Plan Concept for McMinnville and the Growth Area.

CHAPTER 5

EXISTING LAND USE AND TRANSPORTATION ANALYSIS

INTRODUCTION

It is imperative to conduct a survey and analysis of the existing land use patterns and characteristics of the community in the preparation of a plan for future land use and transportation. The data from this existing land use analysis when integrated with information pertaining to natural factors affecting development, the population, economic factors, and transportation facilities is vital in determining what areas are best suited for the various land uses and transportation facilities over a planning period. The data also provides a thorough analysis of the existing land uses for a better understanding of the current trends and patterns of development and will facilitate a more accurate projection of future land use needs.

EXISTING LAND USE AND TRANSPORTATION

In January of 1999 the Local Planning Assistance Office conducted a field survey of the various land uses within the corporate limits of McMinnville; a subsequent field survey was conducted in the year 2001 of the prospective urban growth area. The purpose of these field surveys was to determine how each parcel of land was utilized. Illustration 4 depicts the various land uses within McMinnville and the growth area as determined by the latest land use surveys. Previous existing land use studies were completed for McMinnville in 1984 included within the Comprehensive Plan for McMinnville, Tennessee 1984 – 2004 and in 1993 for the Revised Land Use Plan for McMinnville, Tennessee 1993 - 2010. The findings of these studies are used within selected sections of this plan for comparison purposes.

As Illustration 4 depicts, land use in McMinnville has developed primarily along traditional designs reflective of the grid pattern. In areas with natural constraints and in some recently developed sections of the municipality the curvilinear pattern is the predominate development pattern. Natural factors have affected the location of land uses in both the municipality and its prospective growth area and are discussed in detail within Chapter Three. Generally, incompatible land uses are well separated from each other within the corporate limits primarily due to the zoning that is in affect within the city. Presently, this issue is not a significant problem within the prospective growth area either. As a mid-sized community, most residents have easy access to the necessary public and private facilities and services. This land use inventory identifies and analyzes the various uses by categories and the amounts of land devoted to each. To determine current land use patterns and characteristics, analyses of the existing land use by land use category and by planning neighborhood were completed.

Land Use Categories

Each individual land use identified in the field survey was assigned to a general land use category for the purpose of analysis. The land use categories are as follows:

Residential: Land on which one or more dwelling units are located. This includes all single-family and multi-family residences, mobile homes, and public housing.

Commercial: Land on which retail and wholesale trade activities and/or services occur, including vacant floor space.

Industrial: Land on which activities of processing or fabricating raw materials, or producing commodities takes place, including various manufacturing uses.

Public/Semi-Public: Land on which educational facilities, utility structures or facilities and all federal, state, and local governmental uses are located and on which museums, libraries, parks, and similar uses are located.

Transportation: Land on which municipal streets, county roads, state highways, and railroads are located, including the right-of-ways.

Vacant Land: Land which either has not been or cannot be developed. Vacant land can be divided into two general categories:

1. Vacant Unimproved. Land that currently lies idle or is used for agricultural, or open space purposes and lacks the infrastructure necessary for development.
2. Vacant Improved. Land located along streets currently accessible to City services such as vacant subdivision lots.

PLANNING NEIGHBORHOODS

For a more in-depth analysis, the City of McMinnville was divided into nine planning neighborhoods. This allows for a more detailed analysis of growth and development patterns and trends that can be easily monitored by breaking sections of the city down and analyzing them. The neighborhood boundary lines were shifted to account for expansion of the corporate limits that has taken place since 1993. These planning neighborhood boundaries are depicted in Illustration 3 and described below. In addition, the planning neighborhoods are more fully detailed in the proceeding section.

Neighborhood One. The area within the corporate limits lying southeast of the Caney Fork and Western Railroad line to the existing city limits, and south of the Barren Fork River along Highway 55;

Neighborhood Two. The area within the corporate limits lying south of Post Road, West Main Street and West Colville Street to the Caney Fork and Western Railroad line west of South Chancery Street to the existing city limits;

Neighborhood Three. The area within the corporate limits lying north of Post Road, West Main Street, and West Morford Street to the State Highway 70-S by-pass and west of State Highway 56 to the existing city limits;

Neighborhood Four. The area within the corporate limits lying north of the State Highway 70-S by-pass and west of State Highway 56;

Neighborhood Five. The area within the corporate limits lying north of the State Highway 70-S by-pass, east of State Highway 56, west of Red Road, Hillside Lane, and Garth Circle.

Neighborhood Six. The area within the corporate limits lying north of Morford Street, south of State Highway 70-S by-pass, east of State Highway 56, and west of Red Road, West Sparta Street and Sparta Street.

Neighborhood Seven. The area within the corporate limits comprising the central business district;

Neighborhood Eight. The area within the corporate limits lying south and east of East Colville Street, east of South Chancery Street to the Barren Fork River, east of Market Street and Sparta Street, and south of Kennedy Street;

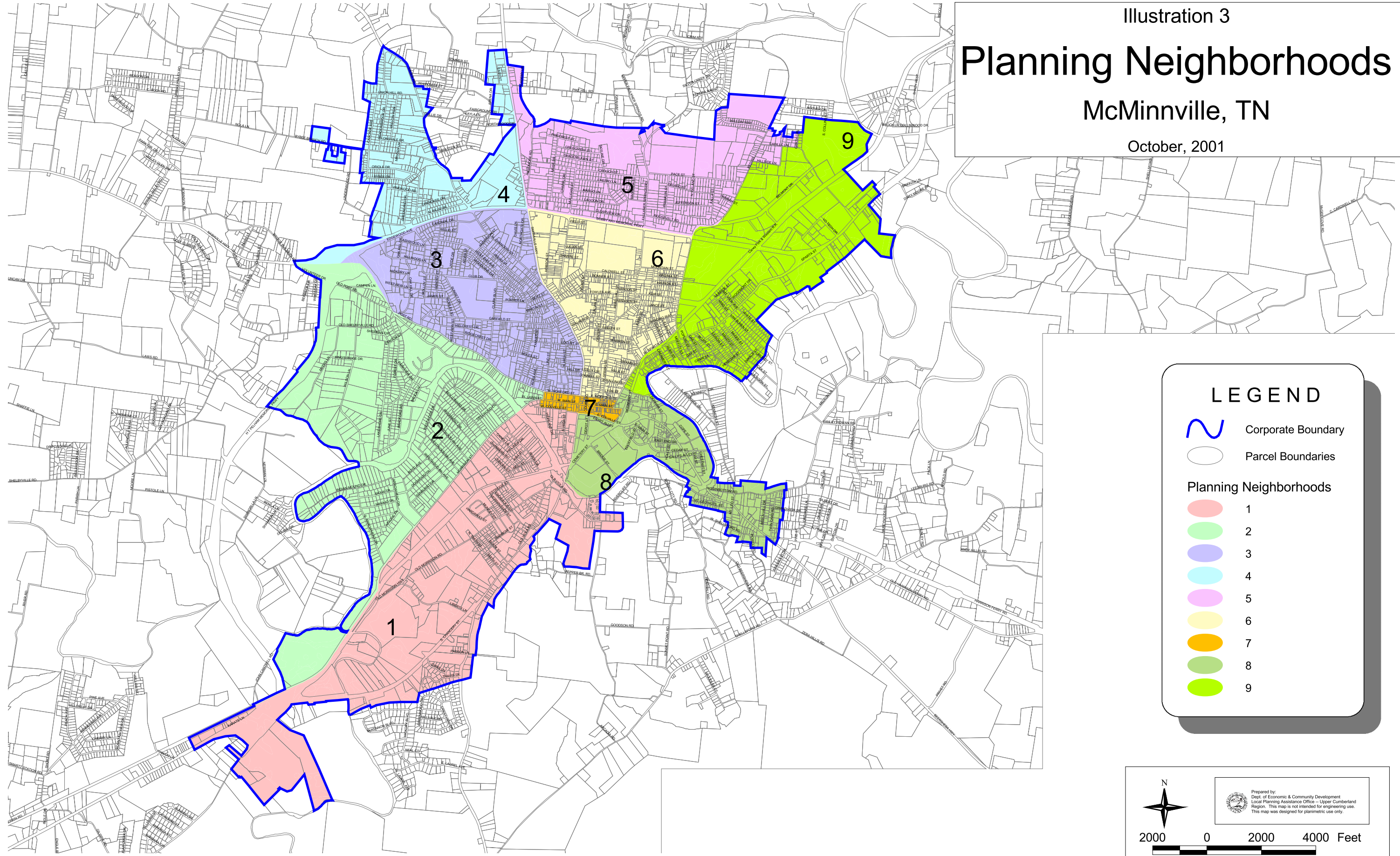
Neighborhood Nine. The area within the corporate limits lying north of Durham Street and east of West Sparta Street, Sparta Street, Hillside Lane, Red Road, and Garth Circle.

Illustration 3



Planning Neighborhoods

McMinnville, TN

October, 2001



LEGEND

-  Corporate Boundary
-  Parcel Boundaries

Planning Neighborhoods

-  1
-  2
-  3
-  4
-  5
-  6
-  7
-  8
-  9



Prepared by:
Dept. of Economic & Community Development
Local Planning Assistance Office - Upper Cumberland
Region. This map is not intended for engineering use.
This map was designed for planimetric use only.

2000 0 2000 4000 Feet

ANALYSIS OF EXISTING LAND USE BY PLANNING NEIGHBORHOOD

Contained within the proceeding analysis, each of the nine total planning neighborhoods is covered in the context of land use and growth and development trends since 1993. Table 8 depicts a summary of the various land uses for each individual neighborhood and provides a comparison of the land use and acreage changes that have occurred since 1993. Some land uses that were previously included in a particular land use category have changed since that time. Therefore, adjustments have been made to some land use categories that may not reflect specific changes within that particular land use. The following are general summaries of each individual neighborhood and their respective land use characteristics.

Neighborhood One

Planning Neighborhood One consists of a total of 1,423 acres, of which 851 acres is developed land and 572 acres lies vacant. The area contains 45 percent residential, 12 percent commercial, 4 percent industrial and the remaining 39 percent of the developed land is split fairly evenly between transportation and public/semi-public uses. The vacant land constitutes 41 percent of the total land area within this particular planning neighborhood. This area has experienced the greatest amount of expansion in recent years comparable to the other planning neighborhoods, growing from 486 acres in 1984 to the existing 1,423 acres at the present time. This expansion amounts to an addition of 937 additional acres in the past seventeen years. The neighborhood has changed somewhat in general character over the years also, experiencing a transition from a predominately residential character to a more mixed-use general character. Non-residential uses are primarily within the public/semi-public and commercial categories, including the local high school and a substantial portion of commercial uses along the South Chancery/Highway 55 area. Comparable to the other planning neighborhoods, this area is most likely to continue to experience the most significant growth and development over the next twenty years.

Neighborhood Two

This area contains a total of 1,295 acres within its respective boundary. The amount of developed land totals 889 acres or about 68 percent of the total land area. The general land use character of the area is predominately residential in nature. There are some commercial uses within the area and transportation also accounts for 20 percent of the developed land. Residential uses account for 646 acres or 74 percent of the developed land. Commercial uses constitute approximately 2 percent of the developed land with the remaining 24 percent of the developed land utilized for transportation, utilities and similar public services. There is also a significant amount of vacant land contained within this area. There is a total of 406 acres of vacant land within this area or 32 percent of the total land area. Although this particular area has not experienced significant growth and development in the past, it is anticipated to experience a significant amount growth and development in the next twenty years, primarily due to its proximity to the Highway 55 Bypass that was constructed in the recent past.

Neighborhood Three

This area is a 761-acre area that is densely populated with a predominately mixed-use character. The residential uses account for 59 percent of the developed land or 379 acres, transportation constitutes 17 percent or 109 acres and commercial uses account for 13 percent or 83 acres. The remaining 11 percent constitute public/semi-public uses. The commercial uses are generally located along the Smithville Highway/Chancery Street area and include 2 shopping centers and numerous wholesale trade operations. There is very little vacant land within this particular planning neighborhood, constituting only 16 percent of the total land area. In recent years, this area has experienced additional residential development with a smaller proportion of commercial developments occurring along the Highway 70/55 turnpike.

TABLE 8
EXISTING LAND USE BY ACREAGE WITHIN THE PLANNING NEIGHBORHOODS
MCMINNVILLE, TENNESSEE
1993 AND 2000

NEIGHBORHOOD	YEAR	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	PUBLIC/ SEMI- PUBLIC	TRANSPORTATION	TOTAL DEVELOPED
1	1993	215	36	27	120*	**	
	2000	381	100	30	150	190	851
2	1993	645	18	31	44*	**	
	2000	646	18	0	41	184	889
3	1993	423	44	7	78*	**	
	2000	379	83	8	60	109	639
4	1993	139	51	6	33*	**	
	2000	238	73	8	29	86	434
5	1993	335	27	1	21*	**	
	2000	350	35	1	12	77	475
6	1993	270	40	11	121*	**	
	2000	252	86	13	77	67	495
7	1993	3	9	0.1	11*	**	
	2000	3	19	0	6	12	40
8	1993	106	23	67	43*	**	
	2000	110	57	41	22	63	293
9	1993	159	59	148	118*	**	
	2000	135	142	150	53	138	718
TOTAL	1993	2,295	307	298	589*	**	
	2000	2,494	613	251	550	926	4834

* Adjustments have been made to the 1993 acreage allotments due to land use classification changes.

** 1993 data was not available by neighborhood.

Public/Semi-Public includes utility acreages.

Neighborhood Four

There are a total of 546 acres contained within this planning neighborhood, which is an expansion of 296 total acres since 1984. This area is located along the western perimeter of the city and does have great potential for future expansion. Residential uses account for 55 percent of the developed land or 238 acres. Transportation constitutes about 19 percent or 86 acres and commercial accounts for approximately 17 percent or 73 acres of the developed land. Public/Semi-Public uses accounts for only 6 percent and industrial for only 2 percent of the developed land. This area is anticipated to experience progressive growth and development consisting of addition higher-density residential and commercial uses during the next twenty years.

Neighborhood Five

Residential uses comprise the majority of land uses within this planning neighborhood, accounting for 74 percent of the developed land or a total of 350 acres. The total area is equal to 769 acres, an expansion of 130 acres since 1984. Land utilized for transportation purposes accounts for 16 percent of the developed land or 77 acres, commercial accounts for 7 percent of the developed land or 35 acres and public/semi-public uses comprise approximately 2 percent of the developed land. Vacant land within this area constitutes 38 percent of the total land area or 294 acres. This area is projected to experience continuous residential development that expands northward toward the city limits as the existing vacant land is developed.

Neighborhood Six

This area contains a total of 595 acres with 495 acres that is considered developed land. This developed land accounts for 84 percent of the total land area leaving only 100 acres within the planning neighborhood for future development. This area is a mixture of densely developed residential, commercial, and public/semi-public uses. Residential uses account for approximately 50 percent of the developed land or 252 acres, commercial accounts for 18 percent or 86 acres, transportation comprises 13 percent or 67 acres and public/semi-public uses account for 16 percent or 77 acres. Industrial uses comprise the remaining 3 percent of the developed land or 13 acres. The predominate residential uses are generally concentrated in the south-central section of the planning neighborhood. Commercial uses are prevalent along the Chancery and Hobson Street area. This particular neighborhood will most likely experience in-fill development for the remaining 100 acres of developed land.

Neighborhood Seven

This area comprises the Central Business District of the city. The area contains a total of 45 acres with approximately 86 percent of the total area developed. Not surprisingly, the area is predominately commercial in character and uses are present primarily for commercial activities, recreation, and public services. There are 3 acres of existing residential uses within the CBD, consisting of 2 apartment complexes and six single-family dwellings. The land that is utilized for residential purposes has not changed dramatically in the past 15 years or so. Commercial uses account for 49 percent of the developed land or 19 acres, transportation comprises 28 percent of the developed land or 12 acres and public/semi-public uses accounts for 15 percent of the developed land or 6 acres. This area is currently undergoing revitalization and is an area projected to experience additional commercial and service type land uses within the area.

Neighborhood Eight

Planning Neighborhood Eight contains a total of 424 acres with 293 acres of existing developed land or 69 percent of the total area. There are 110 acres or 36 percent of the total area that is utilized for residential purposes. These are in the form of single-family dwellings and apartment complexes. The majority of single-family dwelling units are located on the eastern side of the Barren Fork River and the apartment complexes are generally located around the East Colville Street and Beersheba Highway area. Commercial uses account for 19 percent of the developed land or 57 acres, industrial 14 percent of the developed land or 41 acres and transportation accounts for 21 percent of the developed land within the respective planning neighborhood. There are 131 acres of existing vacant land within this area. This particular area is projected to continue the expansion of residential developments expanding to the east and additional commercial uses developing around the Beersheba Highway area.

Neighborhood Nine

There are a total of 944 acres contained within this planning neighborhood with 76 percent of the land considered developed or 718 acres of existing developed land. The area contains mixed uses with public/semi-public uses accounting for 22 percent of the developed land or 153 acres, 20 percent is utilized for commercial and industrial purposes or 142 and 150 acres respectively and 18 percent or 135 acres is residential land. Transportation comprises the remaining 20 percent of the developed land or a total of 138 acres. There is also area for future development with a total of 226 acres or 23 percent of the total land area within this planning neighborhood lying vacant.

ANALYSIS OF RESIDENTIAL UNITS BY PLANNING NEIGHBORHOOD

The land use survey that was recently completed by the Local Planning Assistance Office included data pertaining to the type, condition and number of housing units within the corporate limits. The following section analyzes the housing units within McMinnville by planning neighborhood and a summary of the total housing units within the city. This is very useful data in regard to the housing trends and conditions of residential housing within the City of McMinnville. By beginning the analysis by planning neighborhoods each particular neighborhood can be evaluated on an individual basis to provide more accurate data on particular sections of the city. The following contains the selected data on residential housing units within the corporate limits.

For this report, the structural condition standards were those formulated in the State of Tennessee Computer Assisted Appraisal System, which is a computer appraisal program that utilizes and stores appraisal factors from across the state that can be updated as these factors change. The structural conditions are:

Sound: indicates the structure would need no repairs.

Needs minor repairs: indicates the structure would need minor repairs.

Needs extensive repairs: indicates the structure would be fit for human habitation on a conditional basis.

Unsound: indicates the structure would be in minimum or below average condition and unfit for human habitation.

Neighborhood One

Within this area there are a total of 257 single-family housing units, which comprise 45 percent of the total housing units within this neighborhood. This constitutes a 25 percent increase in single family units since 1993. Multi-family housing units account for 48 percent or a total of 270 units that comprise duplexes,

apartment units and public housing units. There are also a total of 32 existing mobile homes, the majority of which are located within an existing mobile home park on South Chancery Street and the remaining 2 are located on individual lots. Of the single-family units within this neighborhood 215 units were determined to be in sound condition, 13 needed some minor repair and 29 units stood vacant. There were no dilapidated housing units within this neighborhood. The planning neighborhood contains a residential density of only 1.5 dwelling units per acre.

Neighborhood Two

This area contained a total of 790 single-family units or 93 percent of the total housing units within the neighborhood. Multi-family units consisted of 53 units or 6 percent of the total housing units within this neighborhood. There were no mobile homes within this neighborhood. There were a total of 787 sound single-family units, 1 needed minor repairs and 2 single-family units were vacant. The planning neighborhood contains a residential density of 1.3 dwelling units per acre. There has been only a 4 percent increase in single-family housing since 1993 and the multi-family housing has remained relatively stable. There has been very little change in the number of housing units and housing conditions within this neighborhood. On the other hand, this particular area does have great potential for expansion in all land use categories and is anticipated that growth and development will occur between the current corporate limits and the Highway 55 Bypass as “infill” development takes place.

Neighborhood Three

There is a total of 936 housing units within this area. Of these housing units, 745 are single-family units. These housing units comprise 80 percent of all the units in this neighborhood. Multi-family comprise 18 percent of the total housing units within this area or a total of 172 units. Mobile homes constitute less than 1 percent of the total housing units in this area or a total of 7 units. Of the total number of single-family units, 720 or 97 percent can be considered in sound condition. There are 9 total units that need some minor repairs and 16 units are vacant. This particular neighborhood is already heavily developed and is anticipated to experience infill development in the future. The residential density within this area is 2.46 dwelling units per acre.

Neighborhood Four

There are a total of 239 single-family units within this neighborhood, which represents only 23 percent of the total housing units in the neighborhood. Multi-family housing is prevalent and represents 77 percent of the housing units within the area or 824 units. These units constitute apartments and duplexes within the neighborhood. There is no public housing within this particular neighborhood. There are also only 3 mobile homes on individual lots within this area. Of the single-family units, 233 can be categorized as being in sound condition, 1 needs some minor repairs and there are no units that would be categorized as dilapidated. A total of 5 units are currently vacant. Construction of the total housing within this neighborhood has increased 46 percent since 1993. Single-family units have increased 60 percent since 1993 and multi-family units have increased 40 percent during the same time period. This neighborhood, like the previous two planning neighborhoods, is anticipated to experience a continuing increase in housing units over the years. The residential density within this planning neighborhood is 4.5 dwelling units per acre, an extremely high residential density comparable to the other planning neighborhoods because of the high number of apartments the area contains.

Neighborhood Five

There are a total of 575 single-family units within this area, representing approximately 82 percent of the total housing units in the neighborhood. Multi-family housing constitutes approximately 18 percent of the total housing units in the neighborhood with 127 units and the land survey revealed only 1 mobile home within the neighborhood. There are 572 total single-family units that are considered in sound condition with 1 needing some minor repairs and 2 standing vacant. Since 1993, single-family residential

construction has increased only about 7 percent. This neighborhood has remained relatively stable with little or no changes in residential development since 1993. The neighborhood does contain vacant land toward the northern corporate limits that could be developed in the future. Planning Neighborhood 5 contains a residential density of 2.01 dwelling units per acre.

Neighborhood Six

A total of 653 single-family units are contained within this neighborhood or 83 percent of the total housing units within the area. Multi-family housing comprises 129 total units, including 1 public housing complex. This constitutes 16 percent of the total housing in the neighborhood. There are also 7 mobile homes located within the area. This planning neighborhood contains a residential density of 3.1 dwelling units per acre. Of the total single-family housing units 629 units or 80 percent of the total housing units are considered in sound condition.

Approximately 2 percent or 14 units need some minor repairs and 10 units are vacant. There has been little increase in housing units since 1993, the planning neighborhood has undergone few changes in the past several years. The area does contain some vacant land toward the Highway 70S Bypass that can be developed in the future. In summary, the planning neighborhood will most likely experience “infill” development consisting primarily of additional commercial and public/semi-public uses.

Neighborhood Seven

There are only 5 single-family units within the neighborhood, which also comprises the Central Business District of the city. The single-family units constitute only 8 percent of the total housing units within the CBD. Multi-family housing constitutes the predominate type of residential housing unit within the CBD with 51 total units or 92 percent of the total housing units. Recent housing data indicates a slight decrease in single-family and multi-family units within the CBD. All of the single-family units are considered in sound structural condition. In the context of residential development, the planning neighborhood is expected to experience an increase in the number of apartments within the area. More than likely these will be upper-story apartments.

Neighborhood Eight

A total of 174 single-family units are within this area constituting approximately 40 percent of the total housing units within the neighborhood. Multi-family units comprise 59 percent of the total housing units and there are 5 mobile homes in the neighborhood. Single-family developments have increased about 14 percent since 1993 and multi-family units have also shown a modest increase during the same time period. The residential density within the area is 3.98 dwelling units per acre. The high number of apartments accounts for the high residential density within the planning neighborhood. A total of 155 single-family units or 89 percent of the total single-family units are considered in sound condition. There are 8 single-family units that need some minor repairs and 11 are vacant. The neighborhood is anticipated to experience continued expansion in residential development in all types of housing units.

Neighborhood Nine

There are a total of 343 single-family housing units within the area constituting 86 percent of the total housing units. There has been an increase of about 9 percent in single-family developments within this area since 1993. Multi-family housing comprises only about 8 percent of the total housing units with 33 units and there are 16 mobile homes or 4 percent of the total housing units within the neighborhood. The residential density is 2.94 dwellings units per acre. There are a total of 329 single-family units or 96 percent that are considered in sound condition, 8 units that need to undergo minor repairs and 6 single-family units that are vacant. This planning neighborhood is expected to experience slight increases in residential development during the twenty-year planning period.

TABLE 9

SUMMARY OF HOUSING UNITS AND
CONDITIONS BY PLANNING NEIGHBORHOODS
1993 COMPARED TO 2000

NEIGHBORHOOD	YEAR	SOUND	DETERIORATING	DILAPIDATED	VACANT	TOTAL SINGLE-FAMILY UNITS	MULTI-FAMILY	MOBILE HOMES	TOTAL HOUSING UNITS
1	1993	174	17	0	14	205	226	2	433
	2000	215	13	0	29	257	270	33	568
2	1993	751	6	0	5	762	47	0	809
	2000	787	1	0	2	790	53	0	845
3	1993	696	17	0	28	741	158	7	906
	2000	720	9	0	16	745	172	7	936
4	1993	141	1	0	0	142	590	2	734
	2000	233	1	0	5	239	824	3	1,071
5	1993	526	1	0	10	537	126	4	667
	2000	572	1	0	2	575	127	1	681
6	1993	597	53	2	17	669	132	1	802
	2000	629	14	0	10	653	129	0	789
7	1993	5	1	0	0	6	56	0	62
	2000	5	0	0	0	5		0	
8	1993	136	22	1	5	164	265	0	429
	2000	155	8	0	11	174	259	5	441
9	1993	303	23	0	15	341	29	19	389
	2000	329	8	0	6	343	33	16	397
TOTAL	1993	3,329	141	3	94	3,567	1,629	35	5,231
	2000	3,619	55	0	81	3,781	1,918	65	5,813

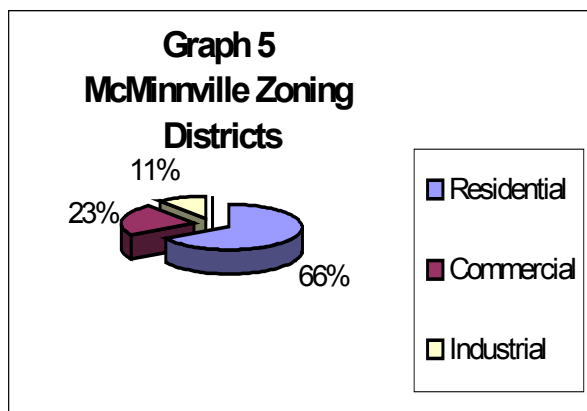
ANALYSIS OF EXISTING LAND USE BY LAND USE CATEGORY

Within the corporate limits of McMinnville there are approximately 6,803 acres, or 10.62 square miles of land. This is an increase of approximately 1,469 acres or 28 percent since 1984 and an increase of approximately 670 acres or eleven percent since 1993. Between 1984 and 2000 the municipality increased its land area by an average of 92 acres per year.

**TABLE 10
2001 MCMINNVILLE CORPORATE LIMITS**

DEVELOPED LAND USE	ACRES
Residential	2,494
Commercial	613
Industrial	251
Pub./Semi-Public	477
Transportation	926
Utilities	73
Total Developed Land	4,834

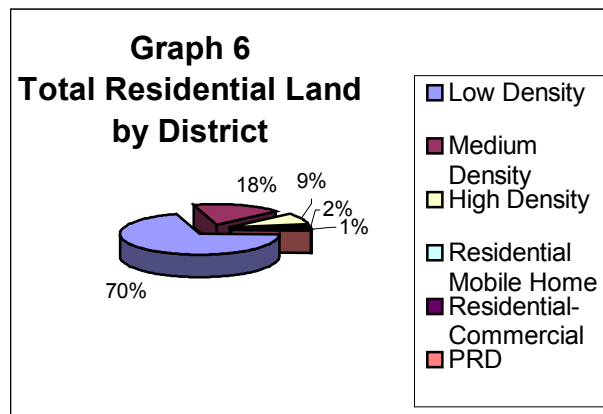
According to the latest land use survey, an estimated 71 percent, or 4,834 acres, of the total land area in McMinnville is developed. This is an increase of approximately 32_ percent since 1984 and 7 percent since 1993. Residential land comprises 2,494 acres, or approximately 52 percent of the total developed land in McMinnville. Land used for transportation purposes occupies 926 acres or over 19 percent of the developed land. Approximately 613 acres or 13 percent of the developed land area is used for commercial purposes. Industrial land uses occupy approximately 251 acres or 5 percent of the developed land area. Public/Semi-Public uses account for 477 acres or 10 percent of the developed land area. The remaining acreage of 73 acres is utilized for utility facilities, which constitute about 1 percent of the developed land. Graph _ below reflects the percentage of developed land area in McMinnville by land use category.



Approximately 1,969 acres or 29 percent of the total land area in McMinnville is vacant land. In most instances the infrastructure necessary for development of this vacant land is available or nearby. The development of the larger tracts of vacant land will require the extension of water and sewer lines and the construction of streets. In most cases this would be the responsibility of the developer of the land being developed. A small portion of the vacant land is affected by the same natural factors that affect the developed lands. These factors include flooding, excessive topographic limitations, and/or significant soils limitations.

Land use in McMinnville is significantly affected by zoning. Of the municipality's total land area approximately 4,535 acres is zoned for residential uses. Of this residential land 3,164 acres or 70 percent is

zoned for low density residential use, 813 acres or 18 percent is for medium density, 405 acres or 9 percent for high density, 92 acres or 1 percent for mobile home residential, 45 acres or about 1 percent is zoned residential-commercial, and 16 acres or less than 1 percent is zoned Planned Residential Development.



The total amount of land that is zoned for commercial uses amounts to 1,532 acres. The C-1 Central Commercial District constitutes 65 acres or only 4 percent of commercially zoned land and less than 1 percent of the total land area within the city. This zone is limited to the Central Business District. The C-2 General Commercial District constitutes 1,210 acres or 79 percent of the commercial land and about 18 percent of the total land.

The C-3 Highway Commercial District contains 245 acres or 20 percent of the commercial land and just under 4 percent of the total land within the city. There currently is not any existing Planned Commercial Development zones within McMinnville. Approximately 736 acres or 10 percent of the total land area is zoned for industrial use, which includes the I-1 Light and I-2 Heavy Industrial Districts. The I-1 District contains 552 acres of land or 75 percent of the industrial land. This constitutes 8 percent of the total land. The I-2 District contains 184 acres or less than 3 percent of the total land area. There is no zoning in effect outside the corporate limits of McMinnville.

Caveat

At the time of the drafting of this document, the urban growth boundary for the city has not yet been adopted. Once the urban growth area is adopted, this area will effectively become the planning region for McMinnville. The urban growth boundary that is proposed consists of fringe areas around the current corporate limits and the Highway 55 corridor down to Todd Lane. The predominate developed land use category is residential for most of the areas within the proposed urban growth boundary. The exception to this is along the Highway 55 corridor, which consists of a mixture of residential and commercial uses. In addition, there are existing commercial enterprises that are located to the east and north of the current corporate limits along the Beersheba Highway and Highway 56. It is imperative that the city maintains some control over the fringe area developments that are located just outside the current corporate limits. Such uses are primarily existing and potential non-residential developments that could generate additional revenue for the city. The urban growth area also contains a large amount of low-density residential development, as it does a sizeable quantity of vacant land.

Residential

The total amount of existing developed residential land within the city is 2,494 acres or approximately 52 percent of all developed land. The residential land use category, as in most communities, occupies the largest portion of developed land in McMinnville and its proposed growth area. Furthermore, like most communities, the traditional single-family detached dwelling unit is the predominant form of residential land use in both areas. Natural factors have had a limited affect on residential development in McMinnville and its growth area. Not suprisingly, residential development in McMinnville is dispersed throughout the city and is the predominate land use for the city. Generally, the majority of existing residential development is located west of Highway 56/Chancery Street (planning neighborhoods 2, 3, & 4). This area accounts for approximately 47 percent of the total housing units within the city. The central portion of the city contains the greatest amount of single-family detached dwellings (planning neighborhoods 2, 3, & 6), accounting for approximately 57 percent of this type of housing unit.

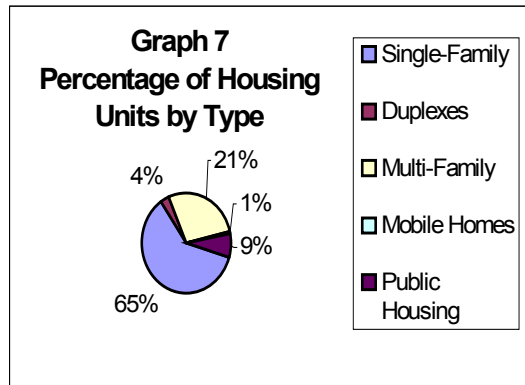
Generally, the oldest neighborhoods are located closest to the downtown area on lands with some steep slope and drainage constraints. As the areas with few physical constraints became limited, residential development in McMinnville expanded to other areas. Furthermore, the majority of substantial vacant land that is ideal for future residential development is located south of the West Main Street/Old Post Road area.

The land use survey identified a total of 5,813 housing units located on the 2,494 acres of residential land. This represents an average lot size of slightly more than 18,600 square feet and an approximate density of 2.3 housing units per acre. Graph 7 reflects the percentage of housing units in McMinnville by type of housing. Of the 5,813 housing units in McMinnville, 3,747 or 64 percent are traditional single-family detached residences. Of these single-family units, 96 percent are considered in sound structural condition. The majority of these residences are located on grid pattern or curvilinear streets between Chancery Street and Sparta Street and the central section of the city. Although the majority of the lots occupied by single-family detached residences are of adequate size, there are some narrow and smaller lots located within the city.

The most recent survey identified only 65 mobile homes in McMinnville, which account for approximately 1 percent of the total housing units. The majority of these mobile homes are located on individual lots that are scattered throughout the city. One exception is the Circle View Mobile Home Park located on South Chancery Street that contains 30 mobile homes within the park. Single-wide mobile homes are permitted within the Mobile Home District only. Multi-sectional mobile homes (doublewides) are permitted on individual lots provided they meet certain federal safety and construction standards and standards for anchoring and foundations.

Multi-family housing units, including both public and private units, apartments and duplexes, represent approximately 33 percent, or 1,918 of the total housing units in McMinnville. Private multi-family housing consists of 1,459 units, or 25 percent of the total housing units. Generally, the largest concentrations of multi-family housing are located in the extreme east and west sections of the city, within the Beersheba Highway and Bybee Branch Road areas. Although there are numerous other complexes scattered throughout the city, there are very few multi-family housing complexes located within the CBD area. Mixed residential and commercial uses should be encouraged within the CBD area. Public, multi-family housing consists of 529 units, or nine percent of the total housing units located within the community. These units are divided among three public housing complexes.

Findings. The predominate developed land use within the corporate limits is utilized for residential purposes. Residential land uses are generally located within planning neighborhoods two, three and four, which constitute 47 percent of the total housing units within the city. The largest proportion of housing unit type within the city is the single-family unit. There are few areas in McMinnville available for residential development that do not have some physical limitations. These physical limitations have restricted new subdivision developments, thereby resulting in a relatively older housing stock in the



community. Despite an older housing stock, housing in McMinnville is generally in good condition. Basically, all residential properties have good access to community goods and services.

Commercial

Historically, the core area of the community has been its traditional economic center...the Central Business District (CBD). The transition from a pedestrian oriented society to a vehicular oriented society has had its impacts on McMinnville. For planning purposes the McMinnville CBD consists of an eleven block area between Morford and Colville Streets to the north and south respectively and Lind Street and Sparta Street on the east and west boundaries. However; strip commercial development along Chancery Street and the bypass has expanded and shifted McMinnville's commercial/private service center from the CBD to other areas of the city.

As the retail trade and service center for Warren County, 12.6 percent, or 613 acres of the total developed land within McMinnville, is commercial use oriented. Developed commercial land accounts for only 40 percent of the land that is zoned for commercial activities, leaving well over half of the land that is zoned commercial available for future development. Commercial retail sale establishments, private services and similar types of services are primarily located along the Chancery Street, Sparta Street, and the Highway 70S-bypass area. The city has undergone significant commercial expansion in recent years due to expansion of the corporate limits and an increase in the population base.

The existing McMinnville CBD remains viable. There is some vacant floor space in the downtown that can be more fully utilized. The city is currently taking steps to improve the variability and aesthetic value of the CBD. These include the encouragement of upper story residential uses to provide a mixture of residential and commercial uses, the establishment of a Historic Overlay District, incentives for relocation of businesses within the CBD, and a reimbursement program for business awnings within the downtown. Furthermore, a Master Plan for the CBD and a Landscaping Plan are both currently being undertaken by an architectural firm contracted with the city. This area is further restricted by limited parking capacities. The CBD has begun a slow transition from first story retail use and second story office use surrounding the Courthouse, to first story private service office use, and a mix of second story office and multi-family residential uses.

The commercial service area located along Chancery and Sparta Streets are primarily devoted to retail trade uses and private services. This area has developed in both a strip development pattern and a shopping center development pattern. These limitations have resulted in structures too close to the right-of-way, forcing parking to back directly onto a high traffic volume highway. This has created congestion and safety problems. Additional setbacks and dedication of right-of-way along the North Chancery Street corridor is currently required. This situation is further aggravated through the absence of turning lanes and no defined curb cuts. West of this area the primary retail commercial uses are in the form of shopping centers with adequate off-street parking and loading areas. This retail area, however; is fully developed with no expansion capabilities. Like the CBD, there is also very little vacant floor space for re-occupancy.

Findings. Generally, commercial activities are located along two main corridors radiating from the Highway 70S Bypass to the CBD. Overall, the commercial service sector of McMinnville is strong and

viable as evidenced by a low vacancy rate, which has been linked to the expansion of commercial activities within the last decade. There are some traffic safety and congestion problems in the downtown area and in the strip commercial area along North Chancery Street. The city has taken steps to improve these traffic and parking conditions by requiring a front building setback along North Chancery Street and requiring residential off-street parking within a certain number of feet of the building being utilized for residential purposes within the CBD. The further expansion of commercial and private service uses are not limited in the municipality. The city will likely experience additional commercial expansion within the city as infill development takes place. Also additional commercial development within the fringe areas surrounding the city will eventually be incorporated into the city limits.

Industrial

Industrial land uses in McMinnville currently occupy 251 acres, or approximately 5 percent of the developed land area. Developed industrial uses account for only 35 percent of the land that is zoned for industrial uses. Furthermore, there is existing developed industrial land that is currently not utilized due to the relocation of industries or recent shutdowns. These areas consist of industrial land that has been developed and is currently standing vacant. This land that is anticipated to remain unoccupied for only a short time period due to aggressive recruiting efforts of the community. This industrial acreage is primarily located in the northeast section of the city within the proximity of the Highway 70S Bypass and Sparta Street areas.

In the past, the City of McMinnville, has functioned as the primary area for manufacturing and industrial development in Warren County, however, this is no longer the case. Since the late 1980's almost all new industrial development in the county has located within the Warren County Industrial Park situated near the Town of Morrison off Highway 55, approximately six miles south of McMinnville. This shift in the industrial base from McMinnville is evident in the fact that of the major industrial employers in Warren County, only five are currently located in McMinnville. The absence of existing sites in McMinnville with industrial infrastructure capabilities is a primary factor for the lack of growth of this land use category. For this reason it has also resulted in the development of industrial sites outside the municipality in the Warren County Industrial Park.

In the recent past, emphasis in McMinnville has been to maintain and occupy existing facilities and sites rather than develop additional ones. The North Industrial Park, as it is commonly referred to, is an area of concentrated industrial sites within the city limits near the Highway 70S Bypass. Due to the locations of these industrial sites, the existing and future industries will have easy access to the Highway 70S Bypass. Currently, there are few large-scale industrial sites available for development in McMinnville. Due to significant limitations of land available for large scale industrial development, it is anticipated that the majority of future industrial expansion in Warren County will continue to locate outside of McMinnville. The absence of public sewer within many areas of the proposed growth area also limits the potential for industrial development within the proposed growth area.

Findings. Approximately 75 percent of all industrial land within the City of McMinnville is vacant and zoned industrial. Most of this industrial land is severely constrained by natural factors such as steep topography, poor soils and susceptibility to flooding. The city also has experienced recent closings and relocations of industries. Due to significant limitations of land available for large-scale industrial development, it is anticipated that the majority of future industrial expansion in Warren County will continue to locate outside of McMinnville. Despite this fact, the city is working toward joint efforts with the county to attract industries within the area and expand existing industries within the city and the county. From a regional perspective, this will benefit the local economy of the area for the city and county alike. The city is currently evaluating potential industrial sites within the prospective growth area for future development. There are some existing industrial sites that are available for possible industrial development in the municipality that have the necessary infrastructure present for industrial expansion. It is anticipated that the city will need additional industrial land in the near future to retain the vitality of the local economy. Within the prospective growth area there are potential sites for future industrial activities.

Public Facilities

The City of McMinnville functions as the county seat and serves as the center for public, cultural and recreational land uses in Warren County. This very broad category covers numerous uses. The land uses in this classification include all educational facilities, the county jail, the municipal building which houses the city hall, the police department and public works, cemeteries, the civic center, the fire department, Riverpark Hospital, the county administration building, the courthouse, sheriff's office, post office, Chamber of Commerce, the county library, all municipal recreation facilities and the fairgrounds and transportation facilities. Combined, these occupy 1,403 acres within the corporate limits of McMinnville. The age of the public, cultural and recreational structures tend to vary significantly and many are in need of expansions or renovations to meet the future demands of the city. Due to this need, many of these facilities are already in the process of expanding or renovating or are planning to do so in the near future. The diverse ownership of these facilities has been advantageous in meeting local public needs. The improvements to the public facilities will be covered in greater detail within the Community Facilities Plan in Chapter 8.

Findings. Adequate space is not available to meet the current and future public, cultural, and recreational needs of McMinnville and Warren County. This is significant since the City does provide such facilities in this category for most of Warren County. It is anticipated, based upon future population projections, that a sufficient amount of additional space will need to be available to meet future needs.

Utilities

The provision of utilities within the City of McMinnville is primarily the responsibility of the applicable city departments. The utility services that are not provided by the city within the corporate limits include electric and gas services. The Middle Tennessee Gas Utility District and the McMinnville Electric System provide gas and electric services respectively. Within the corporate limits there is a total of 73 acres that are devoted to utilities. The provision of water and sewer is the responsibility of the city. Land uses in this category occupy 1.5 percent of the developed land in the municipality. These uses consist of the municipal water and sewer treatment plants, all water and sewer pump stations, right-of-ways and lines, water storage tanks, the electric system building and all electrical substations and gas mains.

Public water service is available to all developed portions of the municipality by the McMinnville Water and Wastewater Department and within the urban growth area by the West Warren/Viola Utility District and Warren Utility District respectively, as reflected in Illustration 5. The Barren Fork River provides the municipality with a perpetual source of water supply. The water treatment plant is located at 200 Bell Street and has a maximum capacity of 5 million gallons per day. The average current daily consumption rate is approximately 60 percent of capacity.

Public sewer service is provided to over 96 percent of the developed properties in the municipality, which Illustration 5 reflects. The treatment plant is located at 100 Cope Street and has a maximum capacity of 4 million gallons per day. The sewerage collection system contains approximately 60 miles of sewer lines, a total of 10 miles of force main and 24 pump stations within the city. The necessity of installing a pump station is evaluated as land is subdivided and developed on a case-by-case basis. If it is determined by the city that a proposed development will need a pump station, the initial cost of the pump station is the responsibility of the developer. The continued development of properties in McMinnville with topographic constraints will require additional sites for the location of water and sewer pump stations. The provision of public sewer service to the projected urban growth area will require sites for the location of lift stations as well. Such facilities, however; require very minimal land area with physical locations being the primary engineering concern.

The facilities within this land use category appear to have sufficient land available to expand at their current sites. Therefore, any growth would not correspondingly require additional land of any significance

for these uses. The utilities within the corporate limits of McMinnville are covered in greater detail in the Community Facilities Plan.

Findings. Adequate land is available in McMinnville and its projected urban growth area for land uses in the utility category. The extension of water and sewer lines into the urban growth area will require agreements between the city and the applicable utility districts for installation and maintenance control. Minimal future land acquisition will be required for those areas where sewer or water pumps or electrical substations would be required. The need for additional land will be reviewed in conjunction with expansion and future development within the city and the projected growth area.

Vacant Land

Approximately 1,969 acres or 29 percent of the total land area in McMinnville is vacant land. The vast majority of this land is categorized as vacant unimproved land and is lacking the infrastructure necessary for development. For the most part, this land is not inaccessible or located a great distance away from existing infrastructure necessary for development to take place. Generally, the largest majority of this land that is suitable for development is situated on large tracts of land located in two primary areas. The first area is between the Highway 55 bypass and the Barren Fork River. This area contains large tracts of land where future growth and development could take place without being a financial liability to the city. The second area is located within the Morrison Road and Chancery Street area. This area contains large tracts of vacant land that are ripe for future development. Both of these areas are located within a portion of the city where there are few physical constraints that would inhibit development from taking place. The remaining vacant unimproved land is scattered toward the Springs Road and the Highway 70S Bypass area around Belmont Drive and Sparta Street. It is feasible to extend the necessary infrastructure for future development to take place within these areas due to the proximity to the existing infrastructure and the lack of a significant amount of natural constraints. Furthermore, a significant amount of this undeveloped vacant land has severe physical limitations, including being susceptible to flooding or having excessive slopes, which make it either not developable or cost prohibitive to develop.

An estimated 460 acres of the vacant land, or 23 percent of the total vacant land in McMinnville, is located in areas with designated flood hazards. With established regulations for developments within the floodway being very restrictive, vacant land located in the floodway should not be considered as developable.

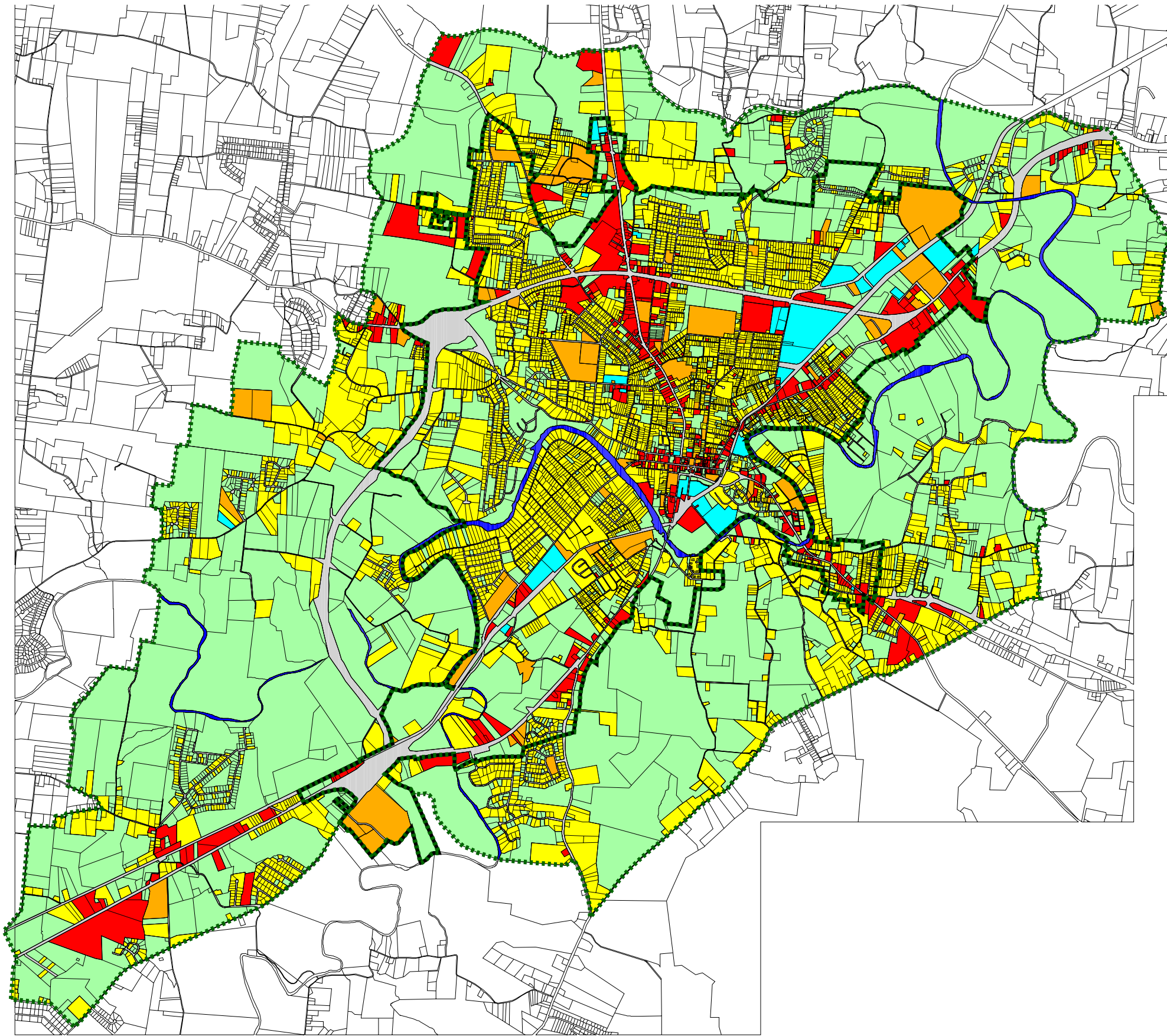
Vacant land not designated within a flood zone occupies approximately 1,509 acres or 22 percent of the total land area in McMinnville. Of this vacant land, 28 percent is constrained by one of the categories of natural constraints mentioned in this report. In addition, a large percentage of this land is also lacking the infrastructure necessary for development. Illustration 8 depicts the vacant improved land or developable land.

As the amount of vacant land available or suitable for development in McMinnville is limited, it should be expected that the community will annex areas to accommodate expected growth. Within the projected urban growth area there are approximately 9,363 acres of vacant land. This represents 68 percent of the total land area within the urban growth area.












Illustration 4

Existing Land Use Pattern McMINNVILLE, TN and PROPOSED GROWTH AREA

October, 2001



LEGEND

-  Proposed Urban Growth Boundary
-  Corporate Boundary
-  Parcel Boundaries
- Existing Land Uses**
-  Residential
-  Commercial
-  Industrial
-  Public & Semi Public
-  Vacant Land
-  Railroad Right of Way
-  Street Right of Way
-  Waterway



Prepared by:
Dept. of Economic & Community Development
Local Planning Assistance Office - Upper Cumberland
Region. This map is not intended for engineering use.
This map was designed for planimetric use only.



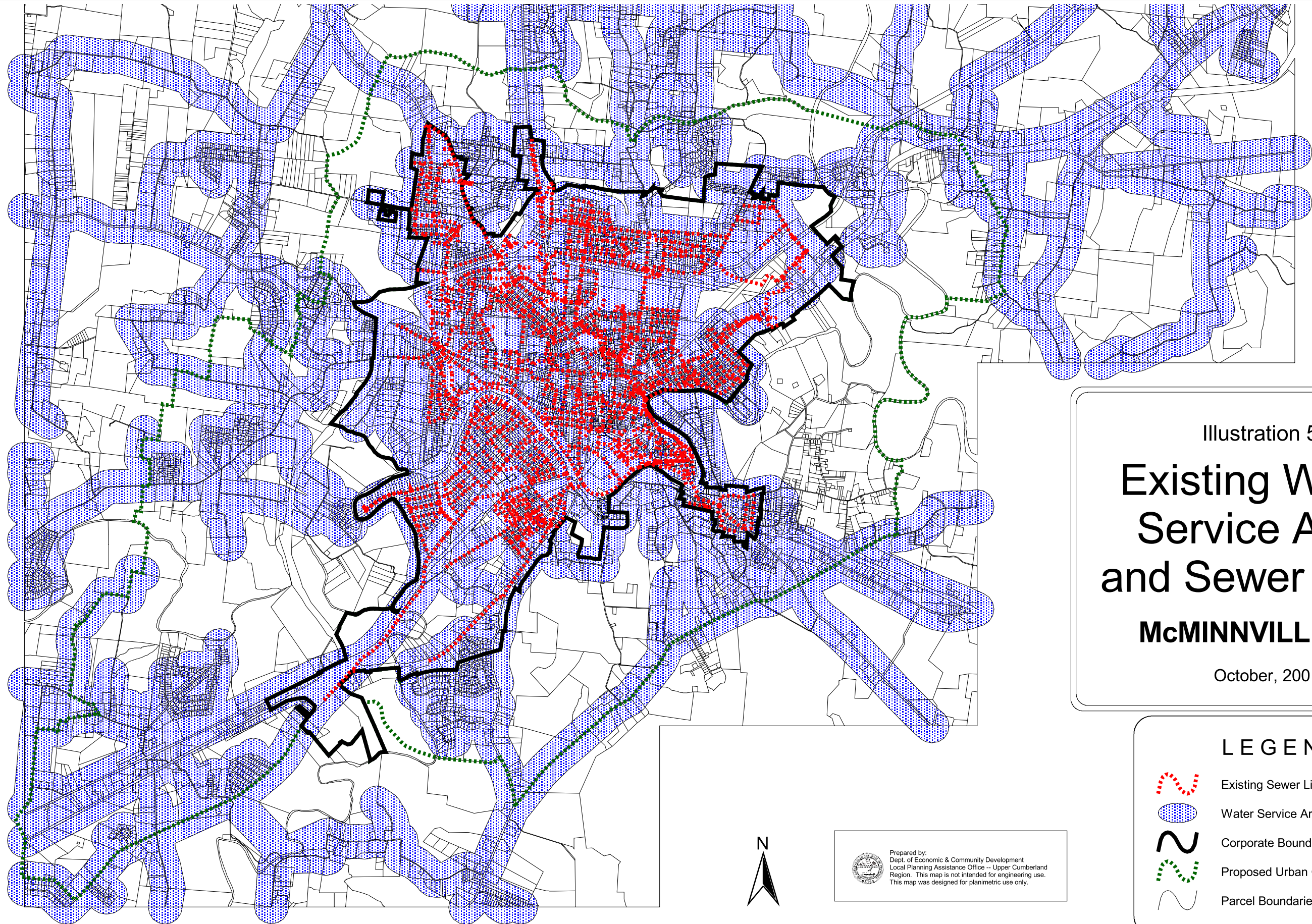







Illustration 5
Existing Water Service Area and Sewer Lines
McMINNVILLE, TN
 October, 2001

LEGEND

-  Existing Sewer Lines
-  Water Service Area
-  Corporate Boundary
-  Proposed Urban Growth Boundary
-  Parcel Boundaries



Prepared by:
 Dept. of Economic & Community Development
 Local Planning Assistance Office – Upper Cumberland Region. This map is not intended for engineering use. This map was designed for planimetric use only.



Findings. Approximately 30 percent of the total land area within the corporate limits is classified as vacant land. This vacant land is further limited in the potential development that can take place because of natural constraints. Approximately 45 percent or 879 acres of the total vacant land within the corporate limits is constrained by a designated flood hazard area, karst geology, poor soils, steep slopes or wetland areas. Natural factors and the lack of necessary infrastructure significantly limit the amount of land within the municipality for development without considerable expense. The extension of the required utilities and the construction of access streets will be necessary for this land to be developed. It will also be important that proper standards for development be followed for those areas with severe physical limitations. There is a substantial amount of vacant land available within the urban growth area which could be developed if the necessary infrastructure is provided. It is expected that the municipality will expand into the urban growth area to meet some of the demands for future development.

LAND ANALYSIS SUMMARY OF URBAN GROWTH AREA

The urban growth area that is proposed for the City of McMinnville typically surrounds the city on all sides and consists of a total of 13, 755 acres. The existing land uses within this area are depicted in Illustration 4.

The residential uses within the growth boundary consist of single-family detached units on individual lots of one-half of an acre to 1 acre or more within several relatively large subdivision developments. The remaining residential units consist of a minimal number of mobile home units and single family detached units on large lots. The total amount of land that is utilized for residential purposes within the growth area consists of 2,622 acres or 19 percent of the total growth area.

The commercial uses are generally located in close proximity to Highway 55, which is the predominate area of commercial uses within the growth area. The other commercial areas within the growth area are located along Highway 70S, west of the corporate limits and along Highway 56, extending north of the corporate limits. Commercial uses constitute only 3 percent of the total acreage within the growth area or 422 total acres.

There is a minimal amount of industrial uses currently within the growth area, only a total of 8 acres or less than 1 percent of the total acreage within the growth area. Although there is currently a low amount of industrial acreage within the growth area, the city is currently evaluating areas of land within the growth area for future industrial uses.

The remaining land uses consist of 234 total acres of public/semi-public uses and 576 acres dedicated to road and railroad right-of-ways. Combined, these two categories of land uses constitute close to 8 percent of the total acres within the growth area. The classifications of thoroughfares within the growth area are depicted in Illustration 7.

The remaining land use category, vacant land, is also the most prevalent within the growth area. The total amount of vacant land consists of 9,363 acres or 68 percent of the total land within the growth area. The fact that there is a great amount of vacant land within the growth area will contribute to long range planning for the future growth and development of the city during the 20-year planning period and beyond.

**TABLE 11
MCMINNVILLE URBAN GROWTH LAND USE**

LAND USE	ACRES	PERCENT OF TOTAL LAND
Residential	2,622	19
Commercial	422	3
Industrial	8	1
Public/Semi-Public	234	2
Right-of-Ways	576	4
Waterways	530	3
Vacant	9,363	68
TOTAL	13,755	100

Findings. The predominate land use categories within the urban growth boundary consists of the residential and vacant land categories. Combined, these two categories constitute 87 percent of the total amount of land within the growth area. The pattern of growth and development within the urban growth boundary will be directed by adherence to the development policies established within the development plan.

TRANSPORTATION ANALYSIS

A municipality's transportation system is a vital service function which is essential to its growth and development. The transportation system forms the framework upon which a community is built, and adequate traffic circulation is a prerequisite to economic activity and general community development. Streets and highways occupy a significant percentage of the developed land area of the city. Within McMinnville, approximately 926 acres of land are devoted to roads and road right-of-way. This represents 19 percent of the developed land and 13.6 percent of the total land area. All streets and state highways in McMinnville are included in this category of land use.

The 926 acres of land dedicated to transportation uses in McMinnville consist of 142 miles of thoroughfares ranging from state highways to undeveloped street right-of-ways. Of the total miles, 17 miles of thoroughfares in McMinnville are state highways and 125 miles are paved streets that are maintained by the city.

The numerous thoroughfares which traverse the municipality vary in their design, purpose and utilization. To facilitate the analysis of these streets, roads, and highways, these thoroughfares have been classified based on their intended use. Also included in this analysis of the McMinnville transportation system is a review of traffic circulation patterns; major impediments to traffic; the major traffic generators; parking; air, rail, and port transportation facilities; mass transit; and pedestrian/non-vehicular circulation.

Thoroughfare Classification

The primary or intended use of a thoroughfare varies from that of providing access to residential and other structures, to providing uninterrupted movement of high speed traffic. To clarify the usage, a classification has been established denoting the function served. These classifications, as shown on Illustration 7, include (1) principal/major arterial, (2) minor/secondary arterial, (3) principal/major collector, (4) minor collector, (5) local road/minor street.

Principal/Major Arterial: Roadways which link population centers, but often lack controlled access and traffic flow separation. Usually these are numbered U.S. Highways or State Primary Highways. U. S. Highway 70S and State Primary Highway 55, including the Highway 55 Bypass, and Highway 56 can be defined as major arterials.

Minor/Secondary Arterial: Roadways that link small population nodes and provide direct access to major traffic generators such as work, shopping, and residential centers. Often these are State Secondary Highways. State Highways 8, 108, 286, and 380 can be classified as secondary arterials.

Principal/Major Collector: Roadways that link arterials and distribute traffic onto minor streets. These links also provide direct access to major traffic generators. Major collectors identified in McMinnville and its planning region include Spring Street, Faulkner Springs Road, North Chancery Street, Old Smithville Road, Old Shelbyville Road, Old Viola Road, and Verville Road.

Minor Collector: Roadways that link and provide access to and between local roads and minor streets. Ideally these are internal to or abutting neighborhoods. Streets identified as minor collectors in McMinnville and its planning region include Red Road, Daylight Road, Yager Road, Couch Street, Pace Street, Cadillac Lane, Old Morrison Road, Arcadia Road, Old Beersheba Road, and Higginbotham Road.

Local Road/Minor Street: Roadways that function primarily as the means for accessing individual properties. Most often minor streets are intended for limited capacities, carrying traffic for short distances, and serving residential uses. The majority of McMinnville's streets are of this classification.

Traffic Circulation Patterns

The traffic circulation pattern in McMinnville relies heavily on U. S. Highway 70S, the primary east-west route in the county, and State Highway 56, the primary north-south route in the county. These two highways carry the highest traffic volumes in the county. At the intersection of U. S. Highway 70S and State Highway 56 the average daily traffic counts in 1999 exceeded 18,000 to the west, over 23,000 to the east, and over 19,000 to the south. The average daily traffic count from this intersection to the north along Highway 56 exceeded 16,000. Due to high traffic volumes and intense land use development characteristics, some traffic congestion occurs during peak hours of the day.

The entire collection of roadways within the city comprise the transportation network of McMinnville. The traffic patterns correspond to the links or streets of the network and the nodes or intersections of the transportation network for evaluation purposes. These traffic patterns are a direct result of the amount and character of urban activity that takes place in a particular area.

The two primary arterials of the city consist of the Highway 70S/55 Bypass and the Smithville Highway. The bypass provides a traffic flow around the perimeter of the city with access toward the interior of the city at the major intersections along the bypass. The bypass feeds into the major and minor collectors of the city that radiate from the bypass to the core of the city. The Smithville Highway functions as the major arterial for north-south traffic throughout the city. The grid pattern of street design dominates the minor/local street layout in McMinnville. The curvilinear pattern has been primarily utilized only where topographic constraints have limited the extension of the grid pattern.

Findings. The traffic circulation pattern in McMinnville relies heavily on U. S. Highway 70S, the primary east-west route in the county, and State Highway 56, the primary north-south route in the county. These two highways carry the highest traffic volumes in the county. All collector streets in the municipality branch from these thoroughfares. Within the CBD, there is a more rectangular grid pattern with small blocks and one-way streets. Numerous one-way streets assist in easing some traffic problems within the CBD. The completion of the McMinnville Highway 55 Bypass in 1991, has improved traffic circulation within the municipality by alleviating traffic that had previously been passing through the downtown area.

Impediments to Traffic

Historically, the major impediment to traffic flow in McMinnville has been the location of the primary north/south highway of Warren County through the center of the city. Highway 56/Chancery Street funneled large volumes of traffic through the downtown area of McMinnville. Funneling a high volume of traffic through the CBD, combined with on-street parking, resulted in continual traffic congestion problems for the municipality. Although the Highway 55 Bypass has somewhat reduced the amount of traffic in the CBD, Chancery Street continues to have high traffic volumes. The city does enforce a greater front building setback requirement along the western right-of-way of North Chancery Street, which helps alleviate traffic congestion along this thoroughfare.

Another impediment to traffic flow in McMinnville is the strip commercial development along Chancery and Sparta Streets. Many of these commercial establishments have unrestricted access points, small off-street parking areas and building setback problems which, when combined with a high volume arterial, creates traffic congestion and traffic hazards. Moreover, the railroad underpass on West Sparta Street is inadequately aligned to provide smooth traffic flow with a clearance that is not adequate for large trucks.

The capacity of a particular road is a measure of the ability of the road or intersection to accommodate traffic. The design capacity of a particular road is the maximum volume of traffic flow the road was designed for, to provide an adequate amount of traffic flow. There are few roadways within the city that are operating at or above design capacity. A segment of the Morrison Road north of Highway 55 has been identified as operating at design capacity. In addition, the intersection of West Main Street and North Chancery Street is operating in excess of design capacity.

Findings. The primary impediments to traffic at this time are numerous strip commercial establishments with unrestricted access points, having limited visibility and limited off-street parking facilities. The completion of the Highway 55 McMinnville Bypass has alleviated some of the traffic flow problems in the downtown area, but not within areas of strip commercialization. Although there are existing impediments to traffic within areas of strip commercialization, there are no serious problems that warrant immediate attention. The priorities for the short and long term transportation improvements will be covered in more detail within the Community Facilities Plan.

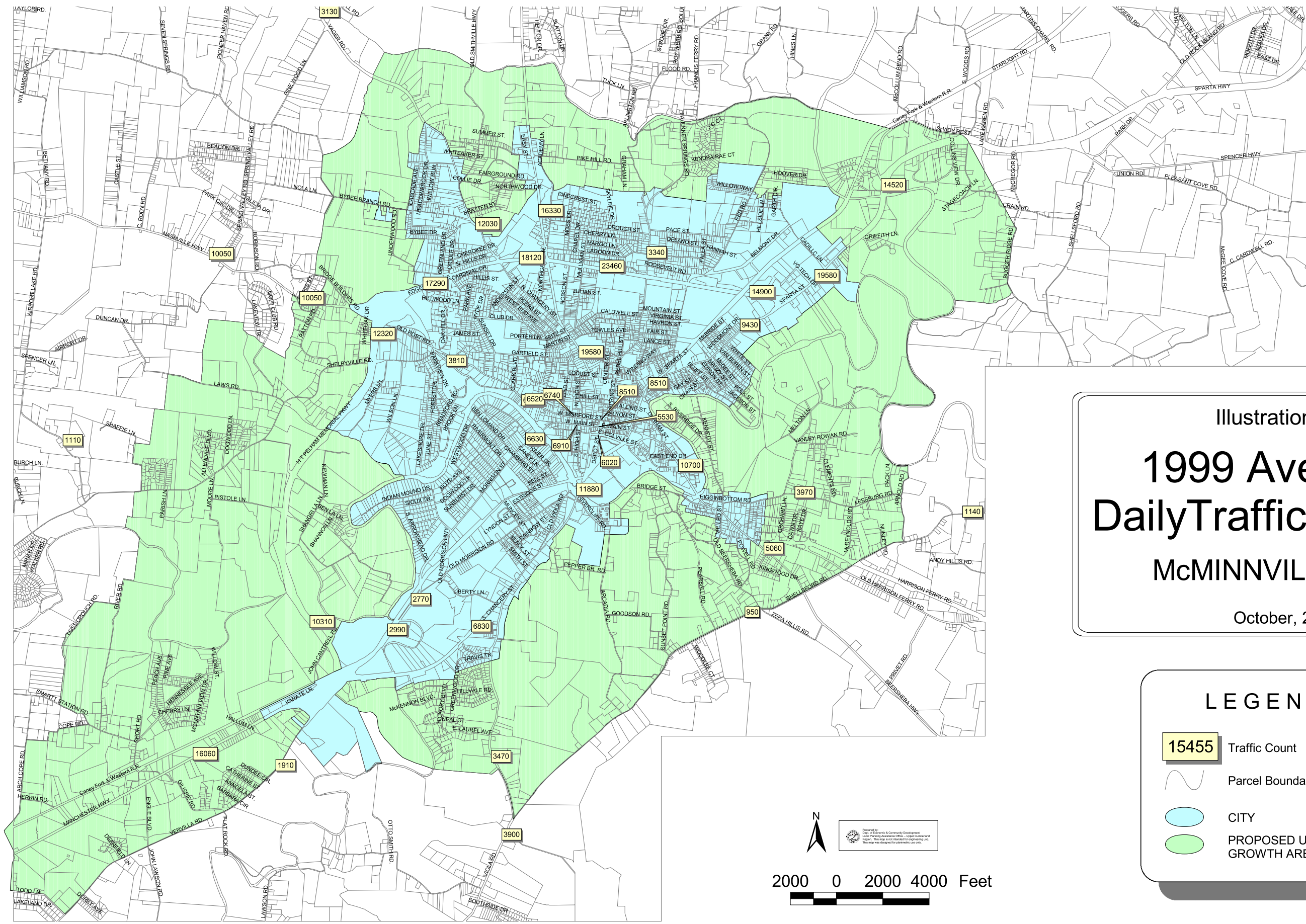
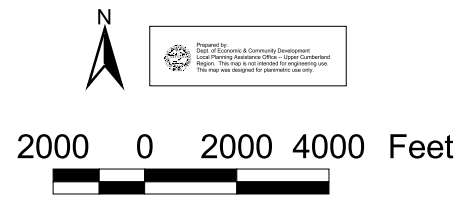


Illustration 6
1999 Average Daily Traffic Counts
 McMinnville, TN
 October, 2001

LEGEND

- 15455 Traffic Count
- Parcel Boundaries
- CITY
- PROPOSED URBAN GROWTH AREA

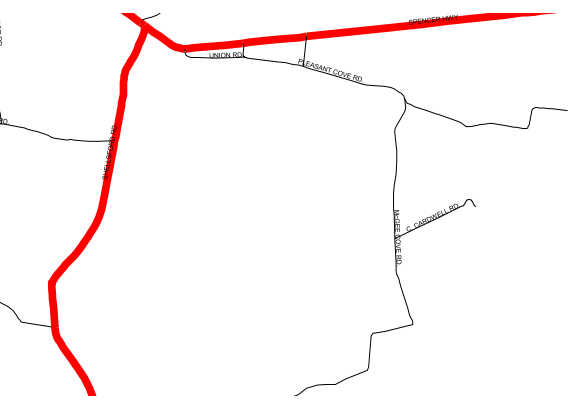
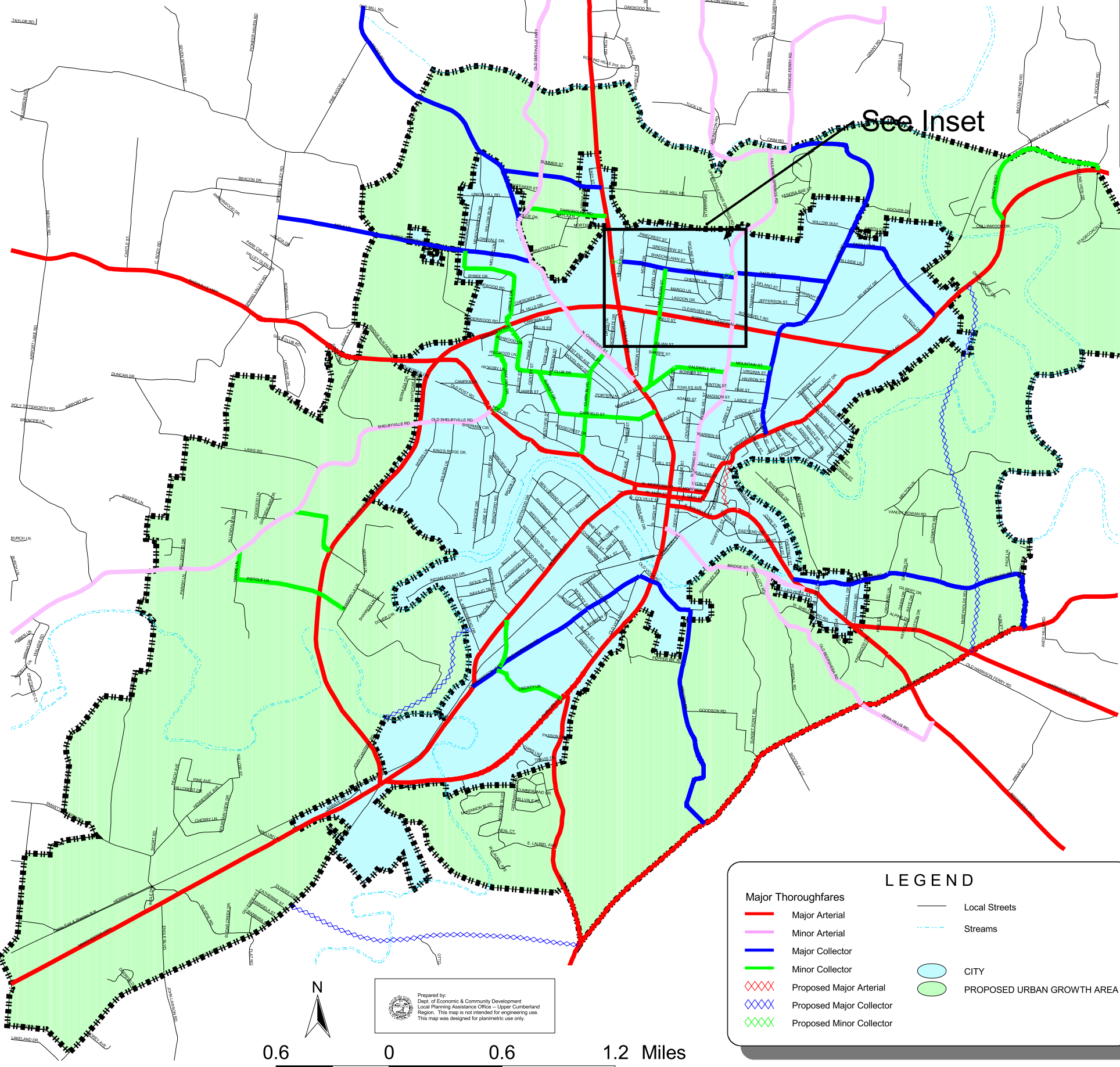


Prepared by:
 City of McMinnville & Community Development
 Local Planning Assistance Office - State Contracted
 Project. This map is not intended for engineering use.
 This map was designed for presentation only.

Illustration 7 Major Thoroughfare Plan McMINNVILLE, TN

October, 2001

See Inset



LEGEND

Major Arterial	Local Streets
Minor Arterial	Streams
Major Collector	CITY
Minor Collector	PROPOSED URBAN GROWTH AREA
Proposed Major Arterial	
Proposed Major Collector	
Proposed Minor Collector	

Prepared by:
Dept. of Economic & Community Development
Local Planning Assistance Office - Upper Cumberland
Region. This map is not intended for engineering use.
This map was designed for planimetric use only.

Adopted June 12, 2001 by the McMinnville Regional Planning Commission.
This Map supercedes and replaces as previously adopted Major Road Plans.

Chairman, McMinnville regional Planning Commission Date

Secretary, McMinnville regional Planning Commission Date

Traffic Generators

There are several major traffic generators in McMinnville. These traffic generators are focal points of activity which are the origin and destination of numerous automobile trips during certain times of the day. An awareness of the location of these generators is necessary in planning the traffic circulation system and in preparing plans for improvement. The major traffic generators include:

1. **Industrial Areas.** In the past, the primary industrial area in McMinnville was located within the Belmont Drive/Red Road area. Due to the recent closing of industrial operations in this area the traffic generation that is directly related to large industrial operations has been significantly reduced. Currently, the primary industrial area that generates higher levels of traffic is around the South Chancery and Depot Street area.
2. **Concentrated Commercial Areas.** These areas consist of activities along the Highway 70S/N. Chancery Street and the Highway 70S and Sparta Street area. Both areas contain a concentration of commercial activities that creates a commercial strip in two locations that converge toward the CBD. These consist primarily of a large amount of retail establishments and public/privates services including major shopping centers.
3. **Institutional and Professional Areas.** The area along the Highway 70S Bypass and Vo-Tech Drive is the principal area where higher volumes of traffic are generated. The contributing activities within this land use category are the RiverPark Hospital and the Tennessee Technology Center, which are both located within the general area. In addition to this area, the Warren County High School also generates a substantial amount of traffic. Fortunately, the high school is located near the Highway 55 Bypass, which is a major arterial. Because of this close proximity to the bypass this institution does not contribute greatly to the traffic problems within the city.

Findings. In essence, employment related land uses are the traffic generators in a community. The industrial, commercial, institutional and professional service use areas of McMinnville are the primary traffic generators as destination points or trip attractions. Most of these generators tend to compound traffic problems due to their relatively close proximity to each other. Some additional improvements need to be made such as crosswalk signals and turn lanes throughout the city to more effectively expedite the traffic flow throughout the city. There are also special traffic generators that are located outside the corporate limits of the city, but contribute to the traffic of the city just the same. These traffic generators are outside the scope of this plan, but will be briefly mentioned here. They consist primarily of traffic generated from the Mountain View Industrial Park, the commercial activities located along Highway 55 and the Warren County Airport.

Parking

The majority of the parking in the CBD of McMinnville takes place on the street right-of-ways in non-metered spaces with a two-hour maximum time limitation. The primary off-street parking facilities in the downtown area are three parking lots on the south side of Main Street. Curbside or on-street parking obstructs the flow of traffic with motorists maneuvering in and out of parking spaces throughout the city. The parking problems in the McMinnville CBD have recently been somewhat improved. The completion of the McMinnville Highway 55 Bypass has lessened the traffic flow on Main Street and reduced the traffic hazards. The opening of the Warren Administration Building on Locust Street has also provided additional parking within the proximity of the CBD. Due to the lack of available property and the high cost of obtaining it for parking purposes, the development of off-street parking facilities in the downtown area will be difficult.

Findings. The provision of off-street parking for the CBD would reduce the amount of on-street parking. This would facilitate the ability of the CBD to handle additional traffic volumes. Traffic flow within the CBD can be improved by providing off-street parking and additional turn lanes.

Air/Rail/Port

The Warren County Memorial Airport is the nearest airport facility to McMinnville, located approximately 1.5 miles west of the corporate limits. The airport contracts with various companies for cargo shipping on a limited basis. The airport contains an asphalt 5,000 foot long and 100 foot wide runway. The airport maintains an operations manager, assistant manager and 3 part-time employees. The airport is operated under the local authority of the Warren County Airport Commission.

McMinnville does have rail access provided by the Caney Fork & Western Railroad and CSX Railroad. The Warren County Industrial Park is served by a spur line of the Caney Fork & Western Railroad, which runs along the southern perimeter of the industrial park.

There are no port facilities that are directly available to serve McMinnville. The nearest port is located on the Cumberland River in Nashville. Vacant land is available for a port facility but the channel would not be deep enough nor would there be a navigable waterway to which it would be feasible to establish a port facility.

Findings. McMinnville does not have air, rail or port facilities, but does have access to such. The absence of rail service to the industrial areas hinders future developments, which could have some impact on future industrial development. This impact is minimized due to the limited role of McMinnville as an industrial job provider.

Mass Transit

Like most rural Tennessee communities, the automobile is the preferred method of transportation. This has limited the need for public transportation facilities in the form of mass transit. McMinnville does not have bus service. The nearest service is the Greyhound Bus Lines located 40 miles to the west in Murfreesboro or 45 miles to the north in Cookeville. There is a senior citizens bus service provided county-wide through the rural transportation program. Public taxi service is provided by one company in McMinnville with limited service capacity.

Findings. Due to McMinnville's relatively small size and demand limitations for mass transit, mass transit is currently not an issue.

Pedestrian/Non-Vehicular Circulation

Sidewalks provide for pedestrian circulation in McMinnville. When properly and adequately constructed sidewalks provide a safe means for the movement of pedestrian traffic. They also serve as a border and buffer between the street and existing development. Sidewalks or other means of pedestrian circulation are especially needed in areas around schools, in downtown commercial areas, and in residential areas.

Overall, the existing sidewalks in McMinnville are in good condition. Generally, sidewalks are prevalent near the public school facilities, in the downtown area, and in many of the older residential areas. Pedestrian access to the city park is limited since there are no sidewalks. Current municipal and county subdivision regulations do not require the provision of sidewalks in new developments.

Currently, there are no bike paths, greenways, or other linear pathways to provide pedestrian or non-vehicular linkage for an internal municipal system. A greenway plan for the city is currently in the initial stages of planning and is anticipated to be implemented in the next few years.

Findings. In general, the older portions of the municipality, including the Central Business District have adequate means for pedestrian circulation through the provision of sidewalks. Sidewalks or other means of pedestrian circulation are not available in the more recently developed areas of the municipality. This can be attributed to the absence of requirements for sidewalks in the municipal subdivision regulations. The city is reviewing the subdivision regulations for consideration of requiring public sidewalks on one side of a proposed development that has access to sewer.

SUMMARY OF FINDINGS

The current land use pattern in McMinnville and in its projected growth area has been and will continue to be significantly affected by natural factors that limit or restrict areas for development. A large majority of the developable areas in McMinnville, those with the necessary infrastructure and without severe natural limitations, have been developed. Future development of the majority of the vacant land areas in McMinnville will be difficult and expensive due to natural factors and the lack of infrastructure. Consequently, the city is anticipated to expand the corporate limits to accommodate the future population growth that is projected to occur.

Physical limitations, to some extent, have restricted developable areas in McMinnville for all types of land uses, the demand for uses in all land use categories, except for public service/cultural/recreational and utilities, remains strong. This demand is reflected in the low vacancy rates of structures in each land use category. These low vacancy rates have resulted in good maintenance of most structures which have in turn resulted in the absence of areas of substantial blight in McMinnville.

In order to meet the demand for future land use in each of the land use categories, the City of McMinnville is expected to expand the corporate limits to meet those demands. Annexation of areas within the urban growth area and along the Highway 55 Bypass will be essential to accommodate future land use needs. Expansion into the urban growth area west of the municipality is anticipated to be the primary location for growth and development to occur and will be necessary to meet the commercial and industrial land use demands of the city. Some limited commercial development can also be accommodated within the corporate limits. Any significant development within the urban growth area will require the extension of public water and sewer service and an agreement with the applicable utility district. Development of areas along the Highway 55 Bypass and the Highway 55 corridor will be necessary to meet the commercial and light industrial land use demands of the city.

CHAPTER 6

THE DEVELOPMENT PLAN

INTRODUCTION

A primary concern for most progressive communities is whether they will be able to guide and provide for their future growth and development. The McMinnville Land Use and Transportation Policy Plan, through the Development Plan presented in this Chapter, establishes how the municipality can best accommodate spatial growth during the ten-year planning period. The Development Plan should serve as a general guide for the City of McMinnville and its projected growth area. It is derived from an analysis made of past events affecting development, governmental structure, natural factors, socio-economic factors, existing land use and the existing transportation system. It is also directly based on several major assumptions, factors, issues and trends.

The Development Plan requires the establishment of development goals reflective of the level of the growth desired. Objectives based on the development goals, and policies to achieve these objectives, are presented in this Chapter. These goals, objectives and policies represent detailed guidelines for future development decisions. These goals, objectives and policies are further reflected in the Major Thoroughfare Plan and the Development Plan Concept which is intended as a general guide for physical development decisions.

MAJOR ASSUMPTIONS, FACTORS, ISSUES AND TRENDS

The major assumptions, findings, and trends identified in the preparation of this plan, are presented below. These assumptions represent the findings of the previous chapters, and are the forces which frame the goals, objectives, and policies of this plan. The major assumptions, factors, issues and trends identified in this plan that will directly affect the future land use and transportation of the City of McMinnville, are as follows:

1. The local government will continue to support economic and community development and the municipality will continue to have a strong planning program.
2. The municipality currently has funds available, although limited, for capital budgeting and the implementation of a public improvement program.
3. The regional planning authority of the municipality provides control over developments in its projected growth area.
4. Natural factors, primarily flooding, sinkhole areas and topographic constraints, severely limit areas for development in the municipality and its projected growth area.
5. Steady population growth with the city population base becoming a larger proportion of the county population is projected for the municipality during the planning period.
6. The elderly sector of the municipality's population is expected to increase as a significant percentage of the total population.
7. A significant percentage of the population is expected to continue to have incomes below the poverty level.
8. Manufacturing, retail, and public and private services are projected to be the primary sources of employment for the municipality and county during the planning period.
9. The lack of subdivision development in the recent past and the limited availability of vacant lots in existing developments has severely restricted traditional single-family housing construction.

10. Although the municipality has a predominantly older housing stock, there are no concentrations of dilapidated or deteriorated housing.
11. Future commercial developments will be directed into those remaining areas that are currently zoned commercial. There will be very few parcels of land that will be rezoned to commercial.
12. The municipality's CBD will become a viable location for private and public service enterprises and is expected to remain so.
13. The municipality has vacant industrial parcels and structures available for development and there are areas of undeveloped land available for large-scale industrial development.
14. The county is projected to continue to be the primary provider of locations for large scale and heavy industrial developments.
15. The primary transportation problems in the municipality are traffic congestion along the strip commercial area on Chancery Street and the lack of adequate off-street parking in the CBD.
16. The McMinnville Highway 55 By-pass is expected to open up some limited lands for development.
17. The municipality's water and sewer treatment capacities will need to be expanded to meet the projected demands for future development.
18. The extension and upgrading of utility lines will be necessary to accommodate significant growth and development.
19. The municipality will provide the full range of public services to areas within the corporate limits before extending additional services to areas outside the corporate limits.
20. The municipality has little vacant land with the necessary infrastructure to support development that is not restricted by severe natural factors.
21. Annexation into the projected growth area is expected to provide some of the necessary lands for future residential, commercial and industrial development.

DEVELOPMENT GOALS

To adequately plan and allocate for its future land use, it is necessary that a community establish general developmental goals. In the context of a future land use plan, a goal is a general statement reflecting the objectives in the areas of land development, transportation, and service delivery the community wants to achieve. The overall goal of this land use plan for the City of McMinnville is to provide a quality living and working environment for the residents of the municipality.

The following goals are general statements that the McMinnville Planning Commission believes to be the desires of the citizens regarding the future development of the municipality.

1. To preserve, protect and enhance the quality of life in McMinnville while encouraging a more harmonious and higher standard of development.
2. To provide for adequate housing to meet the needs of all residents while ensuring that all residential developments provide pleasant and harmonious living environments, are served by adequate vehicular and pedestrian circulation systems, are served by adequate infrastructure, and are properly related to other municipal land uses.

3. To provide for an adequate supply of goods and commercial services with varied sites suitable for a variety of outlets.
4. To retain and expand the industrial development base to provide for the essential employment needs of McMinnville and Warren County.
5. To promote and support those activities which are designed to maintain McMinnville as the public service center for Warren County.
6. To provide adequate and efficient public facilities and services, and to provide a diversity of cultural and recreational opportunities.
7. To provide utility services that effectively and efficiently meet and anticipate the needs of the municipality.
8. To provide an efficient and effective transportation system with appropriate linkages and capacities.
9. To encourage the development of vacant land which has less natural restrictions and which has the necessary infrastructure.

OBJECTIVES AND DEVELOPMENT POLICIES

Both objectives and policies are utilized to achieve the goals established in this plan. Objectives are more specific, measurable statements of the desired goals. Policies represent rules or courses of action that indicate how the goals and objectives of the plan will be realized.

The objectives and policies contained in this document represent the official public policy guidelines concerning land use and transportation matters for decision-making by the City of McMinnville. The policies are presented as guidelines to be followed by developers, builders, neighborhood groups, civic organizations, and other private and public interests engaged in and concerned about growth and development in the community. The policies are also presented so that interested individuals and groups can better anticipate the city's decisions on future matters.

In the following section general growth management objectives and policies are presented. This section is followed by objectives and policies for each of the specific land use categories.

GENERAL DEVELOPMENT AND GROWTH MANAGEMENT

Growth has always been viewed as an inherent component of urban settlements. Most cities understand that growth is necessary for long-term viability and most encourage growth to varying extents. However; in more and more communities, the costs and benefits of continued growth have emerged as public issues. There is often hesitation over accommodating further development with its consequences of greater numbers of residents and higher densities, economic expansion, rapid consumption of land, and alteration of the natural environment.

The City of McMinnville fully anticipates growth and understands its importance as a part of those forces which beneficially affect the community's quality of life. At the other end of the spectrum, the policy of growth at any cost has long term detrimental impacts and is not supported by the City. The approach taken by McMinnville will be that of managed growth. To guide general growth and development the following objectives and policies are adopted.

- A. Objective - Assure the protection and integrity of the natural environment by implementing measures to minimize the adverse impacts of development to soils, slopes, vegetation, wetlands and other natural features.

Policies

1. Ensure that areas less suitable for development, due to natural factors, are developed only when appropriate remedial measures are taken.
2. Decisions on development proposals shall be based on an analysis of soils, slope, depth to bedrock, and location relative to flood prone areas.
3. Where the condition of the land is in doubt, and it appears that an unsuitable condition might exist, the potential developer shall be responsible for undertaking the necessary studies to prove the feasibility of the land to support the proposed development.
4. All development proposals will be assessed for the appropriateness of engineering design and the installation of all necessary drainage facilities and appurtenances.
5. In each drainage basin, the effect of future development on drainage and flooding should assist in formulating land use decisions within that basin.
6. The City should not accept the dedication of drainage facilities or appurtenances which have not been designed and installed in accordance with approved standards and these development policies.
7. The Planning Commission shall ensure that the pre-development run-off discharge rate of any site is not increased as a result of development. Proposed future developments should not increase flooding potential, substantially alter drainage patterns, or degrade natural water quality.
8. Areas located in a designated floodplain and/or the floodway should be developed only in conformance with the National Flood Insurance Program.
9. Major natural drainage ways, which are a part of the natural system of dispersing normal flood run-off in any drainage basin, should only be altered in accordance with the provisions of the City of McMinnville and appropriate state and federal regulations.
10. Ground water shall be protected by restricting the use of septic tanks to appropriate soil types and land formations and evaluating the feasibility for the connection to a public sewer collection system.
11. Development proposals involving soil disturbance shall be in conformance with appropriate sediment and erosion control measures.
12. Areas of excessive slope should be conserved as open space if development would cause soil and/or water degradation, or where the terrain possesses special scenic or recreational value.
13. Areas with slopes in excess of ten percent should only be developed where engineering documentation is available to prove that no adverse affects will occur to housing construction, road stability, drainage and erosion.
14. Mature vegetation, particularly trees, should be protected and replanting should be required where existing vegetation is removed or disturbed during construction.

15. Vegetation should be used as an alternative to man-made devices for buffering, insulation, erosion control and water quality protection, whenever practical.
16. The City shall develop appropriate criteria or measures to ensure the protection of environmentally sensitive and other valuable areas.

B. Objective - Coordination for the demand of public services based on an evaluation of the City's service capacity to provide these services.

Policies

1. All new development, whether public or private, shall have appropriate infrastructure which shall be properly installed at the expense of the developer.
2. All future expansions or extensions of the City's services, facilities, or utilities should be in conformance with an adopted phasing plan based on the Community Facilities Plan.
3. Services provided by the City should be used as a tool to direct or discourage development in specific directions.
4. Availability and capacity of existing services and utilities should be used as criteria in determining the location of higher intensity uses in the City and in decisions concerning annexation.
5. To aid developers in determining those areas most conducive to development, status reports on the infrastructure system should be routinely updated.
6. Developments with requirements beyond existing levels of police and fire protection, parks and recreation, and utilities shall only be allowed to develop when such services can be adequately provided and maintained.
7. Inventories of existing public and private recreational facilities and of community needs should be used as input for planning future facilities and prioritizing the upgrading of existing recreational areas.
8. Appropriate infill development should be encouraged to enhance existing development and to make more efficient use of existing services and utilities.

C. Objective - Preservation of the City's fiscal stability.

Policies

1. Fiscal decisions concerning capital improvements and expenditures shall be based on a Community Facilities Plan and a multi-year Public Improvements Program and Capital Budget. These documents should be reviewed and updated annually by the Planning Commission and the City Board of Mayor and Aldermen.
2. The City should establish annexation criteria in a long-range urban growth area/annexation study of the adopted Urban Growth Boundary to prioritize and plan for annexation proposals that are consistent with an adopted growth plan.

3. Urban development proposals which are contiguous with existing development within the City limits, or consistent with the City's phasing and annexation plans, should be encouraged through the extension of services.
4. Services provided by the City should be in conformance with an adopted phasing plan.
5. The City should participate in the establishment of a permanent source of funds to provide financing for economic development to assist in identifying the types, sources and amount of funding required to undertake desired projects.
6. The City should encourage the preservation of the tax base through the practice of sound land use decisions.

D. Objective - Protection and enhancement of present and future livability.

Policies

1. The City should establish livability standards or criteria for assessing the impacts of development projects on the continued livability of the community. For growth management these standards or criteria should assess:
 - a. Environmental impacts such as water quality degradation, destruction of wetlands, etc.
 - b. Social impacts such as public safety, availability of community services, etc.
 - c. Economical and fiscal impacts such as budget constraints, job creation or loss, etc.
 - d. Impacts to transportation systems and public services and facilities, such as traffic volumes, water production and treatment capacity, sewer treatment capacity, etc.
2. Land use, site planning, and urban design criteria should be utilized to promote pleasant, functional and understandable relationships between land uses.
3. Planning for community facilities and services should be based on the principal of maintaining or increasing the current levels of service provision.
4. Community development should concentrate on ways to encourage young people to remain in McMinnville/Warren County to live and work.

RESIDENTIAL

A large portion of the developed land in McMinnville is devoted to residential uses, consisting of single-family dwellings, multi-family dwellings and mobile homes. Only one percent of the existing 5,813 housing units in McMinnville are vacant. The majority of these vacant housing units need some type of minor repairs or are dilapidated. Assuming that the community will experience minimum population growth and that the average household size will remain around 2.26 persons, approximately 1,331 new housing units will be needed by the year 2020. To ensure the most appropriate development of existing and future residential areas in McMinnville and its projected growth area, the following developmental objectives and policies are adopted:

- A. Objective - Provide for a variety of housing types and densities for a wide range of family incomes, sizes and life-styles.

Policies

1. The City should promote the new residential developments in environmentally safe and pleasing areas.
2. The City should allow housing types ranging from single-family structures to multi-family developments, including mobile homes properly located in mobile home parks.
3. High density infill developments should be permitted only in locations which are comparable with surrounding residential densities.
4. Land use controls should be used to foster a variety of housing types compatible with the natural landscape.
5. The City should encourage and concentrate high density housing development in the CBD fringe area and along major traffic corridors with access to retail business, pedestrian amenities, cultural activities, schools and parks.
6. The City should encourage low-density housing along local streets within proximity to service centers, which are buffered from excessive noise, traffic, and conflicting development.
7. Higher density residential uses should locate in planned unit developments or in close proximity to existing higher density developments.
8. In response to erosion and drainage considerations, hillside or slope developments should reflect design considerations and densities to minimize negative impacts.
9. The City should ensure that the existing housing stock continues to be maintained and that new residential construction is developed to appropriate standards and guidelines.
10. The City should encourage the rehabilitation of existing residences which can be purchased by low and moderate-income residents.
11. The City should encourage the preservation and revitalization of older neighborhoods.
12. The City should encourage sound development in suitable areas by maintaining and improving transportation facilities.
13. New residential development shall not be allowed in those areas where infrastructure is unavailable or inadequate to support such development.
14. New residential development should be designed to encourage the neighborhood concept and should be situated to be easily accessible to collector or arterial status streets.
15. Transitional land uses or areas (linear greenbelts) or other design elements should be provided between residential neighborhoods and commercial areas in order to enhance the compatibility of land uses.
16. The City should promote the provision of pedestrian sidewalks and subsequently establish standards and guidelines for sidewalks within new residential developments.

COMMERCIAL SERVICES

Historically, the Central Business District (CBD) surrounding the Warren County Courthouse has been the focal point for commerce and private services in McMinnville since the early years of the community. Like many older CBD's, this area has experienced some structural deterioration. Consequently, efforts have been focused on the area through mutual cooperation between various entities to assist in commercial revitalization and downtown preservation. In addition, a Historic Overlay District is in the process of being established for the CBD area. If the McMinnville CBD is to continue as a viable area for retail and wholesale businesses and for private services, the two major problems, traffic congestion and lack of parking facilities, must be satisfactorily addressed.

Although the downtown area of McMinnville should remain as a vital area for business, commerce, and professional use, areas along the Highway 70S Bypass near the intersections of North Chancery Street and Sparta Street are now the major locations of retail businesses. This area, unfortunately, has developed primarily in a strip commercial fashion with excessive entrance and exit points. Due to this type of development, traffic congestion has become a noticeable problem in this area.

The McMinnville Highway 55 Bypass has reduced some of the traffic congestion in the downtown area. The bypass is expected to open up some limited areas for commercial and private services expansion. The City should encourage commercial development on the bypass in a manner which does not endanger the viability of the CBD nor challenges its viability as the service center for Warren County.

The vital commercial areas of the community should be protected and enhanced to help ensure their continued development in a planned environment which will strengthen the economy of the entire county. To guide the continuation and expansion of these essential commercial activities, the following objectives and policies are adopted:

- A. Objective - Take appropriate measures to ensure that the City of McMinnville remains as the center for commercial and private service land uses in Warren County.

Policies

1. Future commercial developments and redevelopments shall be in compliance with the Development Plan Concept for all commercial growth and development.
 2. In conjunction with the Chamber of Commerce, the City should recruit and retain business and service outlets that fulfill local market demands.
 3. The City should encourage and support the expansion of existing commercial areas and those that will result in the consolidation of commercial activities at central locations.
 4. The City should promote the CBD as the commercial/private services focal point of the community.
 5. The City should limit commercial services in the CBD to low intensity uses and low traffic generators.
 6. The City should encourage the adaptive reuse of existing structures in the CBD.
 7. The City should expand the off-street parking options within the CBD area.
- B. Objective - Ensure that all new commercial developments meet appropriate standards and guidelines.

Policies

1. All commercial developments shall be designed in compliance with appropriate site development standards and design guidelines.
2. Commercial development shall be approved in only those areas where infrastructure is available and adequate to support such development.
3. Commercial development should be designed so as to minimize negative impacts to the existing transportation system.
4. Strip commercial developments should be discouraged in favor of cluster developments with limited entrance and exit points.
5. Commercial uses which are high intensity traffic generators shall be located away from the CBD and on major collector or arterial status roads.
6. All new large-scale commercial developments shall be located on frontage or access roads with controlled ingress and egress points, when feasible.
7. All commercial and private service developments shall be provided with an adequate number of off-street parking spaces.
8. Commercial developments should be designed so as to minimize negative impacts to residential developments and to enhance the aesthetics of such developments.
9. To the extent feasible, landscaping or other screening shall be provided between commercial and residential land uses.
10. Neighborhood commercial areas should be provided to make convenience goods and services available to residential neighborhoods.

INDUSTRIAL

The City of McMinnville is no longer the primary location in Warren County for manufacturing and industrial uses. Recently, there have been closings or planned closings for a few industries within the city. Coordination between the municipal and county elected officials, the Chamber of Commerce and the Warren County Industrial Development Board has resulted in the location of numerous industries in the Warren County Industrial Park and Industrial Park Annex. Due to this successful industrial recruitment, McMinnville has not elected to provide large tracts of land for manufacturing/industrial development. Efforts should be taken, however; to ensure that existing industries are retained and are able to expand when feasible and to provide for some limited light industrial development.

To guide the continuation and expansion of these essential industrial activities, the following objectives and policies are adopted:

- A. Objective - Retain the existing industrial base, provide areas for light industrial development and continue to support the county for large scale and heavy industrial development.

Policies

1. The Legislative Body should support improvements in the local economy by providing new industrial site locations and maintaining and improving existing industrial site locations.

2. Existing industrial parks should be provided adequate service and be expanded as needed, new industrial parks and sites should be planned and developed, and adequate public services should be provided to private industrial parks.
 3. To provide for additional industrial land and employment in McMinnville and provide City services to those industrial activities, the City should adopt a policy to annex additional industrial properties where it is determined that such annexations are feasible.
 4. The City and the Planning Commission should support appropriate street and traffic improvements at locations suitable for the expansion of existing industrial areas.
 5. Public officials should cooperate with, and actively support, the Warren County Industrial Board and the Chamber of Commerce in their efforts to attract industrial prospects and to retain and promote the expansion of existing industries.
 6. Based on locally developed criteria, industrial land uses known or suspected of having harmful impacts on the health, safety, and welfare of people, and those activities and uses which would degrade, retard, or otherwise harm the natural environment, or the economic potential of the community, shall be discouraged from locating in the City.
- B. Objective - Provide appropriate standards and guidelines for new industrial development and for expansion of existing industrial uses.

Policies

1. All industrial developments shall be designed in compliance with appropriate site development standards.
2. Industrial uses may locate in less hazardous flood fringe areas provided that such uses shall comply with National Flood Insurance Program requirements.
3. Industrial uses should locate near transportation facilities that offer the access required by the industry. Such uses should not be allowed to create demands which exceed the capacity of the existing and future transportation network.
4. Industrial development should locate within the City consistent with the phasing plan for infrastructure, where the proper sizing of facilities such as water, sewer and transportation has occurred or is planned.
5. To the extent feasible, landscaping or other screening shall be provided to reduce the conflict and lessen the impact between industrial uses and other incompatible land uses.

PUBLIC AND SEMI-PUBLIC

Even though public and semi-public facilities usually only consume a relatively small percent of an area's total development, these facilities are extremely important land uses within a community. This is especially true for the City of McMinnville as the county seat and primary provider of services in Warren County. These uses should be convenient to the population and enhance the community's appearance, while at the same time creating the least possible conflict with adjacent land uses.

It is imperative that during the site design process for public and semi-public facilities, particular attention should be paid to the following items: the location of buildings in relation to parking and service areas; the relationship of buildings to existing and proposed streets; adjoining land uses; and the natural beauty of

surrounding areas. The objectives and policies to be used as guidelines for public and semi-public uses are as follows:

Objective - Provide adequate and efficient public services and facilities which meet appropriate standards and guidelines.

Policies

1. The City should prepare a Comprehensive Public Improvement Program based on local standards and locational criteria.
2. Public facilities and services should be improved and expanded in accordance with an adopted Public Improvement Program and Capital Budget.

B. Objective - Provide a diversity of quality cultural and recreational opportunities.

Policies

1. Decisions concerning the provision of recreation facilities shall be guided by a Community Facilities Plan for such facilities, and shall be consistent with the Capital Budget. A special recreation plan may help direct detailed attention of both recreational facilities and programs.
2. The City should assist the County in the development of a mechanism for public acquisition of parks and open space. This should be a key element in the City's on-going Public Improvement Plan and Capital Budget.
3. The City should promote the joint use of parks and other public facilities, especially schools.
4. The City should enhance the opportunities for passive recreation through the creation of a City-wide greenbelt/green-way system which includes walking and biking trails.
5. Community and neighborhood parks should be developed and appropriately located within the City.
6. The City should maximize the use of public recreational land through close coordination with federal, state and local officials.
7. The City should promote efforts to document, preserve and protect historic sites and structures in Warren County.
8. The City should recognize the cultural contributions of religious, ethnic and educational institutions, and coordinate their efforts with publicly supported cultural institutions, events and performances.
9. The City should support and encourage cultural festivals as vehicles for bringing the arts to the public at low cost.

UTILITIES

Land development without the extension of adequate utilities is costly to the general public. In order to achieve proper development and effectuate savings of public funds, it is extremely important to coordinate the extension of utilities with the community's development plan. Therefore, the following objectives and policies should be adopted by all agencies responsible for the operation or extension of public utilities:

A. Objective - Provide adequate and efficient public utility facilities.

Policies

1. All new development, whether public or private, should have adequate utilities which shall be properly installed at the expense of the developer.
2. The City should ensure that the municipal water and sewer systems are adequate to meet current and future needs.
3. The health of residents shall be protected through the production of State approved potable water and the safe and efficient collection and treatment of wastewater.
4. Through its capital improvements and budget process, the City shall plan early for capacity expansions to its water and sewer treatment facilities to meet future needs and provide for future growth.

B. Objective - Provide appropriate standards and guidelines for utility facility improvements and extensions.

Policies

1. Adequate utilities should be extended into urbanizing areas on a priority basis with a rate differential between such areas and the municipality. These extensions shall meet health and safety standards.
2. Water and sewer lines of adequate size and location shall be required in all new developments and redevelopments.
3. Underground stormwater drainage systems, where appropriate, shall be required in all new developments and redevelopments.
4. The use of underground electrical utilities should be required wherever feasible.
5. The location of utility structures for storage of equipment, pumps or similar materials should be adequately buffered and landscaped so as not to detract from the surrounding area.
6. The water distribution system should be periodically evaluated to ensure that water lines are of adequate size to provide adequate pressure for fire fighting, and that a suitable number of fire hydrants is present in all developed area.
7. The water quality and facility guidelines set forth in the 201 and 208 Facility Plans shall be followed.
8. The City should require appropriate maintenance and repair of any privately controlled drainage facilities or appurtenances which tie into any portion of the public or other existing natural drainage systems.

VACANT LAND AND OPEN SPACE

The land use survey indicated that there were 1,969 acres of vacant land in the City of McMinnville. As the community grows, a significant amount of this land will be pressed into urban development. Unfortunately, a large portion of this land is not suitable for development or would be cost prohibitive to develop due to natural factors. In addition, some of this vacant land would best be utilized as open space. To guide the future development of the vacant lands within the City of McMinnville and its projected growth area, the following objectives and policies are adopted:

- A. Objective - Ensure that adequate open space is provided in the municipality to enhance its aesthetic quality.

Policies

1. Suitably located public open spaces and general recreational uses should be provided to serve the local residents as well as visitors. These areas should be readily available and designed to serve all age groups.
2. The City should ensure that adequate amounts of open space areas are available for future populations.
3. Open space should be included as a requirement to serve every major development.
4. Places of rare natural beauty and areas of historic interest should be preserved and maintained.
5. All publicly-owned land should be examined for its potential open space or recreational use before being sold or disposed of by the City.

- B. Objective - Ensure that appropriate standards and guidelines are followed for development of vacant land and for the provision of open space.

Policies

1. Public support and approval of development proposals that result in the conversion of prime farmlands should be reserved for those developments consistent with this plan and required for urban growth and development.
2. Areas of excessive slope should be conserved as open space, when possible, if development would cause significant soil and/or water degradation, or where the terrain possesses special scenic or recreational value.
3. Vegetation should be used as an alternative to man-made devices for buffering, insulation, erosion control and water quality protection.
4. Filling and excavation in floodplains shall only be allowed when consistent with National Flood Insurance Program regulations and allowed only after careful review of appropriate alternatives.
5. Mature vegetation, especially along stream banks should be protected from indiscriminate removal in order to enhance the aesthetic value of the landscape as well as to control erosion.
6. Consistent with National Flood Insurance Program regulations, the City shall regulate accordingly any residential development in areas which have been officially designated as floodways.

7. Within officially designated floodways, the City should encourage light recreational and open space uses such as greenbelts.
8. The City shall develop appropriate criteria and measures to ensure the protection and enhancement of environmentally sensitive and other valuable areas.
9. The adopted program for control of natural drainage systems shall be enforced to reduce or prevent serious consequences of flooding.

TRANSPORTATION

The future transportation system in McMinnville and its projected growth area will be affected by a number of factors. These factors include the existing street pattern, major impediments to traffic, location of major traffic generators, parking needs, growth trends, construction of new thoroughfares, and the location preferences of new development. Although the municipality cannot control all the factors which will influence its future transportation system, it can provide some direction. The following objectives and policies are presented as a guide to achieving an adequate and efficient future transportation system:

- A. Objective - Provide a transportation system that will adequately meet the future needs for growth and development.

Policies

1. All new development, whether public or private, should have an adequate transportation system which shall be property installed at the expense of the developer.
 2. All new major streets should be located in a manner that will minimize disruption to neighborhoods, open space-recreational areas, or commercial areas and conform with the adopted Major Thoroughfare Plan.
 3. All segments of the transportation system should be designed and located to meet future as well as present demands, based on the most current transportation data.
 4. Wherever possible, off-street parking shall be required for existing land uses. All new land uses, except for commercial and private service uses in the CBD, shall be required to provide off-street parking facilities.
 5. On-street parking for existing uses shall be permitted only where adequate street widths are available and where such parking will not reduce the current level of service of the street.
 6. Existing sidewalks should be extended throughout the City, whenever feasible, and should be maintained in good repair.
 7. Sidewalks shall be encouraged in all new development proposals.
 8. Curbs and gutters shall be encouraged on all streets within new developments.
 9. Older streets in the City should be upgraded or improved through a street improvements program.
- B. Objective - Provide appropriate standards and guidelines for the construction of new streets and other transportation facilities.

Policies

1. Streets should be related to the topography and designed to minimize the points of traffic conflict and turning movements.
2. All new streets and other public ways shall be designed to incorporate storm water drainage systems which are adequate in size to handle runoff from anticipated developments.
3. All streets and other public ways shall be designed so as to provide the least interference with natural drainage ways.
4. All new streets and other public ways shall be designed and located in a manner which offers the maximum protection from flood and erosion damage.
5. Future roadways should be designed to incorporate appropriate landscaping to heighten the aesthetic and functional appeal both to motorist and surrounding residents.
6. Street signage and other safety features should be required at the time of development.
7. All proposed subdivisions of land should be served by a public street, constructed to the required street standards based on the classification of the particular street.

THE DEVELOPMENT PLAN CONCEPT

The goals, objectives and policies of the Development Plan are visually represented in the Development Plan Concept. It is based on the same factors from which these goals, objectives and policies were derived including natural factors, existing land use patterns, and the existing transportation system. The Development Plan Concept reflects a decision making process culminating in a desired development pattern for the municipality. It is intended to be used in conjunction with the goals, objectives and policies to form a framework to guide future land development decisions. These elements provide the mechanisms for coordinating and promoting different types of development based on the desires of the municipality while conserving and protecting the quality of life and natural environment. The Development Plan Concept and the process of its creation, are presented in this section.

The Development Plan Concept is a general guide for future land uses and thoroughfares within the community. It is intended as a basis for policies of the city and as a guide for property owners and developers in making decisions regarding land use development. Illustration 8 depicts the areas that are most suitable for future development. These are areas that are currently vacant, are not located within a designated flood hazard area, sinkhole, or designated wetlands, do not contain severe soil limitations, and are within 500 feet of an existing waterline. The areas depicted in Illustration 8 consist of land that has the highest probability of being developed in the next twenty years, based on the existing infrastructure and limitations.

The Major Thoroughfare Plan

The development of a Major Thoroughfare Plan for McMinnville is directly impacted by the natural factors affecting development identified in Chapter Three. As previously indicated Illustrations 8 and 9 are the end result of comparing the physical parameters to development with the analysis of the existing and projected transportation needs as identified in Chapter Five. In combination with the transportation policies set forth in the previous section, this information will be the Major Thoroughfare Plan for the City to be utilized as a basis for its subdivision regulations.

The major arterials within the city include the Highways 70S and Highway 55 Bypass, Smithville Highway/Chancery Street, Sparta Street, Morrison Street, West Main Street, the Beersheba Highway and

Shelbyville Road. Major collectors include Belmont Drive, Red Road, Sunset Drive, Old Morrison Road, Faulkner Springs Road, Clark Boulevard and Verville Road. A new connector that would consist of an extension of Post Road to Shelbyville Road has been proposed. This would alleviate some traffic along the West Main Street area. There has also been a proposal to construct an extension connector from Morrison Road to the Highway 55 Bypass that will provide area residents with easier access to the bypass. Similarly, Myers Lane has been proposed to be extended to the Highway 55 Bypass area to provide easier access and smoother traffic flow due to the anticipated development within the area. If the city continues to grow at the anticipated growth rate, a southern bypass could be justified between Old Viola Road and South Chancery Street. This is a long-range project and might be feasible toward the end of the current planning period in fifteen to twenty years.

The completion of the McMinnville Highway 55 Bypass has significantly improved the McMinnville thoroughfare system. The final phase of this project was completed in early 1991. The Bypass has already reduced traffic volumes, especially large truck traffic, in the central business district. It is expected that traffic volumes will continue to be reduced in the CBD as motorists become acclimated to the Bypass. The effect is expected to be an increase in the impetus for development in the future growth area to the west. In keeping with plan policies, development along the Bypass will be encouraged to locate on marginal access streets.

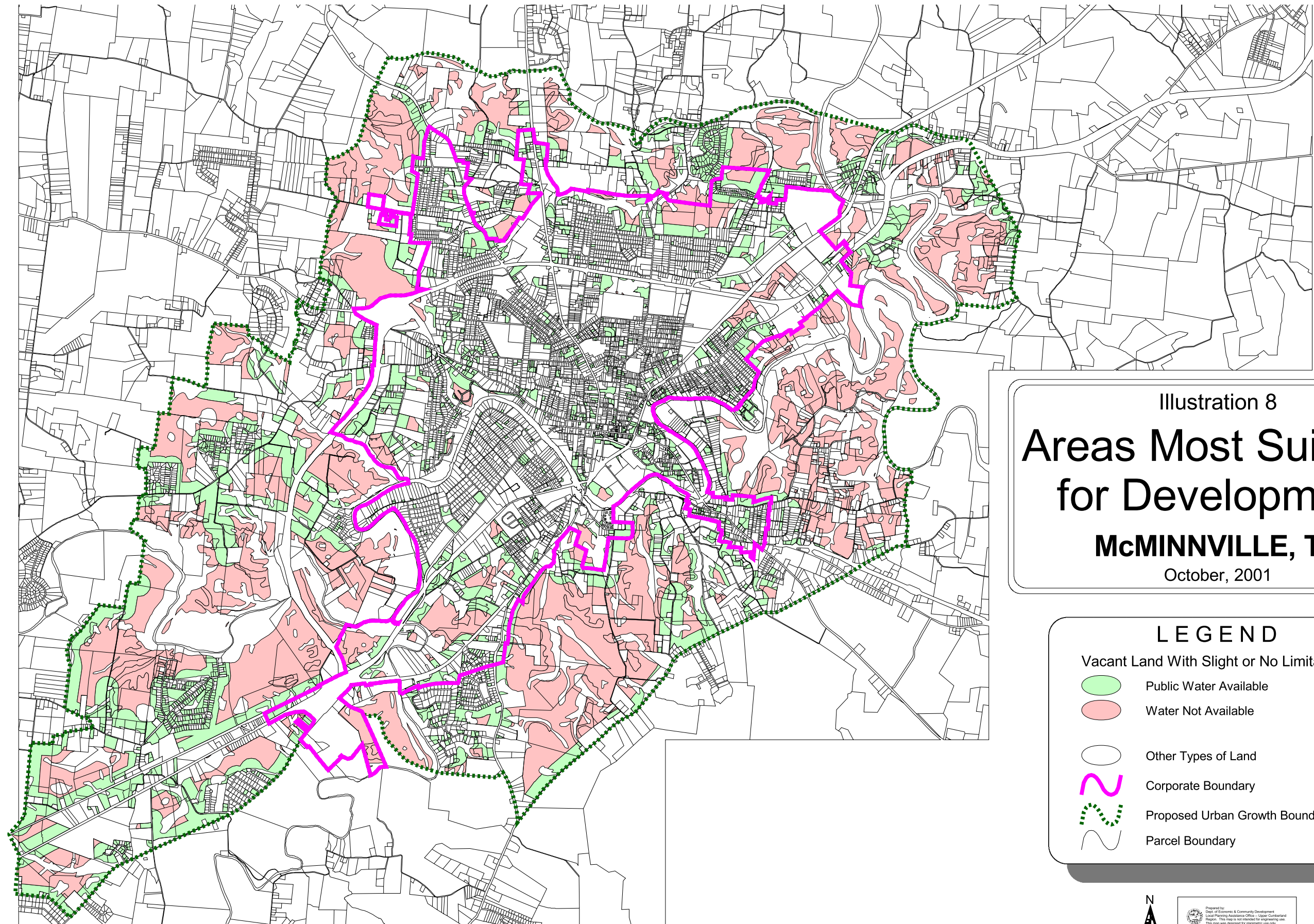
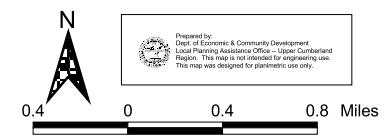


Illustration 8
**Areas Most Suitable
 for Development**
McMINNVILLE, TN
 October, 2001

LEGEND

- Vacant Land With Slight or No Limitations
- Public Water Available
- Water Not Available
- Other Types of Land
- Corporate Boundary
- Proposed Urban Growth Boundary
- Parcel Boundary



Prepared by:
 Dept. of Economic & Community Development
 Local Planning Assistance Office - Upper Cumberland
 Region. This map is not intended for engineering use.
 This map was designed for government use only.

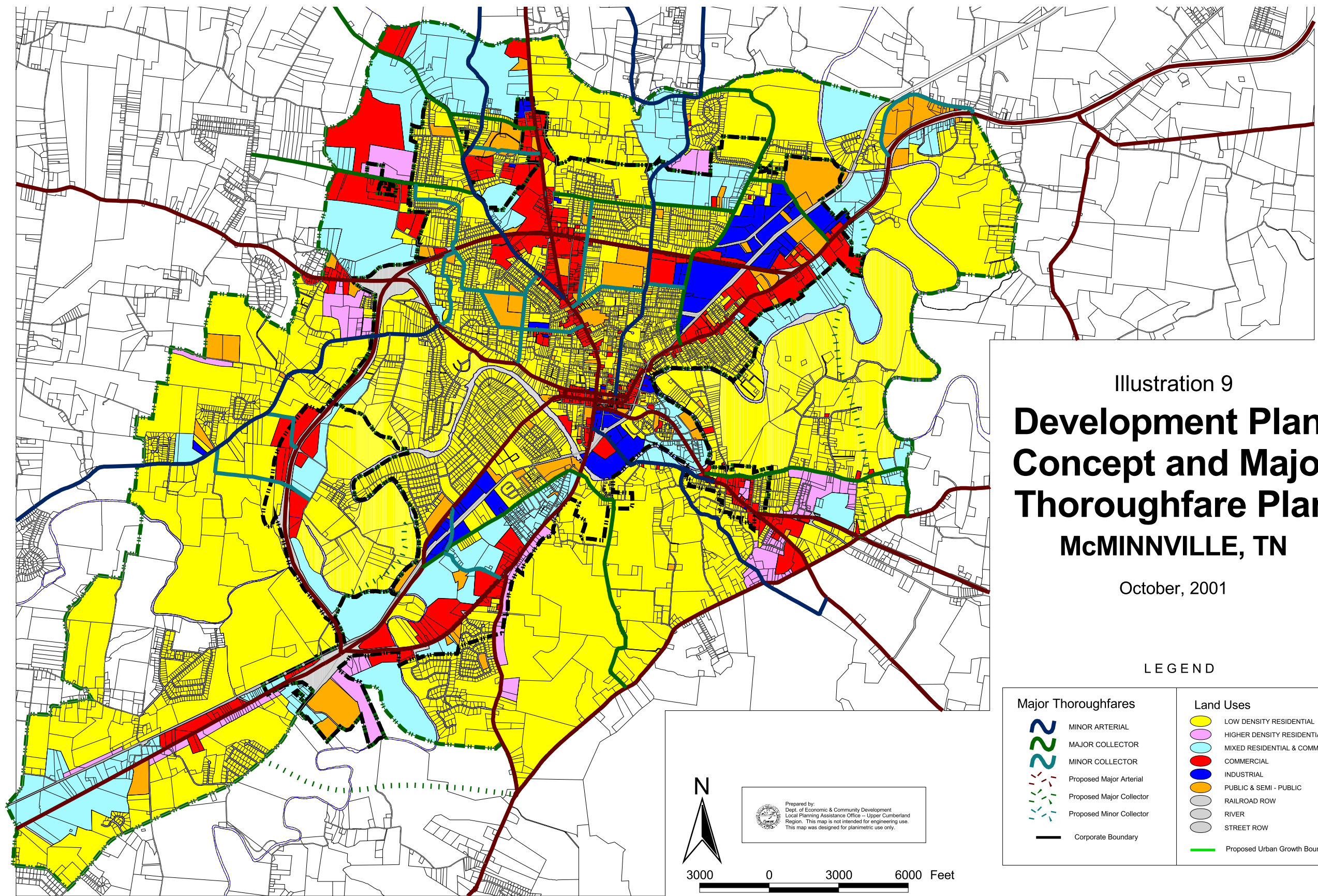


Illustration 9
**Development Plan
 Concept and Major
 Thoroughfare Plan**
McMINNVILLE, TN

October, 2001

LEGEND

Major Thoroughfares		Land Uses	
	MINOR ARTERIAL		LOW DENSITY RESIDENTIAL
	MAJOR COLLECTOR		HIGHER DENSITY RESIDENTIAL
	MINOR COLLECTOR		MIXED RESIDENTIAL & COMMERCIAL
	Proposed Major Arterial		COMMERCIAL
	Proposed Major Collector		INDUSTRIAL
	Proposed Minor Collector		PUBLIC & SEMI - PUBLIC
	Corporate Boundary		RAILROAD ROW
			RIVER
			STREET ROW
			Proposed Urban Growth Boundary

Prepared by:
 Dept. of Economic & Community Development
 Local Planning Assistance Office - Upper Cumberland
 Region. This map is not intended for engineering use.
 This map was designed for planimetric use only.

Conceptual Land Use and Spatial Patterns

Three courses of action, reflecting development policies identified in this chapter, influenced many of the land use and spatial concepts of the Development Plan Concept. First, long-range development, particularly low-density residential, will have to occur in a growth area to the west where a limited quantity of suitable land is available, and where utilities may be feasibly provided. Second, limitations on the availability of utilities will encourage development and redevelopment of the limited supply of suitable land currently in the City. Lastly, allowing some mixture of compatible land uses in new developments and redevelopments will make the most efficient use of the limited land supply and existing utilities.

A major goal reflected in the McMinnville Development Plan Concept is to maintain McMinnville as the service and cultural center of Warren County and the CBD as the center of such activity within the municipality. This area, identified as the CBD mixed use area, includes the County Courthouse and immediate surroundings as its core. The expanded CBD area of mixed-use development will include transitional residential living, retail specialty shopping, governmental services, financial services, cultural activities, and, business and professional services. Development standards and policies in this area will favor a compact urban business area serving a pedestrian clientele and downtown residents.

The CBD fringe area to the north is shown as higher density residential. A second such area to the south is located along Upper Ferry Road. The purpose of these areas, however; is to support the CBD in accordance with the Development Plan policies by acting as transitional areas. As such, these areas are also intended to allow neighborhood trading and office development in addition to higher density residential uses. The area immediately southeast of the CBD is also shown as a transitional area. In this area, however; development will be limited to mixed density residential uses which conform to the character of the area while offering an expanded opportunity for housing types and price ranges. Infill development in this area will also be encouraged to comply with the stated policy.

Low density residential development is proposed in those areas indicated on the Development Plan Concept where such development represents the existing dominant pattern. It is intended to maintain these areas in their present densities with close proximity to service/commercial areas yet buffered from excessive, noise, traffic, and other development. These areas are predominant, as illustrated in the existing and future growth areas, and it is intended that these areas will be protected and preserved.

Five higher density residential areas have been depicted on the Development Plan Concept Illustration. These areas are located in the general vicinity of the Beersheba Highway, Chancery Street and the Viola Highway area, the Highway 55 area, near the intersection of the Highway 55 Bypass and U.S. Highway 70S, and at the intersection of Chancery Street and Highway 55. These areas are in close proximity to the major commercial centers and are all located on or near major arterials.

Areas of commercial and industrial uses are generally located with direct access to a major arterial within areas that are compatible with these uses. The City will continue to play a limited role for large scale industrial developments, in favor of such developments locating within Warren County.

Within the projected growth area of the City, the majority of the land is classified as low density residential. However, these lands will be evaluated on a case-by-case basis as expansion takes place within the proposed growth area.

CHAPTER 7

PLAN IMPLEMENTATION

INTRODUCTION

In this Chapter several methods for implementation of the objectives and policies developed in this plan are reviewed. Many of these methods for implementation are already being utilized by the City of McMinnville. The Planning Commission and the local legislative body should examine the effectiveness of current practices or regulations in achieving the stated objectives and policies. Where the identified methods are not currently being used, the municipality should consider taking the appropriate steps to do so.

Also, in this Chapter an Implementation Schedule is presented. It is intended to provide specific strategies for implementing the objectives and policies recommended in this plan. The Implementation Schedule proposes individual strategies for each of the specific land use categories, establishes time frames for completion, and identifies agencies and organizations responsible for implementation.

METHODS FOR IMPLEMENTATION

There are ten methods of plan implementation identified for McMinnville to utilize in the execution of this plan. Each of these are reviewed within this section.

Planning Commission Project Review

Under Tennessee Code Section 13-4-104, after the adoption of a plan, no public improvement project can be authorized or constructed in the municipality until and unless the location and extent of the project has been submitted to the Planning Commission for its review. This review authority enables the Planning Commission to ensure that all public improvement projects are in compliance with the plan. The McMinnville Regional Planning Commission has generally been given the opportunity to review major public improvement projects prior to inclusion in the municipal budget. This should be an annual step in the City's budgetary process and should be complemented by the preparation of a public improvements program. All utility expansion, public works, drainage, and transportation projects should be reviewed by the McMinnville Regional Planning Commission prior to incorporation into the municipality's Public Improvement Program and Capital Budget.

Zoning

Zoning is a legal mechanism that can assist the municipality in implementing a land use and transportation plan. A zoning ordinance is designed to regulate the type and intensity of land use. It divides a community into specific districts corresponding to the intended use of the land as guided by the policies of the land use plan. For each district, zoning regulates the location, height, bulk, and size of buildings and other structures, the percentage of the lot that may be occupied, the sizes of yards, courts and other open spaces, and the density of population. Zoning can assure the proper location of residential, commercial, and industrial uses. It can protect street rights-of-ways so that future widening is feasible. It can also prohibit overcrowding of building lots. In addition, zoning can help stabilize property values and can help prevent deterioration of established neighborhoods.

Zoning regulations were first adopted by the City of McMinnville in 1956. The current zoning regulations which were adopted in 1993 should be used to implement the policies presented in this plan. A recent addition to the zoning regulations is the establishment of a Historic Overlay District. This district encompasses the entire downtown area of the city. This overlay district was established to protect and preserve the historical structures and sites within the city and to preserve the heritage of the area by

safeguarding these structures and sites within a designated area. When necessary, the zoning regulations of the city will need to be revised and amended to meet the changing needs of the community.

Subdivision Regulations

Subdivision regulations, used in a coordinated manner with zoning, are another legal mechanism utilized to carry out the recommendations of the Land Use and Transportation Policy Plan. Like zoning, these regulations control private development. They serve as guidelines for the conversion of raw land into building sites. Subdivision regulations provide the guide by which a Planning Commission can review all proposed subdivision plats in an equitable manner. These controls are necessary to achieve sound economical development patterns. Through enforcement of these regulations, the design and quality of subdivisions will be improved, resulting in better living conditions and the stabilization of property values for the individual property owner. Subdivision controls over undeveloped land ensure the installation of adequate utilities and services with local control over the development patterns that are established within the community that may be economically serviced and maintained. These controls are also used in providing a coordinated street system and to ensure that sufficient open space for recreation and other public services is provided.

Subdivision regulations were first adopted by the McMinnville Regional Planning Commission in 1963. The current regulations were adopted, and subsequently amended in 1995. These regulations should be used to implement the policies presented in this plan.

Codes Enforcement

There are various types of codes that municipalities can adopt to ensure that construction standards are sufficient to protect the health and safety of occupants. The housing code is designed to ensure that existing dwellings are safe, sanitary, and fit for human habitation. Other codes, such as building, electrical, fire, and plumbing codes, provide minimum standards for the construction of new buildings and facilities, and the alteration of existing structures and facilities. These codes are uniform in character and are applied to the municipality as a whole.

To be of value, a system of codes must be accompanied by an inspection system. Code enforcement ensures the adequacy of new residential, commercial and industrial structures, while also detecting and preventing the deterioration of existing facilities through periodic inspection. By reducing blight, property values become more stable and tax bases are protected.

The City of McMinnville has adopted the Standard Building Code for construction. The municipality has a Codes Enforcement Office and employs three certified building inspectors. Specific emphasis should be directed toward the enforcement of all existing codes. Moreover, consideration should be given to the additional adoption of grading, drainage, erosion and sedimentation control regulations.

Utility Extension Policies

Another significant tool for effective land use planning is the control over the extension of municipally owned and operated utility services. Utility extension policies can be used for controlling the location and timing of development in a rational, coherent and efficient fashion. Since utility services, such as water and sewer, are so important to any major development, the refusal to extend such services into an area generally assures that only limited development can occur.

Within the City of McMinnville and its planned growth area, the extension of utilities is generally the responsibility of the developer. The municipality generally does not extend sewer service outside its corporate limits. Water is provided outside the corporate limits at an additional cost. There is a need for a comprehensive, detailed utility extension policy which should be developed by the McMinnville Legislative Body in conjunction with the Regional Planning Commission. The extension and timing of

utilities can become the primary issue of contention during annexation proceedings and has become a significant factor in the drafting of the mandated Countywide Growth Plan.

Public Improvements Program and Capital Budget

A public improvements program and capital budget provides the means through which the local government can effectively undertake a properly planned and programmed approach toward utilizing its financial resources in the most efficient way possible to meet the service and facility needs of the community. The public improvements program identifies recommendations for capital improvements, estimates their costs, and identifies possible financing alternatives. The capital budget is a multi-year method of developing and scheduling a way to finance the projects identified in the public improvements program.

The City of McMinnville does not currently follow a multi-year public improvements program and capital improvements budget. It is necessary that this important planning tool be developed and kept up to date.

Infill Development

Utilization of existing, developable vacant land within a municipality is a much overlooked mechanism to implement a land use plan. In most cases, these areas tend to be served by existing infrastructure such as streets, water, sewer, electric and gas; thereby eliminating normal costs associated with the development of vacant land. An abundance of vacant developable land is a costly luxury to a municipality. It results in the under utilization of infrastructure due to low-density development. Infill development of serviced areas will expand the local tax base while better utilizing the infrastructure system.

There are only limited areas where an “infill” strategy can be fully utilized in the City of McMinnville. A recent land inventory was conducted and is expanded upon within this plan. The primary purpose of the inventory was to evaluate the land uses within the corporate limits, including the available vacant land within the city. The applicable section of this plan identifies those areas available for immediate development and those needing certain services, facilities. A primary purpose of this study should be to promote “infill” development. Targeting vacant land areas that need services or facilities with a public improvements plan and capital budget will help to accomplish the “infill” strategy.

Annexation

Historically, as the population of municipalities increased, so has that of the suburban fringe areas that surround them. Residents and businesses are attracted to these fringe areas primarily because they can reap many of the benefits which a municipality provides without having to bear the costs. Serious consequences such as public health hazards, substandard services, wasteful duplication of services, inequitable distribution of tax burdens and benefits, and undesirable development resulting from non-existent or poor planning and zoning controls, can develop from a failure to annex.

Municipalities can best plan for and deliver the urban services required by fringe areas through annexation. If a municipality fails to expand its corporate limits, development will locate in the urban fringe where it will contribute little to the finances of the municipality, while increasing pressure on the facilities and services provided by the municipality.

Annexation has been an important growth mechanism for the City of McMinnville. Since 1990 the municipality has annexed approximately 1,416 acres, which is an average of 142 acres per year. Recognizing the importance of annexation as a tool for ensuring orderly development and future growth, the Regional Planning Commission prepared a Fringe Area Study in 1996. Subsequently, Public Chapter 1101 became law in 1998. Based upon this law, annexation can take place only within the adopted urban growth area. Consequently, the city is restricted to annex territory outside this boundary by referendum or amendment to the county-wide growth plan only. This Land Use and Transportation Policy Plan will allow

the city to identify areas that are most likely to be annexed in the future and will assist the city in planning for the provision of the necessary services to serve those areas. In addition, priority areas within the Urban Growth Area should be established based on the suitability and likelihood of certain areas within the growth area being annexed into the city in the future. It is recommended that an annexation schedule for the growth area be established that would allow the various city departments to plan for future expansion. Such a priority schedule should be implemented by the McMinnville Legislative Body.

Citizen Participation

Citizen participation is an important factor in determining the success of a land use plan. An informed citizenry that is willing to work to achieve the goals, objectives, and policies set forth in this plan can be a tremendous asset. Citizens can offer support for programs designed to achieve community goals. Successful citizen participation can be achieved through a public education program designed to inform the community of the various purposes and reasons for the actions of both the Planning Commission and the Legislative Body. Specific efforts should be taken to obtain input from the general public through organizational public meetings, public hearings, and surveys. News articles should also be utilized to educate the public regarding the work activities of the Planning Commission.

The municipality recognizes the need for citizen participation in the planning process. Efforts should be made to ensure continued public participation in all aspects of implementing this plan.

Local Leadership

The McMinnville Legislative Body ultimately bears the responsibility for the implementation of this land use plan. As the municipality's decision makers, they have the authority to adopt appropriate implementation strategies that will fulfill the goals, objectives and policies developed in this plan. It is important that the legislative body maintain a close working relationship with the Planning Commission so that the planning process is properly coordinated.

IMPLEMENTATION SCHEDULE

The McMinnville Land Use and Transportation Policy Plan is an advisory document intended to serve as a guide for the development of the municipality over the next twenty years. Specific strategies for policy implementation are necessary if the goals and objectives of this Plan are to be achieved. The Implementation Schedule provides an outline of methods for achieving the goals and objectives and implementing the policies established in the Development Plan. It presents individual strategies for each of the specific land use categories, establishes time frames for completion of such strategies and identifies those with primary responsibility for plan implementation.

The recommended time frame for the implementation of each of the strategies is indicated by short-range needs (1 to 5 years), mid-range needs (six to ten years) and long-range needs (eleven to twenty years). Programs which are continuous in nature have been classified as "on-going".

Many of the tools can be implemented by assigning existing municipal staff, addressing issues with legislation, or continuing existing programming. Additionally, the Public Improvements Plan should be reviewed every two years and used in the administration of the Municipality's operational and Capital Budgets. Continuous monitoring of the implementation of the Development Plan should be carried out principally through an annual review of departmental work programs. Funding for specific projects and strategies should be evaluated and updated on a regular basis.

The following implementation strategies are intended as tools to carry out the development policies established in Chapter 6. The municipality should ensure that the specific development policies are addressed in the applicable implementation strategies.

TABLE 12 IMPLEMENTATION SCHEDULE

General Development and Growth Management	Time Frame	Primary Responsibility	Comments
Prepare and implement an Ordinance to Regulate Natural Drainage Systems.	1-2 years	Engineer, Public Works Director, Planning Commission	This ordinance will establish regulations to prevent or reduce flooding damages to life and property and incorporated by reference into the Subdivision Regulations and in site plan provisions of the Zoning Code. These should also apply to all public projects.
Prepare and implement a Central Business District Master Plan.	Preparation: 1-2 years Implementation: 2-5 years	Urban Forester, Public Works Director, Historic Zoning Commission	This master strategic plan is currently in the preliminary stages of development with an architectural firm drafting the plan. The plan will be incorporated into a revised Comprehensive Plan and within the Historic District Design Guidelines.
Prepare and implement erosion and sediment control regulations.	1-2 years	Engineer, Planning Commission, City Council	Incorporated by reference into the Subdivision Regulations and in site plan provisions of the Zoning Code. These should also apply to all public projects.
Review the floodplain management regulations and revise as necessary to comply with current FEMA regulations.	Subsequent to an Information Exchange Visit (IEV), or upon change of FEMA regulations.	Planning Commission, City Council, Codes Enforcement Official	Incorporated by reference into the Subdivision Regulations and the Zoning Code based upon the LPAO model floodplain management ordinances.
Review the zoning code and subdivision regulations and revise as necessary to ensure that measures are included to minimize the adverse impacts of development on soils, slopes, depth to bedrock, wetlands, vegetation, surface and ground water quality, floodplains and natural features.	1-2 years	Planning Commission, City Council	Input from the Natural Resource Conservation Service, U.S.G.S., Corps of Engineers, TVA, LPAO, and Environment & Conservation officials should be obtained.

General Development and Growth Management (Cont.)	Time Frame	Primary Responsibility	Comments
Prepare updated Public Improvements Program and Capital Budget based upon the Community Facilities Plan and revise as necessary.	PIP: 1-2 years CIB: 2-5 years	City Administrator, Planning Commission, City Council	Utilize the LPAO model PIP, and capital budget.
Revise the zoning code site plan review provisions as necessary to ensure that development occurs within the capabilities of the city's water, sewer, and street systems.	1-2 years	Planning Commission, Engineer, City Council	The development policies in the Land Use and Transportation Plan should be reviewed for applicability.
Develop and implement an impact analysis system to evaluate development proposals.	3-6 years	City Administrator, Codes Enforcement Official, Public Works Department, Planning Commission, City Council	The Urban Land Institutes Impact Analysis Series and the LPAO GIS capabilities should be utilized as part of the decision process for rezoning and subdivision developments.
Develop and promote programs for future high school graduates by distributing information on job opportunities in McMinnville and Warren County.	3-6 years	Chamber of Commerce, School Board, and Industrial Development Board	The municipality should participate in the State's Three-Star Program and promote high school apprenticeship programs with businesses and industries.

Residential Land Use	Time Frame	Primary Responsibility	Comments
Prepare a Housing Study.	2-4 years	Planning Commission	This is strategic plan that should utilize a neighborhood analysis as well.
Develop a plan for addressing special housing needs, i.e. low-income, handicapped, and elderly.	3-6 years	Planning Commission, Board of Realtors, Home Builder's Association, and Local Housing Authority	Special exclusions for group homes in zoning and ADA legislation should be reviewed for compliance.
Qualify for funding sources for housing rehabilitation and prioritize areas that will undergo housing rehabilitation based on the Housing Study	1-2 years	City Council	The city should take every opportunity to apply for grants that involve housing rehabilitation and make matching funds available.
Develop and utilize incentives to encourage the production of low and moderate-income and elderly housing units.	3-6 years	Planning Commission, City Council, Local Housing Authority	Zoning and Subdivision Regulations should be reviewed for cost impacts vs. long-term advantages.

Commercial Land Use	Time Frame	Primary Responsibility	Comments
Prepare a cluster analysis and marketing strategy to evaluate the sectors of the economy and entice new business while retaining existing business.	2-5 years	Chamber of Commerce, City Council, Industrial Development Board	Cooperation between the city and the county is necessary for the region as a whole.
Promote the creation of a Central Business District (CBD) Development Authority or designate members of McMinnville Main Street who will prepare CBD redevelopment goals and implementation strategies.	3-6 years	Chamber of Commerce, McMinnville Main Street, City Council, Planning Commission	
Establish a Landscape Ordinance for Industrial Districts with minimum standards.	1-2 years	Planning Commission, City Council	Incorporate by reference into the Subdivision Regulations and the Zoning Code.
Review the Zoning Code and Subdivision Regulations and revise as necessary to ensure that appropriate standards and guidelines for commercial development are included to address the recommended policies.	1-2 years	Planning Commission, City Council	

Industrial Land Use	Time Frame	Primary Responsibility	Comments
Prepare a marketing strategy to retain existing industries and to entice non-polluting light industries.	3-6 years	Chamber of Commerce, City Council, Industrial Development Board	Input from the TN Department of Economic and Community Development should be obtained and the State's Three-Star Program should be utilized.
Research and utilize state and federal funding programs. Seek grants or professional assistance.	On-going	Planning Commission, City Council, Chamber of Commerce, Industrial Development Board	Local officials should remain up-to-date on grant programs and policies.
Develop standards and criteria for proposed industrial uses to discourage those determined to have harmful impacts.	3-6 years	Planning Commission, City Council, Chamber of Commerce, Industrial Development Board	This should be a policy document for industrial recruitment such as protective covenants or environmental ordinances.
Establish a Landscape Ordinance for Industrial Districts with minimum standards.	1-2 years	Planning Commission, City Council	Incorporate by reference into the Subdivision Regulations and the Zoning Code.
Prepare an in-depth Cluster Analysis Report for an evaluation of the sectors of the local economy.	1-3 years	Chamber of Commerce, Industrial Development Board, City Council	All entities should utilize the latest census data to obtain an information base prior to the cluster analysis.
Review the Zoning Code and Subdivision Regulations and revise as necessary to ensure that appropriate standards and guidelines for industrial development are included to address the recommended policies.	1-2 years	Planning Commission, City Council, Chamber of Commerce, Industrial Development Board	The Planning Commission should coordinate with local entities and review for any conflicting policies.
Establish an Industrial Park.	8-10 years	City Council, Industrial Development Board	An engineering study can be undertaken before the listed timeframe.

Public and Semi-Public Land Use	Time Frame	Primary Responsibility	Comments
Utilize a comprehensive Community Facilities Plan.	Current	Planning Commission, City Council, Department Heads	This plan should be used in the preparation of a Public Improvements Program and Capital Budget and should be evaluated every 2 years.
Prepare a comprehensive Recreation Plan.	2-5 years	Planning Commission, Recreation Board, City Council	This is a strategic plan and should be include reference to the Vacant Land and Open Space Plan.
Prepare and implement a Greenway Plan connecting the existing parks.	Preparation: 1 year Implementation: 20 years	Planning Commission, City Council, Parks and Recreation Department, Public Works	This plan will consist of a comprehensive system of interconnecting trails with open space throughout the city.
Research and utilize state and federal funding programs. Seek grants or professional assistance.	On-going	Planning Commission, Recreation Board, City Council	Local officials should remain up-to-date on grant programs and policies.
Establish a Historic District and prepare appropriate historic zoning regulations.	6 months	Planning Commission, Historic Zoning Commission, City Council	Utilize any local historic groups as well as the Tennessee Historical Commission.
Secure an agreement with the county, other municipalities, and school board for the joint use of cultural and recreational facilities.	1-2 years	City Council, County Commission, Recreation Board, School Board, PARTAS	Utilize model agreements developed by PARTAS.
Establish a Level of Services Guidelines for park and recreation resources.	1-2 years	Recreation Board, City Council	Should be developed in conjunction with the
All public and semi-public land uses shall be reviewed and approved by the Planning Commission as required by state enabling legislation.	On-going	Planning Commission	Plans for public buildings and land uses should be included in the Community Facilities Plan and Public Improvements Program.

Utilities and Communications	Time Frame	Primary Responsibility	Comments
Develop a comprehensive utility expansion, extension, and improvement program.	2-5 years	Planning Commission, Engineer, Public Works Department, City Council	This plan or policy will be a cooperative agreement between the applicable utility district and the city.
All utility extensions and expansions shall be reviewed and approved by the Planning Commission as required by the state enabling legislation.	On-going	Planning Commission	Comply with TCA Section 13-4-104 requiring planning commission review of public projects.
Review the Zoning Code and Subdivision Regulations and revise as necessary to ensure that appropriate standards for utilities are included and that developers are responsible for the installation of required utilities.	1-2 years	Planning Commission, Engineer, Public Works Department, City Council	The Planning Commission and City Council should jointly discuss the development of city standards. Local Government Public Works Standards, recognized Model Community Facilities Standards should be incorporated by reference into the Subdivision Regulations and Zoning Code.

Vacant Land and Open Space Land Use	Time Frame	Primary Responsibility	Comments
Prepare a Vacant Land and Open Space Plan.	7 + years	Planning Commission, Recreation Board	This strategic plan should be utilized in conjunction with the Recreation Plan.
Explore all available methods for acquiring open space, i.e., conservation easements, development rights, zoning restrictions, dedication on subdivision plats, donations, negotiated purchase.	On-going	Planning Commission, Recreation Board, City Council	Care should be taken to ensure that property rights violations, taking do not become an issue.
All proposed plans for open space and recreation areas shall be submitted to the Planning Commission for review and approval as required by state enabling legislation.	On-going	Planning Commission, Recreation Board	Comply with TCA Section 13-4-104 requiring planning commission review of public projects.
Review the Zoning Code and Subdivision Regulations and revise as necessary to ensure that appropriate standards and guidelines are included for the development or preservation of vacant land.	1-2 years	Planning Commission, Recreation Board, City Council	Utilize the Vacant Land and Open Space Plan.

Transportation	Time Frame	Primary Responsibility	Comments
Maintain a comprehensive updated Major Transportation Plan.	On-going	Planning Commission, Public Works Department, City Council	Subdivision Regulations, subdivision plats, and site plans should be reviewed in the context of the plan.
Update and maintain a street inventory of the condition and maintenance needs of all City Streets.	On-going	Planning Commission, Public Works Department, City Council	Public Works Department typically updates priority lists of street improvements.
Prepare a comprehensive Street Improvements Plan which includes plans for street identification, traffic signalization, street lighting, and upgrading or improvement of older streets.	3-6 years	Planning Commission, Public Works Department, Engineer, City Council	This is a strategic plan and should be incorporated into the Public Improvements Program and Capital Budget.
Complete a sidewalk inventory and prepare a Sidewalk Improvement Plan.	3-6 years	Planning Commission, Public Works Department, City Council	This is a strategic plan and should supplement the Street Improvements Plan.
Prepare and maintain an Official City Street Map.	On-going	Planning Commission, City Council	This should be considered a legal document to reflect those streets for which the municipality is responsible for maintenance.

CHAPTER 8

COMMUNITY FACILITIES PLAN

INTRODUCTION

Purpose

In order to maintain an acceptable level of economic vitality and plan effectively for future growth and development, an established infrastructure should be in place for the provision of community facilities and services. It is imperative that a broad range of community services be available within a community to establish a balanced community environment. These services must be periodically evaluated to ensure the adequacy and effectiveness of the services and to plan for the future dynamics of the community.

The general purpose of a Community Facilities Plan is to analyze all of the community facilities which serve the City of McMinnville and project future requirements for each community facility service for the next twenty years. These future requirements will be established based on short-range needs (0-5 yrs), mid-range needs (6-10 yrs) and long-range needs (11-20 yrs) for each individual service. Thus, in essence, this Community Facilities Plan allows the city to anticipate the provision or extension of particular facilities and services within the community. The plan also provides the city departments with functional data pertaining to a particular facility or service that can be updated periodically.

Scope

This chapter will consist of an inventory of the community facilities available within the City of McMinnville, both public and private. Additionally, an evaluation of the adequacy of the facilities and services offered within the city will be documented.

National and regional standards will be utilized within the evaluation of the community facilities and services offered. The establishment of future requirements will follow the inventory and needs of each community facility and recommended courses of action will be made with regard to current and projected needs for the next twenty years. In conclusion, a summary listing of the recommendations included for each facility and/or service will be compiled, to subsequently be utilized in the preparation of the Public Improvements Program and Capital Budget for the City of McMinnville.

Governmental Background

The City of McMinnville operates under a mayor-aldermanic form of government with a mayor elected to a four-year term that serves as chief executive officer. The aldermen are also elected officials that are elected to four-year staggered terms and serve on six standing committees. The staggered terms of the mayor and the aldermen result in an election of three aldermen every two years. The city appointed a city administrator in 1988 to oversee the day-to-day activities of the municipality, which includes the supervision of all department heads and the activities of each department. The governmental structure of the city is depicted in Table 13.

Municipal Administrative Facilities

The administrative office of the City of McMinnville is located in the Franklin P. Blue Municipal Building at 211 West Colville Street. Responsibilities of the office include the accurate and proper administration of the fiscal affairs of the city, inclusive of the billing, collecting, and accounting for all of the revenue the city receives. Administrative personnel disburse all funds as approved by the Board of

Mayor and Alderman and preserve all accounts, books, papers and such that directly relate to the accounts, contracts, debts, revenues, and fiscal affairs of the city. The scope of activities that take place within the building include the administration of non-fiscal governmental affairs, fiscal affairs, water billing, city council meetings, and planning commission meetings.

The building itself is 6,152 square feet in size and was formerly the Southside Elementary School. The central section of the structure was constructed sometime before 1886, with the majority of the structure constructed in 1916. The building houses the mayor and city administrator's offices, a small general conference room, and the Board of Mayor and Aldermen meeting room. In addition the McMinnville Police Department, Senior Citizens Center, and the Credit Union are located in the basement of the building. The administrative personnel who work directly within the building include the following:

Administrative Staff

- 1 City Administrator
- 1 Executive Secretary
- 1 Personnel Assistant
- 1 Accounting Technician
- 1 City Recorder/Treasurer
- 1 Account Clerk I
- 1 Account Clerk II

Water Billing Staff

- 1 Accounting Technician
- 1 Account Clerk I
- 2 Account Clerk II

Summary of Findings

The present administrative building is not well designed for city administrative activities. Moreover, because of the age and condition of the building, it is not energy efficient. The mainframe computer system utilized by the city needs to be upgraded to maximize efficiency. The current computer system being utilized is 5 years old. The administrative personnel needs of the city include employing a full-time personnel clerk and a full-time payroll clerk.

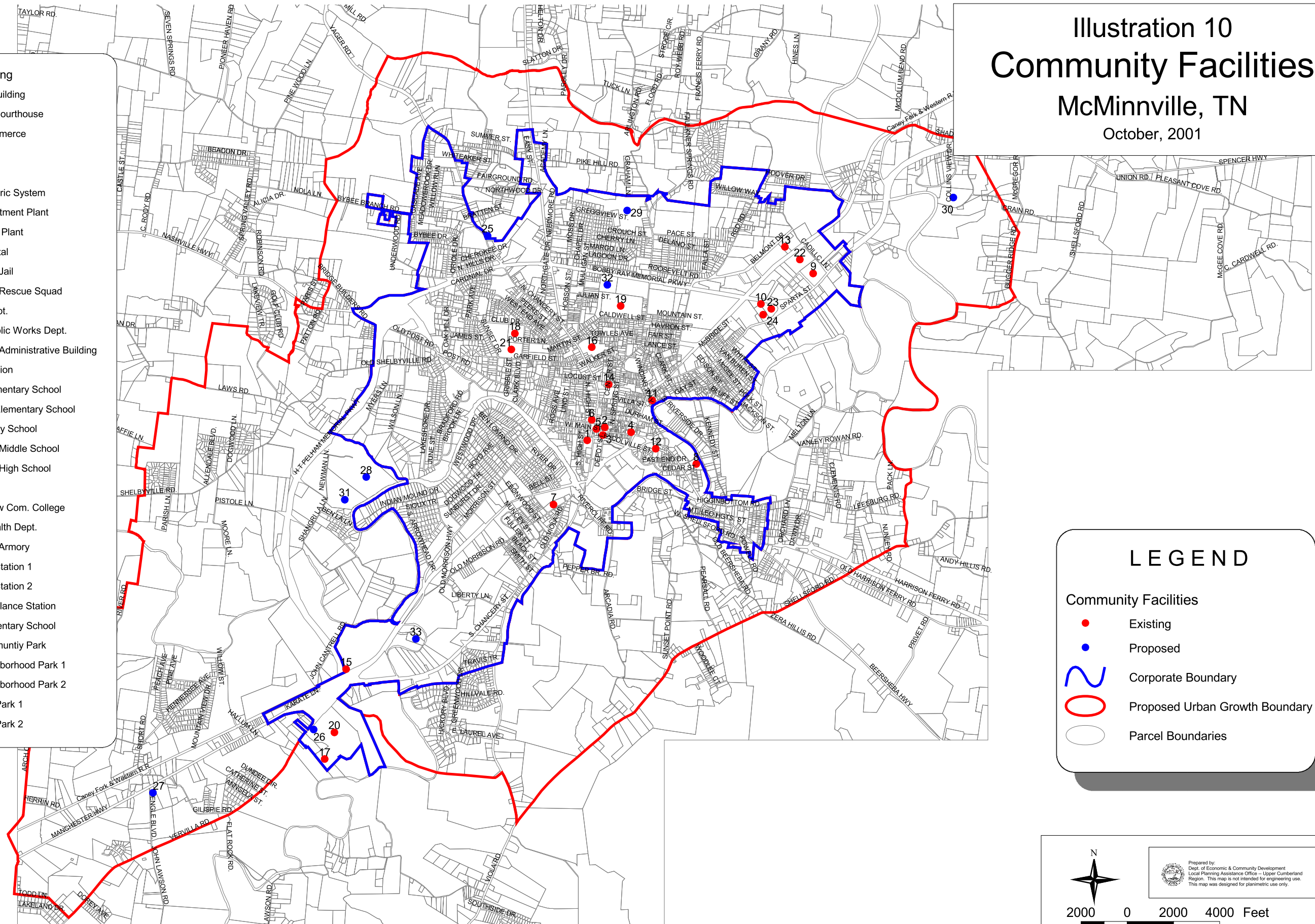
Illustration 10 Community Facilities

McMinnville, TN

October, 2001

Facility Listing

- 1 Blue Municipal Building
- 2 Warren County Courthouse
- 3 Chamber of Commerce
- 4 Fire Station
- 5 Magness Library
- 6 McMinnville Electric System
- 8 Wastewater Treatment Plant
- 7 Water Treatment Plant
- 9 River Park Hospital
- 10 Warren County Jail
- 11 Warren County Rescue Squad
- 12 Wastewater Dept.
- 13 McMinnville Public Works Dept.
- 14 Warren County Administrative Building
- 15 Board of Education
- 16 Bobby Ray Elementary School
- 17 Hickory Creek Elementary School
- 18 West Elementary School
- 19 Warren County Middle School
- 20 Warren County High School
- 21 Civic Center
- 22 TN Tech/ Motlow Com. College
- 23 Warren Co. Health Dept.
- 24 National Guard Armory
- 25 Proposed Fire Station 1
- 26 Proposed Fire Station 2
- 27 Proposed Ambulance Station
- 28 Proposed Elementary School
- 29 Proposed Community Park
- 30 Proposed Neighborhood Park 1
- 31 Proposed Neighborhood Park 2
- 32 Proposed Mini Park 1
- 33 Proposed Mini Park 2



LEGEND

Community Facilities

- Existing
- Proposed
- ~ Corporate Boundary
- Proposed Urban Growth Boundary
- Parcel Boundaries

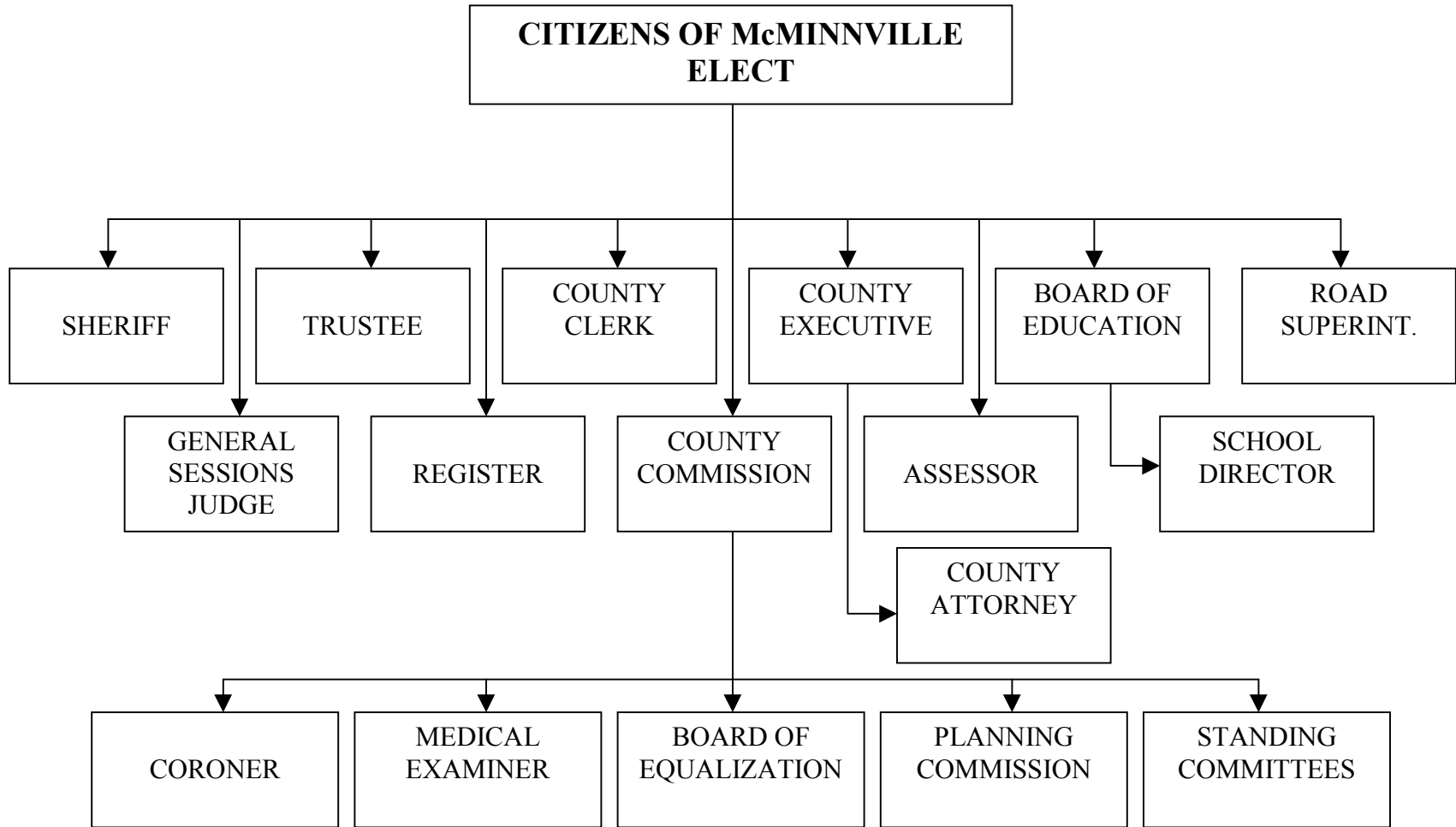


2000 0 2000 4000 Feet

Prepared by:
Dept. of Economic & Community Development
Local Planning Assistance Office - Upper Cumberland
Region. This map is not intended for engineering use.
This map was designed for planimetric use only.

TABLE 13

**GOVERNMENT ORGANIZATION
McMINNVILLE, TENNESSEE
JUNE, 2001**



Public Works Department

The City of McMinnville Public Works Department, located at 1266 Belmont Drive, is responsible for the provision of safe transportation routes within the city and waste collection for city residents. There are ten employees that work at the department. Transportation related responsibilities include maintaining the rights-of-ways of city streets and other public properties and maintaining all of the street signs within the corporate limits. The following sections provide a more detailed assessment of the department.

Streets and Transportation System

The transportation system of the City of McMinnville is a vital part of the infrastructure of the community. As such, it is imperative that transportation improvements be planned for the immediate and the long-term future. This section will evaluate the existing conditions of the transportation system and provide recommendations based on the immediate need for improvements to the transportation system and for improvements over a longer period of time. These recommendations are the conclusions of an evaluation process accomplished by identifying, analyzing, and documenting any deficiencies and/or necessary improvements to the transportation system within the corporate limits for the twenty-year planning period, based on available transportation data and conferring with local officials. This documentation will then enable the city to prioritize necessary improvements to the system during the entire planning period. A systematic, well-planned approach through a complete analysis and feasible budgeting process can produce a more effective comprehension of the existing transportation system, and facilitate the necessary steps to maintain and improve the system in the future. The costs of recommended transportation improvements are outside the scope of the Community Facilities Plan. Such costs should subsequently be detailed in a multi-year capital budgeting document.

The city is traversed by a total of 301 streets that comprise approximately 142 miles of paved roads within the corporate limits. Of this total, there are 125 miles of streets that the city maintains and 17 miles of state-maintained streets. The city also maintains 23 signalized intersections. The Director of Public Works conducts the prioritization of street paving and other major improvements on an annual basis. Other small projects are conducted, as needed as scheduling and weather permits. This section will attempt to incrementally assign priorities on a short term and long term basis for the necessary improvements that will be essential for the next twenty years. The Major Thoroughfare Plan for the city is depicted in Illustration 7. Currently, all of the city streets within the corporate limits are maintained in a satisfactory condition, based on local street design guidelines. All of the existing streets have been resurfaced within the last twelve years. Furthermore, street construction standards and design standards have been established that will regulate any future streets within the corporate limits. Moreover, there is not a city street that can be considered substandard in terms of width and wearing surface. The location and width of all streets and roads within the corporate limits must conform to the latest Major Thoroughfare Plan. The following table depicts the design and construction standards for new streets within the corporate limits of McMinnville. For more detailed information the McMinnville Subdivision Regulations can be consulted.

**TABLE 14
STREET RIGHTS-OF-WAY AND SURFACING WIDTHS**

STREET CLASSIFICATION	RIGHT-OF-WAY	SURFACE WIDTH
Local	50 ft.	24 ft.
*Local Streets w/curb & gutter	40 ft.	20 ft.
Cul-de-sac diameter	120 ft.	100 ft.
Minor Collector	60 ft.	28 ft.
Major Collector	60 ft.	32 ft.
Arterials & Highways	80 to 150 ft.	48 ft.

***When curbs & gutters are installed, street ROW may be reduced to 40 ft. and binder & surface widths to 20 ft.**

Based on the analysis of the transportation system of the city and the necessary improvements for the twenty-year planning period, the following streets are listed in their respective repaving priority:

**TABLE 15
PRIORITIZED STREET PAVING SCHEDULE**

FIRST PRIORITY (0-5 years)		
STREET NAME	WIDTH (feet)	LENGTH (feet)
Sunnyside Heights Street	19	560
George Hugins Street	16	146
Morningside Drive	20	883
Ebonwood Street	17	877
Estridge Street	18	776
Old Viola Road	20	2,550
Greggview Street	22	1,570
SECOND PRIORITY (6-10 years)		
STREET NAME	WIDTH (feet)	LENGTH (feet)
Shadowlawn Street	19	1,683
River Drive	21	2,039
Hillview Drive	20	724
Ash Street	21	720
Caney Lane	19	472
Park Avenue	25	1,527

Sidewalks, Signalization, and Street Signage

Sidewalks are not mandatory within proposed subdivisions and are only required within the Planned Residential Development Zoning District and within Mobile Home Parks that contain service buildings. Sidewalks within the city are generally separated as completely as possible from any streets. During the review process of a proposed development, the Planning Commission reserves the right to require a sidewalk within any proposal. Typically, they will only do so for any proposed development adjacent to a collector, arterial road, or a development that is within the vicinity of schools. Nevertheless, the Planning Commission may require a sidewalk be constructed any place where it would be necessary for the safety of residents. Generally, sidewalks are required to be at least 5 feet in width. The exception to this is the area around the public square along Main Street and Chancery Street, in which case the minimum width required is 10 feet. Generally, sidewalks should be a minimum range of between 5 and 6 feet wide to provide for adequate and safe pedestrian traffic. The McMinnville Municipal Code stipulates the specifications for city sidewalks. Moreover, the McMinnville Street and Sanitation Committee is the entity responsible for approval of any and every sidewalk within the corporate limits.

Traffic signals are present throughout the city and are strategically placed at numerous intersections. Currently, the city maintains a total of 23 traffic signals within the city. The majority of the traffic signal devices are modern with virtually no problems worth mentioning. The primary problem areas are located at three intersections in the central business district area. These particular traffic signals are the oldest in the city. Consequently, replacement parts for these traffic signals are impossible to obtain. When these traffic signals do become inoperable, they will need to be totally replaced.

The city has adopted an Official Sign Code that was completely revised in 1994 and last amended in 1998. The code regulates signs and advertising structures within the city limits. This section will deal primarily with street signs referred to as uniform traffic devices. The Public Works Department is charged with the responsibility of maintaining all the street signs within the city limits.

The following transportation related improvements should be implemented by 2005:

1. Replace the traffic signal at South Chancery and Main Street.
2. Replace the traffic signal at East Main Street and the Court Square.
3. Renovate the existing sidewalks within the Central Business District.
4. Replace the traffic signal at East Main Street and Spring Street.
5. Replace the traffic signal at South Chancery Street and Morford Street.
6. Replace the traffic signal at the intersection of the US. 70S Bypass and Sunset Drive.
7. Consider establishing minimum sidewalk construction requirements for medium to high-density residential developments that have access to a public sewer system. Such requirements should dictate that a sidewalk be constructed on at least one side of all servicing streets.
8. Replace the traffic signal at the intersection of the U.S. 70S Bypass and Cadillac Lane.
9. Purchase one brush collection vehicle.
10. Construct the Phase One section of the greenway connector system within the city.

The following transportation improvements should be implemented by 2010:

1. Replace two traffic signals on Sparta Street and the US. Highway 70S Bypass.
2. Upgrade the traffic signal at the intersection of the US.70S Bypass and Red Road.
3. Replace the traffic signals at the intersections of the US 70S Bypass and Mullican Street and South Chancery Street and Colville Street.
4. Replace traffic signals at West Main Street and High Street, and Morford Street and Spring Street.
5. Renovate or replace the Westwood Bridge.
6. Replace the traffic signal at North Chancery Street and Locust Street.
7. Replace the traffic signal at the New Smithville Highway and Hobson Street.
8. Replace the traffic signal at the intersection of the US. 70S Bypass and the New Smithville Highway.
9. Replace the traffic signal at the U.S. 70S Bypass and the McDonald's entrance.
10. Replace the traffic signal at the U.S.70S Bypass and the Old Smithville Highway.
11. Replace the traffic signal at the Highway 55 Bypass and South Chancery Street.
12. Replace the traffic signal at South Chancery Street and Rivercliff Road.

The following recommended transportation improvements should be implemented by the year 2020:

1. Reconstruct a new railroad underpass on Sparta Street to accommodate traffic flows and provide adequate truck clearance.
2. Construct a connector street east of the existing railroad tracks from Sparta Street to Beersheba Street.
3. Construct a connector street from the New Smithville Highway to Couch Street.
4. Replace the existing bridge at West Main Street and Old Post Road.
5. Construct a connector street from Morrison Street to the Highway 55 Bypass.
6. Replace the traffic signal at North Chancery Street and the Wal-Mart entrance.
7. Construct a connector street from Post Road to Shelbyville Road.
8. Construct a Highway 127 Bypass to the south of the city.
9. Restore the two-way traffic pattern for Main Street.

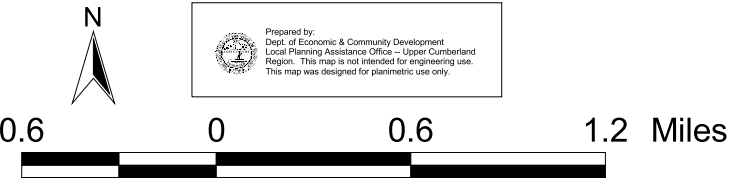
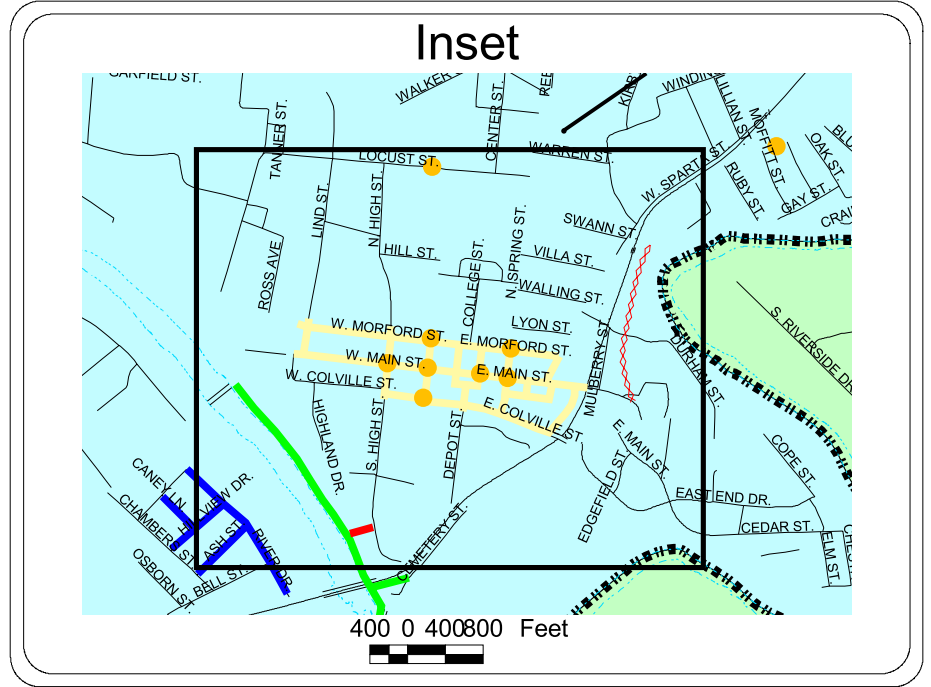
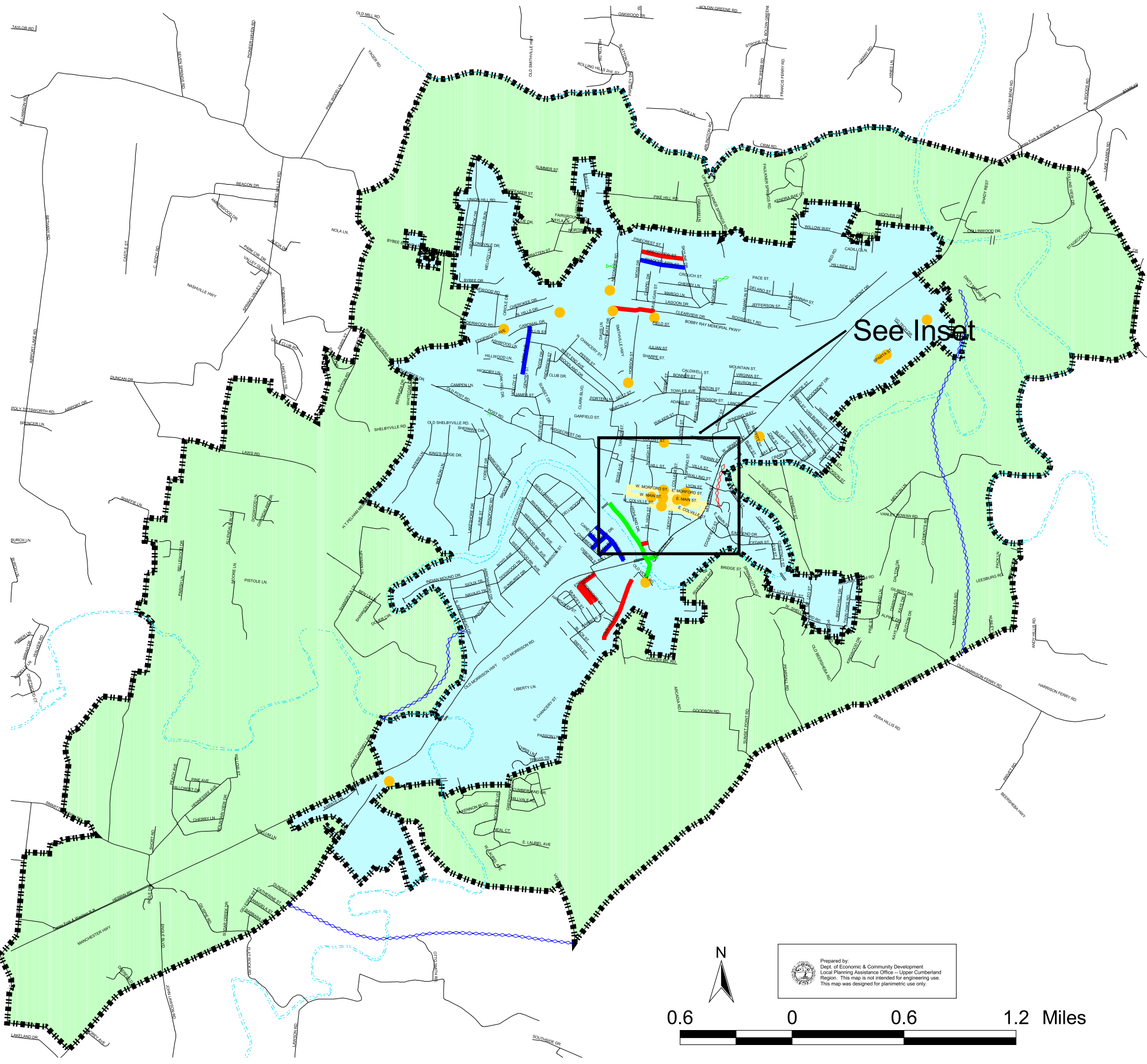
Stormwater Drainage Improvements

The stormwater drainage system consists of man-made and natural drainage systems. These are necessary to protect public health, safety, and property from serious consequences of improper drainage, resulting in serious flooding. Stormwater management for the City of McMinnville is regulated through the Subdivision Regulations, a Natural Drainage System Ordinance recently adopted, and a Floodplain Management Ordinance where applicable. City streets are required to have an adequate drainage system in place that consists of open ditches, pipes, culverts, intersectional drains, drop inlets, bridges, and adequate easements for the proper stormwater management. The city is also responsible for maintaining and repairing all natural stormwater drainage systems within public rights-of-way and any drainage easements acquired and dedicated to the city. Drainage easements are required to be a minimum of 20 feet wide. For any proposed subdivision, a drainage plan is required that depicts the proposed modifications to the flow of water across the site, as well as to and from adjoining property. Whenever practical, drainage system components are installed within the public rights-of-way. In the case of areas adjacent to roadways being disturbed by cut and fill, the developer is required to shape and seed these areas in conjunction with the roadway construction that takes place. In areas containing greater than a 3% grade, sodding of drainage ways, concrete waterways and/or ditches may be required. The twenty-five-year storm frequency is utilized for the design of stormwater facilities. The Public Works Department is responsible for inspections, testing, and certification regarding the community's stormwater management program.

The stormwater management guidelines and regulations are well within the standards for stormwater per the local regulations that are in place, and the departmental policies that have been established. Within the corporate limits there are a large amount of sinkhole areas that can be adversely affected by future development if these areas are not properly regulated. These areas are depicted on the City of McMinnville Official Zoning Map as sinkhole retention areas. The city should conduct a regular inventory of the existing sinkholes, steep slopes, and sensitive areas. The following stormwater drainage improvements are recommended:

1. Install a drainage tile and erosion reduction "rip rap" along the Red Road area, and "rip-rap" on Hickory Lane.
2. Establish a policy for control of natural drainage systems.
3. Make ditch improvements along Winding Way and Cherry Lane.

Illustration 11
**Proposed
 Transportation Projects**
McMINNVILLE, TN
and Proposed Growth Area
 October, 2001



Prepared by:
 Dept. of Economic & Community Development
 Local Planning Assistance Office - Upper Cumberland
 Region. This map is not intended for engineering use.
 This map was designed for planimetric use only.

LEGEND

<ul style="list-style-type: none"> — 1st Priority Paving — 2nd Priority Paving — Proposed Major Arterial — Proposed Major Collector — Proposed Minor Collector CITY 	<ul style="list-style-type: none"> — Greenway Construction — Proposed Sidewalk Improvements ● Signal Light Improvements - - - Streams PROPOSED URBAN GROWTH AREA
--	---

Solid Waste Collection

The McMinnville Public Works Department is responsible for solid waste collection and disposal within the corporate limits. In addition to operating a transfer station, the department provides curbside residential collection, commercial waste collection by request, and brush collection. The city has also established a cardboard collection program and a yard waste (mulch) collection program. The city contracts with a private firm, Ecology Systems, to grind the yard waste after collection by the department. The office is located at 1266 Belmont Drive and employs 8 full-time employees. The City of McMinnville is a participating member within the Central Tennessee Solid Waste Planning Region, which is served by a thirteen-member regional board. The region consists of a five-county region and certain participating municipalities within this region. Counties within this region include the counties of Cannon, Coffee, Rutherford, and Warren. The region has established a 13-member board that meets once a month to discuss issues and adopt policies. The primary functions of the board consist of tracking the waste stream quantity and organizing waste reduction efforts within participating localities. The solid waste activities of the department are funded from tipping fees and the city general fund.

The city has recently undergone a transition to an automated collection system for residential service, whereby a collection truck picks up a 96-gallon wheeled container at the curb, and dumps the waste into the truck container where the waste is taken to the transfer station. A total transition to this automated system has not yet been completed and there is still waste collection that is being collected by rear-loading trucks. The residential and commercial collection trucks make a total of approximately 5,000 stops per week to residential customers. Additionally, front-loading trucks conduct waste collection for approximately 400 commercial customers that request this service. The cardboard is collected from commercial customers and stored in marked "cardboard only" containers. The Tennessee Department of Agriculture provides collection of pesticides in cooperation with the county. Residential waste collection utilizes a Volvo 25-cylinder rear-loader truck for pickup service, with an alternate truck utilized on high-volume days that carries a dumpster on forks. Commercial waste collection utilizes two Mack 28-cylinder front-loader dumpster trucks. For emergency situations, a Mack 20-cylinder front-loader vehicle is utilized which also operates for cardboard pickup.

The city solid waste transfer station is located on Sunset Drive within the corporate limits where the waste is stored by type before being hauled to the landfill outside the county. The city assesses a \$25.00 tipping fee for all waste that enters the transfer station. The types of waste that the transfer station handles include corrugated cardboard, newspapers, magazines, aluminum cans, oil, scrap metal and office mixed paper. The transfer station also accepts a limited amount of tires. Once the tires are collected, T.T. Recyclers haul the tires to Chattanooga for processing. Pursuant to the collection assurance requirements in accordance with the Solid Waste Management Act of 1991, the number of convenience centers within Warren County is within the standards for the minimum number of centers for the service area. The minimum number of centers is calculated as follows:

(1)	$\frac{\text{Service Area (county) in square miles}}{180} = \frac{433}{180} = 2.4 \text{ centers}$
	OR
(2)	$\frac{\text{Service Area Population (county)}}{12,000 \text{ people}} = \frac{38276}{12000} = 3.2 \text{ centers}$

Landfill

The city hauls waste from its transfer station to a Class I landfill named the Cedar Ridge Landfill in Lewisburg, Tennessee, operated by USA Waste, commonly referred to as Waste Management. The city contracts with the Hillis Trucking Company to transport this waste to the landfill. The classification of this disposal site permits domestic wastes, commercial wastes, institutional wastes, municipal wastes, demolition/construction wastes*, farming wastes, discarded automobile tires, and dead animals to be disposed of at the facility. The Cedar Ridge Landfill imposes one of the lowest tipping fees in the region at only \$21.02 per ton. The average amount of solid waste generated by residents within an urban area as cited in Solid Waste Planning for Tennessee Waste Management Research and Education Institute published by The University of Tennessee, Knoxville in 1991, is 7.35 lbs./person/day. This figure, when applied to the population of the city, calculates to a total of over 47 tons per day that is contributed by the residents of McMinnville to the landfill. The city has a five-year contract that expires in 2002 to utilize the Cedar Ridge landfill. The landfill presently has the capacity to accept waste, at the present volume, for eight more years. There are presently no new landfills that are in the planning stages of development within this planning region. There is however a Class I disposal site that is being planned within Van Buren County, which is adjacent to Warren County. The city currently accepts sealed bids from waste management agencies that operate disposal sites, as well as from various hauling companies. Drop-off sites for the collection of oil, automotive fluids, and batteries are provided to residents, which are operated by the county or private businesses. The following are the local drop-off sites within the City of McMinnville:

TABLE 16

WASTE OIL AND AUTO FLUIDS DROP-OFF SITES MCMINNVILLE CORPORATE LIMITS

NAME OF SITE	ADDRESS
Tractor Supply Company	200 Hobson Street
Warren County Fairgrounds	Fair grounds Road
Auto Zone	509 N. Chancery Street
Advanced Auto Parts	627 N. Chancery Street

The City of McMinnville has established a 5-year Solid Waste Plan that is utilized as a guide for future planning for solid waste. The plan has incorporated a Regional Needs Assessment for the participating communities of the region. The plan is in compliance with recommendations cited in Solid Waste Planning for Tennessee Waste Management Research and Education Institute published by The University of Tennessee, Knoxville in 1991.

These recommendations include:

1. Establish specific elements that are to be incorporated within the Regional Needs Assessment during the first phase of the solid waste planning process.
2. Establish a Solid Waste Planning Board during the first phase of the solid waste planning process to provide direction and oversight for solid waste planning.

* Construction/demolition wastes comprise wastes that result from construction, remodeling, repair and demolition of structures and from road construction that may include masonry materials, soil, rock and lumber, road spoils, rebar, and paving material.

3. Adopt a Regional Plan for the area that contains the following elements:
 - ✓ Assure at least a 10-year disposal capacity.
 - ✓ Ensure adequate collection coverage.
 - ✓ Achieve a 25 percent waste reduction goal for the waste stream. (statewide reduction goal)
 - ✓ Update the plan on a regular basis.

Based on the solid waste needs of the residents of McMinnville, the following tasks are recommended to be implemented by or before 2005 in regard to solid waste:

1. Complete the transition to an automated curbside residential collection system by December 2001.
2. Conduct an evaluation of the existing landfill disposal sites within the area by December of 2001 for other possible disposal options.
3. Coordinate with the disposal company to obtain accurate disposal data.*
4. Expand the current waste reduction program to encompass collection of Class IV waste at the transfer station.
5. Achieve a 25 percent waste reduction to the service area waste stream.
6. Coordinate collection drives for electronics and pesticides to coincide with the state sponsored household hazardous waste program.
7. Establish an education program that is jointly funded by the county and the city.
8. Purchase a yard waste shredder for the city yard waste collection program.

The following recommendations should be implemented by the year 2010:

1. Hire additional part-time employees to assist in the education program and other aspects of solid waste management.
2. Review and evaluate model regulations/ordinances within the 5-Year Solid Waste Plan.

Based on an evaluation of the current needs of the city, the following recommendations should be implemented by the year 2020:

Establish an intergovernmental agreement with the county for the use and funding of a Class I or Class II landfill. (*TCA 5-19-106*)

* The county relies upon the disposal company to provide the tonnage for the waste stream based on scale data as trucks enter the landfill or transfer station. Some collection routes cross-jurisdictional boundaries and may include collection routes outside of Warren County.

Water System

The McMinnville Water and Wastewater Department, located at 103 Bernard Drive, is responsible for the provision of water within the corporate limits. The original water system within the city was constructed and completed in 1901. The water system has subsequently been improved periodically over the years with major projects completed every few years starting in 1926 up to the present. The current water system is comprised of the water treatment facilities, distribution system, elevated storage reservoirs, and pressure boosting facilities. The primary objective of the water system is to provide a sufficient quantity of potable water to meet all residential, commercial, and industrial demands of the city for a maximum day, while maintaining a reserve for fire protection.

The Water Treatment Plant located at 200 Bell Street was originally completed in 1961. The plant is administered by one plant manager with four plant operators that conduct the daily operations of the plant. The water source for the city is the Barren Fork River. The maximum capacity of the water treatment plant is 5 million gallons per day with a current usage at 2.5 million gallons per day or 50% of the plant's capacity. The overall instantaneous peak demand of the water distribution system ranges from 2.5 million gallons to 2.8 millions gallons for the system as a whole. The principle components of the treatment facility include the intake and raw water mains, flashmix facility, flocculators, sedimentation basins, chemical feed and handling dual media filters, a clearwell storage facility, high service pumping facility, a laboratory, control instrumentation, and sludge handling facilities. The most recent improvements to the plant and the treatment process include: a chemical building to store all of the associated chemicals in, the replacement of chlorine with sodium hypochlorite, and the replacement of alum and caustic materials with aluminum chlorohydrate. In addition, there are two clearwell injection facilities that will be constructed within the next year for the storage of the treated water. The city population base is projected to expand by at least 3,009 new residents in the next twenty years. Assuming that the current consumption rate of about 150 gallons per person will remain constant in relation to the projected population increase, the consumption rate should increase from 3-million gallons per day to 3.5 million gallons per day, constituting 69% of the plant's capacity. This projected consumption rate should be utilized as the low parameter in evaluating any future project, expansion, or improvement to the water system. In conclusion, the existing water treatment facility should be adequate to meet the needs of the city for several years to come before additional improvements become necessary.

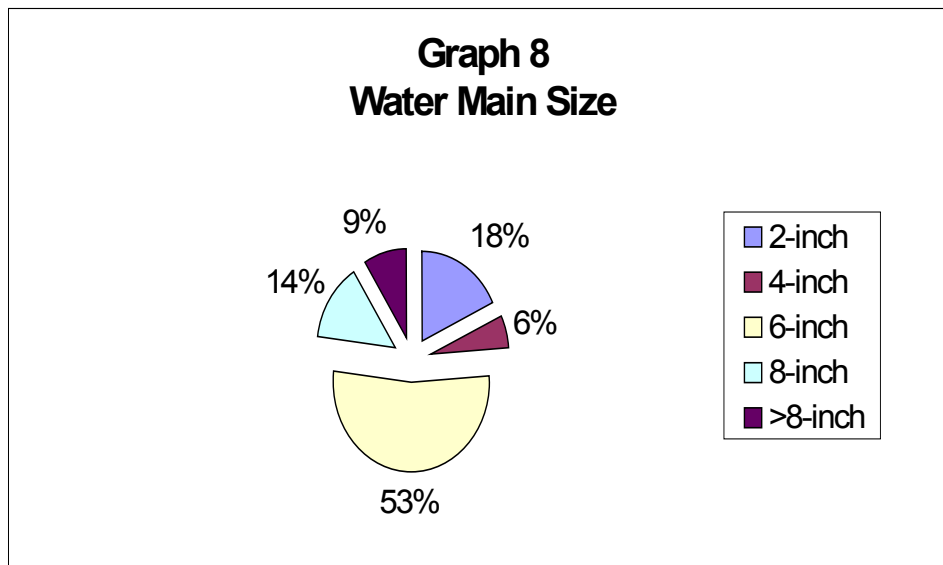
The storage facilities of the system include one ground and two elevated storage reservoirs. The individual water storage tanks that comprise the total storage capacity of the system are as follows:

LOCATION AND TYPE	CAPACITY
Bybee Branch Road ground storage reservoir	3 million gallons
Colville Street elevated storage tank	750,000 gallons
Cadillac Lane elevated storage tank	250,000 gallons

The ground reservoir located on Bybee Branch Road was constructed in 1977 and covers the northwest section of the city. The storage tank on Colville Street serves the southeast section, and the storage tank on Cadillac Lane serves the northeast industrial section of the city. The total storage capacity of these water reservoirs exceeds the current average daily consumption rate and meets the peak daily demand of the city. A booster pump provides adequate pressure for domestic use and fire protection. The ground reservoir was last inspected in 1997, and it was recommended that the interior be renovated by sand blasting and the application of two coats of polyamide epoxy be applied. It was also recommended that the exterior be pressure washed, and two coats of alkyd enamel be applied. The elevated storage tank located on Colville Street was completed in 1954 and covers the southeast section of the city. The tank was also last inspected in 1997, and it was recommended that the interior of the tank be sandblasted and two coats of polyamide epoxy applied. The exterior was recommended to undergo a full lead abatement

process, and a prime coat with a double coat of polyamide epoxy be applied. The elevated storage tank on Cadillac Lane was completed in 1958 and generally covers the northeast industrial area of the city. During the inspection of 1997 that took place, a recommendation was made for the tank to be pressure washed and protective coats applied. To date, a 3-million gallon storage tank is proposed in the next few years for the southwest section of the city near the Arcadia and Shellsford Roads. This area is projected to experience the most significant growth and development during the twenty-year planning period.

The city water distribution system contains over one hundred total miles of water lines, eleven known private wells, and over six hundred fire hydrants. A recent inventory of all of the water mains within the corporate limits by size indicates that approximately 53% are 6-inch lines, 18% are 2-inches or smaller, 14% are 8-inch lines, 9% are larger than 8-inch lines, and 6% are 4-inches or smaller in size. The following graph depicts the size composition of water mains within the corporate limits:



Graph 8 depicts that 76% of the existing water lines within the city are 6 inches or larger in size. Approved pre-cut pipe materials consist of galvanized steel, cast iron, ductile iron, PVC, and asbestos cement. A minimum water main size of six inches is required for any new development, except along cross-streets of one thousand feet or less in length, and along the last five hundred feet of a permanent cul-de-sac. Additionally, service connections to each lot consisting of $\frac{3}{4}$ -inch copper lines must be extended at least ten feet onto the property for any new subdivision. All water lines at a minimum are required to maintain a fire flow of 500 gallons per minute while maintaining a residual pressure of 20 psi under that flow condition. An adequate flow is provided to all six-inch lines and larger within the distribution system that contains fire hydrants. This standard is not provided for lines that are smaller than six-inches in size. To assist the city in maintaining an adequate water distribution system, the city has adopted a water and sewer line extension policy for all new developments within the city, providing that the first 100 feet of the water main be installed at city expense. All water mains are encouraged to be looped to maintain adequate pressure and flow. The department requires that there is a 10-foot horizontal separation and an 18-foot vertical separation between all water and sewer lines. Generally, the water distribution system exceeds the minimum pressure and flow requirements that are necessary for adequate provision of water and fire protection. The type and location of fire hydrants must be approved by the water department and the Fire Chief. Maximum fire hydrant spacing is required to be no more than 1,000 feet apart for residential areas, and no more than 600 feet apart for commercial areas. The only potential problem areas, in terms of fire protection, are those few sections that maintain low pressure that are located within the southern outskirts of the city. The existing two-inch water mains therein will need to be

replaced to improve efficiency. In addition, a new storage facility in the southwestern section of the city will help alleviate some of the pressure problems of the system.

There are approximately 6,000 total customers served by the water department. These include residential, commercial, and industrial customers, with a small percentage, about 7%, of these outside the city limits. Currently, water customers consist of about 31% residential, 43% commercial, and 18% industrial users within the city limits. There are no industrial customers residing outside the corporate limits. The boundary of the department's water service area does not coincide with the corporate limits of the city, as depicted in Illustration 5 and the waterlines are depicted in Illustration 12.

Design standards that should be adhered to by the City of McMinnville Water Department in regard to substandard lines and the future extension of water lines are as follows:

1. For all future developments, the installation of water mains, service lines, and fire hydrants that meet the minimum requirements and specifications of the city should be the responsibility of the developer at the time of construction. Developers should also be required to install a pumping station if it is determined that a station is needed.
2. All new water mains should be a minimum of 6 inches or larger in size except along cross streets of 1,000 feet or less or the last 500 feet of cul-de-sacs. If existing water mains do not extend to the property of a proposed development, the city should determine if a connection is necessary. If it is determined that the connection is necessary, the city will be responsible for the first 100 feet of such waterline extension. This policy should be applicable along accepted streets or easements serving platted lots of record within the corporate limits. All waterline extensions beyond 100 feet shall be at the expense of the owner and/or developer. No water lines should be extended into areas that are not within the existing corporate limits or petitioned for annexation.
3. All waterlines shall be required to maintain a minimum fire flow of 500 gallons per minute, and a residual flow of 20 pounds per square inch under that flow condition. Fire hydrants shall be spaced no more than 1,000 feet apart as measured along a public street for residential districts, and at least 600 feet apart as measured along a public street in commercial areas. A valve between the water main and the fire hydrant should be required. To maximize the effectiveness of fire protection, a fire hydrant should maintain a fire flow of 750 gallons per minute in all residential districts, and 1,000 gallons per minute in commercial areas. An alternative color-coding system for lines six inches and smaller without required pressure and flow should be adopted by the city and fire department, and filed with the state.
4. All waterlines of 750 feet or more should be looped lines. In no case should any dead-end lines exceed 1,200 feet in length.
5. The water system should be sized for an instantaneous demand by residential customers of .5 gallons per minute per household. This standard equates to the instantaneous peak demand of 2,560 gallons per minute for the system as a whole.
6. The water treatment plant should be capable of providing for the maximum daily consumption rate, plus the minimum required fire flow in various locations throughout the city.
7. Water mains and sewer lines should maintain a 10-foot horizontal separation distance and an 18-foot vertical distance, with the joints of each line being staggered so that one is not above another at any point.
8. The water treatment plant should be capable of treating water equal to the average daily consumption rate, in addition to the required fire flow for all sections of the city.

To meet the future water demands of the city, the following water projects are proposed to be completed by 2005:

1. Construct two clearwell injection wells to boost the maximum storage capacity of the current system.
2. Construct an additional ground storage reservoir to serve sections within the southwestern section of the city.
3. Upgrade the existing 2-inch waterlines with 6-inch water lines.
4. Establish extension policies and/or agreements with the applicable utility districts for the extension of waterlines into annexed areas.
5. Evaluate the amount of the water rates and the method for calculating the water rate on an annual basis, to maintain the cost effectiveness of the water system.
6. Conduct a water line replacement study and prioritize replacement of existing water lines.

The following water project should be completed by 2010:

1. Construct a three million-gallon tank in the southwest section of the city and connect to the treatment plant with a twenty-inch line for adequate storage and pressure stabilization.
2. Initiate implementation of a Water Line Replacement Program.
3. Conduct a fire hydrant study for additional fire hydrants to the water system.

The following improvements should be completed prior to the year 2020:

1. Conduct a water line improvement study for the Urban Growth Area.
2. Construct booster pump stations as needed as expansion of the corporate limits takes place.

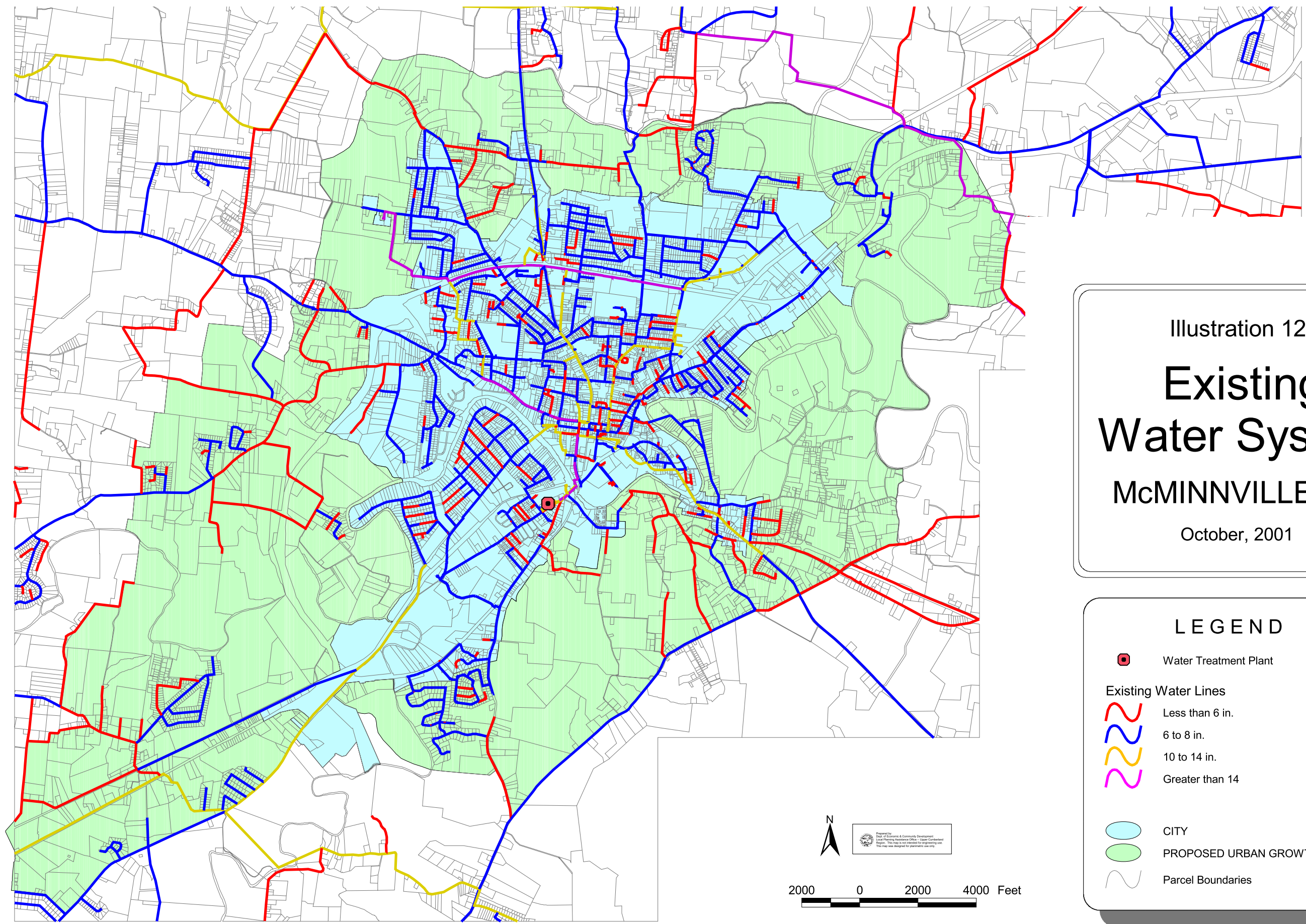










Illustration 12

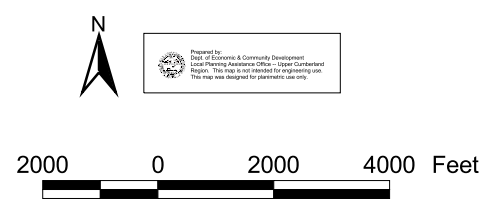
Existing Water System

McMINNVILLE, TN

October, 2001

LEGEND

-  Water Treatment Plant
- Existing Water Lines**
-  Less than 6 in.
-  6 to 8 in.
-  10 to 14 in.
-  Greater than 14
-  CITY
-  PROPOSED URBAN GROWTH AREA
-  Parcel Boundaries



Prepared by:
 Dept. of Economic & Community Development
 Local Planning Assistance Office - Upper Cumberland
 Region. This map was developed for planning purposes.
 The map was designed for planning purposes.

Sewerage System

The City of McMinnville has established a sewerage system to serve area residents that consists of 60 miles of sewer lines, 10 miles of force mains, 24 pumping stations, and a wastewater treatment plant. The majority of the city is currently served by this sewerage system. The city issues two different categories of sewer permits; (1) residential and commercial permits and (2) permits issued to service establishments that produce industrial waste. The record of the oldest sewer line that was installed dates back to 1922. Currently, public sewer covers about 98% of the city.

The minimum pipe size required by the McMinnville Water and Wastewater Department is an 8-inch pipe, with a 4-inch lateral extending at least 10 feet onto the property that is receiving sewer service. The size, slope, alignment, excavation, placement of pipe, jointing, testing, backfilling, and materials must conform to the building and plumbing codes of the city. The sewer pipe and fitting materials are required to be constructed of cast iron or polyvinyl chloride (PVC) and must meet strict specifications established by the city. All gravity sewer lines are designed and constructed to provide mean velocities, when flowing full, of not less than 2 feet per second. Grade is required to be reasonably uniform, and the alignment straight in all gravity flow lines with a 6-inch crushed stone bedding.

The wastewater treatment plant is located at 100 Cope Street and was initially constructed in 1954. The plant has a treatment capacity of 4-million gallons per day, with the current usage for the city being 2.5-million gallons per day. Consequently, the plant is operating around 63% of its capacity. The treatment plant has a total of 4 pumps, 3 for raw sewage and 1 for return flow, with a combined pumping capability of 2.3 million gallons per day. The sludge production rate for the plant is 463 metric tons per year, or approximately 38.5 metric tons per month. Wastewater treated at the plant utilizes a conventional activated sludge process. The components of the process consist of a two-stage screw lift pump, bar screens, grit collection chamber, oxidation ditch, secondary clarification equipment, disinfection areas, aerobic digestion stage areas, and sludge drying beds.

The following planning standards should continue to be adhered to as future development occurs within the city and within the designated urban growth area:

1. Future sewerage systems should be installed in conjunction with the development of the land, and will be designed for the estimated full development capacity of any proposed subdivision and the potential future development of adjacent land.
2. The developer of any tract of land should be responsible for financing and installing the necessary land-service laterals, sub-main sewers, lift stations, trunk and interceptor sewer mains, and main pumping stations, as well as any other related construction and/or appurtenances for the adequate provision of sewer service.
3. Prior to the acceptance of all sanitary sewer collection systems shown on any plats presented to the McMinnville Regional Planning Commission, and prior to the release of any financial guarantee, the developer shall submit to the McMinnville Water/Wastewater Department a complete set of "as-built" drawings of those systems.
4. All sanitary sewer lines shall be at least eight (8) inches in size in accordance with the instructions and specifications of the McMinnville Water/Wastewater Department and the Tennessee Department of Environment and Conservation, and be designed and constructed in such a manner to adequately serve all lots with proper connections to the public system.

5. The cost of trunk line sewers and/or sewerage facilities, with the exception of the first one hundred feet required to extend the city sewerage system to a particular subdivision, will be at the developer's expense. If the lines in question are deemed in need of upgrading by the Water/Wastewater Department, the developer's portion of such installation costs shall be the monetary amount up to the cost of the required eight (8) inch minimum interceptor line.
6. The developer of any future subdivision should be responsible for providing connections to the public sewerage system for every lot within the subdivision, to include a four (4) inch lateral extending at least ten (10) feet onto the property being served, with a clean-out installed extending to grade and properly capped to prevent infiltration.
7. Any individual and/or business that desires sewer service to be made available to a particular development or subdivision shall have detailed engineering plans and specifications of the proposed system prepared by a person qualified under the terms of the Act creating the Tennessee State Board of Architectural and Engineering Examiners, and plans will have the necessary professional seal affixed thereto.
8. The city will maintain the capacity to dispose of 100 gallons of sewerage a day, per capita in all residential areas of the city.

The following projects are proposed to improve the adequacy of the McMinnville sewerage system and should be implemented by 2005:

1. Purchase and install a new sludge press for the sewage treatment plant.
2. Establish extension policies and/or agreements with the Warren Utility District and the West Warren/Viola Utility District for the extension of sewer lines into annexed areas.

The following improvement projects should be completed by 2010:

1. Replace existing sewer lines on Myers Lane and Wilson Lane with an 8-inch sewer line.
2. Install an additional lift station on Shelbyville Road to serve the areas in the southern portion of the city.
3. Install an eight-inch sewer line along Rivercliff Road and Liberty Lane.
4. Install an eight-inch sewer line along Travis Trail, Hale Court, and Passon Lane.

The following sewer improvements should be completed by 2020:

1. The provision of public sewer to the remaining areas within the city that do not currently have access to public sewer should be completed, for complete public sewer coverage within the corporate limits.
2. Establish a rehabilitation program whereby the McMinnville sewerage system is divided into sub-basins, with each sub-basin analyzed individually for necessary rehabilitation improvements.
3. Conduct a Sewer Extension Study to evaluate potential expansion areas that will need access to public sewer.

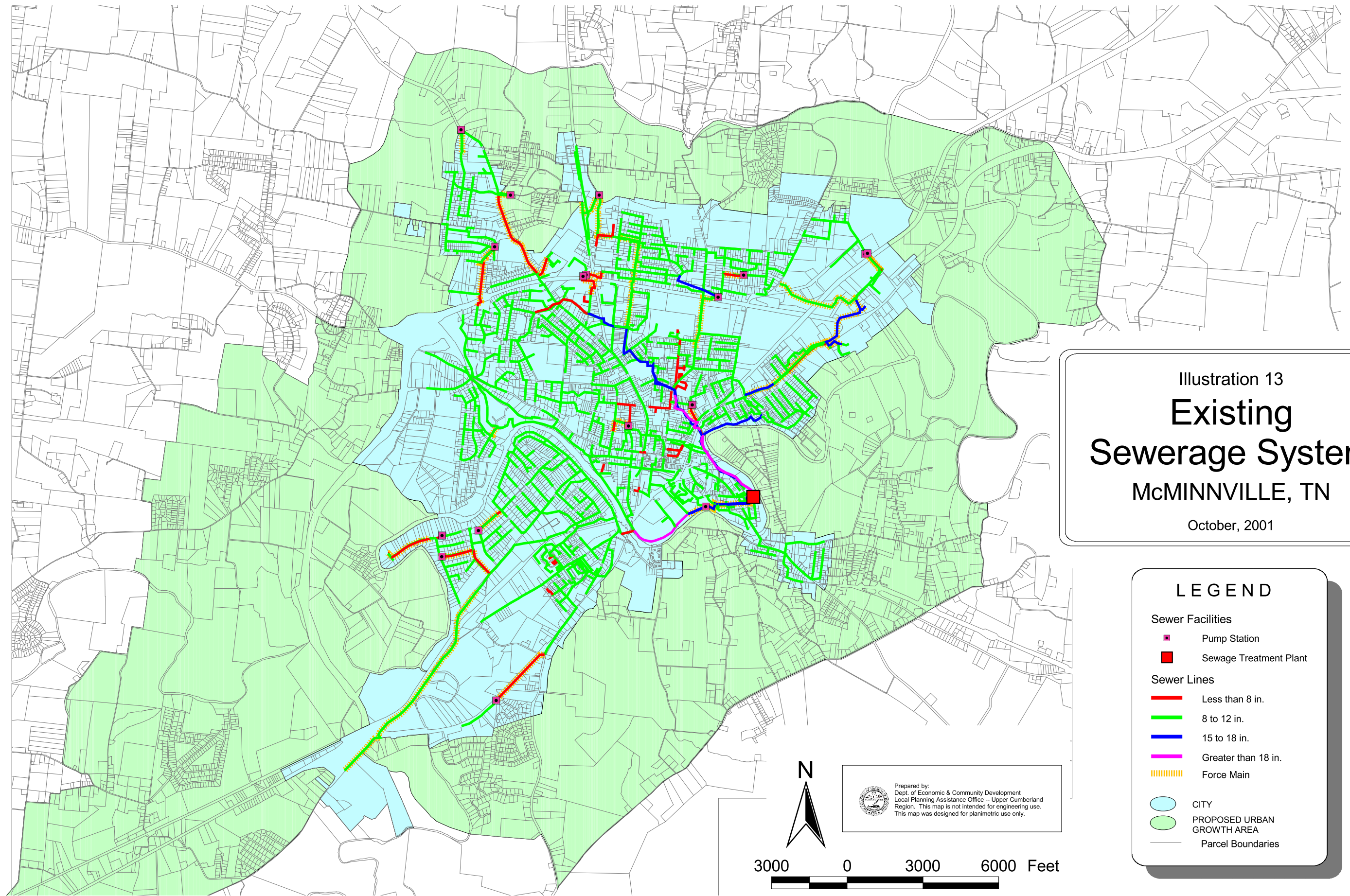




Illustration 13
**Existing
 Sewerage System**
 McMINNVILLE, TN






October, 2001




LEGEND

Sewer Facilities

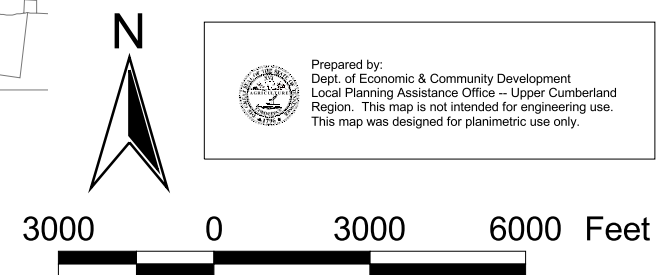
-  Pump Station
-  Sewage Treatment Plant

Sewer Lines

-  Less than 8 in.
-  8 to 12 in.
-  15 to 18 in.
-  Greater than 18 in.
-  Force Main

-  CITY
-  PROPOSED URBAN GROWTH AREA
-  Parcel Boundaries

Prepared by:
 Dept. of Economic & Community Development
 Local Planning Assistance Office -- Upper Cumberland
 Region. This map is not intended for engineering use.
 This map was designed for planimetric use only.



Natural Gas

The provision of natural gas within the City of McMinnville is furnished by the Middle Tennessee Gas Utility District. In 1955, the Middle Tennessee Gas Utility District was incorporated as a not-for-profit Tennessee utility district. The provision of natural gas service to Warren County began in 1959. The utility district serves the entire city of McMinnville, as well as other areas of the Upper Cumberland Region. Natural gas supplies are purchased from various natural gas production and marketing companies such as the Texas Eastern Transmission Company, Southern Natural Gas Company, the Tennessee Gas Pipeline Company, the Columbia Gulf Transmission Company, and the East Tennessee Natural Gas Company, which are all interstate pipeline suppliers.

The utility district provides service to over 10,000 residents within the McMinnville and Warren County region and a total of 50,000 customers within its entire system. The piping enters the county from the north and south, and consists of 300 psi welded steel. Currently, the utility district bases expansion of services solely on the financial feasibility of providing service to customers upon request.

Electric

The McMinnville Electric System is responsible for the provision of electrical service for residents of McMinnville. The electric system was established in 1939 and currently serves a total of 7,300 household customers within the corporate limits of McMinnville. The service area of the McMinnville Electric System coincides with the current city limits of McMinnville. The average annual use per account is 12,763 kilowatts for residential customers and 18,241 kilowatts for commercial customers.

Cable Television

Charter Communications is the cable television provider within the McMinnville area. Its home office is based in nearby Tullahoma, Tennessee. The total number of customers currently served in McMinnville by this enterprise is 7,800. Charter Communication offers 97 different channels to its local subscribers.

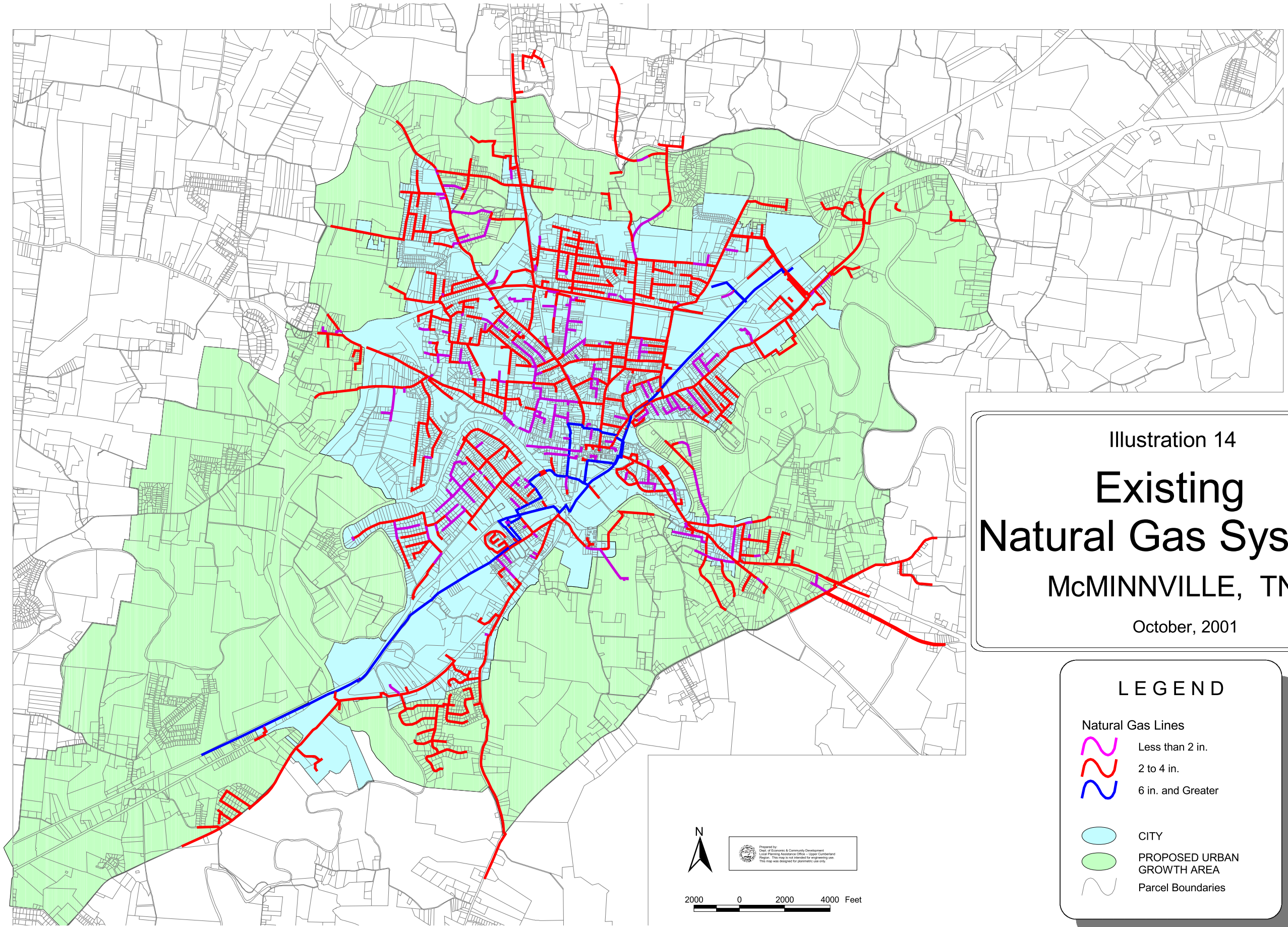








Illustration 14
**Existing
 Natural Gas System**
 McMINNVILLE, TN
 October, 2001

LEGEND

Natural Gas Lines

-  Less than 2 in.
-  2 to 4 in.
-  6 in. and Greater

-  CITY
-  PROPOSED URBAN GROWTH AREA
-  Parcel Boundaries

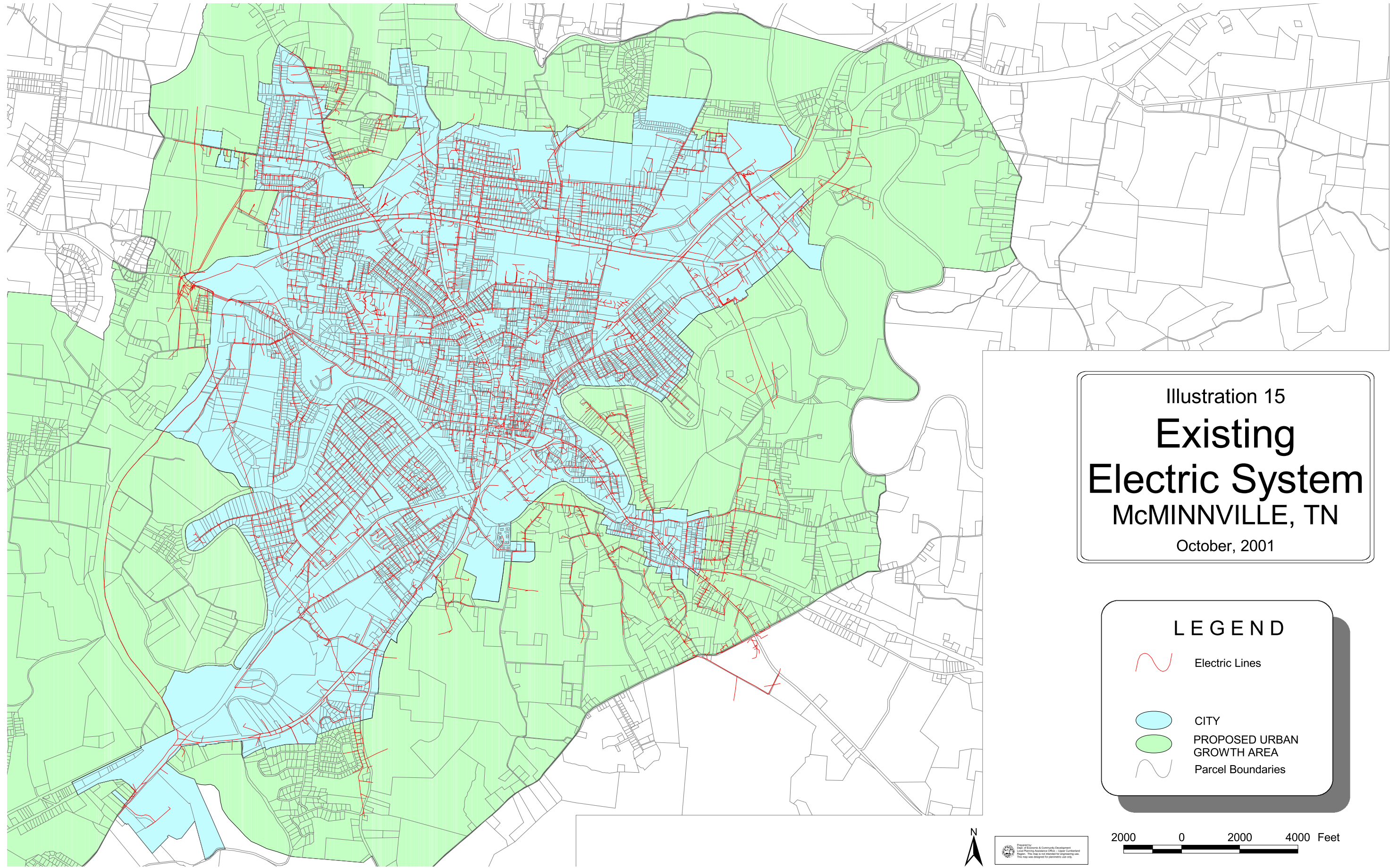






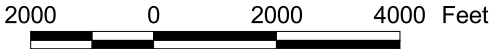
Illustration 15
**Existing
Electric System**
McMINNVILLE, TN
October, 2001

LEGEND

-  Electric Lines
-  CITY
-  PROPOSED URBAN GROWTH AREA
-  Parcel Boundaries



Prepared by:
Office of Economic & Community Development
Local Planning Commission (LPC) - Local Government
Project: This map is not intended for engineering use.
This map was designed for present use only.



Police Protection

The McMinnville Police Department is located in the basement of the Franklin P. Blue Municipal Building at 211 West Colville Street. Police related activities and functions currently occupy some 2,500 square feet of the Blue Building. In addition, there is a Drug Operations Office located at 218 South Chancery Street. The jurisdiction or official service area of the department lies within a 10.62 square mile area that coincides with the current corporate limits, although, the department will respond to emergency calls from the county. Dispatching is handled by the Enhanced 911 System, and is not a city department function. The Drug Enforcement Unit is a cooperative effort between the City of McMinnville and Warren County. Prisoners are held in the Warren County Jail, and bookings are also conducted at the county jail.

The McMinnville Police Department is currently comprised of 33 full-time sworn uniformed officers, 3 full-time clerks, 3 part-time school patrol persons, and 1 full-time parking warden for a total of 37 full-time employees and 3 part-time employees. Police support personnel work three eight-hour shifts during any 24-hour period. The police department utilizes 27 patrol units, 5 investigative units, 2 administrative units, 2 undercover units, 4 army surplus units, 1 DARE station wagon, and 1 mobile command vehicle. The police department currently is comprised of an adequate number of sworn uniformed officers and personnel to serve city residents. There are a total of 4 patrol zones within the city, with 1 officer on duty within each zone for a 12-hour shift. The average response time for calls is 3 minutes. Moreover, the International Association of Policemen recommends, at a minimum, that all municipalities that contain less than 30,000 residents employ 2.1 sworn officers per 1,000 population. The McMinnville Police Department is currently in compliance with this standard having 2.6 sworn officers on duty per 1,000 population. Based on the population projections for the next twenty years, the police department will not need to employ additional officers to remain in compliance with the previously mentioned recommended minimum standard. In addition to this standard, the International City Manager's Association recommends a standard of 2.41 uniformed and non-uniformed officers per 1,000, population as an average for communities with populations between 10,000 and 24,999. Applying this higher requirement, the police department is continuing to maintain compliance with this standard. Based on the projected population figures cited in Chapter Four, the total population for McMinnville is projected to be 14,715 residents by the year 2020. The current ratio of sworn officers to the projected residents served by 2020 would calculate to 2.2 officers per 1,000 population. Thus, this figure still falls within the guidelines established by the International Association of Policemen, but would not be in compliance with the higher standard established by the International City Manager's Association. Applying this standard, the department will need to hire a minimum of 3 new sworn officers by the year 2020. In addition, at least 3 new patrol cars will be required to service the additional sworn officers.

The police station facilities for the most part are adequate to serve the needs of its citizens and meet the objectives of the department. The approximately 2,500 square feet of total available space averages to 67.5 square feet per full-time employee. However, additional space will need to be acquired in the near future to retain the effectiveness of the police department. The most pressing needs of the department primarily concern the acquisition of new surveillance equipment, updated two-way radios, and new patrol cars. Based on the needs of the department to effectively serve city residents during the twenty-year planning period, the following recommendations should be adhered to:

1. Expand the existing department space within the Municipal Blue Building, by utilizing unused space within the building or expanding the existing section of the building now in use by the department.
2. Hire at least 1 new officer by the year 2015 and an additional two new officers by the year 2020.
3. Acquire additional surveillance equipment for the department.
4. Acquire at least 3 new two-way radios in the next twenty years.

- Purchase at least 3 new patrol cars in the next twenty years.

Fire Protection

Currently, the McMinnville Fire Department is centrally housed in one main fire station located at 313 East Main Street. This station contains a total of 3 bays. The department currently maintains a Class 5 ISO rating. The fire department is comprised of 30 full-time firefighters that work in three eight-hour shifts. A typical shift has a minimum of 1 captain, 1 lieutenant, 2 engineers, and 5 firefighters. The main fire department is equipped with the following fire fighting vehicles:

	<u>Vehicle Type</u>	<u>Pump Capacity</u>
1.	Luverne Class A	1,500 gallons per minute
2.	Mack Class A	1,500 gallons per minute
3.	American LaFrance Triple Combination Pumper (with 50-foot telesquirt)	1,500 gallons per minute
4.	Reserve Pumper	1,000 gallons per minute
5.	Reserve Pumper	1,000 gallons per minute
6.	Mini-Pumper	unspecified capacity

The I.S.O considers two primary factors when determining the proper location of fire companies within a community: the type of district and the type of fire company. Two types of districts are differentiated for rating fire protection services, which include a commercial-industrial district and a residential district. The commercial-industrial district includes institutional, warehousing, industrial, commercial, educational, and apartment type uses. Residential areas generally refer to areas containing 1 to 4 family dwellings that do not exceed 3 stories in height. Within the corporate limits, residential dwellings that exceed 3 stories in height are not currently permitted within any residential zoning district and/or fire district. The required fire flow consists of the rate of water necessary to confine a major fire to buildings within a block of the fire. In determining the fire flow, occupancy, size, construction of all related buildings, and the exposure of buildings within the surrounding block are considered. In the evaluation of fire flow requirements within the City of McMinnville, water mains should be capable of providing a sustainable fire flow range of 500 gallons per minute for low-density residential uses to 1,500 gallons per minute for high-density residential uses. Specifically, the recommended fire flow for 1 and 2-family dwellings range from a minimum of 500 gallons per minute for buildings over 100 feet apart, to 1,500 gallons per minute for residential buildings located no more than 10 feet apart. The needed fire flow for other habitational buildings ranges up to 3,500 gallons per minute for commercial, industrial, and high-density residential uses. The existing fire station currently serves approximately 1,542 commercial-industrial parcels and 3,277 residential parcels.

The response-distance criteria is another essential factor that must be considered during the evaluation of the fire capability of the city. Generally, the fire department should be centrally located, with 90% of all structures within 1.5 miles of the servicing fire station. The average response times vary from 3 to 5 minutes for the north industrial area (northeast section), to 7 to 14 minutes for the Meadowbrook Drive area (northwest section), and approximately 6 minutes for the Vervilla Road and Karate Lane area (southern section). For planning purposes, the standard utilized is as cited from the Small Town Planning Handbook, which suggests a maximum service radius of 1 mile for commercial-industrial districts, as measured in road miles, and a maximum service radius of 3 miles for medium to high density residential areas. The suggested maximum service radius for scattered residential areas is up to 4 miles. This standard is based on the type of fire company, and the particular type of land use that is to be served

within a service radius of the fire station in question. The commercial-industrial districts primarily include the Central Business District, the Sparta Street area, the Industrial Park vicinity, the area along the New Smithville Highway and the Highway 70 Bypass, and areas along Chancery Street. Applying the standard for the recommended service radius for an engine or pumper company, and a ladder company of .75 to 1 mile for commercial-industrial areas or high value districts of the city, all of the commercial and industrial properties north of the bypass would be outside this service radius, including the North Industrial Park area and areas along South Chancery Street south of Boyd Avenue. In addition, commercial and industrial properties located along Highway 55 would also be outside of this service radius. Illustration 16 depicts the 1-mile service radius for commercial-industrial properties. This consists of the high value and residential districts for the City of McMinnville and the proposed high value residential and service areas within the corporate limits and the proposed growth area. The recommended service radius is between 2 and 3 miles from the responding fire station for medium to high density residential areas of the city. Applying this standard, there are no areas within the corporate limits that exceed 3 miles for the residential service area. The 4-mile service radius for scattered residential uses is currently being met throughout the entire corporate limits and the proposed growth area.

In addition to the existing fire station, there are two proposed fire sub-stations that are in the planning stages for the city. The first proposed fire sub-station will be located on a 1-acre tract of land on the Old Smithville Highway approximately 1,200 feet from the Highway 70 Bypass. This will provide excellent response time in the event of a fire. The associated commercial-industrial district the fire sub-station will provide fire protection to is depicted in Illustration 16 as "Proposed High Value District 1". The fire sub-station will cover many commercial and industrial areas north of the Highway 70 Bypass and the commercial-industrial area from Main Street to Chancery Street. Additionally, the fire sub-station will serve commercial and industrial areas within the proposed growth area outside of the corporate limits. The station will also provide effective fire service to residential areas within the corporate limits and the proposed growth area.

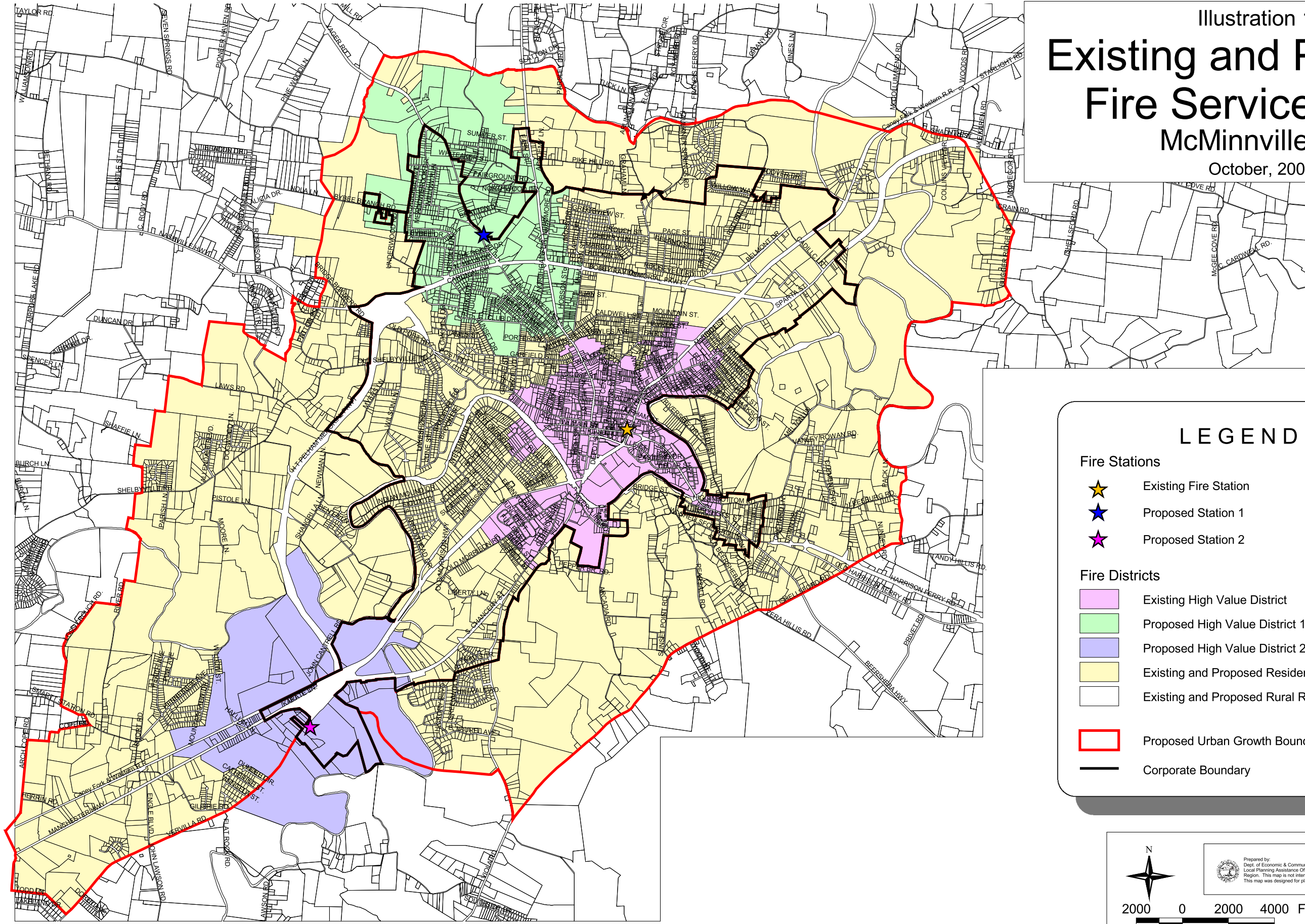
The other proposed fire sub-station will be located at the intersection of Pioneer Lane and Vervilla Road. This station will serve the commercial and industrial properties within the south side of the city including existing commercial properties along the Highway 55 area. This particular station is still within the preliminary planning stages of development and will be several years before actual construction begins. However, the proposed station will provide additional effective residential fire service within the recommended three-mile service radius to medium to high-density residential areas located within the corporate limits. The associated commercial-industrial district the fire sub-station will provide fire protection to is depicted in Illustration 16 as "Proposed High Value District 2". Lastly, the proposed site will also provide the existing high school with excellent fire service and the site is located adjacent to the intersection of three major arterials that will also reduce the response time of the fire service.

After the completion of the two proposed fire stations within the 20-year planning period, the fire department will effectively provide adequate residential fire service to all of the corporate limits and the entire proposed growth area for medium to high density residential areas and scattered residential areas located primarily within the proposed growth area. However, the commercial-industrial districts will still have an area of substantial commercial and industrial properties inside the corporate limits that would not be served by the recommended 1-mile service radius for fire protection. This area consists of the northern industrial area within the north of the Highway 70 Bypass.

In addition to the response distance criteria listed above, a survey as cited from the 1992 International Manager's Association Municipal Year Book, listed the number of fire personnel per 1,000 population for selected municipalities in Tennessee. As applied to the City of McMinnville, there should typically be an average ratio of 1.56 firemen per 1,000 residents. The McMinnville Fire Department currently exceeds that average with 2.36 firemen per 1,000 population. Accounting for the projected population increase by

the year 2020, the McMinnville Fire Department will still be within the recommended number of firemen to adequately provide fire protection for the city. With a projected total population of 14,715 residents by 2020, the current number of firemen will equal 2.04 firemen per 1,000 residents served.

Illustration 16
**Existing and Proposed
 Fire Service Areas**
 McMinnville, TN
 October, 2001



LEGEND

Fire Stations

- ★ Existing Fire Station
- ★ Proposed Station 1
- ★ Proposed Station 2

Fire Districts

- Existing High Value District
- Proposed High Value District 1
- Proposed High Value District 2
- Existing and Proposed Residential District
- Existing and Proposed Rural Residential District
- Proposed Urban Growth Boundary
- Corporate Boundary

Prepared by:
 Dept. of Economic & Community Development
 Local Planning Assistance Office - Upper Cumberland
 Region. This map is not intended for engineering use.
 This map was designed for planimetric use only.

2000 0 2000 4000 Feet

The proposed fire station locations and their respective service areas are depicted in Illustration 17. Based on the current status of the fire protective services within the city, the following recommendations should be implemented by the year 2005:

1. Replace the Triple Combination 1,500-gallon pumper truck to maintain the current ISO rating.
2. Implement the construction of a new fire substation on the New Smithville Highway.
3. Purchase a 1-ton 4-wheel drive truck.
4. Purchase a 1-ton utility van.
5. Conduct a Fire Suppression Study of all structures within the city.
6. Hire additional fire personnel to meet the OSHA requirement of no less than 2 fire fighters in a burning building at one time.

The following recommendations should be implemented by the year 2010:

Conduct a fire station location study for a third fire station within the southern section of the city.

The following improvements should be complete by the year 2020:

1. Construct a third fire station near the Highway 55/Verville Road area.
2. Purchase a combination pumper with a 75-foot aerial.
3. Based on the current standing operational procedures, hire a minimum of 10 new firefighters by the year 2020.
4. Purchase a new reserve pumper vehicle.

Hospital Facilities and Services

The primary healthcare facility within the corporate limits is the River Park Hospital, which was originally established in the 1970's. This hospital relocated across the Highway 70S Bypass to its present location in October of 1996. The main building is a 142,568 square foot facility with an attached medical building, and physician offices that add approximately 77,000 square feet to the main facility. There are 375 employees of the hospital, with a total of 127 beds within the facility. The hospital is fully staffed twenty-four hours a day by emergency room doctors, licensed practicing nurses, registered nurses, medical technicians, laboratory technicians, and other medical employees.

The services the hospital offers include birthing services, a cardiac cath lab, cardiac rehabilitation services, cardiology services, surgical services, diagnostic imaging services, gynecology services, MRI services, inpatient nutritional services, osteoporosis screening services, podiatry services, ultrasound services, urology surgical specialties, nuclear medicine capabilities, twenty-four hour emergency services, intensive care unit, ophthalmology services and other support services.

The 1985 Tennessee State Health Plan proposed a minimum standard of 4 hospital beds per 1,000 persons within its service area. Applying this standard solely to the McMinnville population base, there would need to be a minimum of 50 hospital beds available. Due to the fact the hospital serves the region, as well as McMinnville, the minimum standard for hospital beds may more aptly be applied to the current county

population. Accordingly, the minimum number of hospital beds that are currently required to satisfy this standard is 153 beds. The hospital currently contains a deficiency of 26 hospital beds, based on this minimum standard, and is thus not in compliance with these minimum planning standards. During the twenty-year planning period, Warren County is projected to exceed 42,000 residents. Consequently, based on current minimum requirements, the hospital would need to contain a minimum of 168 total beds.

Based on the current and projected population of Warren County, it is recommended that the hospital expand the existing facilities to provide 30 additional beds by 2005, and a minimum of 11 additional beds by the year 2020.

Nursing Homes

Currently, there are two licensed nursing care facilities serving area residents within McMinnville and Warren County. These consist of the Raintree Manor and the NHC Healthcare Facility. Combined, these facilities offer a total of 290 beds. Both facilities accept Medicare or Medicaid. The Health Care Financing Administration requires nursing homes to have a sufficient number of staff to provide adequate service to all residents. One measure utilized to evaluate the effectiveness of the number and type of support staff is the full time equivalent (FTE) ratio. This is the ratio of the residents to registered nurses, licensed practical nurses, and certified nursing assistants on duty during a two-week period, prior to the facility's last inspection. The national FTE ratio for residents to RN's is 5.7 to 1, and the state ratio is 7 to 1. The national FTE ratio for residents to LPN's is 5.3 to 1; the state ratio is 4.9 to 1. The national FTE ratio for residents to CNA's is 1.7 to 1; the state ratio is 2 to 1. Lastly, the national FTE ratio for residents to the total number of nursing staff is 1.1 to 1; the state ratio being 1.2 to 1. The following is a summary of each facility and an evaluation thereof utilizing national and State of Tennessee FTE ratios.

The Raintree Manor facility is located at 415 Pace Street and contains a total of 140 beds. There are 130 residents currently housed within the facility yielding a 93% occupancy rate. There are a total of 76 employees of the facility consisting of 6 registered nurses, 16 licensed practical nurses, 52 certified nursing assistants, and 2 support staff. The FTE ratio of residents to RN's for the facility is 19.9 to 1, the FTE ratio of residents to LPN's for the facility is 6 to 1, of residents to CNA's it is 2.8 to 1, and for residents to the total number of staff the applicable ratio is 1.7 to 1. All of these FTE ratios are above the national and state averages for their respective categories.

The National Health Care facility is located at 928 Old Smithville Road and contains a total of 150 beds, with 139 residents currently housed within the facility for a 93% occupancy rate. There are a total of 88 employees within this facility, consisting of 7 registered nurses, 23 licensed practical nurses, 49 certified nursing assistants, and 11 support staff. The FTE ratio for residents to RN's is 19.9 to 1, the FTE ratio for residents to LPN's is 6 to 1, the FTE ratio for residents to CNA's is 2.8 to 1, and the FTE ratio for residents to the total number of staff is 1.6 to 1. All of these FTE ratios are above the national and state averages for their respective categories.

In addition to these health care indicators for level of service, the applicable standard cited in the 1985 Tennessee State Health Plan prepared by the Tennessee Department of Health and Environment in 1985 recommends 44 beds per 1,000 persons age 65 and above for the service area. There are currently around 5,319 residents in Warren County who are 65 years old and over, or almost 14 percent of the population. Based on the previously cited minimum ratio standard of persons to beds, there currently needs to be a total of 220 beds. Based on the population projections for the county as a whole, and assuming the current ratio of persons 65 years old and over, there will need to be 255 beds by the year 2020. Both of the facilities cited above provide a total of 290 beds, which is within the minimum state requirements.

Moreover, the 1990 Tennessee State Health Plan provides the following methodology to calculate the bed needs of the county:

County bed needs=	.0005 x population 65 and under	(.0005 x 32,957 =	16.47 beds)
	.0120 x population 65-75	(.0120 x 2,907 =	34.88 beds)
	0600 x population 75-84	(.0600 x 1,813 =	108.78 beds)
	1500 x population 85+	(.1500 x 599 =	<u>89.85 beds)</u>
		Total Beds =	250 beds

The preceding county bed need formula, as applied to Warren County utilizing the latest population figures, requires a total of 250 beds. Applying the same minimum standards for the bed needs of the county to the projected population figures for Warren County and assuming the same age cohort ratio as currently exists, there will need to be a total of 276 beds within the county by the year 2020. The two existing facilities currently exceed the minimum standard for county bed needs and will still exceed the minimum standard by the year 2020.

Notably, the number of beds is not the only indicator for regional bed needs for facilities, and should be utilized only as a supplementary indicator for the nursing home needs of the area, in conjunction with other indicators. Applying the minimum standards cited above, the two existing facilities meet and exceed these minimum requirements.

County Health Department

The Warren County Health Department was established in the late 1940's to serve the county. The Bureau of Health Services, in compliance with the established Upper Cumberland Region Policies and Procedures Board, oversees the operations of the department. The mission of the department is to protect and promote the health of the community. The main office of the health department is located at 1401 Sparta Street in McMinnville. The services that are offered by the department include family planning, specific services for women, infants, and children, an early detection program for breast and cervical cancer, dental health programs, overall health programs, communicable disease control, SDT/HIV testing program, child health services, general environmental health programs, the vital records motor voter program, child fatality review services, child health and development services, children's special services and administration of the Families First Program.

The Warren County Health Department employs both full-time and part-time workers at the center. The following includes a summary of the current staff at the center:

Full-Time Staff

- 1 Nursing Supervisor
- 3 Public Health Nurses
- 1 Office Supervisor
- 5 Clerks
- 1 Counseling Assistant
- 2 Environmentalists
- 1 Nursing Assistant

Part-Time Staff

- 1 County Director
- 1 Dentist
- 1 Dental Assistant
- 1 Social Counselor
- 1 Health Educator
- 1 Public Health Repr.
- 1 Nutritionist

Ambulance, Emergency Rescue and Civil Defense

The Warren County Emergency Medical Services Department was established in 1972 and is the “primary provider” for ambulance and emergency services within the entire county. The ambulance service was returned to county control in 1988, after a period of a few years in which the service was run by the local hospital. The building currently housing this service was constructed in 1988. This station is located at 103 Magness Drive in McMinnville and provides these medical services to the general public.

There are a total of 24 employees on staff at this service provider, with a minimum of eight personnel serving on a rotating 24 hours on-duty and 48 hours off-duty schedule. These employees consist of 17 full-time paramedics and 7 full-time emergency medical technicians. The Warren County Emergency Services Department maintains a Class A rating, which is the highest level an emergency service provider can be rated by the State of Tennessee. To maintain this rating, the department must provide a minimum of 1 ambulance per 20,000 persons served, a paramedic and an EMT must answer at least 90 percent of all calls, the service must provide treatment for life-threatening medical emergencies and special critical care on 95 percent of emergency responses, and the service provider must establish a First Responder Program for any areas that exceed an 8-minute response time. A First Responder Program is a legally recognized organization or service that is sanctioned to perform emergency management, public safety, fire fighting, ambulance, or medical functions. At the present time, there are no areas within the corporate limits of McMinnville that exceed an 8-minute response time. There are also no locations within the corporate limits that would exceed 6 minutes for a maximum response time. A First Responder Program has also been established for some areas outside the city, within the unincorporated portions of the county. There are six Type III Advanced Life Support Ambulances that are utilized by the service provider. Two of these ambulances utilize a modular system for the patient transport component of the vehicle that can be improved after the ambulance needs replacing due to age. Consequently, the entire ambulance will not need to be replaced; just the vehicle chassis will need to be totally replaced. Each ambulance is staffed by an Emergency Medical Technician, a paramedic, and an ambulance driver per twenty-four hour shift. Accordingly, 4 ambulances are on standby and two ambulances are utilized as a backup. The ambulance service receives an average of 450 calls per month. Illustration 10 depicts the existing and proposed ambulance stations to serve the area. Based on the generally southwest direction of the anticipated expansion of the municipality, the following recommended project should be concurrent with any expansion of the corporate limits in the southwest direction:

Establish an ambulance sub-station along the Highway 55 vicinity, to reduce the response time from up to twenty minutes to less than 8 minutes for this area, as an expansion of the corporate limits occurs in this direction.

Rescue

The Warren County Rescue Squad was established as a local volunteer service agency. This squad currently serves both the City of McMinnville and Warren County. The agency is headquartered within McMinnville on Sparta Street, and serves in an emergency capacity and as a volunteer public assistance agency for area residents. There are currently 30 volunteer members that are directly involved in the numerous activities and services of the agency. The primary duties of the rescue squad include assisting local law enforcement agencies in searches for missing people and assisting in dragging techniques for possible drowning victims. Additionally, the agency assists the community in times of emergency, providing assistance in transporting medications and emergency supplies to residents who are unable, because of emergency conditions, to travel to obtain these necessities. This valuable agency assists Warren County in this capacity, as it does the surrounding counties. Lastly, the agency offers assistance to the needy via their annual Christmas toy drive, which the agency has conducted for the last thirty-nine

years. This agency may be contacted in times of emergency by dialing the Warren County Enhanced 911 System, which has been operating since 1995. This system permits the dispatchers to immediately access the addresses of the emergency calls and provides the dispatchers access to the NCIC, the national crime computer database and the TDD system. The service handles an average of 90 calls per day, with 30 additional calls being taken on the non-emergency line that is utilized to handle less pressing calls. The system maintains 2 dispatchers on duty during the day and 3 dispatchers at night. The dispatchers are required to undergo more than 200 hours of training before they are permitted to start handling calls at the local dispatch office. The Warren County Enhanced 911 System operates under the guidance of the local 911 Board, which consists of various local officials.

Civil Defense

The Warren County Emergency Management Services Department is responsible for providing various services that promote and secure the civil defense. This service is a local chapter of the Tennessee Emergency Management Agency. The service is operated by over twenty volunteers whose primary duties include constructing and implementing contingency plans in case of a natural or man-made disaster, and assisting in the preparation of federal disaster relief plans. In addition, volunteers also provide on-scene assistance to the public in times of emergencies such as floods, snowstorms, tornadoes, and other disasters. State law requires that each county within the State of Tennessee establish a Civil Defense Program.

Parks and Recreational Department

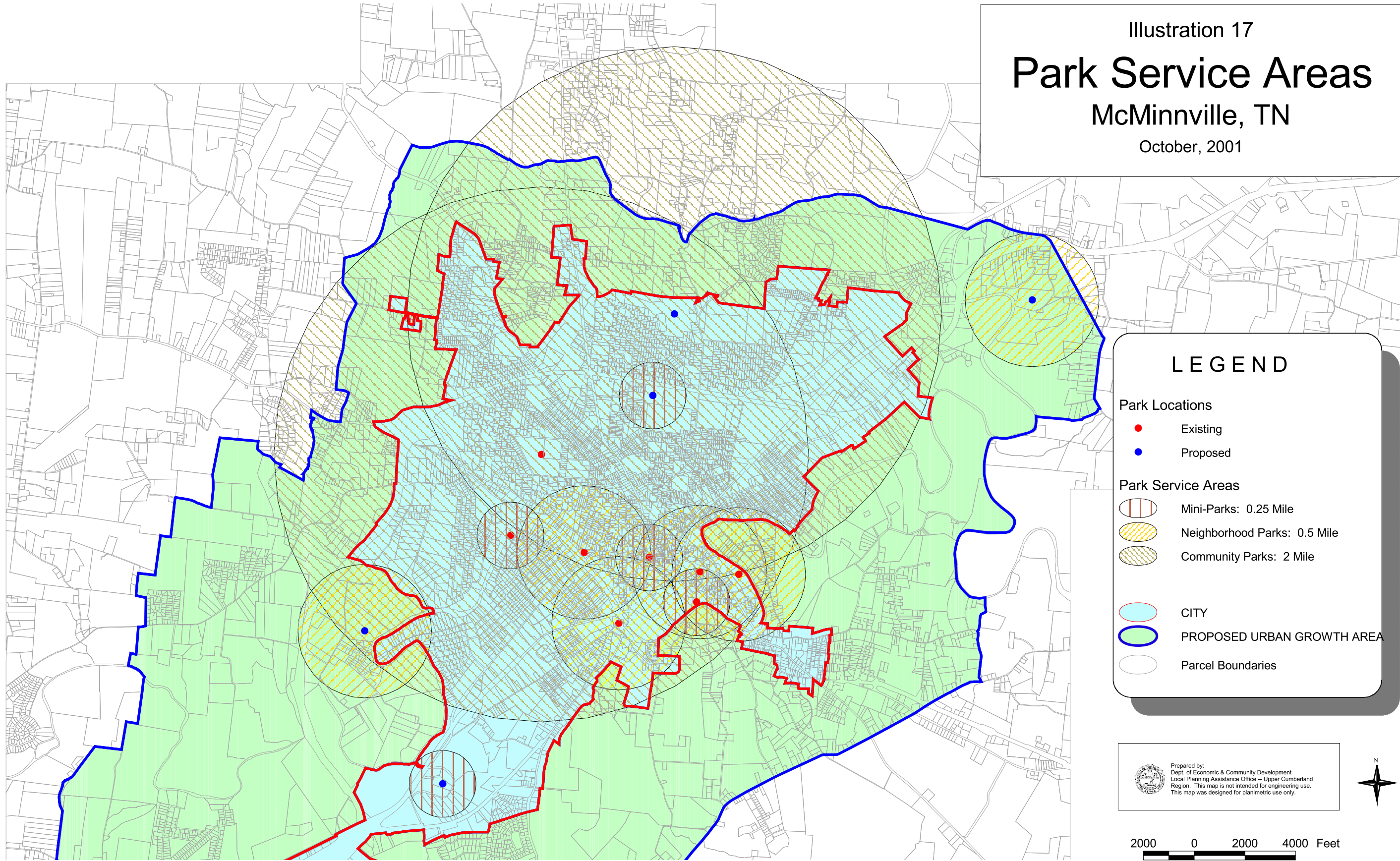
Recreational and park development within McMinnville was first initiated in the early 1950's. Today, the department is a participating member of the Tennessee Parks and Recreation Association. The Parks and Recreation Department provides and maintains over 98 acres of parklands and facilities under the guidance of a full-time department director. The department receives additional direction from a legally constituted three member Parks and Recreation Advisory Board. This advisory board is charged with the responsibility of insuring that all city park facilities are kept in proper repair, making recommendations on property leases and transfers for parks and recreational purposes, reviewing current programs, and approving the departmental budget. The department staff consists of 2 full-time salaried employees, 13 full-time hourly employees, 4 part-time employees, 24 part-time seasonal employees, and about 193 volunteers.

Parks and Recreation Facilities

There are several parks and recreational facilities that the department maintains for residents. The recommended classification system for local and regional recreation open space is depicted in Table 17. A summary of community parks and facilities is described in Table 18, and their respective locations and service areas are depicted in Illustration 17. Overall, all park sites are well maintained and clean. There are however some general maintenance and renovations that are needed, as pertain to some of the facilities. A park-wide maintenance and grass cutting procedure is in place, and daily work orders and reports are utilized to assign work and record progress.

The most notable recreational facility is the Civic Center located at 500 Garfield Street. This center offers a variety of recreational opportunities and amenities. The center is a two-story multi-purpose facility constructed in 1975, designed to serve the entire community. In addition to recreational needs, the center also serves as host for meetings, conventions, and other activities. There are also outdoor facilities that are offered at the Civic Center that provides a variety of activities for area residents. The recreation department is currently involved with numerous recreation projects around the area. The most ambitious of these includes a Greenway Plan and two new pools, one indoors and one outdoors. The greenway

Illustration 17
Park Service Areas
 McMinnville, TN
 October, 2001



LEGEND

Park Locations

- Existing
- Proposed

Park Service Areas

- Mini-Parks: 0.25 Mile
- Neighborhood Parks: 0.5 Mile
- Community Parks: 2 Mile

○ CITY

○ PROPOSED URBAN GROWTH AREA

○ Parcel Boundaries

Prepared by:
 Dept. of Economic & Community Development
 Local Planning Assistance Office – Upper Cumberland
 Region. This map is not intended for engineering use.
 This map was designed for planimetric use only.



system will connect two existing parks and provide open space within the city, via trails for the public to utilize. The Riverfront Park is currently in the planning stages to be designated as a trailhead for the “Phase I” section of a five-phase greenway system, with the trail terminating at Pepper Branch Park. The pool projects are another major improvement which will involve replacing the 228,802-gallon olympic pool within the center with a new pool and also providing a new outdoor public pool.

The recreation areas that the city is responsible for have all been classified according to the activities and facilities offered. A recommended standard for local and regional recreational open space is depicted in Table 17. These classification standards have been obtained from the National Recreation and Parks Association. These classifications are depicted in Table 18 as they apply to McMinnville’s recreational areas. As shown in Illustration 17, mini-parks effectively serve the needs of those residents living within a one-quarter mile radius, neighborhood parks/playgrounds serve a half-mile radius, and community parks effectively serve residents living within a two-mile radius. The Illustration depicts the existing recreational facilities of the city and the proposed or recommended recreational facilities and their respective service areas. Illustration 10 depicts the type of recreational park that is proposed or recommended for the city, based on the various recreational standards utilized herein.

TABLE 17

A RECOMMENDED CLASSIFICATION SYSTEM
FOR LOCAL AND REGIONAL RECREATION OPEN SPACE

	COMPONENT USE	SERVICE AREA	DESIRABLE SIZE	ACRES/1,000 POPULATION	DESIRABLE SITE CHARACTERISTICS
A. LOCAL/CLOSE-TO-HOME SPACE:					
Mini-park	Specialized facilities that serve a concentrated or limited population or specific group such as tots or senior citizens.	Less than 1/4 mile radius.	1 acre or less.	0.25 to 0.5 A	Within neighborhoods and in close proximity to apartment complexes, townhouse development or housing for elderly.
Neighborhood Park/Playground	Area for intense recreational to serve activities such as field games, court games, crafts, playground apparatus area, skating, picnicking, wading pools, etc.	1/4 to 1/2 mile radius population up to 5,000 (a neighborhood).	15 + acres	1.0 to 2.0A	Suited for intense development. Easily accessible to neighborhood population-geographically centered with safe walking and bike access. May be developed as a school-park facility.
Community Park	Area of diverse environmental quality. May include areas suited for intense recreational facilities, such as athletic complexes, large swimming pools. May be an area of natural quality for outdoor recreation, such as walking, viewing, sitting, picnicking. May be any combination of the above, depending upon site suitability and community need.	Several neighborhoods. 1 to 2 mile radius.	25+ acres	5.0 to 8.0A	May include natural features, such as water bodies, and areas suited for intense development. Easily accessible to neighborhood served.

TOTAL CLOSE-TO-HOME SPACE = 6.25-10.5A/1,000

TABLE 17 (continued)

A RECOMMENDED CLASSIFICATION SYSTEM
FOR LOCAL AND REGIONAL RECREATION OPEN SPACE

	COMPONENT USE	SERVICE AREA	DESIRABLE SIZE	ACRES/1,000 POPULATION	DESIRABLE SITE CHARACTERISTICS
B. REGIONAL SPACE:					
Regional/Metro-politan Park	Area of natural or ornamental quality for outdoor recreation such as picnicking, boating, fishing, swimming, camping, and trail uses; may include play areas.	Several communities. 1 hour driving time.	200+ acres	5.0 to 10.0A	Contiguous to encompassing natural resources.
Regional park reserve	Area of natural quality for nature oriented outdoor recreation, such as viewing, and studying nature, wildlife habitat, conservation, swimming, picnicking, hiking, fishing, boating, camping, and trail uses. May include active play areas. Generally, 80% of the land is reserved for conservation and natural resource management, with less than 20% used for recreation development.	Several communities. 1 hour driving time.	1,000 + acres; sufficient area to encompass the resource to be preserved and managed.	Variable	Diverse or unique natural resources, such as lakes, streams, marshes, flora, fauna, topography.

TOTAL REGIONAL SPACE = 15-20 A/1,000

TABLE 17 (continued)

A RECOMMENDED CLASSIFICATION SYSTEM
FOR LOCAL AND REGIONAL RECREATION OPEN SPACE

	COMPONENT USE	SERVICE AREA	DESIRABLE SIZE	ACRES/1,000 POPULATION	DESIRABLE SITE CHARACTERISTICS
C. SPACE THAT MAY BE LOCAL OR REGIONAL AND IS UNIQUE TO EACH COMMUNITY:					
Linear Park	Area developed for one or more varying modes of recreational travel, such as hiking, biking, snowmobiling, horseback riding, cross-country skiing, canoeing and pleasure driving. May include active play areas (note: any included for any of above components may occur in the "linear park.")	No applicable standard.	Sufficient width to protect the resource and provide maximum use.	Variable	Built or natural corridors, such as utility rights-of-way, bluff lines, vegetation patterns, and roads, that link other components of the recreation system or community facilities, such as school, libraries, commercial areas, and other park areas.
Special Use	Areas for specialized or single purpose recreational activities, such as golf courses, nature centers, marinas, zoos, conservatories, arboreta, display gardens, arenas, outdoor theaters, gun ranges or downhill ski areas, or areas that preserve, maintain, and interpret buildings, sites, and objects of archaeological significance. Also plazas or squares in or near commercial centers, boulevards, parkways.	No applicable standard size.	Variable depending on desire	Variable	Within communities.

TABLE 17

A RECOMMENDED CLASSIFICATION SYSTEM
FOR LOCAL AND REGIONAL RECREATION OPEN SPACE

	COMPONENT USE	SERVICE AREA	DESIRABLE SIZE	ACRES/1,000 POPULATION	DESIRABLE SITE CHARACTERISTICS
Conservancy	Protection and management of natural/cultural environment with recreation use as a secondary objective.	No applicable standard.	Sufficient to protect the resource.	Variable	Variable, depending on the resource being protected.

SOURCE: Recreation, Park and Open Space Standards and Guidelines. National Recreation and Park Association, 1983.

TABLE 18

PARK/FACILITY NAME	ACREAGE	AMENITIES AND FACILITIES	CLASSIFICATION	SITE CONDITION
Ben Lowland Boat Ramp	1.5	No existing facilities at present. Utilized for informal recreation. Gravel road access and boat ramp.	Community Facility	Adequate road access to boat ramp.
City Park and Gazebo	.25	Lighted gazebo with seats.	Community Park	Clean and well-maintained. Ideal location.
Hobbs Park	.5	No amenities or recreational facilities at present time.	Neighborhood Park	Site has water access and is completely fenced with locked access gated after hours of operation.
Pepper Branch Park	11	No amenities or recreational facilities at present time.	Community Park	Beautiful site location with plans for the park to be the trail head for the greenway.
Pistole Park	30	7 soccer fields with 4 lights, restrooms, concession stand and a picnic shelter.	Regional Facility	Wooden bleachers are in poor condition. Facilities and field well maintained. Room for future expansion.
Ramsey Park	8	Open space provided and a pavilion with lights, picnic tables, grills, spacious parking and a small playground.	Community Park/Playground	Site well maintained, no restrooms, playground (with safety surface) equipment not ADA accessible, good signage on site.
Riverfront Park	4	Gazebo with benches, shelter with lights, tables and grills, small playground, horseshoe pit, volleyball court, 2 fishing Piers, boat ramp, paved parking with restrooms.	Community Park/Playground	Good access to river. Site functional and well located, signage needed at park entrance playground (with safety surface); needs ADA access, restrooms need better maintenance.

PARK/FACILITY NAME	ACREAGE	AMENITIES AND FACILITIES	CLASSIFICATION	SITE CONDITION
Rocket Park	7	Unlit ballfield, multi-court with lights, fenced playground, large grassy area adjoining river, old club house, and restrooms.	Community Park/Playground	Site well maintained, contains LWCF grant sign, bleachers are 75" high without back and side rails, site not ADA accessible, playground does not contain safety surface. Site is proposed to be the end of the greenway.
Civic Center (inside)	64,672 sq. ft. or 1.48 acres	Lounge, kitchen, aerobics room, weight room, service desk with large bay doors, small racquetball court, arcade area, 3 meeting rooms, regulation basketball court, tennis court, snack counter, table tennis area, open balcony area and restrooms.	Regional Facility	Good signage on main roads, clean building with fresh paint, all fire exits clear and unlocked, ADA designated restrooms locked
Civic Center (outside)	2.5	6 ballfield with lights, 1 unlit ballfield, 2 concession stands, restrooms and public phones. Four lit tennis courts, 2 asphalt volleyball courts, pavilion, ADA water fountain, basketball court and 18-hole miniature golf course, 300,000 gallon Olympic pool, children's wading pool, bathhouse, and restrooms.	Regional Facility	Playing fields are well maintained, restrooms are not ADA accessible. Tennis courts are newly surfaced, asphalt surface of volleyball courts are cracked with some weeds. Mini golf course is well maintained. Olympic pool is old and loses water. Restrooms are small without privacy.

All existing parks and recreational facilities within the area are below the minimum recommended acreage requirements, utilizing the standards cited in Table 17. Applying the minimum acreage requirement for mini-parks of .25 an acre per 1,000 population; each mini-park within the area should contain a minimum of 3.18 acres. Applying the standard for minimum acreage needs to neighborhood parks and community parks, neighborhood parks should contain a minimum of 12.7 acres, while community parks should contain at least 63.5 acres. Table 19 lists each city park, cites the total acreage of each park, and the current acreage deficiency of each park.

**TABLE 19
MCMINNVILLE PARK ACREAGE ANALYSIS**

PARK	ACREAGE	ACREAGE REQUIRED	ACREAGE DEFICIENCY
Ben Lowland Boat Ramp	1.5	3.18	-1.68
City Park & Gazebo	0.25	3.18	-2.93
Hobbs Park	0.5	3.18	-2.68
Pepper Branch Park	11	12.7	-1.7
Pistole Park	30	63.5	-33.5
Ramsey Park	8	12.7	-4.7
Riverfront Park	4	12.7	-8.7
Rocket Park	7	12.7	-5.7
		TOTAL ACREAGE DEFICIENCY	61.59

Source: Local Planning Assistance Office, Department of Economic and Community Development, State of Tennessee.

The current deficiencies listed above will dramatically increase in the next twenty years as the population base increases, if the necessary improvements are not facilitated. The existing results of this analysis resulted in a 7.29-acre deficiency for mini-parks, a 20.8-acre deficiency for neighborhood parks, and a 33.5-acre deficiency for McMinnville’s sole community park. All of these recreational parks are below the recommended minimum acreage requirements. Consequently, by the year 2020, there will need to be a total of 61.59 additional park acres to accommodate the projected population growth of the city. However, the majority of city residents are served by at least one recreation service area. Illustration 17 depicts the service areas of these mini-parks, neighborhood parks, and community park. The recommended size of each category of recreational park should be utilized to provide adequate recreational facilities for all area residents. Consequently, the city should take definitive steps to increase the amount of available recreational parks to meet the recommended minimum requirements for size, based on the specific classification of the recreational facility.

Table 20 illustrates other minimum planning standards for various types of recreational facilities, as dictated by the National Recreation and Parks Association. An evaluation of McMinnville’s recreational facilities as they apply to minimum planning standards is depicted in Table 21. Utilizing these planning standards, the city is currently within the recommended minimum planning standards for its recreation facilities. Although the city does not contain a recreational field strictly for football, other soccer and baseball fields can be utilized as such. The status of various types of recreational facilities within McMinnville rated high in relation to these standards. Moreover, the total range of facility types within the area was not deficient in any category, and even exceeded the prescribed standard for certain types of recreational facilities.

Based on the proceeding evaluation of the recreational facilities within the area, the following improvements should be undertaken by the year 2005:

1. Complete the Phase I section of the greenway project that connects Riverfront Park to Pepper Branch Park.
2. Expand the recreation programming of the department to include culturally diverse events for the area and establish additional programs for non-athletic events in addition to the programs that are currently offered.
3. Provide for improved swimming facilities by replacing the existing olympic-size swimming pool and constructing an outdoor swimming pool.
4. Develop a standardized program budget planning process to cover the procedures and methods involved with the programs that are proposed to be established to also include the evaluation of such programs.
5. Develop an annual appropriations program for recreation users who reside outside the corporate limits.
6. Develop a facility agreement for groups that reserve, rent or utilize an existing departmental facility.

The following improvements are recommended to be implemented or completed by the year 2010:

1. Initiate any available methods of acquiring and financing additional land for recreation facilities to meet the recommended minimum acreage needs for specific recreational areas.
2. Draft a Comprehensive Recreation Plan for McMinnville.
3. Initiate partnerships between various organizations and agencies to effectively provide and fund the recreational needs of the region.
4. Implement phase three, phase four, and phase five of the greenway project.
5. Initiate the development of recreational facilities within Pepper Branch Park.
6. Construct and install greenway improvements along the Chancery Street Bridge.
7. Complete Phase II of the greenway project with the development of Pepper Branch Park.

The following project proposals and recreational improvements are recommended to be completed by the year 2020:

1. Complete the development of the proposed improvements within Pepper Branch Park to include completion of all picnic area, playground facilities, a trailhead, a boat ramp, all parking areas, pavilions, and the implementation of a tree-planting program.
2. Construct a flood-proof concrete access bridge over the Barren Fork River, connecting Riverfront Park and Pepper Branch Park.

3. Establish and implement a minimum of 2 revenue-producing annual special events.
4. Adopt a 7-Year Executive Financial Summary Report for the department.
5. Establish a Standard Operations Program for signing out and periodic review of inventory of supplies and tools of the department.

TABLE 20

RECOMMENDED STANDARDS FOR SPECIFIC RECREATIONAL FACILITIES

FACILITY	DEFINITION	LOCATIONAL REQUIREMENTS	POPULATION PROFILE STANDARD	NOTES
Tennis	36'x78'-- 12' clearance on both sides; 21' clearance on both ends.	Long axis north-south	1 court per 2,000	Best in batteries of 2-4. Located in neighborhood-community park or adjacent school site.
Volleyball	30'x60'--Minimum 6' clearance on all sides.	Long axis north-south	1 court per 5,000	Same as other court activities (e.g., badminton, basketball, etc.)
Baseball-Official	Baselines--90'--Pitching distances-60-1/2' --Foul lines-min. 320' center field-400'+	Locate home plate so that pitcher throwing across sun and batter not facing it.	1 per 5,000 lighted-1 per 30,000	Part of neighborhood complex. Lighted fields part of community complex.
Little League	Baselines--60'--Pitching distances-45'-- Foul lines-min. 200' center field-200'-250'	Line from home plate through pitcher's mound run east-north-east.		
Field hockey	180'x300' with a minimum of 10' clearance on all sides.	Fall season-long axis northwest to southeast. For longer periods, north to south.	1 per 20,000	Usually part of baseball, football, soccer complex in community park or adjacent to high school.
Football	160' x 360' with a minimum of 6' clearance on all sides.	Same as field hockey.	1 per 20,000	Same as field hockey.

FACILITY	DEFINITION	LOCATIONAL REQUIREMENTS	POPULATION PROFILE	
			STANDARD	NOTES
Soccer	195' to 225' x 330' to 360' with a 10' minimum clearance on all sides.	Same as field hockey.	1 per 10,000	Number of units depends on popularity.
Swimming pools	<u>Teaching</u> -Minimum of 25 yards x 45' even depth of 3 to 4 feet. <u>Competitive</u> - Minimum of 25m x 16m. Minimum of 27 square feet of water surface per swimmer. Ratios of 2:1 deck vs. water.	None--although care must be taken in siting of lifeguard stations in relation to afternoon sun.	1 per 20,000 (pools should accommodate 3 to 5% of total population at a time).	Pools for general community use should be planned for teaching, competitive, and recreational purposes with enough depth (3.4m) to accommodate 1m and 3m diving boards located in community park or school site.
Beach areas	Beach area should have 50 sq. ft. of land and 50 sq. ft. of water per user. Turn-over rate is 3. There should be 3-4A supporting land per A of beach.	N/A	N/A	Should have sand bottom with slope a maximum of 5% (flat preferable). Boating areas completely segregated from swimming areas.
Badminton	Singles-17' x 44' -- Doubles-20' x 44' with 5' unobstructed area on all sides.	Long axis north-south	1 per 5,000	Usually in school, recreation center, or church facility, safe walking or bike access.
Basketball -Youth -High School -Collegiate	46' - 50' x 84' 50' x 84' 50' x 94 with 5' unobstructed space on all sides.	Long axis north-south	1 per 5,000	Same as badminton. Outdoor courts in neighborhood and community parks, plus active recreation areas in other park settings.

FACILITY	DEFINITION	LOCATIONAL REQUIREMENTS	POPULATION PROFILE STANDARD	NOTES
Archery Range	300' length x minimum 10' wide between targets. Roped clear space on sides of range minimum of 30', clear space behind targets minimum of 90' x 45' with bunker.	Archer facing north +/-45°.	1 per 50,000	Part of a regional/metro park complex.
Combination skeet and trap field (8 station)	All walks and structures occur within an area approximately 130' wide by 115' deep. Minimum cleared area is contained within two super-imposed segments with 100 yard radii (4 acres). Shot-fall danger zone is contained within two super-imposed segments with 300 yard radii (36 acres).	Centerline of runs northeast/southwest with shooter facing northeast.	1 per 50,000	Part of a regional/metro park complex.
Golf -Par 3 (18-hole) -9 hole standard -18 hole standard	Average length--vary 600-2,700 yards. Average length--2,250 yards. Average length--6,500 yards.	Majority of holes on north-south axis.	1/25,000 1/50,000	9-hole course can accommodate 350 people/day. 18-hole course can accommodate 500-550 people a day. Course may be located in community or district park, but should not be over 20 miles from population center.

FACILITY	DEFINITION	LOCATIONAL REQUIREMENTS	POPULATION PROFILE	
			STANDARD	NOTES
Golf-Driving Range	900' x 690' wide. Add 12' width for each additional tee.	Long axis southwest/northeast with golfer driving toward northeast.	1 per 50,000	Part of golf course complex. As a separate unit, may be privately operated.
1/4 mile running track	Overall width--276' length--600.02'. Track width for 8 to 4 lanes is 32'.	Long axis in sector from north to south to northwest/southeast with finish line at northerly end.	1 per 20,000	Usually part of high school, or in community park complex in combination with football, soccer, etc.
Softball	Baselines--60'/Pitching distance--46' min., 40'--women fast pitch field radius from plat--225' between four lines slow pitch--275' (men), 270' (women)	Same as baseball.	1 per 5,000 (if also need for youth baseball.)	Slight difference in dimensions for 16" slow pitch. May also be used for youth baseball.
Multiple recreation court (basketball, volleyball, tennis)	120' x 80'	Long axis of courts with primary use is north-south.	1 per 10,000	
Trails	Well defined head maximum 10' width, maximum average grade 5 percent not to exceed 15 percent. Capacity rural trails - 40 hikers/day/mile. Urban trails--90 hikers/day/mile.	N/A	1 system per region.	

FACILITY	DEFINITION	LOCATIONAL REQUIREMENTS	POPULATION PROFILE	
			STANDARD	NOTES
Handball (3-4 wall)	20' x 40' - Minimum of 10' to rear of 3-wall court. Minimum 20' overhead clearance.	Long axis north/south. Front wall at north end.	1 per 20,000	4 wall usually indoor as part of multi-purpose facility. 3 wall usually outdoor in park or school setting.

Source: Recreation, Park and Open Space Standards and Guidelines. National Recreation and Park Association, 1983.

TABLE 21**SPECIFIC RECREATIONAL FACILITIES ANALYSIS**

FACILITY TYPE	NUMBER CURRENTLY AVAILABLE	NUMBER REQUIRED	BELOW REQUIREMENTS	EXCEEDING REQUIREMENTS
BASKETBALL COURT	3	2 (1 per 5,000 pop.)	NO	YES
HANDBALL/ RAQUETBALL COURT	1	1 (1 per 20,000 pop.)	NO	NO
TENNIS COURTS	5	6 (1 per 2,000 pop.)	1	NO
VOLLEYBALL COURTS	3	2 (1 per 2,000 pop.)	NO	YES
BASEBALL FIELDS	5	2 (1 per 5,000 pop.)	NO	YES
SOFTBALL FIELDS	7	2 (1 per 5,000 pop.)	NO	YES
FOOTBALL FIELDS	0	1 1 per 20,000 pop.)	1	NO
SOCCOR FIELDS	7	1 (1 per 10,000 pop.)	NO	YES
SWIMMING POOL	1	1 (1 per 10,000 pop.)	NO	NO
MULTIPLE COURT (basketball-volleyball)	1	1 (1 per 10,000 pop.)	NO	NO
GOLF COURSE	0	N/A	NO	NO

Source: National Recreation and Parks Association, 1983

Compiled by the Local Planning Assistance Office, Department of Economic and Community Development, State of Tennessee

Based on the projected population for McMinnville of 14,715 residents, recreation facilities will need to be expanded upon. Based on the minimum specific recreation facilities depicted in Table 21, additional recreation facilities will need to be made available to residents by the year 2020. There will need to be 2 additional tennis courts, 4 additional volleyball courts, 1 baseball field, and 1 football field by 2020 to provide the number of minimum recommended recreation facilities.

Other Recreational Facilities

There are three other area regional park facilities that will be mentioned here: Pistole Park Soccer Complex, Rock Island State Park and Cumberland Caverns. All of these recreational areas are outside the corporate limits of McMinnville, but the Pistole Park Soccer Complex is within the proposed growth area.

Pistole Park Soccer Complex

This particular recreation facility consists of 37 total acres located on Laws Road. The complex contains 7 soccer fields, of which 4 contain lights for nighttime use. The complex also contains restrooms, a concession stand, and a picnic shelter. The soccer fields are utilized by people ages 5 to 18 for league play.

Rock Island Rustic State Park

The Tennessee Electric Power Company originally developed the Rock Island State Park in the 1920's. Activities to establish the park began in 1964, with efforts by a number of local citizens. Nevertheless, the State of Tennessee did not officially establish the park until 1969, at which point the initial development on the park was started. The park consists of 883 total acres located at the confluence of the Caney Fork River and the Collins River. The park offers picnic areas, 60 campsites, 10 rental cabins, boating and fishing activities, and a public beach.

Cumberland Caverns

Cumberland Caverns is the largest cave in Tennessee, and the second largest cave system in the United States. These caverns are a major tourist attraction for the area. They are located just seven miles southeast of McMinnville off of State Route 8. The cave was first opened to the public in 1955. The caverns are a registered U.S. National Landmark. One of the major attractions of the caverns is the underground dining room that will seat over five hundred people.

Education System

This section will expound upon the educational facilities within the corporate limits of McMinnville for the purpose of evaluating the educational facilities therein. The schools within McMinnville are part of the Warren County School System.

The public schools within the City of McMinnville are part of a county school system. There are currently 3 elementary schools, 1 middle school, and 1 high school within the city. There is also 1 alternative school, 1 vocational school, and 1 community college. Table 22 depicts each public educational facility, the grades taught, the number of classrooms, the number of students, the number of teachers, the total site acreage, and the design capacity of each educational facility.

TABLE 22

PUBLIC EDUCATION SYSTEM INVENTORY

Name & Address	Number of Students	Grades Taught	Number of Classrooms	Number of Teachers	Site Acreage	Design Capacity
Bobby Ray Elementary 504 N. Chancery St.	431	K-5	39	35	14.8	450
Hickory Creek Elementary 270 Pioneer Ln.	724	K-5	55	53	55*	900
West Elementary Clark Blvd.	571	K-5	44	43	12	600
Warren County Middle School 200 Caldwell St.	802	K-8	80	58	23	1,200
Warren County High School 199 Pioneer Ln.	1,778	9-12	102	110	55*	2,100

- 110 total acres shared between these two schools

Source: Local Planning Assistance Office, Department of Economic and Community Development, State of Tennessee.

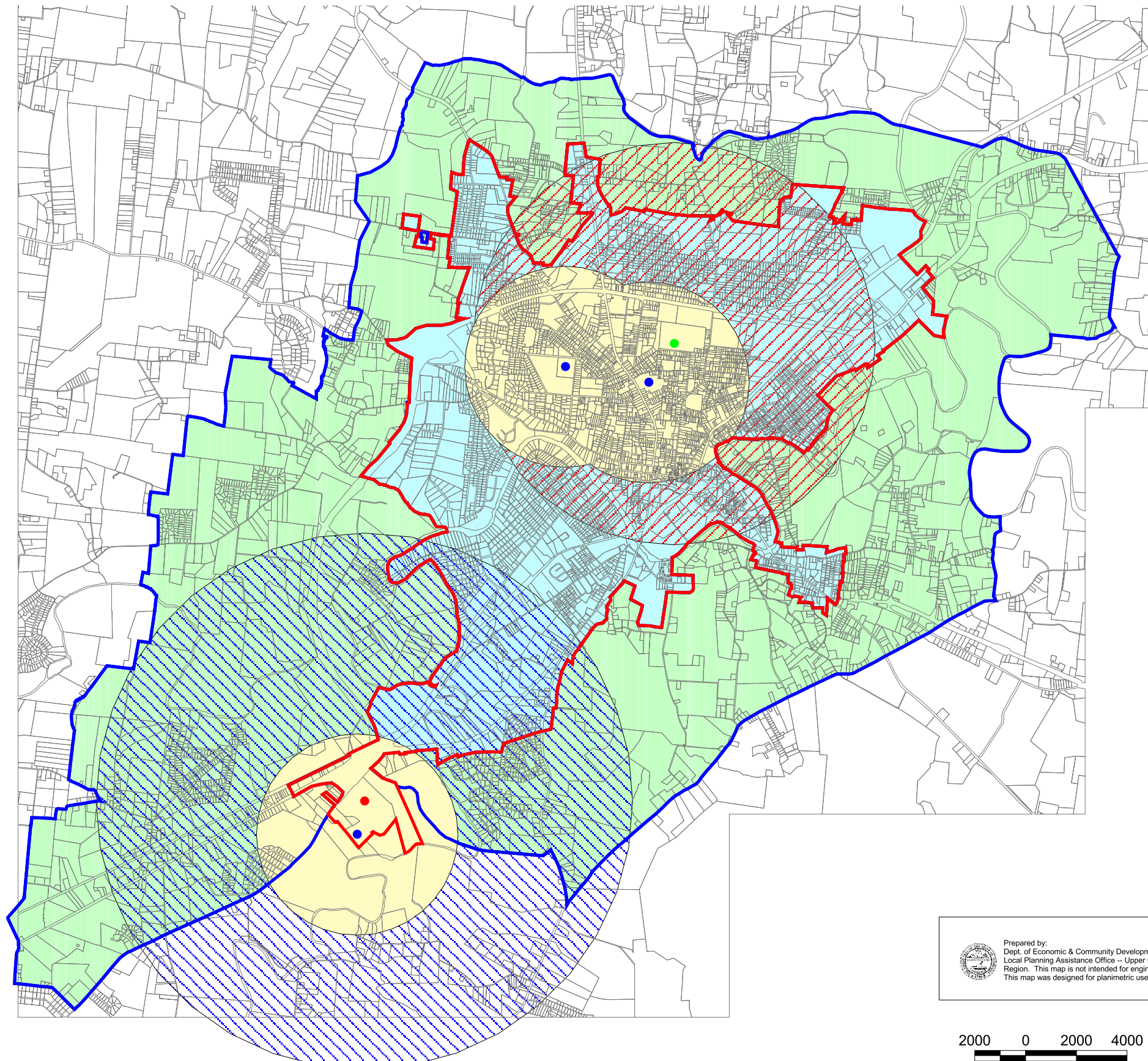
School site standards regarding former minimum state requirements and recommended acreage needs for particular school sites are depicted in Table 23. As with school site standards, the State of Tennessee, in addition to other minimum educational standards, formerly required minimum site acreage requirements, based on the grade levels that were taught at a particular school. The state no longer requires specific school site size requirements for Tennessee educational institutions. These minimum site standards were revoked in 1990. Consequently, the former requirements are utilized herein as a reference only. As Table 23 indicates, the former minimum acreage requirements for Tennessee were included herein with the recommended desirable minimum site size for educational facilities from the National Council on Schoolhouse Construction for comparison purposes. Illustration 18 depicts the existing public educational facilities and their respective maximum walking distances. All of the existing educational facilities are also depicted in Illustration 10.

Illustration 18

Existing Public Schools' Service Areas

McMinnville, TN

October, 2001



LEGEND

Existing School Locations

- Elementary Schools
- Middle School
- High School

Standard Walking Distances from School

- 3/4 Miles from Elementary School
- 1 1/2 Miles from Middle School
- 2 Miles from High School

- City
- Proposed Urban Growth Area
- Parcel Boundaries

Prepared by:
Dept. of Economic & Community Development
Local Planning Assistance Office -- Upper Cumberland
Region. This map is not intended for engineering use.
This map was designed for planimetric use only.



2000 0 2000 4000 Feet

TABLE 23

STANDARDS FOR SCHOOL SITE SIZE

GRADE	NUMBER OF PUPILS	FORMER STATE MINIMUM (1)	NATIONAL RECOMMENDATIONS (2)
K-6	600	10.0 acres	16.0 acres
	800	12.0 acres	18.0 acres
	1000	14.0 acres	20.0 acres
7-8	800	16.0 acres	28.0 acres
	1000	18.0 acres	30.0 acres
	1200	20.0 acres	32.0 acres
9-12	900	17.0 acres	39.0 acres
	1200	20.0 acres	42.0 acres
	1500	23.0 acres	45.0 acres
	1800	26.0 acres	48.0 acres
	2100	29.0 acres	51.0 acres

(1) Pre-1990 Regulations in TCA 49-602 required sites of the following sizes:

K-6 = 4 acres of usable land + 1 acre per 100 students

7-12 = 8 acres of usable land + 1 acre per 100 students

Post-1990 State Regulations have no specific site size formula.

(2) National Council on Schoolhouse Construction (1989) recommended desirable sites as follows:

K-5 = 10 acres plus 1 acre per 100 students

6-8 = 20 acres plus 1 acre per 100 students

9-12 = 30 acres plus 1 acre per 100 students

Applying these now defunct state standards to the public schools within McMinnville, all of the public schools are within these minimum acreage standards for the particular type of school evaluated. Furthermore, all local public schools exceed the minimum acreage requirements of Tennessee. Applying the minimum planning standards for acreage requirements promulgated by the National Council on Schoolhouse Construction, only West Elementary and Warren County Middle School are substandard in regard to their minimum site acreage. The West Elementary School was deficient 3.7 acres, and the Warren County Middle School was deficient 5 acres. All of the remaining schools were within these standards. Table 24 depicts the status of each individual school in terms of compliance with previous state acreage standards and national acreage standards.

TABLE 24
SCHOOL SITE ACREAGE ANALYSIS

School	Site Acreage	Required Site Acreage	Recommended Site Acreage	Below Requirements	Below Recommendations	Exceeding Acreage Requirements	Exceeding Acreage Recommendations
Bobby Ray Elem.	14.8	8	14	NO	NO	6.8	0.8
Hickory Creek Elem.	55	11	17	NO	NO	44	45.7
West Elem.	12	9.7	15.7	NO	3.7	2.3	NO
Warren Co. Middle School	23	12	28	NO	5	11	NO
Warren Co. High School	55	25.8	47.8	NO	NO	29.2	7.2

Source: Local Planning Assistance Office, Department of Economic and Community Development, State of Tennessee.

An additional criterion in the evaluation of school facilities pertains to maximum service areas. To serve the needs of the public and further enhance educational opportunities, the proper selection of school site locations is imperative. Table 25 cites maximum walking distances and related travel times that are recommended for various types of schools. These figures represent maximum service radii for elementary, middle, and high schools.

Applying these standards to the current educational facilities within the city, there are numerous areas of the city that are not within the recommended maximum walking distances for elementary and high schools. The Bobby Ray Elementary School and the West Elementary School have overlapping service areas due to the close proximity of these two schools. Consequently, the two schools contain walking distance radii that in essence preclude pedestrian access to other crucial neighborhoods. The Hickory Creek Elementary School serves only a small area of the city due to its extreme southern location. Consequently, two of the elementary schools studied are located in very close proximity to one another, and the third elementary school is located a substantial distance from the other two. This results in areas of the city that are not within the maximum recommended walking distance for elementary schools. Therefore, a minimum of two new elementary schools are needed for the area north of the Highway 70S Bypass, and the area south of the Barren Fork River that is currently outside the recommended maximum walking distance for the Hickory Creek Elementary School. Furthermore, the isolated location of the high school, in the extreme southern section of the city, drastically reduces the walking radius for students, and results in a skewed walking radius for the extreme southern portion of the city south of the Barren Fork River. Consequently, there is a need for one new high school to provide effective walking distances, based on the recommended maximum walking distance from the National Council on Schoolhouse Construction. Utilizing these standards for maximum walking distance and travel times, the Warren County Middle School is located most effectively, providing a large yet approachable walking radius to the school. However, the middle school still does not provide the recommended maximum walking distance for middle schools. The area that is outside the maximum walking radius for the Warren County Middle School primarily consists of the entire city south of the Barren Fork River. Utilizing these standards, there is a need for at least one additional middle school to serve students within the city. Illustration 18 depicts the current maximum walking distances of the existing schools, and the areas of the community that additional schools will need to serve. It should be noted that this is only one of several criteria that should be utilized in the evaluation of educational facilities.

TABLE 25

MAXIMUM WALKING DISTANCES AND TRAVEL TIMES

SCHOOL TYPE	WALKING DISTANCE (miles)	TRAVEL TIME (miles)
ELEMENTARY	0.75	15
MIDDLE SCHOOL	1.5	30
HIGH SCHOOL	2.0	45

Source: National Council on Schoolhouse Construction.

The design capacity of an individual school is also utilized herein to provide an additional indicator of the adequacy of the educational system within McMinnville. All of the public educational facilities analyzed are within the recommended design capacity of their respective facility, based on the latest enrollment figures. However, Bobby Ray Elementary and West Elementary are both operating at 95 percent capacity, and the Warren County High School is operating at 85 percent capacity. Table 26 depicts the operating capacities of the various educational facilities within McMinnville.

TABLE 26
OPERATING CAPACITIES
MCMINNVILLE EDUCATIONAL FACILITIES

NAME OF SCHOOL	OPERATING CAPACITY PERCENTAGE	NUMBER OF STUDENTS UNDER CAPACITY
Bobby Ray Elementary	95%	19
Hickory Creek Elementary	80%	176
West Elementary	95%	29
Warren County Middle School	67%	398
Warren County High School	85%	322

Source: Compiled by the Local Planning Assistance Office, Department of Economic and Community Development, State of Tennessee.

Conducting a further evaluation of the adequacy of educational facilities within McMinnville, a maximum pupil/teacher ratio is utilized based on the current state standards. The Warren County School system contains a grade structure that varies somewhat from the state categories for these ratios. Nevertheless, recommended and maximum acceptable ratios will be applied per the applicable grades. Applying these standards, the elementary schools should not exceed 30 students for every teacher, and the middle school and high school should not exceed 35 students per teacher. Applying these state standards to the various public educational facilities within the city, all of the public schools are well within the maximum pupil/teacher ratio. Table 27 depicts information pertaining to standards for classroom sizes.

Other Educational Facilities

The Warren Academy is an alternative school that serves students that, for whatever reason, cannot function in a public school system. The school serves grades six through twelve, with a current enrollment of 52 students.

The Tennessee Technological Center is a vocational school founded in the mid-1960's that is located at 241 Vo-Tech Drive. The school currently operates under the direction of the Tennessee Board of Regents, and underwent a change to its current name in the 1990's. The facility currently contains an enrollment of 250 students, with 12 instructors, offering 3 programs, automobile technician training, a business systems program, and an electronics program. Tennessee Technological Center is accredited by The Council on Occupational Education.

McMinnville also contains a branch campus of the Motlow State Community College that is located in Lynchburg, Tennessee. This campus is located at 225 Cadillac Lane and serves students from Warren, Cannon, DeKalb, Van Buren, and White Counties, who usually transfer after two years to a four-year university. The campus facility, which opened in 1988, achieved "center" status from the Tennessee Higher Education Commission in 1990. The center offers Associate of Arts and Associate of Science degrees. The center contains a 17,000 square foot building that houses computer labs, biology labs, and a bookstore, with a library that is shared with the technology center. The center serves approximately 900 students.

TABLE 27

**STANDARDS FOR CLASSROOM SIZE
MCMINNVILLE, TENNESSEE**

NAME OF SCHOOL	NUMBER OF CLASSROOMS	PUPIL/TEACHER RATIO	EIA MAXIMUM
Bobby Ray Elementary	39	12:1	30:1
Hickory Creek Elementary	55	14:1	30:1
West Elementary	44	13:1	30:1
Warren County Middle School	80	14:1	35:1
Warren County High School	102	16:1	35:1

Source: Compiled by the Local Planning Assistance Office, Department of Economic and Community Development, State of Tennessee utilizing EIA standards for K-3, 4-6 & 7-12 grade categories.

Summary of Findings

Currently, the total enrollment figure for public educational facilities within McMinnville is 4,358 students. Based on the population projections for the city and the assumption that a similar percentage of the future population will be students enrolled locally, there will be approximately 302 additional elementary school students, which is 78 students over the operating capacity of all of the elementary schools within the city. By the year 2020, there will also be 108 additional middle school students, whom the current middle school can accommodate, and over 300 additional high school students. The following summary provides a synopsis of each type of school in regard to the projected additional students for the city by 2020.

Elementary Schools

The projected 302 additional elementary students by 2020 will place the three existing elementary schools beyond their design capacities. Although the three existing elementary schools can accommodate the majority of these projected elementary students. Furthermore, the locations of the three elementary schools are inadequate in terms of maximum recommended walking distances for students within the city, as recommended by the National Council on Schoolhouse Construction. Illustration 10 depicts the recommended general location of the proposed elementary school that will be needed during the twenty-year planning period.

These schools are not effectively dispersed throughout the city. However, the addition of these elementary students will not result in the schools exceeding the state standards for classroom sizes. Therefore, at least one new elementary school will be needed within the twenty-year planning period, based on the evaluation of the various standards for educational facilities.

Middle School

The projected 108 additional students will not result in the middle school being in non-compliance with the design capacity of the facility. The middle school will remain well within the state standards for classroom sizes, based on the ratio of students to teachers. Moreover, the middle school affords students throughout most of the city with an adequate walking distance to the facility. The area of the city that is not within the recommended maximum walking distance is the section of the city south of the Barren

Fork River. However, the middle school can be reached within the thirty-minute travel interval that is also recommended by the National Council on Schoolhouse Construction. Based on the totality of the evaluation, utilizing the various standards for educational facilities, there should not be a need for an additional middle school within McMinnville during the next twenty years.

High School

There are 300 additional students that are projected to be attending high school by the year 2020. This will result in the existing high school operating at its maximum design capacity of 2,100 students. Conversely, the high school will still be well within the recommended classroom size for the respective grades therein. Lastly, the site location of the high school is inadequate in terms of the maximum recommended walking distance for a high school by the National Council on Schoolhouse Construction. Currently, only approximately 3.6 square miles of the city are within the recommended maximum walking distance for a public high school. Consequently, roughly 7 square miles of the city are outside this recommended maximum walking distance. The overall evaluation of the high school facility indicates that a new high school will be needed in about fifteen years, toward the end of the twenty-year planning period. Alternately, renovations could be made to the existing high school to provide additional capacity.

Library System

The Magness Library is the only public library within the city. It is located at 118 West Main Street and serves the city and the county residents of Warren County. An additional bookmobile station is also located within the county. The Magness Library building was first constructed and open to the public in 1931. The building contains a total of 11,544 square feet, and contains four computers and a current book inventory of 36,000 volumes. There is also a small auditorium on the third floor. Currently, the library is open a total of 50 hours per week to the public, Monday through Saturday, during the following hours:

<u>Monday</u>	<u>Tuesday</u>	<u>Wednesday</u>	<u>Thursday</u>	<u>Friday</u>	<u>Saturday</u>
8am-8pm	9am-8pm	9am-5pm	12pm-5pm	9am-5pm	8am-2pm

The number of hours the library is open to the public is in accordance with the Tennessee Minimum Standards for Non-Metropolitan Libraries for a comparable population base of fifty hours. Furthermore, the American Library Association has established suggested guidelines for the number of volumes a library should contain, based on the population that it serves. The recommended number of volumes for a comparable population range of 35,000 to 100,000 residents served is between 2.5 and 2.75 volumes per capita. Applying this standard to the latest county population figures, there needs to be a minimum of 95,690 volumes available to the public. Accordingly, the current library needs 59,690 additional volumes to meet this recommended minimum standard. In addition, the Tennessee Minimum Standards for Non-Metropolitan Public Libraries recommends at least .5 square feet per capita of facility space. Utilizing this minimum standard for facility space, the current library would need to be 19,138 square feet in area. The existing facility is 7,594 square feet smaller in area than this minimum standard. Moreover, the building itself is not capable of housing additional volumes of books to meet the recommended standard for volumes cited by the American Library Association. Based on the current status of the facility and the projected number of residents the library will serve during the twenty-year planning period the following improvements are recommended:

1. Relocate the library to a different location that will afford a larger library facility to be utilized upon a larger lot size or establish a branch location.
2. Obtain additional volumes of books for area residents.

3. Establish a Library Board consisting of seven members from the county and the city, in accordance with state law.

Day Care Facilities

There are approximately 30 registered daycare facilities within the city that include 2 day cares serving up to 4 children, 12 day cares serving between 5-7 children, 4 daycares serving between 8-12 children, and 13 facilities serving 13 or more children. Roughly one-third (10 facilities) of these facilities offers financial assistance through the state certificate program to Families First and low-income families. Eligible parents receive financial assistance for childcare bills up to a certain amount, dependent on the age of the child, the type of facility, and the parent's income. Existing daycare facilities within the city exhibit no apparent deficiencies to hinder the provision of effective childcare services. Table 28 provides a descriptive summary of the existing children's day care facilities within the City of McMinnville.

The Tennessee Department of Human Services periodically prepares standards that apply to daycare facilities. The design of the daycare facilities is guided by basic planning standards, as cited in Child Care Handbook, Incorporating Licensing Standards for Child Care Centers, 1987. These standards include the following:

1. All day care centers must be constructed according to the standards set forth by the Fire Prevention Division within the Tennessee Department of Commerce and Insurance, and the standards established by the Tennessee Department of Health, Division of Food and General Sanitation. Either state or authorized safety inspectors and environmentalists must annually approve all day care centers.
2. All daycare centers must provide 30 square feet of usable indoor play space per child. Each naproom must also contain 30 square feet per child.
3. All daycare centers must contain outdoor play areas of at least 50 square feet per child.
4. All daycare centers must fence outdoor play areas, if substantial hazards exist, in or around such areas.

Currently, the city has established local zoning regulations that require additional standards for the design of daycare facilities serving more than 7 children, in addition to the regulations of the Tennessee Department of Human Services.

**TABLE 28
MCMINNVILLE DAY CARE FACILITIES**

PROVIDER NAME & ADDRESS	CAPACITY	MINIMUM AGE	MAXIMUM AGE	HOURS
Kim Brady 1840 Old Smithville Rd	4	6 weeks	12 years	5:30 AM - 5:30 PM
Christine Moffitt 180 Kristan Ln	4	6 weeks	7 years	6:30 AM- 5:30 PM
Anne's House 314 Lakeshore Dr	7	6 weeks	12 years	6:00 AM- 5:30 PM
Babes in Toyland 1177 W. Green Hill Rd	7	6 weeks	12 years	5:30AM- 5:00PM
Barbara's Daycare 386 Old Shelbyville Rd	7	6 weeks	12 years	6:45AM- 4:30PM
Janice's Daycare 200 Van Buren St	7	6 weeks	12 years	6:30AM- 5:00PM
Miss Jennifer's Daycare 106 Sharp St	7	3 years	7 years	6:30AM- 5:30PM
Miss Margaret's Playcare 309 Shadowlawn St	7	6 weeks	12 years	6:30AM- 5:30PM
Owen Family Daycare 119 Hannah St	7	6 weeks	12 years	7:00AM- 5:00PM
Pinecrest Childcare 420 Pinecrest St	7	6 weeks	12 years	8:30AM- 8:30PM
Saron's Daycare 426 Circle Hill Dr	7	6 weeks	12 years	6:30AM- 5:00PM
Stepien's Family Daycare 152 Club Dr	7	6 weeks	5 years	5:30AM- 5:30PM
Tender Loving Care 5898 Viola Rd	7	6 weeks	12 years	5:30AM- 5:00PM
Toddler Tech 104 Taft St	7	6 weeks	12 years	7:00AM- 5:00PM
Grandma Bettye's Daycare 826 N. Chancery St	12	6 weeks	12 years	5:00AM- 5:00PM

Kiddie Kare Childcare 849 Sioux Trail	12	6 weeks	12 years	6:15AM- 12:00PM
Small Wonders Daycare 109 Seitz St	12	6 weeks	12 years	5:30AM- 8:00PM
Bobby Ray Memorial Elementary Daycare 504 N. Chancery Street	100	5 years	12 years	6:00AM- 6:00PM
Boyd Christian School 806 Morrison Rd	18	4 years	5 years	8:00AM- 3:00PM
Central Church of Christ	68	6 weeks	12 years	7:00AM- 5:00PM
Grow and Learn Daycare 1125 Sparta St	24	2 years	8 years	5:30AM- 12:00PM
Hickory Creek Elementary Daycare 270 Pioneer Ln	60	5 years	12 years	6:00AM- 6:00PM
McMinnville Learning Center Daycare 1328 Smithville Hwy	99	6 weeks	12 years	6:00AM- 6:00PM
North Hills Daycare 102 North Hills Dr	45	32 months	9 years	6:30AM- 5:30PM
Smarty Pants Daycare 369 Garfield St	50	15 months	7 years	6:00AM- 5:30PM
Tammys Little Tikes Learning Center 804 Sparta St	60	6 weeks	5 years	6:30AM- 5:00PM
The Learning House 205 W. Main St	56	15 months	5 years	7:00AM- 5:00PM
West Elementary Daycare 400 Clark Blvd	100	5 years	14 years	5:30AM- 6:00PM
Westwood Day School 511 Morrison St	90	6 weeks	12 years	7:30AM- 5:30PM

Source: Compiled by the Local Planning Assistance Office, Department of Economic and Community Development, State of Tennessee