COMPREHENSIVE PLAN
FOR
THE CITY OF ELKTON, KENTUCKY

Prepared For The
ELKTON PLANNING COMMISSION

February 28, 2013

Pennyrile ADD
300 Hammond Dr
Hopkinsville, KY 42240

COMPREHENSIVE PLAN
FOR
THE CITY OF ELKTON, KENTUCKY

Prepared For The
ELKTON PLANNING COMMISSION

February 28, 2013

Pennyrile ADD
300 Hammond Dr
Hopkinsville, KY 42240

THE CITY OF ELKTON, KENTUCKY

MAYOR
Nancy Camp

CITY COUNCIL

Doug Gibson
David Haley
Eugene Jefferson
Danny Laster
David Powell
Jimmy Scott

PLANNING COMMISSION

Bryan Blount
Al Joynes
Charlotte Myers
Keith Sharp
Cindy Sidebottom
Robin Snardon

BOARD OF ADJUSTMENT

William Jones
Brandy Nittler
Rantha Scott
Patsy Wheeler

STAFF

Laura M. Brock, City Clerk/Treasurer

Terry Frogue, Zoning Administrator and Utility/Street Superintendent

TABLE OF CONTENTS

TABLES

EXHIBITS

FIGURE

APPENDIX

CHAPTER I
INTRODUCTION

A Comprehensive Plan is a document prepared to help guide the future growth and development of a community. Basically such a plan should be:

Comprehensive – A plan should cover all geographic parts of a community and all activities that affect physical development.

General – A plan is not supposed to be a straightjacket, it simply summarizes policies and proposals and is intended to provide flexibility.

Long range – The plan strives to present a vision of the future of the community. While addressing short term issues and problems, its main function is to look beyond current conditions to those desired 20 years and further from now.

This plan is designed as a tool to be used by all decision makers, both public and private. In so doing, this plan reflects the expressed desires of the community, serves as a guide to decision making (e.g., zoning changes and development plan reviews) and outlines governmental strategies that can be employed to accomplish the various components of this plan.

In order to be effective, a Comprehensive Plan must be evaluated at least every five (5) years to insure that it will still guide the community in the most appropriate direction. This plan is the result of the efforts of the Elkton Planning Commission to re-evaluate and update plans conducted in 2000 and to enable Elkton to legally participate in the planning and zoning process. Once adopted, it will continue to be periodically reviewed, revised and updated to ensure its continued relevance to the community.

LEGAL FRAMEWORK

The Kentucky Revised Statute, Chapter 100 provides the enabling legislation for planning and plan implementation (zoning ordinances, subdivision ordinances, official maps etc.) to local governments. Several parts of Chapter 100 are related to the preparation and use of the Comprehensive Plan. Following is a brief synopsis of those sections of Chapter 100.

100.183 Comprehensive Plan Required. This section requires each Planning Commission to prepare a plan "which shall serve as a guide for public and private actions and decisions to assure the development of public and private property in the most appropriate relationships."

100.187 Contents of Comprehensive Plan. This section outlines the basic components of the plan. They include: A statement of the Goals and Objectives, a land use element, a transportation plan element, a community facilities element, and other elements that will further serve the purposes of the plan.

100.191 Research Requirements for Comprehensive Plan. Section 191 sets forth the basic research which must be done during the preparation of the plan. There are three categories of research needed: population (past and future trends); economic survey and analysis; and analysis to "the nature, extent, adequacy and the needs of the community for the existing land and building use, transportation and community facilities in terms of their general location, character and extent."

100.193 Statement of Objectives. This section states that the Planning Commission must prepare and adopt the statement of objectives (the Goals and Objectives required in 100.187) to act as a guide for preparing the rest of the plan. In addition, this section also directs the Commission to present this statement for consideration, amendment and adoption by the legislative body within its area of jurisdiction.

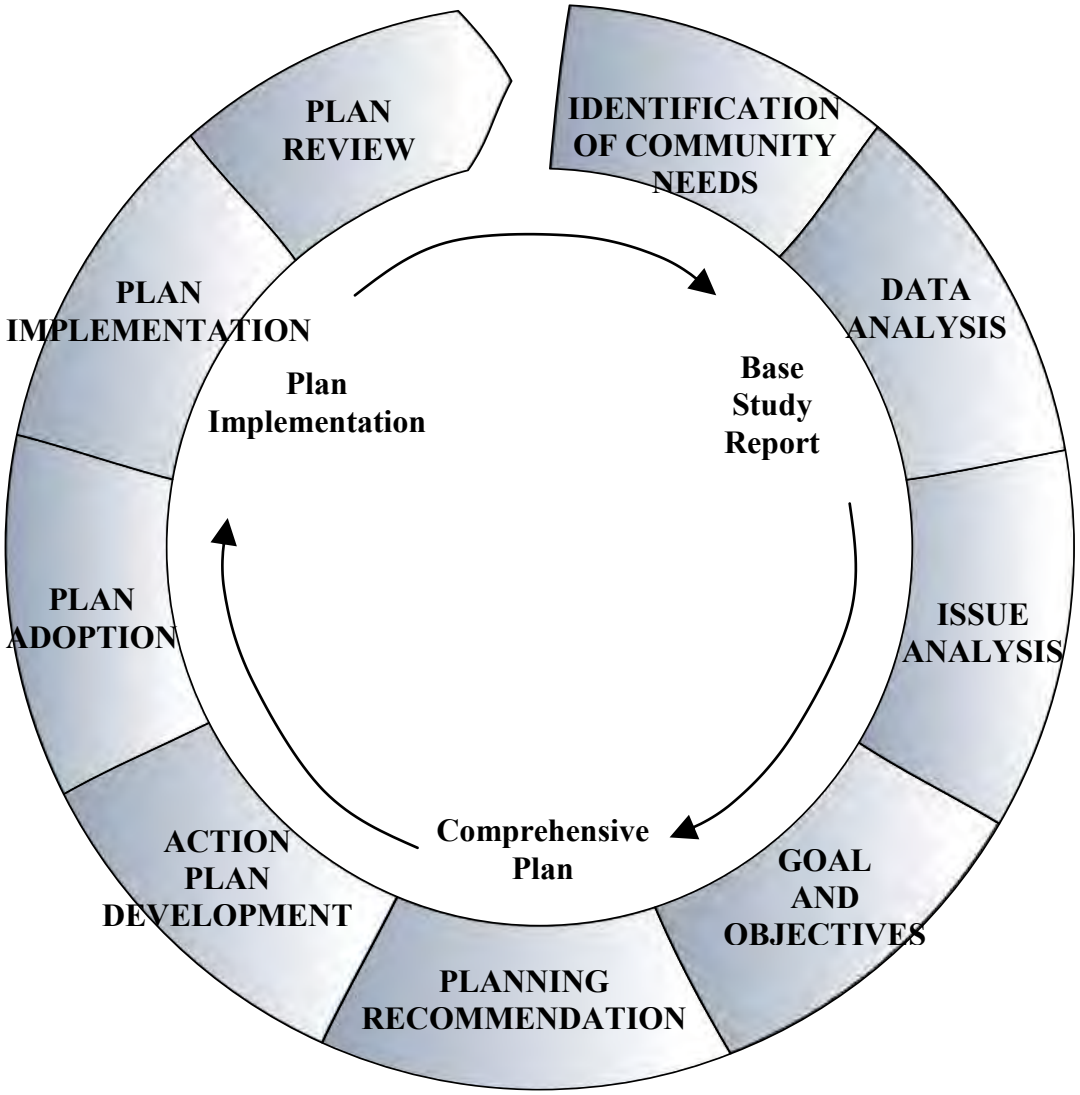
100.197 Adoption and Amendment; Comprehensive Plan. This section outlines the processes for adoption and amendment of the plan. It specifically states that the plan elements must be reviewed and amended, if necessary, at least once every five (5) years.

These provisions of Chapter 100 have been followed in preparation of this update. How the plan develops into this final document is best understood through a description of the planning process.

THE PLANNING PROCESS

The general planning process occurs in three (3) stages. These stages include base study analysis, plan development and plan implementation. Contained in each stage are a number of steps that facilitate a community's evolution over time as illustrated in *Exhibit 1, The Planning Process*. Since change and development occur regardless of the planning process, implementation of these steps can only be viewed as a vehicle to improve and guide a city's growth.

Exhibit 1
THE PLANNING PROCESS



The first step in the development of the plan for a community that has actually participated in the planning process for a number of years is the identification of community needs. Even though a great deal may already be known regarding the direction the community should take, planning has historically been based on democratic principles. Provisions for citizen input and working groups of community leaders are maximized through a formalized public participation process to explore community issues and needs. Other studies that have been conducted for the community are also examined at this time and the issues they identify are incorporated into this process. Following identification of community needs, a look at existing data serves to confirm the issues identified and may also reveal unforeseen problem areas.

Issue analysis is the next step in the process of integrating community needs and perceptions with the facts and figures from the data. Goals and objectives naturally develop once the issues have been fully developed. From these, the planning recommendations and action plans are conceptualized. Following plan adoption, implementation of the plan returns the process full circle. With each revolution of the cycle, the community ideally becomes more sophisticated in its evolution, attaining higher standards of urban and rural living.

The first two steps in the process, identification of community needs and data analysis, are detailed in Chapter II of this plan. The remaining chapters cover components three (3) through six (6) of the planning process. Chapter III summarizes the major issues confronting the City of Elkton at this time in the city's growth and Chapter IV presents the goals and objectives as recommended by the Elkton City Council.

In Chapters V, VI and VII, the planning recommendations are presented for transportation, community facilities and land use. These recommendations take the form of both text and maps. A major component of this plan contained in Chapter VII is the series of guidelines from which city officials may assess development proposals. Included in this chapter is a detailed description of how the guidelines and maps are used in conjunction with each other. The final chapter presents governmental strategies for further implementing development components. These strategies include zoning and subdivision regulation amendments, further planning studies and coordination activities.

CHAPTER II
BASE STUDY

POPULATION ANALYSIS

Introduction

The analysis of population trends serves as a fundamental basis for many planning decisions. The size of the population, its composition, and its spatial distribution impact future social, economic and physical land use needs. An examination of the current population size and trends over recent years provides an estimate of current land use spatial needs. The use of future population projections then allows the prediction of future land use and space needs. This information assists in determining the division of space needs for schools, recreation areas, and other community facilities for each population category. The current and future population distribution determines where the various land uses, transportation routes and community facilities should be located throughout the community. The following exhibits and comments discuss these trends in Elkton, which help facilitate the development of the future land use plan.

PAST POPULATION CHARACTERISTICS

Population Size

Elkton's population trends are looked at in relation to the growth patterns of Todd County and the region that comprises the surrounding counties. The population growth patterns were analyzed from 1980 to 2010 as shown in *Table 1*, *Population of Todd County and Surrounding Counties*. The population of Todd County has remained fairly steady over the past forty (40) years. The adjoining counties with bigger cities have experienced larger population growths. However, the adjoining rural counties of Muhlenberg and Butler to the north have lost population over the past forty (40) year period.

Table 1
Population of Todd County and Surrounding Counties
1980-2010

County	1980	1990	2000	2010
Todd (KY)	11,874	10,940	11,971	12,460
Christian (KY)	66,878	68,941	72,265	73,955
Logan (KY)	24,138	24,416	26,573	26,835
Muhlenberg (KY)	32,238	31,318	31,839	31,499
Hopkins (KY)	46,174	46,126	46,519	46,920
Butler (KY)	11,064	11,245	13,010	12,690
Montgomery (TN)	83,342	100,498	134,768	172,331
Robertson (TN)	37,021	49,492	54,433	66,283

Source: US Census Bureau, *Census of Population, 1959-1990 & KY State Data Center*

Todd County has three (3) incorporated cities, the largest of which is the City of Elkton. *Table 2, Population of Todd County Cities*, displays the growth pattern of each of these cities and the county as a whole from 1980 to 2010. The cities of Elkton and Guthrie had a slight population increase between 1980 and 2010, while the City of Trenton had a slight population decrease.

Table 2
Population of Todd County Cities
1980—2010

County/City	1980	1990	2000	2010
Todd	11,874	10,940	11,971	12,460
Elkton	1,815	1,891	1,980	2,062
Guthrie	1,361	1,504	1,469	1,419
Trenton	465	378	419	384
Source: KY Secretary of State, Land Office - KY Cities & Counties				

Population Composition and Age Distribution

The age composition of Todd County's population has undergone some changes over the last three (3) decades as indicated in *Table 3, Todd County Age Composition Changes*, *1980 – 2010.* Unlike the trend throughout the United States, Todd County residents are having slightly more children with the population of children *age 5 and under* showing a slight increase from a drop in the 1990's, The percentage of persons 60 years of age and over has increased over the past 20 years as the post-war baby boom generation reaches this age bracket. The percentage of persons over 60 years old has steadily increased over the last 30 years, which reflects the trend of people living longer and relocating to small rural towns upon retirement.

Table 3
Todd County Age Composition Changes
1980 – 2010

Age	1980	1990	2000	2010
Group	Total by Percentage	Total by Percentage	Total by Percentage	Total by Percentage
<5	7.6	6.9	7.5	7.9
5-19	24.6	29.5	21.8	21.6
20-44	27.1	28.5	34.4	30.8
45-59	19.8	19.7	18.2	20.1
60+	20.9	16	18.1	19.6
Source: US Census Bureau, *Census of Population, 1960-1990*				

Future Population Forecasts

The University of Louisville's Urban Studies Center Population Research Unit provided the population forecast for Todd County and the surroundings counties shown in *Table 4, Population Projections for Todd County and Surrounding Counties*. These projections were made in 1999. These figures indicate an anticipated 6 percent growth rate in Todd County from a population of 12,460 people in 2010 to 13,203 people in 2040. Butler and Christian counties in Kentucky, as well as Montgomery and Roberson counties in Tennessee are also projected to have a slight population growth rate over the same 20 year period. However, the population estimates predict a loss of population in Logan, Muhlenberg and Hopkins counties.

Table 4
Population Projections for
Todd County and Surrounding Counties
Years 2020-2040

COUNTY	Year 2020	Year 2030	Year 2040
TODD (KY)	12,749	13,068	13,203
Christian (KY)	77,840	81,015	82,947
Logan (KY)	27,070	26,972	26,174
Muhlenberg (KY)	29,462	28,802	27,665
Hopkins (KY)	46,283	46,207	45,911
Butler (KY)	8,012	8,306	8,768
Montgomery (TN)	202,325	227,710	254,284
Robertson (TN)	74,995	82,447	87,164

Source: How Many Kentuckians, 1999 Edition, Urban Studies Institute, University of Louisville & KY State Date Center

Population analysis is very important to the planning process in that knowledge of past and present population characteristics is essential to meaningful projections of future population levels and characteristics. Future population levels are important since they determine both the amount of land to be developed in the future and, to some extent, the type of development (e.g., residential or commercial) which will soon occur. An understanding of the present population characteristics also help the community to determine the adequacy of existing land use patterns, economic arrangements, and community facilities in terms of meeting existing needs. Changes can also be made in projected population trends by significant changes in economic development strategies and proactive land use planning processes.

ECONOMIC ANALYSIS

The following tables provide a quantitative look at the Todd County economy in three (3) ways; as a whole, in comparison with the state and the other communities in the region, and broken into component parts. The tables display data regarding the labor force and employment trends of Todd County residents, and local commuting patterns. The counties in the region – Christian, Hopkins, Butler, Logan and Muhlenberg counties in Kentucky, as well as Montgomery and Robertson counties in Tennessee– were chosen because they comprise Elkton's Labor Market Area as defined by the Kentucky Department of Economic Development.

Todd County, like most of the United States, is still recovering from the 2008 recession. The Todd County unemployment rate averaged 9.2 percent in 2011, which was slightly below the unemployment rate for the State of Kentucky which was 9.5 percent, and slightly above the national unemployment rate of 8.9 percent in the same year. As shown in *Table 6, Todd County Labor Force Characteristics 1990 – 2011*, the unemployment rate in Todd County has historically been between a high of 6.8 percent and a low of 3.4 percent from 1990 to the 2005.

Table 5
Regional Labor Force and Unemployment Rate 2011

AREA	Civilian Labor Force	Employed	Unemployment Rate %
United States	153,617,000	139,869,000	8.9
Kentucky	2,067,527	1,870,546	9.5
TODD (KY)	5,516	5,008	9.2
Christian (KY)	26,470	23,379	11.7
Logan (KY)	12,665	11,537	8.9
Muhlenberg (KY)	13,969	12,596	9.8
Hopkins (KY)	23,019	21,169	8
Butler (KY)	5,623	5,028	10.6
Montgomery (TN)	76,170	68,650	9.9
Robertson (TN)	34,510	31,370	9.1

Source: Kentucky Cabinet for Economic Development, *Kentucky Deskbook of Economic Statistics*

Table 6
Todd County Labor Force Characteristics 1988 – 2010

	1988	1990	1992	1998	2005	2010
Civilian Labor Force	5,004	6,056	5,793	5,315	5,397	5,427
Employment	4,529	5,696	5,484	5,136	5,028	4,986
Agricultural	876	827	789	476	571	474
Nonagricultural	3,653	4,869	4,695	4,660	4,457	4,512
Unemployment	475	360	309	179	369	441
Rate of Unemployment (%)	9.5	5.9	5.3	3.4	6.8	8.1

Source: Census - American Fact Finder & KY Deskbook of Economic Statistics

As indicated in *Table 6, Todd County Labor Force Characteristics*, agriculture is still a major employer in Todd County with 475 persons employed in 2010. However, agriculture employment has been decreasing from a high of 876 persons 1988, to the current level of 475 persons in Todd County. Manufacturing and retail trade are also large parts of the local economy with 395 persons and 374 persons employed, respectively, in 2011.

As indicated in *Table 7, Number of Manufacturing Companies in Todd County and Surrounding Counties: 2000 -2010*, six (6) of the eight (8) counties that are in the region, including Todd County, incurred a reduction in the number of manufacturing plants in the ten (10) years period for 2000 to 2010. Only Christian County, Kentucky and Robertson County, Tennessee had a net increase in their number of manufacturing plants from 2000 to 2010. This reflects a national trend of manufacturing plants moving overseas.

Table 7
Number of Manufacturing Companies in Todd County and Surrounding Counties 2000-2010

County	2000	2010	% Change
Todd (KY)	16	15	-6.3%
Christian (KY)	64	73	14.1%
Logan (KY)	48	42	-12.5%
Muhlenberg (KY)	31	26	-16.1%
Hopkins (KY)	54	43	-20.4%
Butler (KY)	13	11	-15.4%
Montgomery (TN)	80	66	-17.5%
Robertson (TN)	72	78	8.3%

Source: Kentucky Cabinet for Economic Development, Kentucky Deskbook of Economic Statistics

As indicated in *Table 8, Manufacturing Firms and Major Employers*, *City of Elkton 2010*, Refine Tile has the largest number of employees in the manufacturing sector with 93 employees. Refine Tile makes decorative tiles and uses state-of-the art technologies to produce silk screen and other decorative tiles which it ships nationally.

In 2010, Martin Industries and Todd County Pallet are the community's second and third largest employers in the manufacturing sector with 45 and 35 employees, respectively. The remaining companies average approximately 11 employees at each firm.

Table 8
Manufacturing Firms and Other Major Employers
City of Elkton 2010

FIRM	Product	2010 Employment
FLEXcon	Adhesive Coated Labels	11
Martin Industries	Machine Shop	45
ReFine Tile	Tile Manufacturing	93*
Todd County Pallet	Wooden Pallets & Skids	35
RLR-Hop	Wooden Light Fixtures & Parts	11
Tool Tech of Elkton	Machine Shop	11
Trace Industries	Workshop	11
Total		200

Source: Kentucky Cabinet for Economic Development, 1995 Kentucky Directory of Manufactures, and estimates based on information provided by the Pennyrile Area Development District. (*)=Based on Phone interviews in 2013.

Table 9, Employment by Industry Category in Todd County and the Surrounding Counties 2011, indicates that Todd County has the smallest manufacturing employment sector in the region. It also shows that Todd County has the second smallest retail trade employment sector.

Table 9
Employment by Industry Category in Todd County and the Surrounding Counties 2011

Industry Category	Todd	Christian	Logan	Muhlenberg	Hopkins	Butler	Montgomery	Robertson
Construction	305	1,450	846	1,065	1,023	331	4,053	2,222
Manufacturing	395	4,479	2,712	932	2,299	623	5,090	4,787
Wholesale Trade	311	(D)	328	(D)	448	(D)	1,392	911
Retail Trade	374	3,680	1,236	1,464	2,824	312	9,327	3,038
Transportation	(D)	1,529	327	411	1,009	173	(D)	(D)
Professional, Scientific	84	2,566	328	(D)	676	69	2,263	(D)

Source: Kentucky Cabinet for Economic Development, *Kentucky Deskbook of Economic Statistics* *(D)=No Data*

Retail trade trends displayed in *Table 10, Retail Trade Trends in Todd County*, show a 13.1 percent decline in the overall number of retail establishments between 1990 and 2010, while

indicating the total number of employees in retail trade remained basically the same. This reflects the decline of the small "mom and pop" type of retail establishments and the influx of large chain stores.

Table 10
Retail Trade Trends in Todd County 1990 – 2010

Category	1990	2000	2010	% Change
				1990-2010
Establishments	38	42	33	-13.1%
Employees	209	216	210	0.5%

Source: *County Business Patterns*, 1995-1996, US Department of Commerce, Bureau of the Census

Another significant factor of Todd County's economy is the commuting pattern of its residents. As indicated in *Table 11, Todd County and Surrounding Counties Commuting Patterns 2010*, approximately 4,519 more people commuted out of Todd County for work in 2010 as compared with those who commuted into Todd County for work. The figures in *Table 11*, *Todd County Commuting Patterns, 2010***,** tend to reflect the labor market area of the region.

Table 11
Todd County and Surrounding Counties Commuting Patterns 2010

COUNTY	*Commuting Out of*	*Commuting Into*	*Work and Reside In*
TODD	5,411	892	1,127
Christian	7,075	10,193	11,551
Muhlenberg	5,740	3,174	4,898
Hopkins	8,197	7,074	9,448
Logan	5,638	3,077	4,233
Butler	3304	1011	1,313
Montgomery (TN)	8,144	7,473	48,484
Robertson (TN)	15,258	4,486	13,020

EXISTING LAND USE

Introduction

The preceding two sections have analyzed two of the forces that have and will continue to influence the type, location and intensity of land use patterns in and around the City of Elkton. The following section will inventory and analyze the existing land use patterns and physiographic features of Elkton. Following a brief historic overview of Todd County, this section will provide an analysis of the urban land uses and provide information on soils, geology and topography. The factors mentioned above and the extent of existing land uses provides the basis for the preparation of the future land use proposals.

Land use information can also be used by public agencies to help in making day-to-day administrative decisions. Private developers, investors, businesspersons, school officials, park and recreation boards, and citizens in reaching decisions in their own personal and professional affairs can further utilize it.

Historic Background

The first permanent settlement was established around 1792 in what is now Todd County. Todd County was formed from parts of Christian and Logan counties in April 20, 1820. The County was named in honor of Colonel John Todd. Col. Todd was a native of Virginia and Robertson County, Kentucky, who died at the Battle of Blue Licks near Lexington, Kentucky. Colonel John Todd died in 1782, which was 38 years before the formation of Todd County. The Kentucky legislature designated that the name of the county be in remembrance of Col. Todd.

The lands that created Todd County were originally reserved for land grants for those who fought in the Revolutionary War. The Virginia land grants attracted settlers to the area including businessman, and county founding father, Major John Gray. In the early 19th century, Major John Gray established a stagecoach hub in the county with travel routes going to larger cities in what was then considered the western frontier. His widely known Stagecoach Inn located in what was called “Graysville” and is now in the City of Guthrie, Kentucky, was the center of travel routes in this region.

Major John Gray established a home in what is now the City of Elkton. The city was named Elkton because of the elk herds that watered near the town center. Major Gray designed the city which included a town square from which hundreds of lots radiated. The town center was designed as a trapezoid instead of a square with the south side of the town square larger than the north so that as the sun traversed across the sky, the buildings on the east and west would benefit from prolonged periods of daily sunlight.

Existing Land Use Patterns

The City of Elkton is the primary commercial and industrial center for Todd County. Of the 12,460 people living in Todd County in 2010, the City of Elkton had approximately 2,062 people, which is 16 percent of the county population. The City is currently comprised of approximately 1,613 acres and the county comprises 241,376 acres.

The existing land use analysis, graphically displayed on *Exhibit 2A, Existing Land Use, City of Elkton Kentucky*, also shows some development just outside of the city limits. However, the majority of all urban type of development is in the incorporated City of Elkton. *Exhibit 2B, Downtown Inset, Existing Land Use, Elkton Kentucky*, shows an inset map of the downtown existing land use with greater details.

Approximately 48.7 percent of the total acreage in the City of Elkton is developed in commercial, residential, industrial, or public uses. A numeric breakdown of the existing land uses are indicated on *Table 12, Existing Land Use by Acres, City of Elkton*. These are estimates generated by the Pennyrile ADD GIS department from a land use survey conducted in 2011. Of the approximately 1,422 acres inside the corporate limits of the city, approximately 692 acres are currently developed and 730 acres are undeveloped. The former industrial site west of the city on US 68 is the largest undeveloped tract of land.

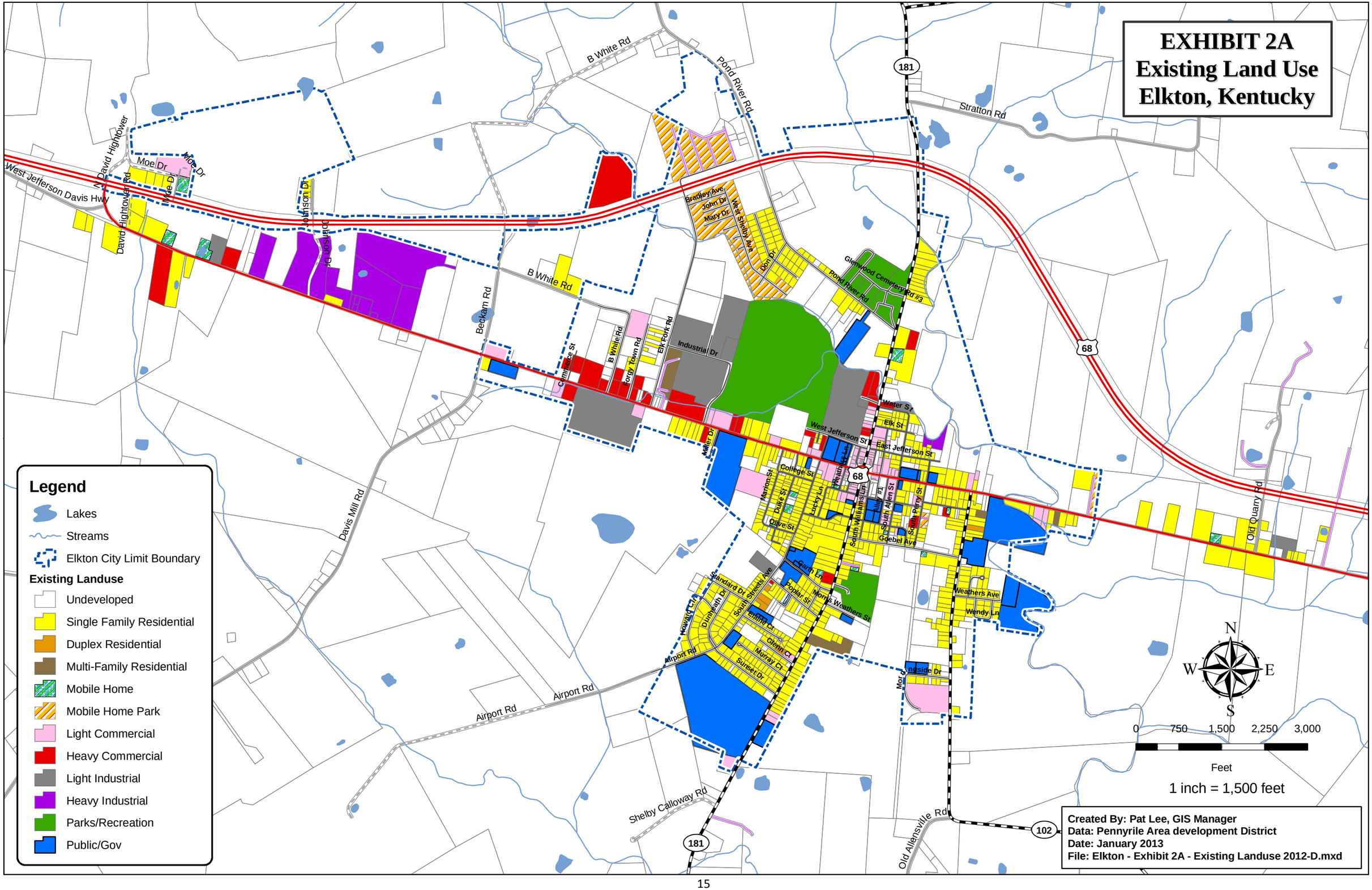
Single-family residential development has the largest percentage of urban land use within the city with 34 percent of the developed acres. This is consistent with the land use patterns of other cities the size of Elkton. There is an unusually high percentage of parks and recreational land uses in the city with 14.7 percent of the developed acreage. This is largely attributed to the large land holdings of the Elk Fork Country Club Golf Course and the Glenwood Cemetery inside the city. The Middle School and Todd County High School are major parts of the acres involved in Public & Government existing land use subtotal with 17.9 percent of the developed acres.

Table 12
Existing Land Use by Acres
City of Elkton

Land Use Types	Acres	Percent of Total Acres		Percent of Developed Acres
Single Family Residential	236	16.6	%	34.1
Duplex Residential	3	0.2	%	0.4
Multi-family Residential	9	0.6	%	1.3
Mobile Home	3	0.2	%	0.4
Mobile Home Park	46	3.2	%	6.6
Light Commercial (Retail)	46	3.2	%	6.6
Heavy Commercial	43	3.0	%	6.2
Light Industrial	78	5.5	%	11.3
Heavy Industrial	2	0.1	%	0.3
Parks/Recreation/Cemeteries	102	7.2	%	14.7
Public & Government	124	8.7	%	17.9
Total Developed Acres	**692**	48.7	%	N/A
Undeveloped Acres	730	51.3	%	N/A
Total Acres	**1422**			

Source: Pennyrile ADD GIS Department

EXHIBIT 2A
Existing Land Use
Elkton, Kentucky



Legend

- Lakes
- Streams
- Elkton City Limit Boundary

Existing Landuse

- Undeveloped
- Single Family Residential
- Duplex Residential
- Multi-Family Residential
- Mobile Home
- Mobile Home Park
- Light Commercial
- Heavy Commercial
- Light Industrial
- Heavy Industrial
- Parks/Recreation
- Public/Gov

Created By: Pat Lee, GIS Manager
Data: Pennyrile Area development District
Date: January 2013
File: Elkton - Exhibit 2A - Existing Landuse 2012-D.mxd

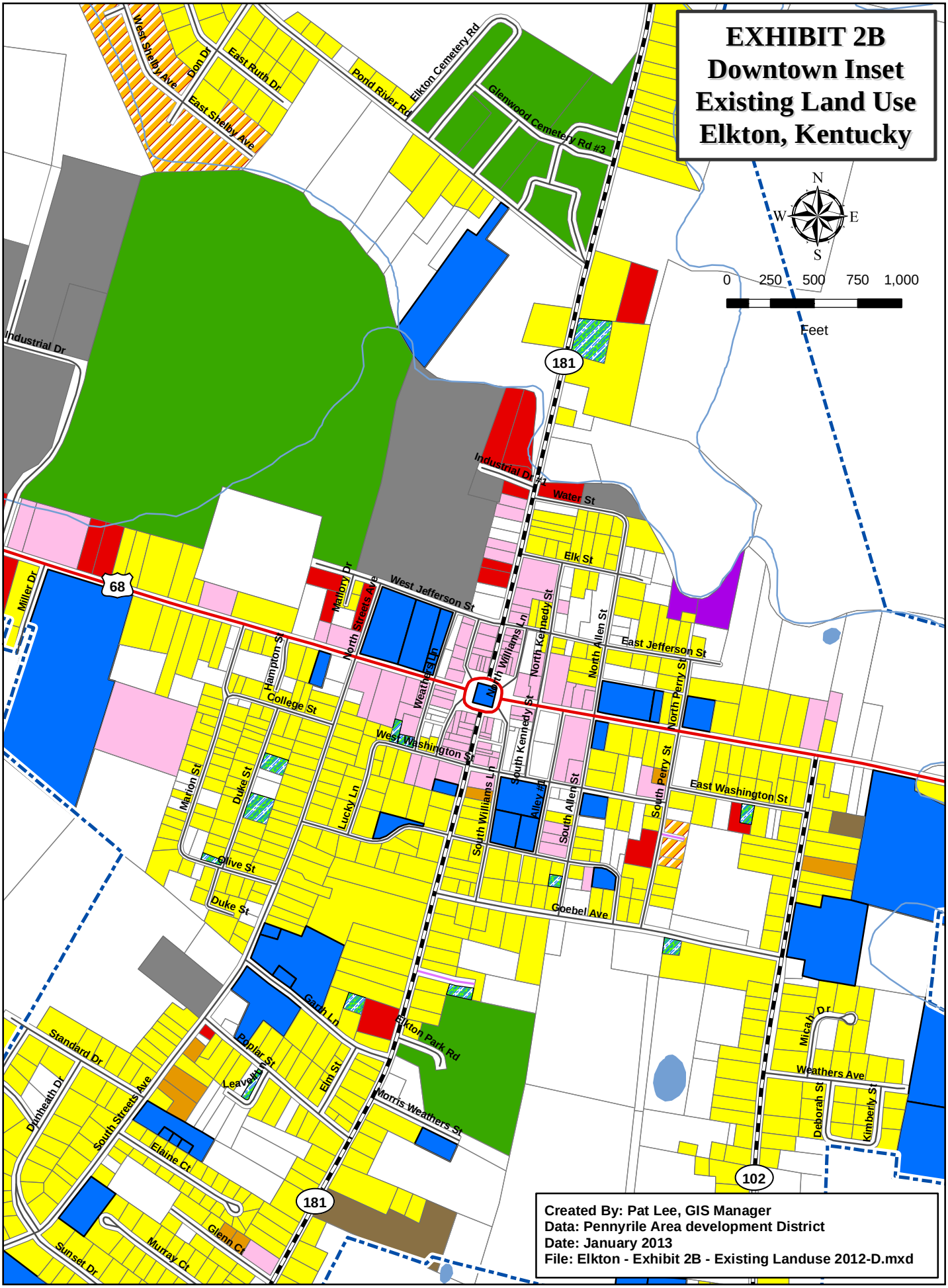


EXHIBIT 2B
Downtown Inset
Existing Land Use
Elkton, Kentucky
N
W
E
S
0 250 500 750 1,000
Feet
West Shelby Ave
Don Dr
East Ruth Dr
East Shelby Ave
Pond River Rd
Elkton Cemetery Rd
Glenwood Cemetery Rd #3
Industrial Dr
181
Industrial Dr
Water St
Elk St
68
Miller Dr
Mallory Dr
North Streets Ave
West Jefferson St
Hampton St
College St
Weathers Ln
North Williams Ln
North Kennedy St
North Allen St
East Jefferson St
North Perry St
West Washington St
South Kennedy St
South Williams Ln
Alley #1
South Allen St
South Perry St
East Washington St
Marion St
Duke St
Lucky Ln
Olive St
Duke St
Goebel Ave
Garth Ln
Elkton Park Rd
Micah Dr
Weathers Ave
Deborah St
Kimberly St
Standard Dr
Poplar St
Elm St
Morris Weathers St
Dynheath Dr
South Streets Ave
Elaine Ct
Glenn Ct
Murray Ct
Sunset Dr
181
102
Created By: Pat Lee, GIS Manager
Data: Pennyrile Area development District
Date: January 2013
File: Elkton - Exhibit 2B - Existing Landuse 2012-D.mxd

PHYSIOGRAPHIC FEATURES

The type and degree of development that occurs in a rural community often depends heavily on the physiographic features of the area. The terrain, soils, stream patterns, and other natural resources either prohibit or encourage varying development patterns. Todd County lies within two major physiographic regions, the Western Coal Fields region and Western Pennyroyal Region. Only the northeastern corner of the county is in the Western Coal Field Region. The bedrock in this region is sandstone, siltstone, and shale of the Caseyville Formation.

The remainder of the county is in the Pennyroyal region. This region contains two major subdivisions; the Dripping Springs Escarpment and the Mississippian Plateau. The northern half of the county, except for the Western Coal Field region in the northwestern corner, is in the Dripping Springs Escarpments. The bedrock is sandstone, siltstone, shale and limestone of the Chester Formation. The southern half of the county is on the Mississippian Plateau. Bedrock in this area is predominantly Ste Genevieve limestone of the Meramec Formation.

The topography and terrain of an area provides information about an area's potential water, sand, and gravel supply, as well as drainage, runoff, erosion, and general lay of the land for development purposes. Types of soils, slope, depth to bedrock, stability, and permeability are all important factors in determining an area's natural limitations and strengths. The following is a brief discussion of Todd County's natural features including soil types, geology, slopes, and floodplains which all have an effect on an area's development potential.

Soil Types

Todd County had a soil survey report issued by the USDA Soil Conservation Service in 1983. The text and maps in this report provides a broad overview of the characteristics of the 26 soil types found in and around the City of Elkton. In developing the *Future Land Use Map* (Exhibit 13) in the Future Land Use Chapter of this Comprehensive Plan, the soil type information listed in the *USDA Todd County Soil Survey* was one of the factors in determining future land use decisions.

As indicated in *Exhibit 3A, Soil Types, Elkton Kentucky*, the soil types from the USDA soil survey report was used to show the locations of the various soil types in and around the city. These soil types were subdivided into two (2) groups, those "*Soils with Minor Development Issues*" and those "*Soils with Major Development Issues*." The soil types with "major" development issues are shown with either checkered or diagonal lines. The soil types with "minor" development issues are shown with no lines. These *major* and *minor* terms are used by the staff of the Pennyrile ADD when analyzing soil types. Soil types with major development issues have some type of issues that could cause difficulties in constructing buildings, streets and other urban developments. These issues range from shallow depths to bedrock, steep slopes, high seasonal water tables, ponding water and/or flooding just to name a few.

Exhibit 3A along with its legend shown on *Exhibit 3B*, *Legend for Soil Types, Elkton, Kentucky* is intended as a quick reference to help local developers and community leaders. This information is useful in providing a general idea of the soils and there suitability for different types of urban developments. It is not intended to provide sufficient detail to evaluate the development potential of an individual piece of property without on-site analysis by engineers and architects. Detailed soil maps can be found in the *Todd County Soil Survey* and should be reviewed by the Planning Commission and the developer when a new development is proposed.

Geology

The geology of an area is considered for several reasons; perhaps most importantly because geologic characteristics influence the efficiency with which septic tanks can be utilized as a sewage disposal technique. Bedrock type and depth affects the construction costs of providing collection, transmission, and sewage disposal facilities. Shallow depth to bedrock will escalate the construction costs of sewage facilities. Geologic characteristics also influence the quantity and quality of groundwater resources. The greater the permeability of the rock type, the greater its capacity for storing water. In addition, groundwater levels must be determined in order to prevent contamination from sewage systems. In Todd County, another significant geologic feature which greatly influences development potential is the extensive caves and sinkholes throughout the southern and western portions of the county.

EXHIBIT 3A
Soil Type
Elkton, Kentucky

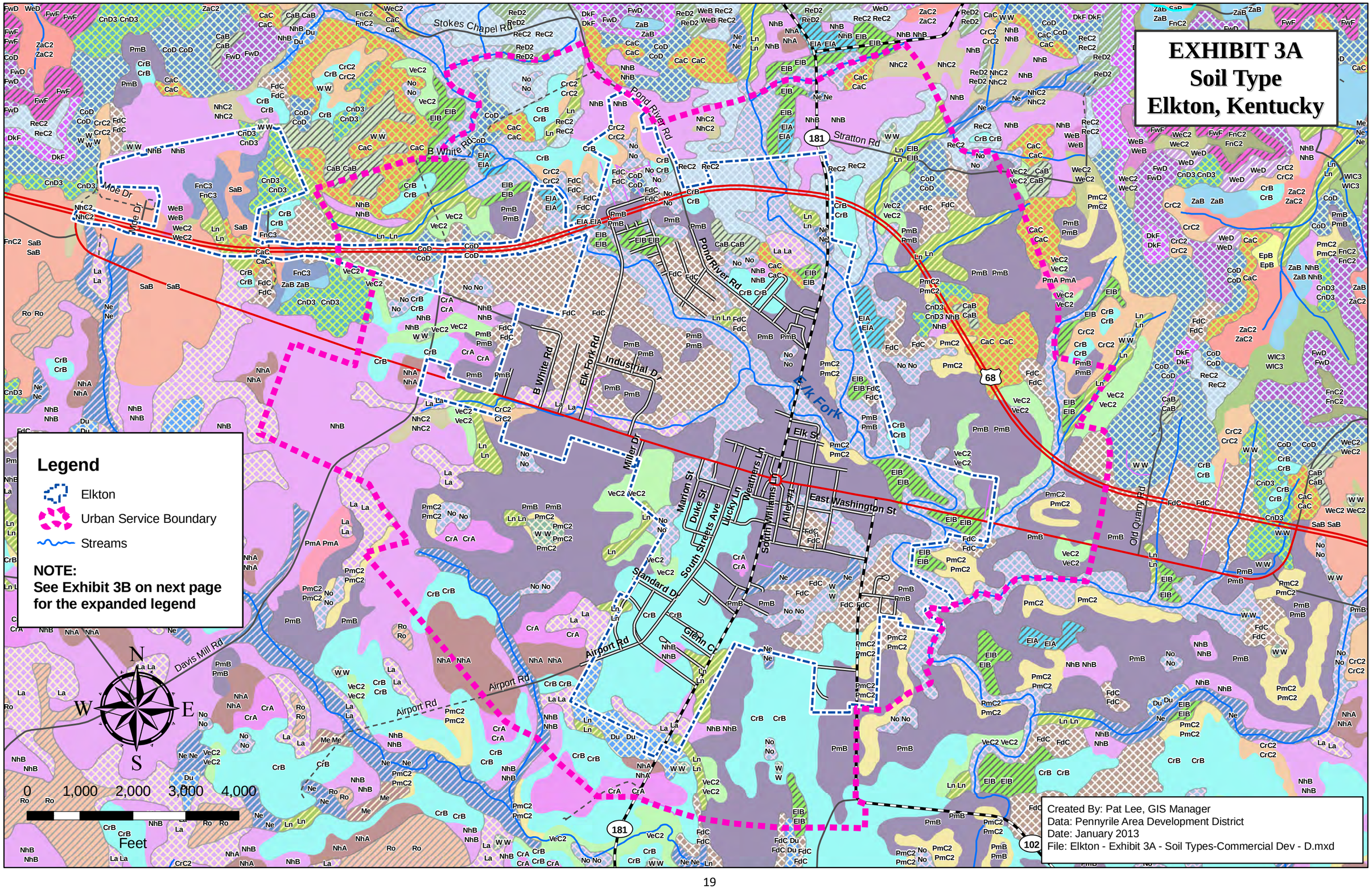


EXHIBIT 3B
LEGEND
Soil Type
Elkton, Kentucky

Legend

Soils with Minor Development Issues

Soil Symbol

- CrA - Crider silt loam, 0 to 2 percent slopes
- CrB - Crider silt loam, 2 to 6 percent slopes
- CrC2 - Crider silt loam, 6 to 12 percent slopes
- FnC3 - Frondorf silt loam, 6 to 12 percent slopes, severely eroded
- NhA - Nicholson silt loam, 0 to 2 percent slopes
- NhB - Nicholson silt loam, 2 to 6 percent slopes
- NhC2 - Nicholson silt loam, 6 to 12 percent slopes
- PmB - Pembroke silt loam, 2 to 6 percent slopes
- PmC2 - Pembroke silt loam, 6 to 12 percent slopes
- SaB - Sadler silt loam, 2 to 6 percent slopes
- VeC2 - Vertrees silty clay loam, 6 to 12 percent slopes, eroded
- WeB - Wellston silt loam, 2 to 6 percent slopes
- WeC2 - Wellston silt loam, 6 to 12 percent slopes, eroded

Legend

Soils with Major Development Issues

Soil Symbol

- CaB - Caneyville silt loam, 2 to 6 percent slopes
- CaC - Caneyville silt loam, 6 to 12 percent slopes
- CnD3 - Caneyville silty clay, 6 to 20 percent slopes, severely eroded
- CoD - Caneyville-Rock outcrop complex, 6 to 30 percent slopes
- Du - Dunning silt loam, occasionally flooded
- ElA - Elk silt loam, 0 to 2 percent slopes, rarely flooded
- ElB - Elk silt loam, 2 to 6 percent slopes, rarely flooded
- FdC - Fredonia silt loam, very rocky, 2 to 12 percent slopes
- La - Lawrence silt loam, occasionally flooded
- Ln - Lindside silt loam, occasionally flooded
- Ne - Newark silt loam, occasionally flooded
- No - Nolin silt loam, occasionally flooded
- W - Water

Created By: Pat Lee, GIS Manager
Data: Pennyrile Area Development District
Date: January 2013
File: Elkton - Exhibit 3B - Soil Types-Commercial Dev - D.mxd

Groundwater

The water table is the underground surface below which all spaces between soil grains are filled with water. Normally this is a sloping, flowing surface, which roughly follows the ground levels above and slopes down to ponds, lakes, and streams, seeps or springs where it intersects with the ground surface. Its depth below ground can vary and can fluctuate seasonally or over long periods. In the karst topography found in the City of Elkton area, many natural springs exist indicating a shallow depth to groundwater near these springs.

The addition of organic and inorganic materials to the surface and groundwater can cause significant water quality deterioration. Problems can occur due to agricultural run-off, inefficient, poorly designed, or overcapacity septic systems, and run-off from streets and roads. Dumping into sinkholes and caves which lead directly into underground watersheds can result in serious pollution of both ground and surface water systems. Groundwater found in cavernous limestone, as in the karst areas of Todd County, is particularly vulnerable to contamination due to the quickness with which the water moves through the thin layer of soil to the underground reservoirs. Potentially hazardous materials such as animal wastes, fertilizers, and effluent from septic tanks are not sufficiently filtered through the soils and the contaminants move quickly into the water supply. The use of abandoned wells for waste disposal is also very hazardous due to the direct contact with the groundwater reservoir.

Rural areas of Todd County which are not currently served by a public water system should carefully monitor their wells and cisterns for quality as well as quantity to ensure a healthy clean water supply.

Topography and Slopes

The percent of slope the county's topography must be considered as it affects both the use and maintenance of the land in question. The relationship between slope and land use can be generally classified to help determine the appropriate land use activity. Slopes fewer than 4%, rising four feet per 100 feet of horizontal distance, are relatively flat and are usable for all kinds of intense activity. Slopes above 15% are steep and make erection of buildings difficult and expensive, especially with larger commercial and industrial buildings and sites.

Slopes vary significantly in and around the City and each development needs a careful examination of the topography of the specific site before the development is approved. Generally, areas best suited for crop and pastureland also offer the fewest limitations to urban development. The bluffs, knobs, and ridges of the northern and eastern portions of Todd County cannot support intense development. The more gently rolling karst topography in and around Elkton and to the southwest contain both the prime agricultural areas and the areas best suited for urban development. A good balance between these rural and urban uses must be thoughtfully maintained through sound planning and decision-making relating to new development. The City of Elkton at this time has adequate gently sloping lands within its city limits to meet most of the urban land use requirements for the planning period.

Floodplains

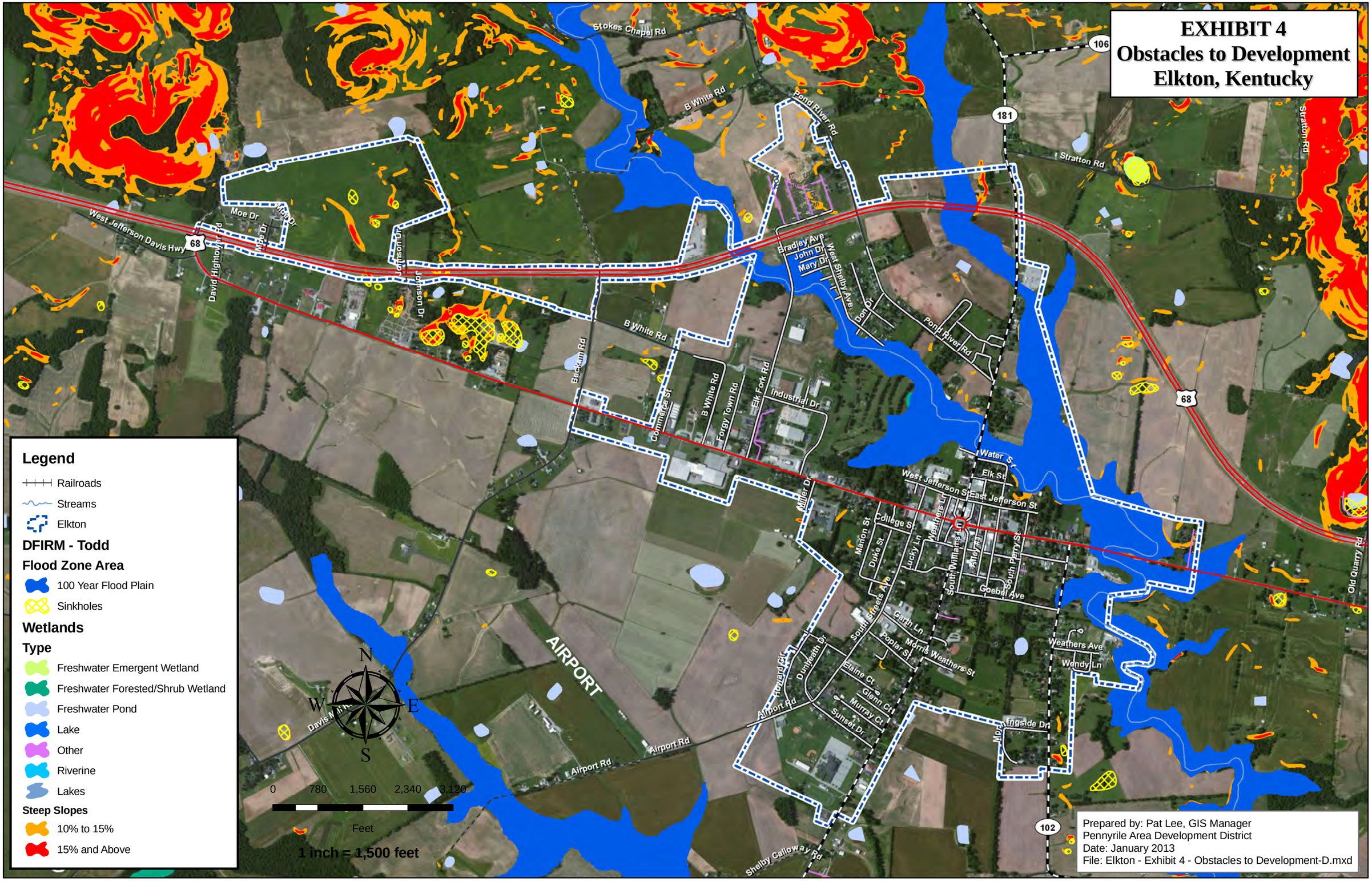
Flooding is a major issue in the City of Elkton. The city needs to consider ways to minimize the damage and negative impact for both existing and future development relative to the flood plain of Elk Fork Creek. As indicated in *Exhibit 4, Obstacles to Development, Elkton, Kentucky,* the map shows that area in the 100-year flood plain that runs north/south through the City. This is flood-prone areas identified from the National Flood Insurance Rate Maps (FIRM) provided by the National Flood Insurance Program, Federal Emergency Management Agency. The in-fill of flood plains can cause problems and damage property. If one side of the stream is raised with fill dirt added to a flood plain, it will push water to other areas that have not flooded in the past and can potentially cause damage to structures and effect property values that did not have previous problems with flooding.

Obstacles to Development

One of the analyses that are commonly done as a part of the Base Study of a Comprehensive Plan is identifying physical obstacles that could adversely affect urban development. These obstacles range from natural flood plains and steep slopes to man-made problems like auto salvage yards that have a blighting influence on adjoining properties. As indicated in *Exhibit 4, Obstacles to Development, Elkton, Kentucky,* some development constraints were identified and graphically shown on this map.

Most of the steep slopes are located north of US 68 and there are several areas north of US 68 with slopes over 10 percent. As discussed earlier, there is a significant 100-year flood plain inside the existing city limits that will have an effect on land use and future development. However, the City of Elkton, in general, has a great deal of developable property contiguous to its current city limits which is ideal for future development.

EXHIBIT 4
Obstacles to Development
Elkton, Kentucky



CHAPTER III
ISSUE ANALYSIS

INTRODUCTION

An understanding of the strengths and weaknesses contained within the community and the external influences affecting the City of Elkton and Todd County is essential for efficient plan development. The knowledge of the nature and composition of community strengths opens opportunities for various components to be pooled and greater benefits to be realized. Before a problem or weakness can be addressed, it must first be identified. In many cases, simple definition or redefinition of problems leads to solutions not obvious at first. Other problems may seem difficult to overcome, but through a systematic plan of attack they become manageable.

A Comprehensive Plan is not completed in isolation. Through public meetings, the interests of the various groups are taken into account. Larger State and national trends can also be severe enough to impact the local situation. Thus, knowledge regarding how the local economy contributes to and is affected by these larger trends allows decision-makers the opportunity to make wise decisions about community development. Finally, the understanding of such issues allows for the efficient allocation of scarce resources into those areas identified as having highest priority by the community policy makers.

The issues identified that will impact the community's short and long term development are included in this chapter. They represent a overview of the public participation process.

PUBLIC PARTICIPATION

Public participation related to the development of this Comprehensive Plan initially included a series of meetings with the Planning Commission, elected officials, business leaders and public service providers. Issue areas that were identified from these meetings were used as a foundation for the *Goals and Objectives*. These issues range from annexation, land use, transportation, community facilities, downtown revitalization and economic development. Throughout the summer and fall of 2012 several Working Group meetings were held to get input on community development and land use issues. On November 27, 2012 a public meeting was held at the old Courthouse in Elkton to get input from the public on community development issues.

The result of all of these efforts is the statement of the *Goals and Objectives* found in Chapter IV.

CHAPTER IV
GOALS AND OBJECTIVES

A. GENERAL LAND DEVELOPMENT

GOAL: Achieve the best possible relationship between the various types of land uses and the major street systems to provide for an increasingly safe, healthy and convenient environment in which the residents of the community can live and work.

Objective: Lessen the cost and impact of development by encouraging growth in directions which most efficiently use the existing and planned utility systems.

Encourage future land development in centralized compact patterns near existing urban developments, thus minimizing decentralized sprawling patterns.

Discourage development in 100 Year Flood Plains.

GOAL: Insure that all land uses are developed in a manner compatible with surrounding land uses.

Objective: Facilitate good transitions between land uses of varying types and densities.

Control the potentially negative aspects of commercial development such as entry points, signage, noise and lighting.

Foster the following complementary land uses:

- Residential units within the Central Business District (CBD), particularly in the vacant upper floors of existing businesses.
- Higher-density residential land uses near high-intensity land uses such as commercial centers.
- Higher-density land uses on arterial streets, through use of frontage or service roads.

B. RESIDENTIAL LAND USES

1. Housing

GOAL: Ensure that all housing units are constructed in a manner that protects the health, safety and welfare of the residents and will be an asset to the community in general.

Objective: Provide adequate housing opportunities to meet the needs of all citizens including high, moderate and low income groups and special groups such as single parents, handicapped and elderly within the City.

Encourage the creative design of residential developments.

Promote the revitalization and rehabilitation of blighted and deteriorating neighborhoods.

Promote the enforcement of standard building codes that ensure the structural quality of all dwelling units.

Control the intrusion of commercial land uses within residential zoning districts.

Protect residential areas from incompatible forces; desired features include well-planned neighborhoods, protected pedestrian ways, open space areas for recreation, and preservation of the natural topography.

Prohibit manufactured homes under 20 feet wide from being placed within the corporate limits of the City of Elkton except in areas zoned for mobile home parks.

Encourage residential subdivision development within designated residential zones, which can be efficiently served by urban services.

Qualified manufactured homes must meet design requirements to insure compatibility with site built homes.

Encourage contiguous growth and avoid “leapfrogging” subdivisions.

2. Neighborhood Development

GOAL: Encourage the concept of planning and development at the neighborhood level within the city limits of Elkton.

Objectives: Support strong, functional neighborhoods through planning and land use regulations designed to encourage the stability of existing neighborhoods.

Plan the development of new residential areas around the neighborhood concept, by creating new neighborhood areas, or by integrating them into established neighborhoods.

Require subdivisions to plan for interconnecting local streets to contiguous parcels of land that will be developed in the future.

C. ECONOMIC DEVELOPMENT

GOAL: Provide a strong economic base for the city through commercial expansion, industrial development, and the promotion of tourism as the key elements of this development. Encourage local employment opportunities rather than those requiring commuting.

Objective: Provide adequate space for proper commercial and industrial land uses that are compatible with surrounding land uses.

Improve the current transportation facilities in an attempt to upgrade the movement of people and goods.

Encourage a diversified economic base so the community is not overly dependent on one industry.

Promote the expansion of existing businesses and industries.

Expand employment and investment opportunities.

Encourage industries that will not pollute the environment.

1. Commercial Development

GOAL: Understand and accommodate the various levels of commercial needs within the city.

Objectives: Enhance the expansion and revitalization of the commercial needs within the business districts of Elkton.

Encourage the development of well located and designed commercial areas, which limit the direct access to major arterial streets.

Encourage commercial facilities that are specifically oriented to the automobile and require adequate parking for each facility. Proper access and utility roads must accompany all commercial development on major streets.

Effectively buffer nearby residential areas from commercial areas and require commercial development sites to install and maintain a minimum amount of landscaping.

GOAL: Encourage the strengthening of the Central Business District.

Objectives: Preserve and support the Central Business District by recognizing its significance as an historic regional center and its appropriateness as a location for specialty retail businesses and offices.

Promote the development of municipally owned off-street parking areas within adequate walking distance of downtown activity centers.

Support efforts to provide the downtown with a clean uncluttered appearance.

Promote the historic character of downtown Elkton through the reuse of old buildings and new construction which accents that character.

Promote circulation systems that will encourage safe vehicular and pedestrian movement in the downtown area.

Encourage the development of a strong and broad-based organizational structure charged with the mission of downtown revitalization.

Promote the street/landscaping of the downtown area with appropriate sidewalks, pedestrian streetlights, underground utilities, etc.

2. Industrial Development

GOAL: Accommodate industrial development that will assist in providing for a broad and stable economic base consistent with the character of the area.

Objectives: Support existing programs for industrial attraction and site development based on the community's assets and needs.

Cooperate with industrial development agencies in helping to provide suitable locations for industrial parks.

Encourage the city to have, or acquire in a reasonable amount of time, the physical, social, and community resources to accommodate new industry.

Ensure the establishment of clean industry which will be a long-range asset to the city and not harm the environment.

Encourage the development of medium-size industry so that the community will not become economically dependent upon any particular industry.

Promote the expansion of existing businesses and industries.

Encourage small light industries in existing vacant buildings and properties.

Locate future industrial development where it will be most compatible with surrounding land uses, with the proper environmental controls and in areas serviced by utilities, police and fire protection. It should also have good infrastructure access to existing and proposed highways..

Buffer residential uses from industrial activity.

Encourage city-county cooperation in industrial development efforts.

3. Tourism

GOAL: Promote the growth of the tourism industry in the city and county as another means of broadening the city's economic base and to provide a linkage between various segments of the community that offer goods and services to visitors.

Objectives: Encourage the classic car events and other special events downtown.

Encourage the continued development of tourism related businesses.

Encourage cooperation among the various local interests that serve as attractions for visitors, such as hotels, motels, restaurants, and bed and breakfast houses.

Support new and innovative means to encourage tourism and seek the assistance of state and local governments as needed, to help bring this about.

D. COMMUNITY FACILITIES

1. Utility/Safety/Recreation Programs

GOAL: Provide desirable and easily accessible community facilities and services, such as fire and police protection, sewer, water, electric, cable, communication facilities, solid waste disposal, and parks and recreation in an orderly and efficient manner.

Objectives: Monitor growth to determine whether existing developments, as well as all proposed new developments, will be provided with adequate community services and facilities in an orderly and efficient manner.

Develop a Capital Improvement Plan estimating costs and prioritizing projects for construction and improvements in the areas of water and sewer expansion, electric, cable, broadband and communication facilities, parks, fire and police protection.

Improve water supply where substandard conditions exist.

Improve and expand the city's sewer facilities to accommodate and direct growth within the urban area and to key sites adjacent to the city's perimeter.

Ensure that all solid waste throughout the city is handled and disposed of properly.

Continue to provide adequate police and fire protection to all areas of the city.

Continue to maintain easily accessible outdoor recreational areas serving the passive and active outdoor recreational needs of the community.

Provide indoor recreational opportunities for both the youth and senior citizens of the city.

Require annexation of areas desiring extension of city services.

Improve tree trimming practices as they relate to utility lines and continue to implement tree replacement policies.

Identify an *Urban Service Boundary* that includes key properties outside of, and adjacent to, the current city boundary that has a high potential for urban develop over the next 30 years and target these areas for city utility services.

2. Educational Programs

GOAL: Encourage high quality, efficiency and cost effectiveness in the public education system.

Objectives: Replace and upgrade equipment and facilities as needed to provide better education for the children.

Expand facilities when enrollment deems it necessary.

Encourage the promotion of continuing adult education classes.

Continue to promote the use of the vocational training programs by community residents.

Continue to utilize federally funded Summer Youth and In-School youth programs.

Encourage high school and college graduates to remain or return to the community.

Continue to promote the city as a satellite center for Murray State University or Western Kentucky University.

3. Health Programs

GOAL: Protect, maintain and improve the communal health and well-being of the citizens of the community.

Objectives: Encourage the continued provision of adequate emergency health or hospital, as well and ambulance services.

Encourage the provision of adequate health services to citizens of all ages at easily accessible locations.

Encourage the provision of educational programs in preventive medicine.

Encourage the expansion of health services by the Todd County Health Department.

Encourage expanded funding for mental health programs for all ages.

Encourage the attraction of qualified medical specialists to the community.

E. TRANSPORTATION

GOAL: Provide for efficient transportation systems capable of moving goods and people in a safe manner.

Objectives: Improve safety at locations having high accident rates through channelization of intersections, signals and other improvements.

Coordinate and plan future subdivision design to facilitate proper traffic circulation.

Improve traffic conditions and circulation within the county by encouraging, where appropriate and conducive to the character of the existing neighborhood, the extension of dead-end streets, loop streets and widening of existing substandard thoroughfares.

Improve and preserve streets to serve specialized tasks; maintain arterial streets, collector streets and local streets to serve their particular functions and separate through traffic from local business traffic along major-access roadways.

Improve traffic circulation patterns to provide efficient and effective access to each sector of the city; all future land uses and planning decisions shall be directed toward creating a street system which is designed to serve its intended function.

Ensure that the street system properly relates to residential, commercial, industrial and public uses of the land.

Provide for the safe movement of pedestrians in all areas.

Provide a bike/walking trail within the flood plain of the Elk Fork River

Provide sidewalks on arterial and collector routes within ½ mile of the high school.

Ensure that the main entrances of major subdivisions on major state arterial roads leading into and from the city have deceleration lanes and passing bubbles to keep from impeding the free flow of traffic.

Promote adequate parking conditions in the Central Business District through continued enforcement of parking regulations.

F. NATURAL RESOURCES CONSERVATION

GOAL: Protect and preserve the natural resources of the city and surrounding areas to insure that all development is planned so as to mitigate significant adverse environmental impacts.

Objectives: Identify and protect sensitive natural resource sites and unique special areas from the effects of incompatible development.

Minimize the impact of flooding in the human and natural environment of the community through wise land use decisions by the Planning Commission, the enforcement of the Federal Flood Insurance Program requirements, and protection of existing waterways.

Implement measures to reduce and contain stormwater runoff and to insure adequate drainage.

Encourage the development of utilization methods, which effectively and economically control flooding and soil erosion.

Encourage protection of surface water (i.e., lakes and streams) and ground water aquifers through sound transportation, land use and agricultural practices.

Encourage development in karst areas (i.e., property with sinkholes) to be sensitive to environmental hazards that could possibly contaminate the underground aquifer. Sinkholes should not be used as inlets from a development stormwater management system.

Minimize landslides and loss of valuable top soils by requiring erosion control measures to be implemented on development sites.

Review development proposals to insure that air and water pollution controls are adequate to meet EPA standards.

Encourage public educational programs and conservation efforts by private organizations and public policy which will promote the protection of unique natural areas.

Discourage development in the 100 Year Flood Plain.

G. HISTORIC PRESERVATION

GOAL: Encourage the preservation and adaptive reuse of the city's old and historic districts through the comprehensive planning process.

Objectives: To maintain the historic downtown character of Elkton.

Encourage the cooperation between local interest groups, public and private, to enable the recognition, restoration and tourism potential of old and historic buildings, sites and districts within the community.

Use information and surveys prepared by the Kentucky Heritage Commission to help designate historic districts and structures. Use historic district zoning to maintain the districts and other incentives to maintain individual historic sites.

Encourage the placement of all utility lines underground or in the rear of the buildings in the Central Business District.

Protect unique historical buildings, districts and sites from destruction or harm which may result from land use changes.

Prepare and maintain a countywide list of all historic buildings, sites and districts of Todd County.

Encourage the productive use of old and historic buildings and sites through private ownership and restorative actions by adopting

local codes and ordinances, which promote restoration rather than hinder it.

H. LOCAL GOVERNMENT OPERATION

GOAL: Encourage effective and efficient city and county governments.

Objective: Encourage better communication and coordination between units of local government in order to achieve a planned and orderly growth.

Provide an orientation on planning issues for all new members of the city governmental bodies to include the Planning Commission and the Board of Adjustment.

Continue to employ a professional staff for efficient long term administration of the city government.

Develop capital improvement budgeting and programming.

Support active building and zoning code enforcement.

Expand use of citizen ad hoc committees to advise on public issues.

CHAPTER V
TRANSPORTATION PLAN

The quality of a local transportation system can have a critical impact on the quality, type and rate of the development that occurs in a community. This Transportation Plan will identify traffic problem locations in the City of Elkton and surrounding area and will provide some recommendations concerning improvements and new construction projects needed to address future road patterns.

ADEQUACY ANALYSIS

This section deals with the adequacy of the existing roadway network of the City of Elkton and some new highway improvement projects identified to solve existing problems. The focus will be on the arterial and collector roadway systems. The city's Planning Consultant, Planning Commission members, city officials and local citizens, as well as traffic counts, aerial photos and accident data, identified specific traffic problems and opportunities within the community.

- One transportation problem area in Elkton is traffic congestion on the downtown square during peak traffic hours. Traffic tends to back up on West Main Street (US 68X) and South Main Street (KY 181) during the morning and evening hours as traffic slowly enters into the square round-about. This problem is compounded when school buses and trucks try to use the square during peak traffic times. The square could be bypassed by constructing a new Connector Route between Davis Mill Rd (just south of US 68X) and KY 181 just south of the Todd County High School. (See Project 5 on Exhibit 5, Long Range Transportation Plan Map and Exhibit 7).

- There is no truck route through or around the city that is constructed to the road widths required for today's semi-trucks and trailers. Trucks have problems with the turning radius and geometrics of the courthouse round-about. This is further constrained by on-square parking. The same solution that could solve traffic congestion around the square could solve this truck access problem. The square could be bypassed by constructing a new Connector Route between Davis Mill Rd (just south of US 68X) and KY 181 just south of the Todd County High School. (See Project 5 on Exhibit 5, Long Range Transportation Plan Map and Exhibit 7).

- West Main Street (US 68X) has congestion problems at peak hours in front of the Todd County Middle School with west bound Main Street traffic waiting for on-coming east bound traffic to clear before turn into the school. This road in front of the school should be widened with a dedicated turn lane (See Project 4 on Exhibit 5, Long Range Transportation Plan Map).

- The bridge over the Elk Fork Creek is narrow and is a safety hazard to trucks and other wide vehicles. The bridge needs to be reconstructed above the flood plain. This project has already been funded by KYTC and is estimated to be completed in 2014. (See Project 2 on Exhibit 5, Long Range Transportation Plan Map).

- North Main Street (KY 181) is a narrow road that is complicated by on-street parking problems north of the square from Jefferson Street to the Elk Fork Creek Bridge. A road widening project has already been funded by KYTC and is estimated to be completed in 2014. This is the first phase of widening North Main Street all the way to the US 68 Bypass. (See Project 1 (Phase I) on Exhibit 5, Long Range Transportation Plan Map).

- North Main Street (KY 181) from US 68 south to the Elk Fork Creek Bridge is a narrow road with no sidewalks. A road widening project is needed for safety. This is the second phase of widening North Main Street all the way to the US 68 Bypass. (See Project 3 (Phase 2) on Exhibit 5, Long Range Transportation Plan Map).

- If the Davis Mill Rd/KY 181 connector is constructed, a small section of Davis Mill Road would need to be widened, as well as Beckam Street from US 68X to US 68. The reconstruction of the US 68X/Davis Mill Rd intersection would also need to be reconstructed with turn lanes. These projects would be contingent upon the Southwestern Connector route being constructed and linking into Davis Mill Road. (See Project 6, 7 and 8 on Exhibit 5, Long Range Transportation Plan Map).

- KY 181 south of Elkton is a major commercial corridor used to access US 79 and I-24, as well as the Clarksville, TN market. This route is not on the National Truck Network and does not legally allow 102 inch wide trucks on the route. The widening/reconstruction of US 181 from Elkton southward to US 79 is on the KYTC Unscheduled Needs List, but is not funded at this time.

- The proposed KY 181 to Allensville Rd (KY 102) connector would provide better traffic flow around the south side of town, as well as provide better truck access to US 68 and improved school bus access to the High School and faster emergency response time for fire and EMS. (See Project 9 on Exhibit 5, Long Range Transportation Plan Map).

- West Main Street (US 68X) has open road side ditches and poor to non-existing sidewalks. A minor widening project is proposed that would reconstruct the street with curbs and gutters, and possibly involve some turn lanes at key locations. (See Project 10 on Exhibit 5, Long Range Transportation Plan Map).

- South Main Street (KY 181) has open road side ditches and sidewalks in disrepair. A minor widening project is proposed that would reconstruct the street with curbs and gutters, and possibly involve some turn lanes at key locations. Due to the High School on the southern end of this street, good pedestrian access along this route is needed. (See Project 11 on Exhibit 5, Long Range Transportation Plan Map).

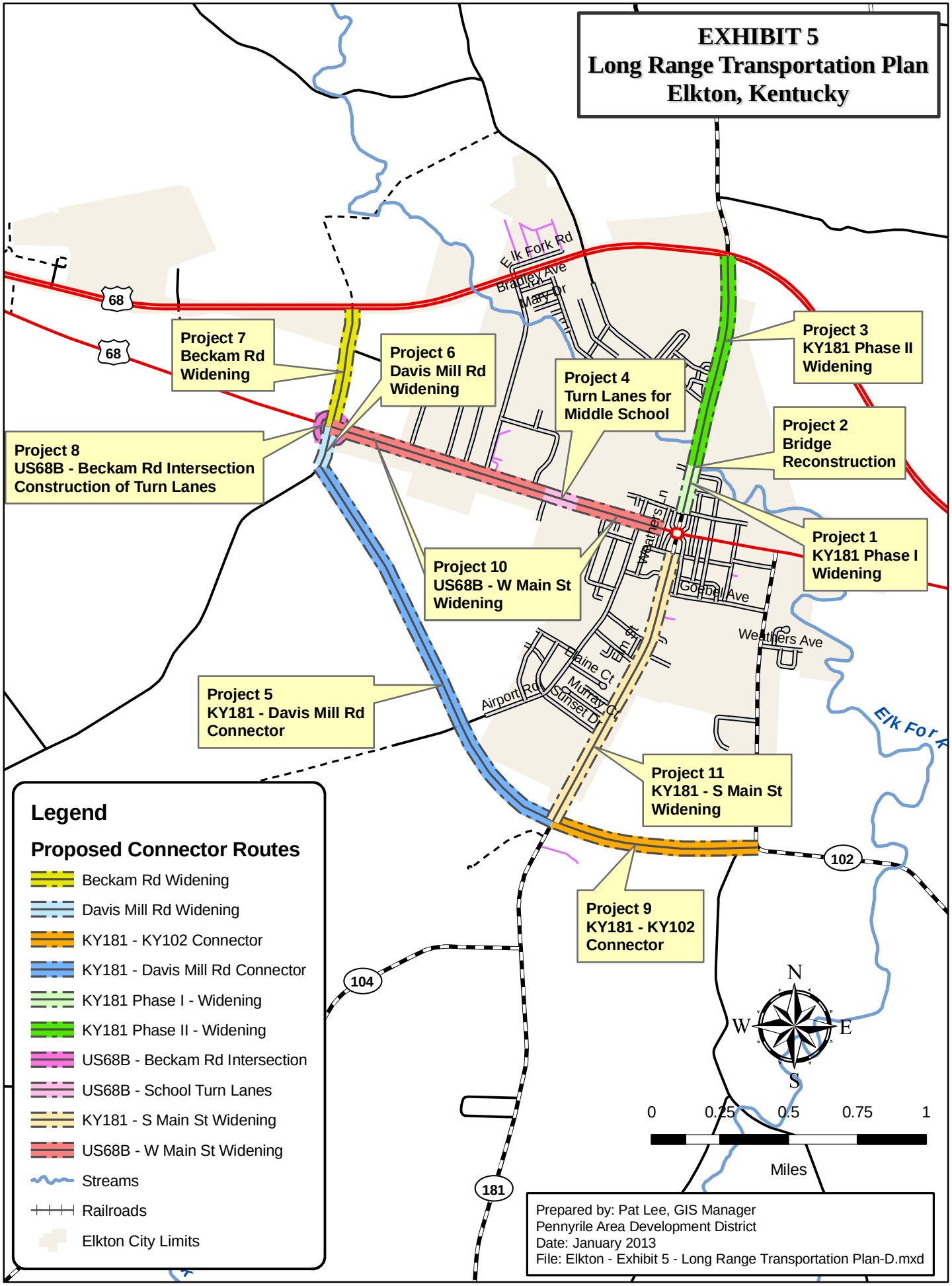


EXHIBIT 5
Long Range Transportation Plan
Elkton, Kentucky
Project 1
KY181 Phase I
Widening
Project 2
Bridge
Reconstruction
Project 3
KY181 Phase II
Widening
Project 4
Turn Lanes for
Middle School
Project 5
KY181 - Davis Mill Rd
Connector
Project 6
Davis Mill Rd
Widening
Project 7
Beckam Rd
Widening
Project 8
US68B - Beckam Rd Intersection
Construction of Turn Lanes
Project 9
KY181 - KY102
Connector
Project 10
US68B - W Main St
Widening
Project 11
KY181 - S Main St
Widening
Legend
Proposed Connector Routes
Beckam Rd Widening
Davis Mill Rd Widening
KY181 - KY102 Connector
KY181 - Davis Mill Rd Connector
KY181 Phase I - Widening
KY181 Phase II - Widening
US68B - Beckam Rd Intersection
US68B - School Turn Lanes
KY181 - S Main St Widening
US68B - W Main St Widening
Streams
Railroads
Elkton City Limits
Elk Fork Rd
Bradley Ave
Mary Dr
Goebel Ave
Weathers Ave
Elaine Ct
Murray Ct
Sunset Dr
Airport Rd
Elk Fork
68
102
104
181
N
W
E
S
0
0.25
0.5
0.75
1
Miles
Prepared by: Pat Lee, GIS Manager
Pennyrile Area Development District
Date: January 2013
File: Elkton - Exhibit 5 - Long Range Transportation Plan-D.mxd

CITY TRUCK ROUTES AND THE NATIONAL TRUCK NETWORK

The designated Truck Routes through the City of Elkton from the US 68 4-lane has on-street parking along some routes that impedes the necessary road widths required for trucks. The on-street square parking creates a problem for trucks using the courthouse round-about. There are also intersections along the route that do not provide adequate geometrics for trucks to make the turns. For example, the Allensville Road (KY 102) and East Main Street (US68X) intersection does not have an adequate truck turning radius.

The National Truck Network is determined by the Federal Highway Administration (FHWA) and used to determine which routes in the United States allow 102 inch wide semi trailers to legally travel on the State road network. There are also generally greater weight limit restrictions on routes that are not on the National Truck Network. The US 68 4-lane is the only route in Todd County on the National Truck Network. The majority of modern semi trailers are 102 inches wide. It is possible for the Kentucky Transportation Cabinet to give special permits for 102 inch wide trucks to legally use State routes that are not on the National Truck Network. However, these permits are reviewed on a case-by-case and company-by-company basis and these permits are not always approved. Road width issues and proposed truck weights along any specific route are all examined and factored into the permit approval process.

KY 181 south of Elkton has become a significant commercial corridor to access US 79, I-24 and Clarksville, Tennessee. The City of Clarksville is a major economic link to Todd County and the KY 181 route south of Elkton is not on the National Truck Network. It may not be economically cost efficient to widen/reconstruct KY 181 to get this section on the National Truck Network. However, spot improvements that target road sections with poor geometrics could be a less costly approach to making this route safer and more likely for companies to get permits. The proposed Southwestern Connector route would also aid in increasing truck accessibility on KY 181 south of Elkton relative to increasing the ability of trucks to obtain permits for 102 inch wide trailers.

A photo of a semi truck exiting the square round-about is shown on *Figure 1, Semi Truck Exiting Courthouse Square.* This shows the trucks front tire crossing the centerline of North Main Street as the truck exits the square.

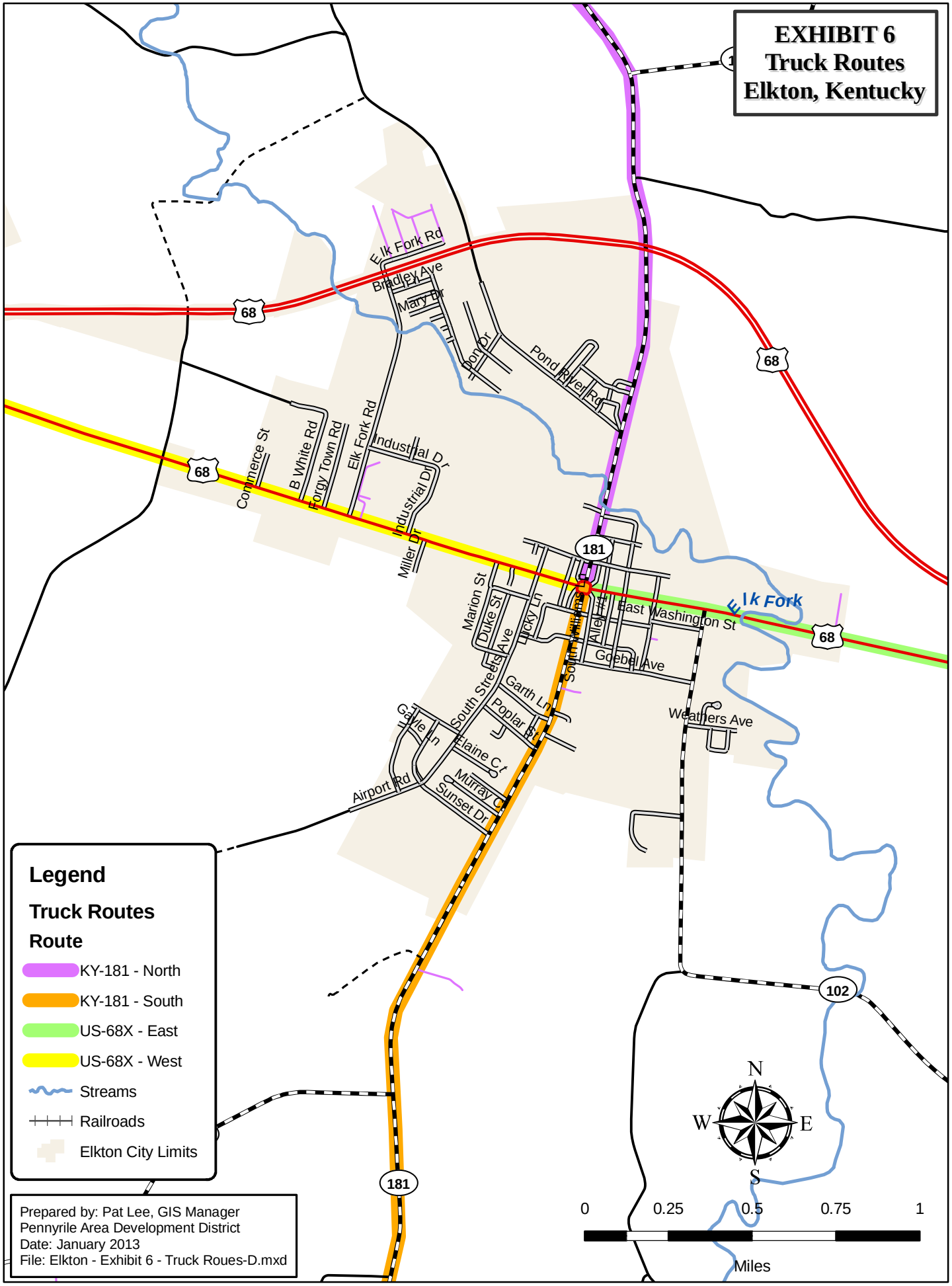


EXHIBIT 6
Truck Routes
Elkton, Kentucky
Elk Fork Rd
Bradley Ave
Mary Dr
Pond River Rd
Elk Fork Rd
Industrial Dr
Commerce St
B White Rd
Forgy Town Rd
Miller Dr
Marion St
Duke St
Lucky Ln
Allen St
East Washington St
Elk Fork
Goebel Ave
South Williams St
South Main St
Garth Ln
Poplar St
Gayle Ln
Elaine Ct
Murray Ct
Sunset Dr
Airport Rd
Weathers Ave
68
181
102
Legend
Truck Routes
Route
KY-181 - North
KY-181 - South
US-68X - East
US-68X - West
Streams
Railroads
Elkton City Limits
N
W
E
S
0
0.25
0.5
0.75
1
Miles
Prepared by: Pat Lee, GIS Manager
Pennyrile Area Development District
Date: January 2013
File: Elkton - Exhibit 6 - Truck Roues-D.mxd

PROPOSED SOUTHERN CONNECTOR ROUTES

As shown on *Exhibit 7, Major Southern Connector Routes, Elkton, Kentucky*, a state highway connector route around the southern perimeter of the city is proposed to reduce intra-city traffic congestion and route truck and school bus traffic around the downtown square. These connector routes are proposed to be constructed as "super 2-lanes." Each phase of these two (2) connector routes are designed along interconnecting corridors to act as a limited bypass around the south side of the city once both the phases are completed. However, each connector route is also designed and viable as a "standalone" project.

This proposed Super 2-lane route will have the same horizontal and vertical geometrics as a standard 4-lane highway, however, it would only have 2-lanes. It should also be a limited access highway. Other design elements of the connector routes could include a 4-foot wide asphalt bike/walking trail within the perimeter of the right-of-way, but separated from the vehicle lanes. This bike/walking trail could be designed and constructed by the State as part of the initial 2-lane highway in each phase of the connector route project. This connector route will be providing direct access to the Todd County High School so designing safe bike and pedestrian access would be an important part of this project.

In Exhibit 7, the location of the proposed connector route is only intended as a concept route for planning purposes. The exact location of the route will be determined during the design of the project with public input and other factors that will determine the exact location and termini points. This route could connect directly to Business US 68X. However, by tying into Davis Mill Road, it gives direct access to Beckam Road which allows direct access to US 68. This would create a new truck route using Beckam Road, a proton of Davis Mill Road, and the new Connector as one continuous route.

There are also several secondary benefits for a Southern Connector Route. This proposed route would improve school bus access to the High School, and in some instances, could provide a faster response time for emergency vehicles. It would also provide road infrastructure to some highly developable property southwest of the City that has access to City water and sewer services.

LOCAL COLLECTOR ROUTES

The local collector routes indicated on *Exhibit 8, Proposed Local Collector Routes*, *Elkton, Kentucky*, provide a general location where local streets should be constructed when key parcels of land are developed with some type of urban use that requires the construction of new streets. Unlike the two proposed Southern Connector Routes, these proposed local streets will not be State funded or maintained routes. These local streets are normally constructed by developers. The purpose of this element in the plan is to better coordinate the traffic planning and circulation of local streets and local traffic flow in and around the city with the existing and proposed state arterial highway routes. Local traffic in cities cannot depend totally on all traffic flowing on state arterial highway routes. Local collector streets help make intra-city traffic more convenient and safe. These proposed street locations are not intended to be interpreted as the

exact location of the proposed streets. Rather it is intended to convey the concept that there needs to be some planning to inter-connect streets. As long as a developer's Master Plan allows for streets that connect significant access points and adjoining properties the exact location of these proposed streets are flexible. This Plan simply provides a recommendation that could be followed when developing certain tracts of property. The Planning Commission will have the discretion to require inter-connected streets in subdivision and development plan reviews.

Figure 1
Semi Truck Exiting Courthouse Square

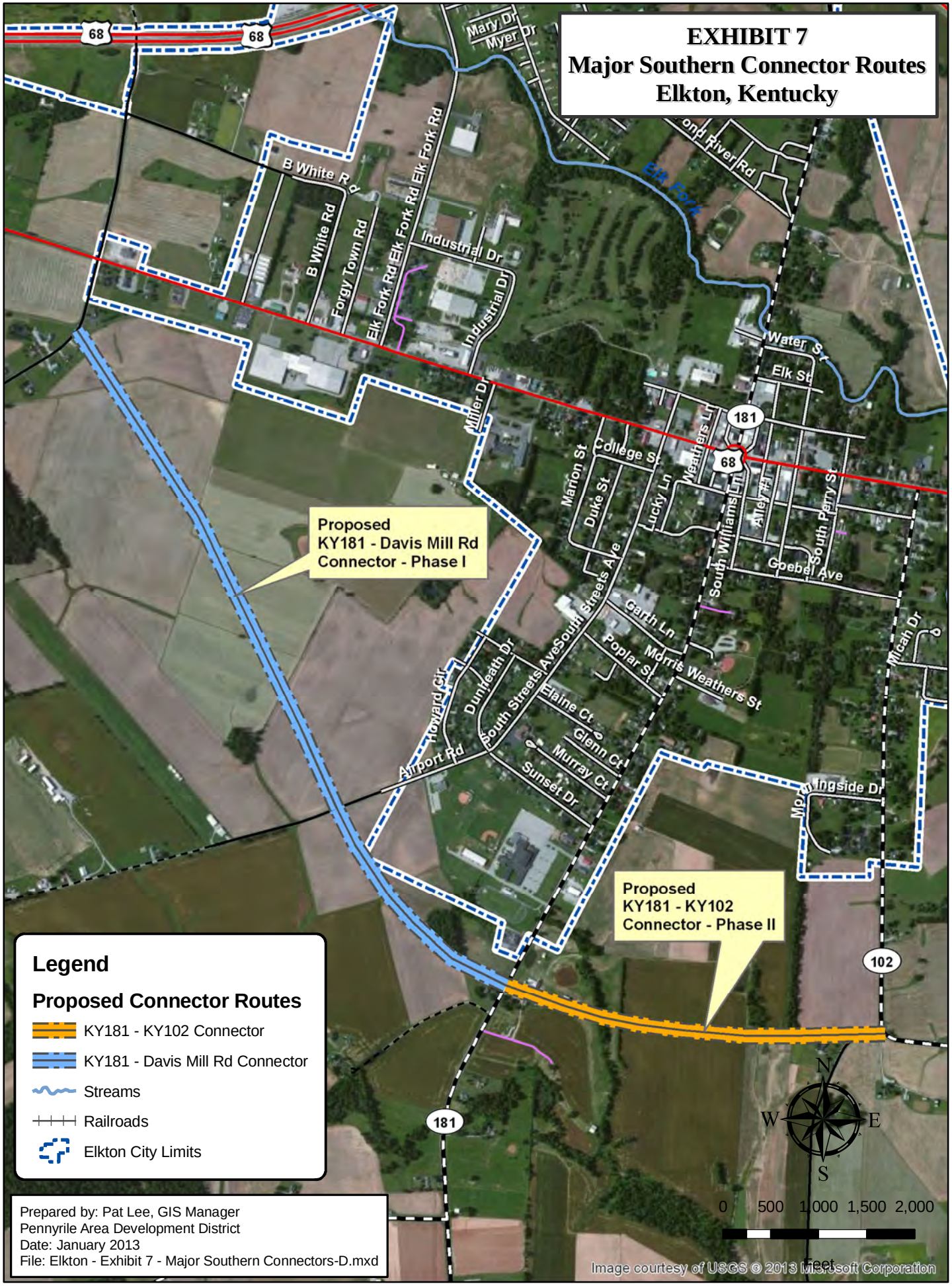


EXHIBIT 7
Major Southern Connector Routes
Elkton, Kentucky
Proposed
KY181 - Davis Mill Rd
Connector - Phase I
Proposed
KY181 - KY102
Connector - Phase II
Legend
Proposed Connector Routes
KY181 - KY102 Connector
KY181 - Davis Mill Rd Connector
Streams
Railroads
Elkton City Limits
Prepared by: Pat Lee, GIS Manager
Pennyrile Area Development District
Date: January 2013
File: Elkton - Exhibit 7 - Major Southern Connectors-D.mxd
N
W
E
S
0 500 1,000 1,500 2,000
Feet
Image courtesy of USGS © 2013 Microsoft Corporation
68
181
102
Mary Dr
Myer Dr
B White Rd
Forgy Town Rd
Elk Fork Rd
Industrial Dr
Miller Dr
Elk Fork
Water St
Elk St
College St
Marion St
Duke St
Lucky Ln
Weathers Ln
Alley #1
South Perry St
South Williams St
Goebel Ave
South Streets Ave
Garth Ln
Poplar St
Morris Weathers St
Micah Dr
Howard Cir
Dunkfeath Dr
Elaine Ct
Glenn Ct
Murray Ct
Sunset Dr
Airport Rd

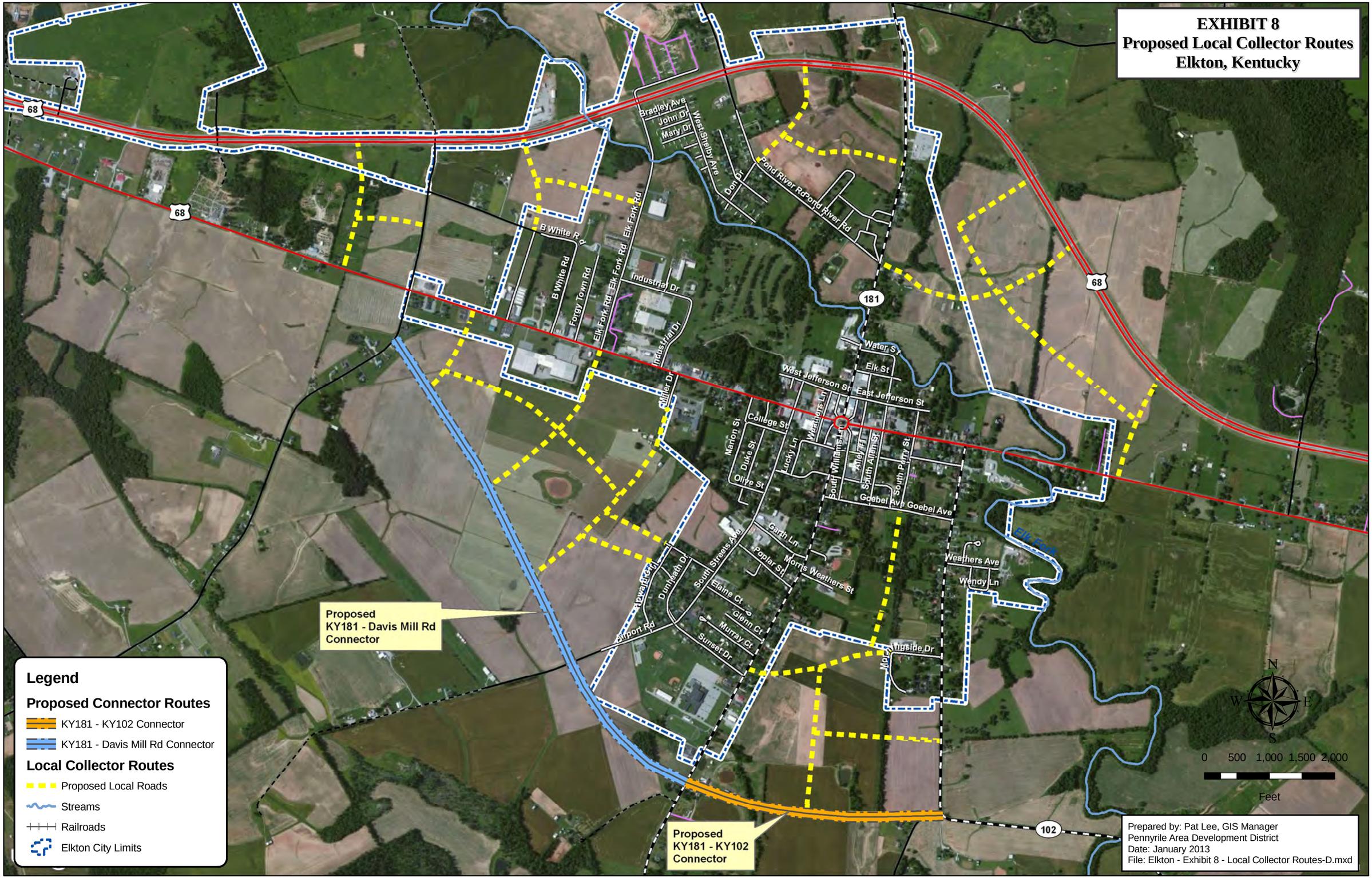


EXHIBIT 8
Proposed Local Collector Routes
Elkton, Kentucky
68
181
102
Bradley Ave
John Dr
Mary Dr
West Shelby Ave
Don Dr
Pond River Rd
Pond River Rd
B White Rd
B White Rd
Forgy Town Rd
Elk Fork Rd
Elk Fork Rd
Elk Fork Rd
Industrial Dr
Industrial Dr
Shifler Dr
Water St
Elk St
West Jefferson St
East Jefferson St
College St
Marion St
Duke St
Olive St
Lucky Ln
Weathers Ln
South Williams Ln
Ariel Ct
South Allen St
South Perry St
Goebel Ave
Goebel Ave
Garth Ln
South Streets Alley
Poplar St
Morris Weathers St
Weathers Ave
Wendy Ln
Elk Fork
Howard Cir
Dunheath Dr
Elaine Ct
Glenn Ct
Murray Ct
Sunset Dr
Airport Rd
Kingside Dr
Proposed
KY181 - Davis Mill Rd
Connector
Proposed
KY181 - KY102
Connector
Legend
Proposed Connector Routes
KY181 - KY102 Connector
KY181 - Davis Mill Rd Connector
Local Collector Routes
Proposed Local Roads
Streams
Railroads
Elkton City Limits
N
W
E
S
0 500 1,000 1,500 2,000
Feet
Prepared by: Pat Lee, GIS Manager
Pennyrile Area Development District
Date: January 2013
File: Elkton - Exhibit 8 - Local Collector Routes-D.mxd

Six-Year Highway Plan

The Kentucky Transportation Cabinet's *Six Year Highway Plan* is a biennial construction program and a four-year planning document. Projects are included in the *Six Year Highway Plan* on the basis of existing roadway conditions, construction cost, traffic volumes, accident rates, geographic distribution of projects, and anticipated social, economic and environmental impacts associated with the proposed construction. The anticipated level of Federal and State funding for capital projects over a six-year period establishes a ceiling for the number of projects included. The Kentucky General Assembly approves the *Six Year Highway Plan*, which is updated biennially. All proposed State route improvements and new routes will need to be funded as part of this *Six Year Highway Plan.*

AIRPORT

The Standard Field Airport is located approximately one mile southwest of the City of Elkton and can be accessed from Airport Road. The Airport has an existing 2,930' x 75' turf runway with an aircraft parking apron. The airport is publicly owned.

The nearest national airport is the Nashville International Airport which is 69 miles to the southeast.

RAILROADS

There is no railroad service directly to Elkton. The nearest rail service available is in Guthrie, Kentucky in southern Todd County.

CHAPTER VI
COMMUNITY FACILITIES PLAN

IMPORTANCE OF COMMUNITY FACILITIES

The quality and vitality of the environment and lifestyle of the residents of the City of Elkton is dependent upon the facilities and services available to them. These facilities and services support the social fabric of the community and include schools, libraries, parks, health care facilities, municipal buildings, public safety facilities, and sanitation facilities such as water and sewer systems.

This analysis will identify those services available and analyze their condition. Each section includes existing conditions, as well as projected needs and recommendations. The following are the major areas of concern regarding local community facilities.

Todd County Public Schools

The total enrollment for the Todd County Public School System for Spring 2013 was 2,030 students. There were 969 Elementary School students, 481 Middle School students and 563 High School students with 17 students in the Horizons Academy.

Recreation

Elkton and Todd County have an excellent variety of public and private outdoor recreational opportunities both within and around the county. The City Park features tennis courts, softball fields, and playground facilities. The Country Club offers a private 18-hole golf course.

Water Utility Service

Currently, the City of Elkton is completely served with a public water system and has adequate supply to serve a growing population. The Elkton Water Department obtains their water from the Logan-Todd Regional Water District, and does not have a city owned and operated water treatment plant. The Todd County Water District is serving customers in the rural area surrounding the City of Elkton.

As shown on *Exhibit 9, Water Line Size and locations, Elkton, Kentucky*, the size and location of water lines are indicated on the map of the city. This water infrastructure is a critical component in the planning and analysis used in determining future land uses. Generally, commercial and industrial businesses need larger volumes and pressure for fire protection and other uses. Therefore, an analysis of the existing line size and locations was one of the major factors in developing the *Future Land Use Map* (Exhibit 13).

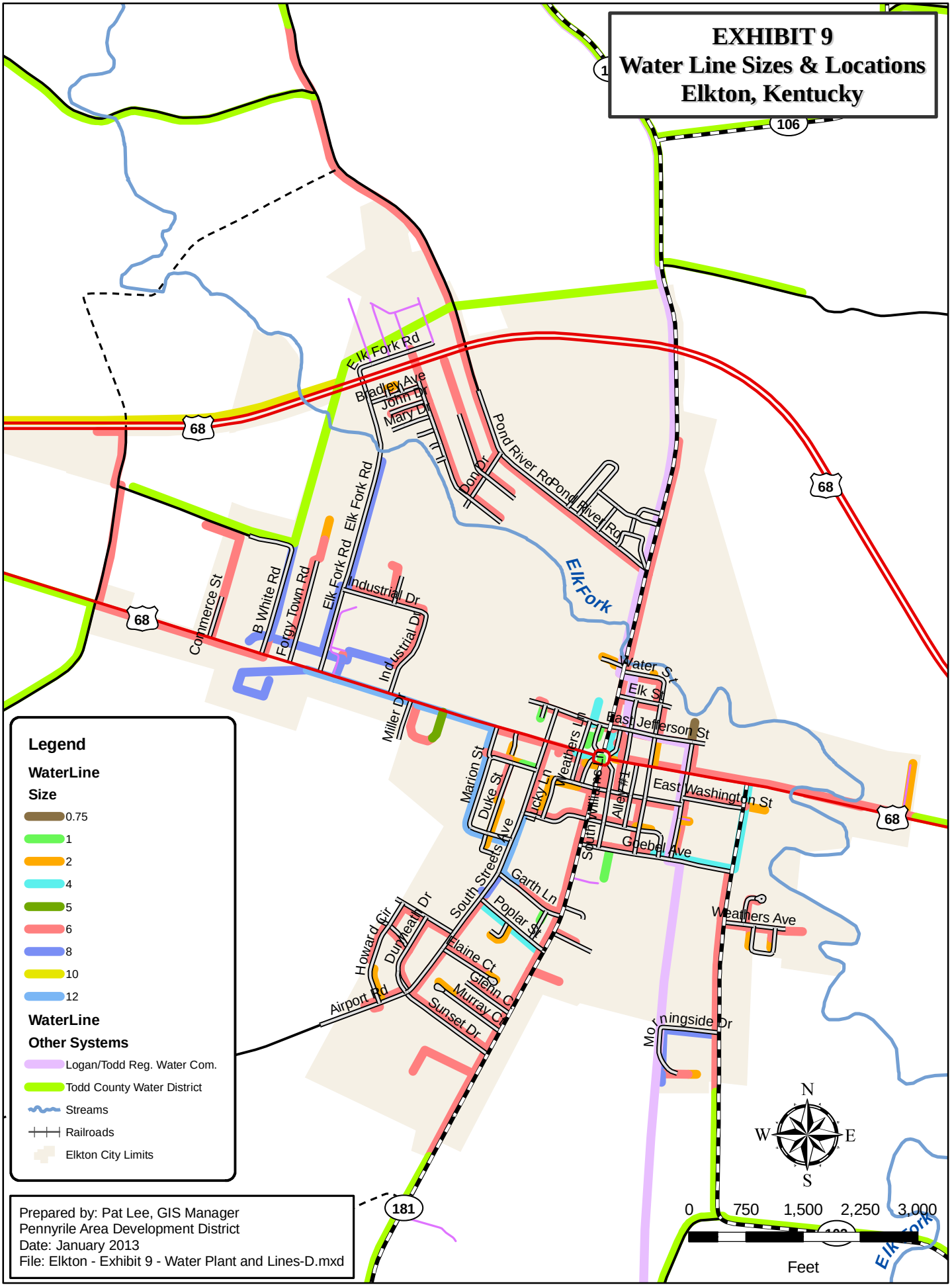


EXHIBIT 9
Water Line Sizes & Locations
Elkton, Kentucky
Legend
WaterLine
Size
0.75
1
2
4
5
6
8
10
12
WaterLine
Other Systems
Logan/Todd Reg. Water Com.
Todd County Water District
Streams
Railroads
Elkton City Limits
Prepared by: Pat Lee, GIS Manager
Pennyrile Area Development District
Date: January 2013
File: Elkton - Exhibit 9 - Water Plant and Lines-D.mxd
N
W
E
S
0
750
1,500
2,250
3,000
Feet
Elk Fork Rd
Bradley Ave
John Dr
Mary Dr
Pond River Rd
Elk Fork
Commerce St
B White Rd
Forgy Town Rd
Industrial Dr
Miller Dr
Water St
Elk St
East Jefferson St
East Washington St
Goebel Ave
Marion St
Duke St
Lucky Ln
Weathers Ln
Allen St
South Williams St
South Streets Ave
Garth Ln
Poplar St
Howard Cir
Dunmeath Dr
Elaine Ct
Glenn Ct
Murray Ct
Sunset Dr
Airport Rd
Weathers Ave
Morningside Dr
68
106
181

Sanitary Sewer Utility Services

The City of Elkton is currently making an effort to extend sanitary sewer services to all of the residents within the city limits. Because of annexation efforts within the last two decades, the great majority of urban development is within the city limits of Elkton. One of the objectives of the planning process is to lessen the cost and impact of development by encouraging growth in directions that most efficiently use the existing and planned utility systems. A second is to encourage annexation of areas desiring city services. The provision of one urban type service such as sewer by the city outside the city limits can lead to excessive cost to the city as it continues to meet additional needs and demands in this area. It is to the benefit of the city and the residents to require annexation if the land use in the area is essentially urban and will eventually demand progressively more urban services. The Elkton Water and Sewer Department needs to work closely with the Planning Commission in reviewing the *Future Land Use Map* in the Comprehensive Plan to determine realistically which areas of the city are anticipated to experience commercial, industrial, and residential growth which would require changes in the current utility service to that area. This would promote efficient use of funds for extensions and renovations to the public water and sewer systems. The existing location and size of the sanitary sewer lines are indicated on *Exhibit 10, Sewer Plan Line and Size Locations, Elkton, Kentucky.*

The existing sewer line sizes and locations was a major part of the analysis of the *Future Land Use Map* (Exhibit 13). Commercial and industrial developments generally require greater sewer capacities. Another method to help analyze possible new sewer service growth areas is shown in *Exhibit 11, Gravity Flow Sewer Areas, Elkton, Kentucky*. The approximate Gravity Flow Sewer Area shown on this map was determined by using USGS topographic maps, GPS mapping and the location of existing sewer lines. All of the areas highlighted in light green is within the gravity flow area of one of the city's existing sewer lines. It is possible, and common, to use sewer lift stations to pump sewage over uphill grades; however, these lift stations cost tens of thousands of dollars and require maintenance, plus electric to operate them. Therefore, the areas that can be serviced using only gravity flow have an economic advantage.

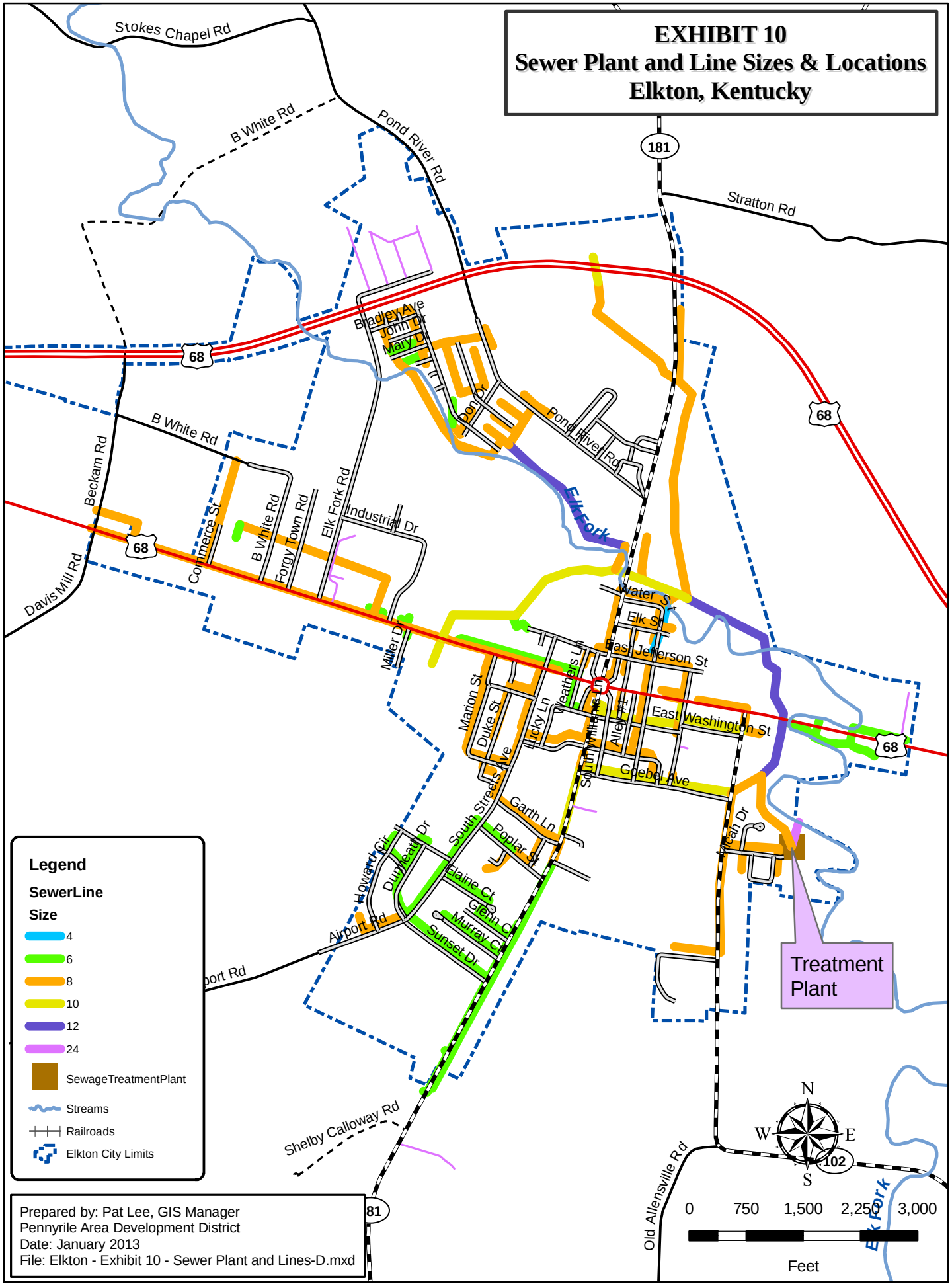
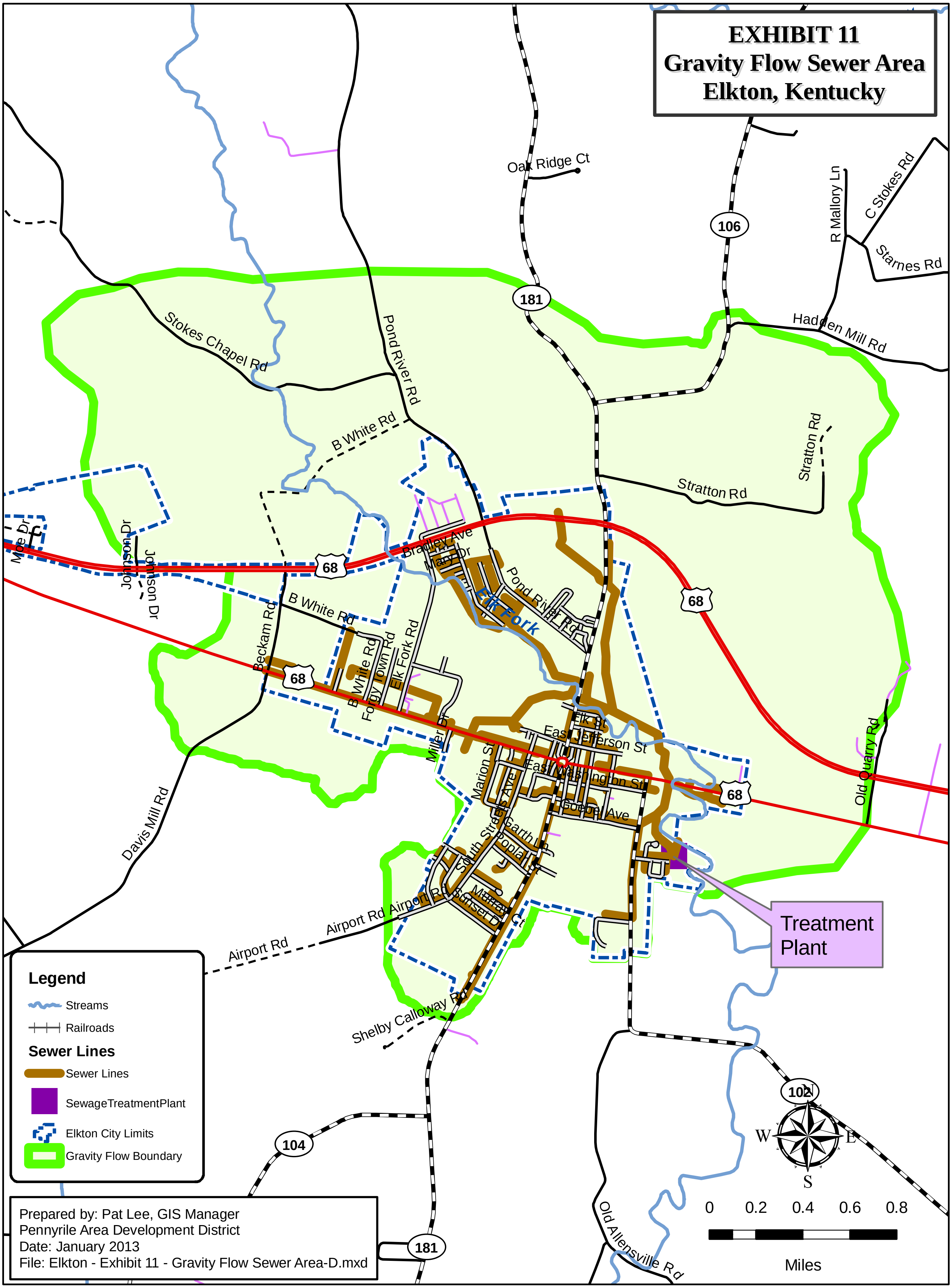


EXHIBIT 10
Sewer Plant and Line Sizes & Locations
Elkton, Kentucky
Stokes Chapel Rd
B White Rd
Pond River Rd
181
Stratton Rd
68
Bradley Ave
John Dr
Mary Dr
Don Dr
Pond River Rd
Elk Fork
Beckam Rd
Davis Mill Rd
Commerce St
B White Rd
Forgy Town Rd
Elk Fork Rd
Industrial Dr
Miller Dr
Water St
Elk St
East Jefferson St
Marion St
Duke St
Lucky Ln
Weathers Ln
Allen Pl
East Washington St
South Williams Ln
Goebel Ave
South Street Ave
Garth Ln
Poplar St
Howard Cir
Dunmeade Dr
Elaine Ct
Glenn Ct
Murray Ct
Sunset Dr
Airport Rd
Allan Dr
Treatment Plant
Shelby Calloway Rd
Old Allensville Rd
102
Legend
SewerLine
Size
4
6
8
10
12
24
SewageTreatmentPlant
Streams
Railroads
Elkton City Limits
Prepared by: Pat Lee, GIS Manager
Pennyrile Area Development District
Date: January 2013
File: Elkton - Exhibit 10 - Sewer Plant and Lines-D.mxd
N
W
E
S
0
750
1,500
2,250
3,000
Feet



Prepared by: Pat Lee, GIS Manager
Pennyrile Area Development District
Date: January 2013
File: Elkton - Exhibit 11 - Gravity Flow Sewer Area-D.mxd

Proposed Urban Service Boundary

An Urban Service Boundary is indicated in *Exhibit 12, Urban Service Boundary, Elkton, Kentucky*, that designates an area that could be served by city water and sewer from the Elkton Water and Sewer Department in the future. The area inside the Urban Service Boundary is identified as a future urban growth area. Although it is feasible to have water supplied by the Todd County Water District with sanitary sewer services supplied by the city, this would create some "split-billing" issues, and possibly some fire protection problems. The City feels it should provide water and sewer services within the Urban Service Boundary when the need and funding make it feasible and practical.

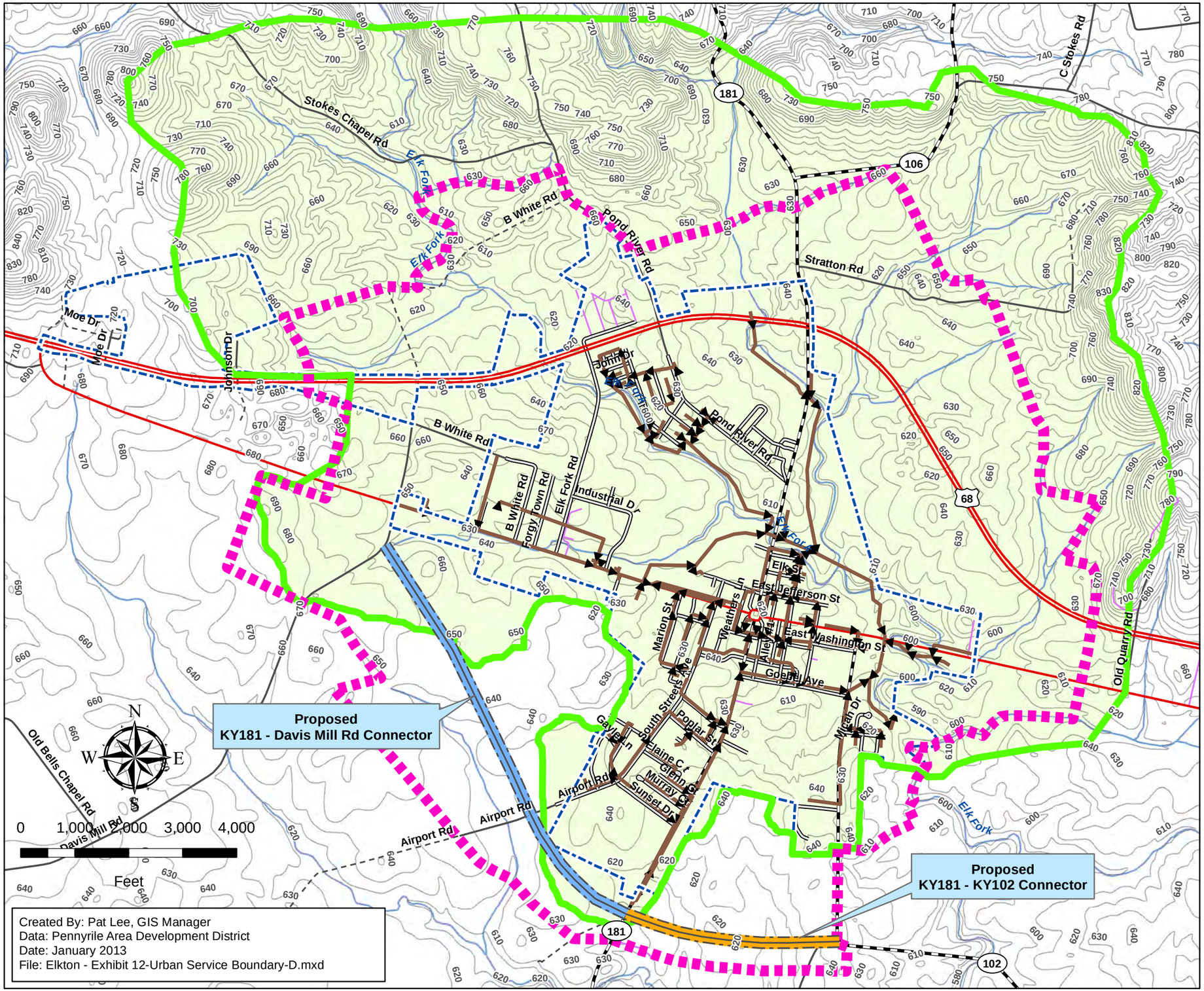
The areas adjacent to several city limits are sometimes contested water service areas between the City Water Department and the various County Water Districts. This Plan proposes that the City and the Todd County Water District negotiate an *Inter-local Agreement* that gives some right to provide water service inside the Urban Service Area to the City of Elkton. There are two (2) advantages a city owned and operated water system generally has over a county water district. These advantages are based on economic and community development. City water systems tend to fund more fire hydrants and support larger line sizes that support not only water needs of an area but fire protection needs. A city tends to see fire protection as a major element of the services they provide, and plan for, in existing and future infrastructure. County Water Districts generally do not see fire protection as a major element of their mission. Line size, pressure and distances to fire hydrants are all very important in all types of urban development, and are critical in future commercial and industrial developments.

Furthermore, cities that have control of the water and sewer services to future commercial and industrial growth areas have a few more options of providing water and sewer incentives to prospective new businesses. County Water Districts have the same access to all the economic development grants that cities have access to, however, cities have a few additional options the County Water Districts do not. For example, the City could wave tap-on fees and may be more willing to fund infrastructure based on employment and not just anticipated water revenues in cases were State grants are not available.

The area that is targeted by Urban Service Boundary was determined using the base analysis that was discussed in the previous chapters of this Plan. The soil types, flood plains, topography and existing utilities, as well as existing and future road infrastructure all were factors in determining the size and location of the Urban Service Boundary.

Since some of this property in the Urban Service Boundary will remain in agricultural production and kept as family farms, it is difficult to determine which parcels will be sold publicly within the next 20 to 50 years. Therefore, it is necessary to make sure there is adequate land identified for urban development that takes into consideration that not all of the land within the areas identified for future urban development will be available for sale.

EXHIBIT 12
Urban Service Boundary
Elkton, Kentucky



Created By: Pat Lee, GIS Manager
Data: Pennyrile Area Development District
Date: January 2013
File: Elkton - Exhibit 12-Urban Service Boundary-D.mxd

Legend

Proposed Connector Routes

- KY181 - KY102 Connector
- KY181 - Davis Mill Rd Connector
- Urban Boundary
- Gravity Flow Boundary For Sewer
- Elkton City Limit Boundary
- Sewer Lines

Roads

- US
- Interstate
- Parkway
- State
- County - Paved
- County - Unpaved
- City
- Private
- Other
- Contours
- Streams

CAPITAL IMPROVEMENT PLAN

The development of a Capital Improvement Plan (CIP) is a higher level of strategic planning. The ideal capital budgeting process begins with a ranking by city officials of prospective capital projects based on future land use projections and agreed upon guidelines. As with operation budgets, the Mayor must approve the capital budget and submit it to the city council for final approval. To facilitate review of these submissions, capital budgets should include a priority ranking of projects, explanations of ranking methodology, as well as information concerning long-term operating and maintenance costs.

It is recommended that the city consider adopting a five (5) year Capital Improvement Plan, which would be reviewed on a yearly basis. The plan should involve an evaluation of the current local infrastructure and the prioritization of various projects. Project cost should be estimated and construction timetables should be completed as a part of the CIP.

Electric Service

The City of Elkton is provided with electric service by the Pennyrile Electric Company.

Natural Gas

The City of Elkton is provided with natural gas by the Atmos Energy Company.

CHAPTER VII
LAND USE PLAN

The Land Use Plan consists of two components including the identification and discussion of areas considered for future development and set of guidelines for the location of various land uses.

DEVELOPMENT AREAS

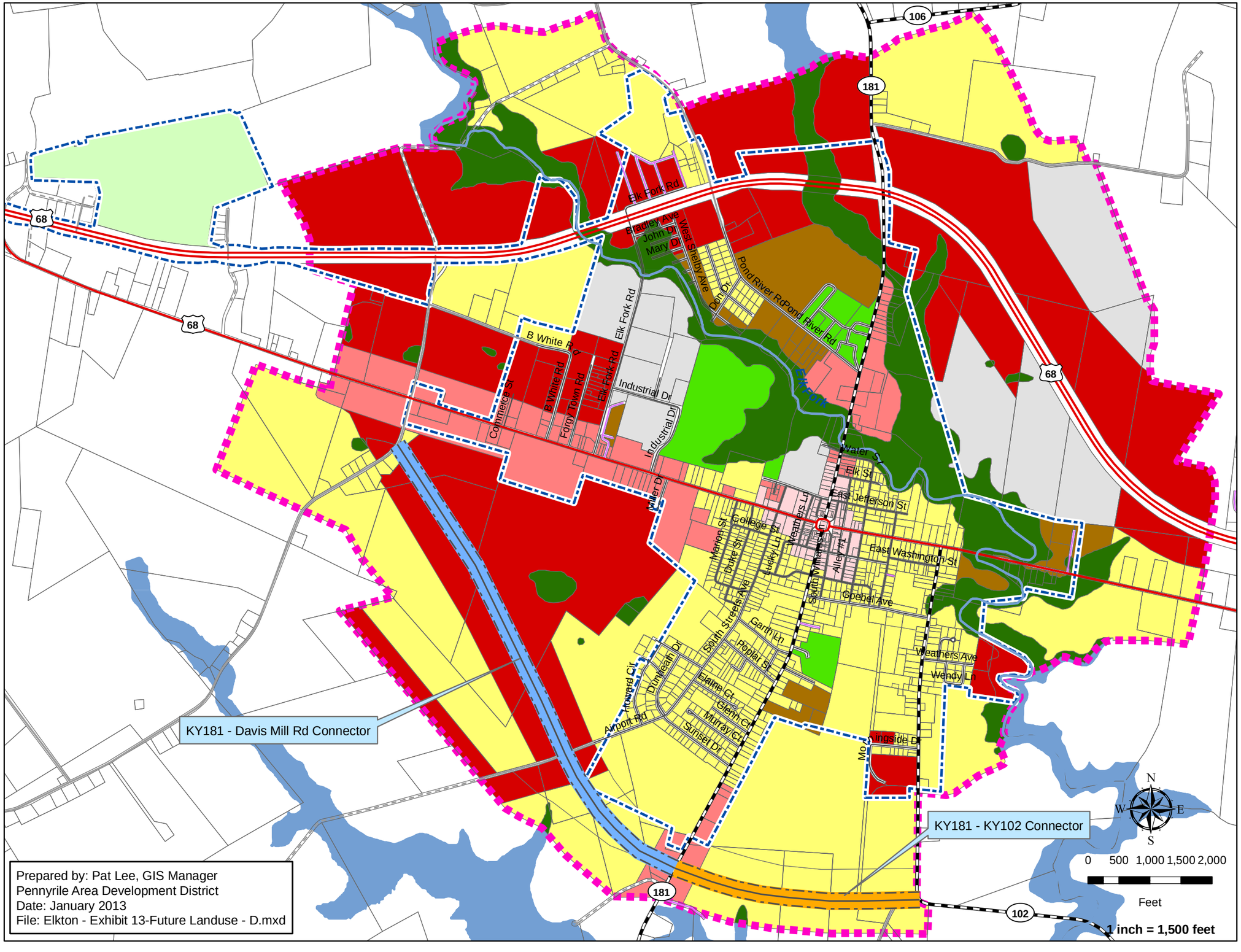
Introduction

The purpose of this chapter is to determine the future land use needs of the City of Elkton and to designate those areas, which are most appropriate for the needed growth and development. The future land use needs are projected by examining the existing land use patterns, development opportunities and constraints, and the population trends and projections for the city as a whole. Economic trends also provide a good foundation for determining local future commercial and industrial needs. To meet most of these needs, urban areas inside the city limits of Elkton that are currently vacant are considered for possible development by analyzing the existing adjacent land transportation systems and community facilities. Some areas within Elkton are currently developed but have potential for redevelopment with commercial or residential uses. It is anticipated that the City of Elkton will continue to grow. The availability of transportation and community services in Elkton make it the prime location in Todd County for future commercial and industrial land use needs.

The City of Elkton does have some constraints to development in and around the city due to environmental and man-made limitations. *Exhibit 4, Obstacles to Development*, *Elkton Kentucky*, identifies karst geology (sinkholes), flood plains and steep topography. The location of these factors identified on Exhibit 4 should be taken into consideration when reviewing proposed development and future land use plans. When existing development trends, development constraints, planned and existing infrastructure, soil types, topography and space requirements are integrated, a balanced and workable future land use plan should result.

The proposed future land uses in and around the City of Elkton are classified as Single Family Residential, Multi-family Residential, Central Business District, Neighborhood Commercial, Highway Commercial, Industrial, Conservation District, Parks & Recreation District or Agricultural District. *Exhibit 13, Future Land Use Map*, *Elkton Kentucky*, designates the proposed future land uses in a conceptual map form. This is not intended to be an exact "blueprint" to establishing future land use districts. It should be used in conjunction with the land use policies stated herein.

EXHIBIT 13
Future Landuse Map
Elkton, Kentucky



Prepared by: Pat Lee, GIS Manager
Pennyrile Area Development District
Date: January 2013
File: Elkton - Exhibit 13-Future Landuse - D.mxd

Legend

Proposed Connector Routes
- KY181 - KY102 Connector
- KY181 - Davis Mill Rd Connector

- Urban Service Boundary
- Streams
- Railroads
- Elkton City Limit Boundary
- Parcels

DFIRM - Todd

Flood Zone Area
- Outside Urban Service Boundary

Future Landuse

Type
- Residential
- Multi-Family Residential
- Central Business District (CBD)
- Neighborhood Commercial District (B-1)
- Highway Commercial District
- Industrial District (I-1)
- Recreation / Parks
- Conservation District (CD)
- Agricultural (A-1)

Map/Policy Plan

This Comprehensive Plan is a combination of a policy type plan and a map plan. In projecting future land use needs and location requirements, the *Future Land Use Map*, as well as the policy statements in the *Location Principles for the Proposed Land Use* and other elements of this plan should be used. It should be understood that these suggestions may be flexible and may be contingent upon certain events or improvements occurring within the community. The *Future Land Use Map* must be used in conjunction with the text. The basic premise of this plan is that different land uses can be appropriate in a variety of locations provided that certain improvements are made which makes the proposed land use compatible with surrounding existing land uses and overcomes any environmental or man-made constraints upon the site.

The primary function of the *Existing Land Use Map* found in Chapter II is to provide a visual basis for determining how the proposed land use will fit into the existing surrounding development. The primary function of the *Future Land Use Map* for the City of Elkton found in this Chapter is to allow the Planning Commission to guide growth in areas where improvements in infrastructure are planned to meet the needs of the anticipated development. It will also allow for some separation of incompatible land uses to protect property values and provide for the health, safety and general welfare of the public.

When mapping future urban land use needs, a surplus of land for all land uses has been set aside beyond that which is anticipated to satisfy future growth needs. The careful balancing of an exact amount of land needed to an exact location can result in a long term detrimental situation, especially where topographic and other environmental conditions come into play in selecting sites for development. In assuming suitable land for development cannot always be acquired, a community can generally place itself in a comfortable position by providing more land than needed within all land use categories. The land use plan may then be implemented regardless of problems in acquiring and/or developing land. If one or more areas are not acquirable or developable at a given point in time, the provision of adequate future land use designation should minimize the need for deviation from the plan due to physical, social, or economic changes which might occur otherwise.

Land Uses Inside the Existing City Limits

This section focuses on the land currently found within the city limits of Elkton. Discussion of land immediately surrounding the city limits is found in the *Land Uses Around the Perimeter of the City Limits* in the next section of this Chapter. Currently, approximately 45 percent of the land inside the city limits is undeveloped. However, a significant amount of this is inside the Elk Fork Flood Plain or in the agricultural property that was the former industrial park north of US 68. The *Future Land Use Map* indicates the proposed land uses inside the City Limits. This can be compared to the undeveloped areas in *Exhibit 2A, Existing Land Use for the City of Elkton* to help determine the land uses recommended for these undeveloped areas. By developing these undeveloped areas inside the existing city limits first, it will place less pressure on the infrastructure resources of the city than developing on the fringe of the city. However, future development cannot be confined to “infill” development inside the City Limits. There are

topography, transportation and several other factors that influence land use patterns and development trends. The city should pursue the expansion of the city limits to accommodate new growth around its perimeter when appropriate.

Land Uses Around the Perimeter of the City Limits

The portions of the *Future Land Use Map* land use categories found outside of the existing city limits is intended as a guide for future development that will be requesting city water and sewer services. It will be the policy of the City of Elkton that any property owner or developer that requests sewer services must petition the City Council for annexation, as well as the Elkton Planning Commission for an appropriate zoning district classification that will be recommended to the City Council. *The Future Land Use Map* and other elements of the Comprehensive Plan will be used to determine the appropriate zoning district for all annexed property.

The Comprehensive Plan does not set any restrictions on any land uses outside the city limits. It does, however, plan for anticipated growth in these areas that will be requesting additional services from the city. It also plans for the necessary infrastructure to accommodate the future growth, as well as the needs inside the current city limits.

Future Urban Land Uses

The *Future Land Use Plan Map* indicates that there are approximately 3,523 acres inside the Urban Service Boundary. This does not mean that all of this acreage will be developed during this 20 to 50 year time period of this Plan. As mentioned in the Urban Service Boundary element, some of this property will remain in agricultural production, it is difficult to determine which parcels will be sold publicly within the next 20 to 50 years. Therefore, it is necessary to make sure there is adequate land identified for urban development that takes into consideration that not all of the land within the areas identified for future urban development will be available for sale.

The graphically displayed future land uses in *Exhibit 13, Future Land Use Map*, also has a numeric breakdown of the future land uses which are indicated in *Table 13, Future Land Uses For the City of Elkton by Acres*. As indicated in Table 13, the residential, industrial and commercial land uses increased as a percentage of the overall land uses as compared to the existing land use breakdown in Table 12. There were also changes that involved the elimination of the public/semi-public land use category and adding a Conservation District category that also had some effects on the breakdowns.

Table 13
Future Land Uses by Acres
Elkton, Kentucky

Land Use Types	Acres	Percent of Total Acres
Agricultural	114	**3.2%**
Single Family Residential	1,334	**37.9%**
Multi-family Residential	102	**2.9%**
Central Business District	31	**0.9%**
Neighborhood Commercial	211	**6.0%**
Highway Commercial	1,014	**28.8%**
Industrial	283	**8.0%**
Parks/Recreation/Cemeteries	74	**2.1%**
Conservation	360	**10.2%**
Total Acres	**3,523**	

Source: Pennyrile ADD GIS Department

The majority of the city's growth is being guided to the north within close proximity to the US 68 (4-lane) highway, and to the southwest within close proximity to the proposed Southwest Connector route. The city has targeted this area for a substantial portion of its future growth due to existing and planned transportation infrastructure improvements, access to the city's sewer lines, access to city water lines as well as the relatively flat topography and suitable soils of the area that is more conducive to urban development. The north side of the city was also identified as the major future industrial and commercial districts because of its access to the US 68 4-lane and the current market forces that indicated a commercial growth trend on the north side of the city.

The south side of the city from the downtown Central Business District to the Todd County High School was mainly designated as single-family residential. This is the existing residential core area of the City, and the High School and Middle School are on this side of the City. By designating this area residential, it is a way of keeping residential land uses concentrated near the two (2) schools and preventing incompatible land uses from hurting property values in an area that is already largely residential.

The Todd County Industrial Foundation is marketing an industrial site two (2) miles east of the City and outside the Urban Service Area, as a major Industrial Park. It is the intent of this plan to provide water and sewer services to any major Industrial site controlled and marketed by the Industrial Foundation providing an employer is willing to commit to creating a significant number of new jobs to justify the water and sewer services to be extended to the Industrial Park.

LOCATION PRINCIPLES FOR PROPOSED LAND USES

General principles relating to the location of land uses provide a reference for the Planning Commission in the development of a land use plan and other devices to promote the orderly and systematic growth of all areas of the community. Principles for the major types of land uses are provided below as guidelines for consideration of zone change requests.

1. All New Development

a. All developments must meet the development plan requirements set forth in the Elkton Zoning Ordinance.

b. No buildings should be allowed to be constructed, and any additional fill added, in designated 100 year floodplain areas.

c. Developments should be prohibited from being constructed on sinkholes or adversely affecting the drainage basin of any sinkholes. All development in sinkhole areas must comply with the City of Elkton Stormwater Management Ordinance or to the satisfaction of the Planning Commission.

d. Development should be contiguous to already built-up areas to minimize costs of public facilities such as water, sewer, police, and fire services.

e. Cluster development should be encouraged to allow environmentally sensitive areas to remain undeveloped.

2. All Residential Uses

a. Residential neighborhoods should be protected from adverse impacts of proposed developments, encroachments, and land use changes.

b. New residential developments should be such that their densities are compatible with adjacent residential areas.

c. Residential development should be discouraged on lands with steep (greater than 15%) slopes unless proper construction techniques are employed.

d. Residential areas should be located on well-drained land.

e. High density residential development proposals shall address the issue of open space and play areas.

f. Residential areas should have a street system that will encourage access to adjoining neighborhood and major collector arterial routes.

g. Residential areas should be provided with all necessary services, including fire and police protection, sanitary sewers, and storm sewers.

3. Multi-family Residential District Uses

a. High density residential developments should be located where there is a major access point on or very near an arterial or major collector street.

b. Buffering, or screening shall be considered when a multi-family area is proposed next to existing residential areas and along the street frontage.

4. All Commercial Uses

a. Business areas should be convenient to and separate from other use areas.

b. Business areas should be accessible to major traffic arteries.

c. Concentrated clusters of stores, as opposed to linear developments along major thoroughfares, should be encouraged inasmuch as they are more convenient and tend to protect overall property values.

d. Buffering, or screening shall be considered when a commercial area is proposed next to existing residential areas and along the street frontage.

e. Business development should be designed:

i. to include, where appropriate, circulation patterns for pedestrians, bicycles, and handicapped people;

ii. to provide, where appropriate, trees, landscaping, benches, and other site amenities;

iii. to prevent signs from being a visual nuisance or a safety hazard to vehicular traffic;

iv. with adequate parking facilities; and

v. with entrances and exits from major streets that minimize interference with traffic flow and loading areas.

5. Downtown Business District

The downtown Central Business District should promote a variety of businesses and functions such as retailing, entertainment, professional services, offices, and government, which

is oriented to a countywide or regional market. They require access to relatively large numbers of people for support and are normally the focal point of all activities in the community. To insure their stability and improve their economic functions, the downtown business areas should:

a. be efficient and compact places in which to move about and do business; the downtown business areas function more efficiently if shopping and other activities are oriented to the pedestrian; convenient parking lots are a necessity;

b. be an attractive place in which to shop because shoppers tend to patronize an area where facilities are pleasant and convenient;

c. be providers of a wide range of economic activity;

d. encourage the renovation and occupancy of vacant upper floor areas for residential uses;

e. promote light retail, office and professional service businesses downtown; and

f. not include heavy retail uses like auto sales.

6. Neighborhood Business District Uses

a. Development of neighborhood business districts should be allowed when it can be proved:

i. that the need clearly exists;

ii. that there is a clear benefit to that particular neighborhood; and

iii. that there is a good transition between adjacent uses and character.

b. These uses are for the transitional areas surrounding the Central Business District and along some portions of West, South and North Main Streets where there are existing commercial clusters of businesses.

c. These areas are intended for retail, service, office, hotels, restaurants and other light commercial uses that do not have outside storage or market outdoor merchandise like farm implements, landscaping materials, etc.

7. Highway Business District Uses

a. Development of highway business districts should be allowed when it can be proved:

i. that the need clearly exists for a heavy commercial use of the proposed site.

ii. there is good highway access for trucks and other large commercial vehicles.

iii. that there is a good transition between adjacent uses and character.

b. These areas are for heavy commercial businesses like propane sales, auto repair, auto body shops, farm implement dealers, businesses with outside storage and outdoor merchandise.

c. These areas are also intended for commercial uses that have the need for large traffic volumes to market the products or services like gas stations and restaurants, etc.

8. Industrial

a. Industries should be located in planned industrial subdivisions or otherwise adjacent to an existing industry to form industrial clusters.

b. Industrial sites should have good access to highways.

c. Water, electricity, gas and sewage facilities in sufficient scale or quantity should be a prerequisite for an industry to begin manufacturing operations.

d. Industrial areas should be separated from other areas by such buffers as major highways, conservation areas, or natural geological features. Buffers should be designed when not naturally provided on site (i.e., landscape on frontage roads).

e. Annexation should be encouraged by the city so that industrial uses can assume their fair share of the local tax burden in return for the provision of municipal services.

9. Recreation, Parks and Cemeteries Districts

a. These are generally county or City owned properties that are maintained by the public.

b. Private golf courses can be allowed in this district.

10. Conservation District Uses

a. These are areas inside the Elk Fork Creek 100-years flood pain or sink holes that are major drainage outlets.

b. Some recreational uses are allowed but the intent is not to allow urban developments in these areas.

c. The boundary of a Conservation District shown on the *Future Land Use Map* could be adjusted providing one of the following:

   i. A licensed Land Surveyor is willing to certify the area in question is out of the FEMA 100 year flood plain in relationship to the proposed area being developed.
   ii. The area around a sinkhole where water levels are reached during 100-year rain events is the area that should be designated a Conservation District. If a licensed Engineer or soil scientist is willing to certify that a sinkhole found on the property will not pond water beyond a specified perimeter around the sinkhole, the area should not be designated as a Conservation District.

11. Agricultural District Uses

a. These are areas that allow the raising of crops and livestock that is normally part of a family farm.

APPLICATION OF MAPS AND PRINCIPLES

Often, a major concern expressed about a comprehensive plan is how the land use map will be used and the extent to which it might be the sole indicator of rezoning requests. In order to answer this question, the maps must first be put into context with the rest of the decision making process.

The ideal development of a Land Use Plan is as follows. First, the major goals and policy objectives are identified by the elected officials with input from other community leaders and the general public. Next, more specific policy guidelines and procedures are generated in text form in order to carry out the major goals and objectives. Finally, a map is drawn which applies both the major goals and the specific guidelines to the undeveloped areas to protect the highest and best use of land and shows existing and future land use patterns. After the plan is adopted, which contains the major goals, the specific guidelines and the map, the Planning Commission and the legislative bodies can then use the entire plan as a basis for their decisions.

How much weight is given to the map vs. the rest of the plan? What happens when a landowner applies for a rezoning that does not agree with the map? The Kentucky law says that the request must agree with the "Comprehensive Plan", and the Comprehensive Plan contains the map, policy statements and the other transportation, population, economics and public facilities elements. Therefore, when the Planning Commission and the legislative body decides if the proposal agrees with the Comprehensive Plan, it is quite possible that a proposal would not agree with the Land Use Map but would agree with the specific guidelines and the major goals and other elements of the Comprehensive Plan.

Undesignated areas on the land use maps are not expected to develop during the planning period. However, unanticipated circumstances may generate requests for such areas to be annexed. When faced with such requests, the planning commission should consider the *Location Principles for Proposed Land Uses* outlined in this plan. In addition, members should consider the land uses surrounding the property in question as well as actual development that has occurred up to the time of the request.

An annexation request which falls outside the Urban Service Boundary of Elkton will need to rely on the policies and principals stated in this Chapter because no future land use map will be prepared for the county. This "policy-type" plan for the rural areas of the county allows the Planning Commission to recommend a zoning district as part of the annexation process.

It is important to mention that sufficient land for all uses has been set aside above and beyond that which is needed to satisfy future growth needs. To provide only enough land for each projected use would hamper development since there needs to be competition, variety, and equal opportunity for development. In assuming that suitable land for development cannot always be acquired, a community can place itself in a comfortable position by providing more acreage than actually needed within all land use categories. Further details regarding the zoning map amendment process can be found in Chapter VIII of the Plan and in the Elkton Zoning Ordinance.

CHAPTER VIII
IMPLEMENTATION

GENERAL

The term "implementation" is intended to be broadly used for purposes of this study. The completion of the Comprehensive Plan and its updating is a continuing step in the planning process. Implementation, however, is likely the most important and never ending step in this process. The most accurate and complete Comprehensive Plan will mean very little unless steps are taken to insure the realization of its goals and objectives and of its specific recommendations. From the point of view of the private sector the term implementation means "making-it-happen". From the public sector viewpoint, the term implementation means to assist and guide development, in both the private and public sector, by reasonable and prudent application of the various land regulatory measures which have been adopted.

INITIAL ADOPTION OF ZONING ORDINANCE

The Comprehensive Plan was initially adopted in 1985 and a Zoning Ordinance and subdivision regulation, as well as other land development tools, were implemented to bring about the realization of the 1985 plan's recommendations.

To insure proper maintenance and subsequent implementation of the Elkton Zoning Ordinance, it is recommended that the Planning Commission carry out the following process. The Elkton Zoning Ordinance text should be reviewed and used as a tool to implement the revised 2013 Comprehensive Plan's Land Use Plan.

FUTURE ZONING AMENDMENTS

This section describes the process of how to use this Comprehensive Plan and the Official Zoning Map, as well as zoning map amendment decisions and private development guidance.

Future Land Use Map vs. Official Zoning Map

The Future Land Use Map and text found in Chapter VIII provide a proposed arrangement of future development based on current needs and trends. The graphic presentation found in the City of Elkton's Future Land Use Map and the text proposals present an optimal plan but are not legally binding. The legally binding instrument, which defines where land uses can and cannot be located within the city, is indicated on the Zoning Map. It is the zoning map that an individual must first consult when deciding how to develop property. If the intended use is not permitted in the designated zone on the map, the individual may apply for a map amendment. The future land use map comes into use in the evaluation of a zoning map amendment request. An application to the City Hall begins the map amendment process. Once

received, the proposal must go through two (2) review stages including the Planning Commission and the City Council.

Planning Commission Consideration

After receiving a zone change request, the Planning Commission reviews the proposal for consistency with the Comprehensive Plan's Future Land Use Plan Map. In addition, it is checked against the location principles adopted in the land use plan. The location principles insure that all proposals meet minimal community standards for new construction. These guidelines are consistent with the expressed *Goals and Objectives* found in Chapter IV, and serve to protect the larger community from long-term adverse impacts. For example, by restricting or prohibiting uses that use large quantities of hazardous materials, the community is protected from potential dangerous accidents or spills.

Kentucky law specifically details the framework for the zone change process. The following is an excerpt from KRS 100.213, which states the findings necessary for a zoning map amendment:

1) Before any map amendment is granted, the planning commission or the legislative body or the fiscal court must find that the map amendment is in agreement with the adopted Comprehensive Plan, or, in the absence of such a finding, that one (1) or more of the following apply and such finding must be recorded in the minutes and records of the planning commission or the legislative body or fiscal court:

(a) That the existing zoning classification given to the property is inappropriate and that the proposed zoning classification is appropriate; or

(b) That there have been major changes of an economic, physical or social nature within the area involved which were not anticipated in the adopted Comprehensive Plan and which have substantially altered the basic character of such area.

2) The planning commission, legislative body or fiscal court may adopt provisions which prohibit for a period of two (2) years, the reconsideration of a denied map amendment or the consideration of a map amendment identical to the denied map amendment.

In zoning amendment requests, the planning commission's power is largely advisory. Together as a body, the planning commission recommends approval or denial of the proposed zone change to the legislative body. Though it has only advisory status, this is not to say that the planning commission does not exert significant influence over the development of the community. In Kentucky, the planning commission has sole responsibility to adopt the Comprehensive Plan. The Comprehensive Plan provides the

basis for not only zone change decisions but entire zoning ordinances and subdivision regulations. Thus, a great deal of Planning Commission authority is exercised through the Comprehensive Plan. In addition, the Planning Commission deals regularly with development questions, and city councils generally place significant weight on their recommendations.

Local Legislative Authority

The authority to pass ordinances regulating activities within the city or county boundaries rests with the appropriate legislative body. Because the Zoning Map is a part of the Zoning Ordinance, the legislative body must approve any change to the Zoning Map. In this respect, zoning map changes are like any other changes to local ordinances. All map amendment requests require legislative body action to become legal. This is the final action of the city council in the map amendment process. Approved map amendments need to be detailed on the official zoning map.

Other Planning Programs

The city also can implement community development objectives with special programs and projects like *Renaissance Kentucky*, which involves grant funds to revitalize downtowns. A Historic Preservation Ordinance should be another part of preserving downtown Elkton.

APPENDIX A

SOILS TYPES
FOUND INSIDE THE *ELKTON*
URBAN SERVICE BOUNDARY

SOILS FOUND INSIDE THE *ELKTON URBAN BOUNDARY*

Soils with Major Development Issues

- **CaB--Caneyville silt loam, 2 to 6 percent slopes.**
    - This soil is poorly suited for most urban uses. Moderate depth to bed rock and shrinking and swelling of the soil are the main limitations. Some of the limitations can be overcome by good design and proper installation. This soil has severe limitations for septic tank adsorption fields because of the depth to bedrock and moderately slow permeability. These limitations are difficult to overcome.
- **CaC--Caneyville silt loam, 6 to 12 percent slopes.**
    - This soil is poorly suited for most urban uses because of the moderate depth of bed rock, slope, and moderate shrink-swell potential. Most of these limitations can be overcome with good design and proper installation. Depth to bedrock and moderately slow permeability are severe limitations for septic absorption fields. These limitations are difficult to overcome.
- **CnD3---Caneyville silty clay, 6 to 20 percent slopes, severely eroded.**
    - This soil is poorly suited for most urban uses. The moderate depth to bedrock, moderately slow permeability, moderate shrink-swell potential, and moderately steep slope are severe limitations. These limitations are difficult to overcome.
- **CoD—Caneyville-Rock outcrop complex, 6 to 30 percent slopes.**
    - This soil is poorly suited for urban use. The steep slopes and moderate depth to bedrock, rocky outcrops, and clay subsoil are severe limitations. Low strength is a severe limitation for local roads and streets. Most of these limitations are difficult to overcome.
- **Du—Dunning silt loam, occasionally flooded.**
    - This soil is poorly suited for urban uses. The hazard of flooding is severe limitation for dwellings and small buildings. Low strength is a server limitation for local roads and streets.
- **EIA—Elk silt loam, 0 to 2 percent slopes, rarely flooded.**
    - This soil is poorly suited to most urban uses. The hazard of flooding is a severe limitation for dwellings and small buildings. Low strength is a severe limitation for local roads and streets.
- **EIB—Elk silt loam, 2 to 6 percent slopes, rarely flooded.**
    - This soil is poorly suited to most urban uses. The hazard of flooding is a severe limitation for dwellings and small buildings. Low strength is a severe limitation for local roads and streets.
- **FdC—Fredonia silt loam, very rocky, 2 to 12 percent slope.**
    - This soil is poorly suited for urban uses. The moderate depth to bedrock, steepness of slope, slow permeability, rocky outcrops, and moderate shrink-swell potential are limitations. Good design and careful installation can overcome some of these limitations
- **La—Lawrence silt loam, occasionally flooded.**
    - This soil is poorly suited for most urban uses. Wetness, flooding and permeability are severe limitations for building sites and sanitary facilities.
- **Ln—Lindside silt loam, occasionally flooded.**
    - This soil is poorly suited for most urban uses. The hazard of flooding and a seasonal high water table are severe limitations for building sites and sanitary facilities.
- **Ne—Newark silt loam, occasionally flooded.**
    - This soil is poorly suited for most urban uses. The hazard of flooding and a seasonal high water table are severe limitations for building sites and sanitary facilities.

- **No—Nolin silt loam, occasionally flooded.**
    - This soil is poorly suited for most urban uses because of flooding hazards and seasonal high water table. In urban structures, the limitations to the use of this soil for building sites and sanitary facilities are severe.
- **W—Water**
    - Standing body of water

Soils with Minor Development Issues

- **CrA—Crider silt loam, 0 to 2 percent slopes.**
    - This soil is suited to most urban uses. The high clay content in the subsoil is a moderate limitation for local roads and streets. These limitations can be reduced or overcome with good design and proper installation.
- **CrB—Crider silt loam, 2 to 6 percent slopes.**
    - This soil is suited to most urban uses. The high clay content in the subsoil is a moderate limitation for shallow excavation and low strength of the soil is a severe limitation for local roads and streets. These limitations can be reduced or overcome with good design and proper installation.
- **CrC2—Crider silt loam, 6 to 12 percent slopes.**
    - This soil is suited to most urban uses. Slope is moderate limitation for dwelling, and low strength of the soil is a limitation for local roads and streets. The limitations are severe for some uses. These limitations can be reduced or overcome with good design and proper installation.
- **FnC3—Frondorf silt loam, 6 to 12 percent slopes, severely eroded.**
    - This soil is suited for most urban uses. Slope and moderate depth to bedrock are moderate limitations for dwellings and server for sanitary facilities. These limitations can be overcome by good design and careful installation.
- **NhA—Nicholson silt loam, 0 to 2 percent slopes.**
    - This soil is suited to most urban uses. Wetness is a severe limitation for septic tank absorption fields and for dwellings with basements. Low strength of the soil is a severe limitation for local roads and streets. Some of these limitations can be reduced or overcome with good design and proper installation.
- **NhB-- Nicholson silt loam, 2 to 6 percent slopes.**
    - This soil is suited to most urban uses. Wetness is a server limitation for septic tank absorption fields and for dwellings with basements. Low strength of the soil is a severe limitation for local roads and streets. Some of these limitations can be reduced or overcome with good design and proper installation.
- **NhC2--Nicholson silt loam, 6 to 12 percent slopes.**
    - This soil is suited to most urban uses. Slope is severe limitation for building sites. Wetness and slow permeability are severe limitations for buildings with basements and septic tank absorption fields. The low strength of the soil is a severe limitation for local roads and streets. Some of these limitations can be reduced or overcome with good design and proper installation.
- **PmB—Pembroke silt loam, 2 to 6 percent slopes.**
    - This soil is suited for most urban uses. Slope is a moderate limitation for small commercial buildings. Low strength is a severe limitation for local roads and streets. Shrinking and swelling is a moderate limitation for buildings with basements. Good design and careful installation can overcome these limitations.

- **PmC2—Pembroke silt loam, 6 to 12 percent slopes.**
    - This soil is suited for most urban uses. Slope and the moderate shrink-swell potentials are moderate limitations for dwellings. Low soil strength is a severe limitation for local roads and streets. Protection from further erosion is needed during constructions.
- **SaB—Sadler silt loam, 2 to 6 percent slopes.**
    - This soil is suited for most urban uses. Wetness and slow permeability are severe limitations for sanitary facilities and dwellings with basements. The low strength of the soil material is a moderate limitation for local roads and streets. Some limitations can be overcome by good design and proper installation.
- **VeC2—Vertrees silty clay loam, 6 to 12 percent slopes, erode.**
    - This soil is suited for urban uses. The moderate shrink-swell potential is a limitation for dwellings. Low soil strength is a severe limitation for local roads and streets. The moderately low permeability is a severe limitation of septic tank absorption fields. Some of these limitations can be reduced or overcome with good design and proper installation.
- **WeB—Wellston silt loam, 2 to 6 percent slopes.**
    - This soil is well suited for most urban uses. Slope is moderate limitation for small commercial buildings. Depth to bedrock is a moderate limitation for septic tank adsorption fields and dwellings with basements. Low strength of soil material is a moderate limitation for local roads and streets. Some of these can be overcome by good design and proper installation.
- **WeC2—Wellston silt loam, 6 to 12 percent slopes.**
    - This soil is well suited for most urban uses. Slope is moderate limitation for dwellings. Depth to bedrock is a moderate limitation for septic tank adsorption fields and dwellings with basements. Low strength of soil material is a moderate limitation for local roads and streets. Some of these can be overcome by good design and proper installation.