

# **City of Irvine**

## **Comprehensive Plan**

**Prepared by:**

**Estill Development Alliance**

**November, 2023**

Adopted 12/11/2023

## CHAPTER 153: ZONING CODE

Section 153.01      Adoption by reference

### **§ 153.01 ADOPTION BY REFERENCE.**

(A) The municipal zoning ordinance and zoning map, and all amendments thereto, are hereby adopted by reference and incorporated into this code of ordinances as if fully set forth herein.

(B) Copies of the zoning ordinance and zoning map are available for public inspection during normal hours at the office of the City Clerk/Treasurer.

(1996 Code, § 153.01) (Ord. passed 6- -1970; Ord. passed 1-25-1988; Ord. passed 7-9-1990; Ord. 1999-11, passed 11-22-1999; Ord. 05-01, passed 6-11-2001; Res. 2002- , passed 11- -2002; Ord. passed 7-27-2009; Ord. 19-03, passed 7-8-2019)

## CHAPTER I

### GOALS AND OBJECTIVES

#### Introduction

A Comprehensive Plan is an official public document adopted by the local planning commission. The goals and objectives are also adopted by the local legislative bodies. The Comprehensive Plan is, at a minimum, a policy guide for decisions about the physical development of the community. It indicates in a general way how the leaders of the community and the government want the community to physically develop in the next 20 to 30 years.\* In Kentucky, KRS 100 requires the review, and update, if necessary, of each community's Comprehensive Plan every five years.

This Plan is designed to provide a framework within which the future development of Irvine and the surrounding areas may take place. It provides recommendations regarding the type, location, density, and timing of future growth and sets forth goals and objectives used to develop a framework for these recommendations for the future. This Plan is based upon a base study of existing land use, population, economic factors, housing, transportation, and community facilities.

The Planning Commission recognizes its public responsibility of ensuring that the Irvine urban area develops in an orderly manner. To meet this responsibility, the Planning Commission hopes to establish harmonious City/County growth that will adequately protect the health, safety, and general welfare of its citizens. Although this is the Comprehensive Plan for the City of Irvine, the future development of Irvine cannot be accurately assessed without consideration of development occurring in Ravenna and in Estill County as a whole. Therefore, this Plan must look at trends in both cities as well as the County to provide the best possible recommendations for the type, direction, and timing of future growth for Irvine.

The following statements of Goals and Objectives are intended to provide direct guidance for the implementation decisions of the Irvine Planning Commission, the Irvine City Council, the Ravenna City Council, the Estill County Fiscal Court, and others in Estill County as related to future physical development. These statements are presented in two levels of specificity. Goals are very broad statements of what is desired, and Objectives are more specific statements of purpose designed to lead to the achievement of the delineated goals. The order of these goals and objectives do not indicate a priority rating.

\*William Goodman and Eric Freund (editors), Principles and Practices of Urban Planning (1968), p. 349.

## Statutory Requirements

### **100.191 Research requirements for comprehensive plan.**

All elements of the comprehensive plan shall be based upon but not limited to, the following research, analysis, and projections:

- (1) An analysis of the general distribution and characteristics of past and present population and a forecast of the extent and character of future population as far into the future as is reasonable to foresee;
- (2) An economic survey and analysis of the major existing public and private business activities, and a forecast of future economic levels, including a forecast of anticipated necessary actions by the community to increase the quality of life of its current and future population through the encouragement of economic development as far into the future as is reasonable to foresee;
- (3) Research and analysis as 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, including, the identification and mapping of agricultural lands of statewide importance and analysis of the impacts of community land use needs on these lands; and
- (4) Additional background information for the elements of the comprehensive plan may include any other research analysis, and projections which, in the judgement of the planning commission, will further serve the purposes of the comprehensive plan.

**Effective:** July 15, 1994

**History:** Amended 1994 Ky. Acts ch. 390, sec. 31, effective July 15, 1994. – Amended 1986 Ky. Acts ch. 141, sec. 12, effective July 15, 1986. – Created 1966 Ky. Acts ch. 172, sec. 26.

## Economic Development

Goal: To encourage employment opportunities through the attraction of new industry.

### Objectives:

1. Establish an economic development committee consisting of the mayor and two council members to actively cooperate with other local agencies and nonprofit organizations to help in the attraction of new industrial ventures.
2. Actively cooperate with appropriate state government agencies in industrial recruitment as well as infrastructure improvements needed to make our community more attractive to prospective industry.
3. Accommodate the needs of existing industry and encourage orderly expansion.
4. Actively pursue new locations appropriate for industrial activity and review all aspects, including availability of utilities and zoning.
5. Ensure new manufacturing locates within designated zones.
6. Ensure all new industry locates in areas where adequate services can be provided.
7. Adopt policies concerning incentive packages to be made available to prospective industry based on job creation, investment, etc., including city, county, state, and federal offerings.

Goal: To encourage employment opportunities through support of entrepreneurial activities.

### Objectives:

1. Engage the Kentucky Small Business Development Center and other entrepreneurial support providers to ensure services are promoted locally.
2. Pursue creation of an entrepreneurial ecosystem to support prospective entrepreneurs through all stages of startup development.
3. Review city services in relation to business startup and streamline the process, including online options, and take steps to make the process more convenient and less cumbersome wherever possible.
4. Engage with Estill County Area Technology Center to identify entrepreneurial opportunities for graduates to fill current and future needs for small business services in the community.

Goal: To supply personnel for all local employment needs.

### Objectives:

1. Actively engage the Kentucky Career Center and other employment service providers to act as a conduit between local jobseekers and available employment positions.
2. Engage local employers to identify their future workforce needs.
3. Fully partner with the Estill County Area Technology Center to ensure graduates are partnered with available employment opportunities.
4. Work with Estill County Schools to encourage appropriate additional courses of vocational study.
5. Work with Estill County Schools to offer post-secondary vocational education as well as college and university courses for adults.
6. Engage with existing programming and encourage new programming to entice local graduates to remain in or return to the community.

Goal: To ensure a rate of industrial growth that does not exceed the ability of the city to provide services.

### Objectives:

1. Locate and develop new sites for industrial growth, ensuring flood plain appropriateness and adequate utility availability.

2. If new or prospective industrial sites are outside the city limits, work with the fiscal court to ensure a cooperative effort.
3. Pursue state and federal funding opportunities to develop new industrial sites.
4. Utilize available data to form a recruitment plan for new industry.

Goal: To encourage the development of a vibrant tourism industry.

Objectives:

1. Cooperate with and support the activities of the Irvine-Estill County Tourism Commission.
2. Pursue regional opportunities for promotion of the area to potential visitors.
3. Encourage and support community events to attract visitors to the city.
4. Research and implement improvements to the city to increase amenities for visitors and quality of life for residents simultaneously.
5. Craft official City messaging involving tourism to reflect community pride and the positive economic impact that comes from visitor spending at local businesses.

### Commercial Development

Goal: To encourage the location of commercial businesses in Irvine.

Objectives:

1. Ensure that sites are available for commercial development within the Irvine city limits.
2. Promote the use of existing buildings for commercial activities.
3. Examine and adopt growth-centered policies for small business development, including low interest loan pools, modified tax structures, and other financial incentives.
4. Encourage the concentration of commercial activities around the downtown corridor.
5. Accommodate the needs of existing businesses and encourage orderly expansion, including a streamline of registration and tax processes with a focus on expedience and convenience.
6. Effectively buffer commercial areas from nearby residential areas, which includes regular reviews of zoning areas to adapt to current conditions.

Goal: To encourage revitalization of the downtown Irvine Central Business District.

Objectives:

1. Work with existing efforts and/or create new efforts to coordinate programming and funding requests for downtown revitalization.
2. Work with regional and state service providers to adopt best practices for downtown revitalization efforts.
3. Pursue creative placemaking to fully engage residents in revitalization of downtown.
4. Encourage utility providers to relocate utility infrastructure underground.
5. Research, review, and implement new policies to ensure adequate maintenance of downtown properties and appropriate use of storefronts and upper stories.
6. Pursue policies, infrastructure improvements, and activities to encourage a downtown corridor that is inviting to pedestrians, including people with mobility issues and other disabilities.
7. Encourage the use of city-owned facilities around downtown for community events.

### Housing

Goal: To ensure that all housing units built within Irvine will protect the health, safety, and welfare of the residents and will be an asset to the city in general.

Objectives:

1. Promote the development of new housing units in dispersed locations throughout the city, including those for low-income and elderly.
2. Research, review, and implement policies to encourage the development of new housing and the rehabilitation of blighted and deteriorating existing housing.
3. Allow for a variety of housing types in a variety of locations.
4. Allow for the creative design of residential developments.
5. Promote the utilization of and enforcement of the Kentucky Building Code to ensure the structural quality of all dwellings.
6. Encourage the use of underground utilities in all new housing developments.

Infrastructure

Goal: To transport people and goods safely within, into, and out of the city with a minimum expenditure of resources.

Objectives:

1. Establish traffic control devices where needed.
2. Review the need to focus on modes of transportation besides motor vehicles, including pedestrian and bicycling, and adjust transportation plans as needed.
3. Continually review and upgrade standards for street design and construction, enforce standards, and redesign existing streets as improvements are needed.
4. Promote the proper maintenance of all city streets.
5. Adopt policy to require all future housing developments to be designed to facilitate proper traffic circulation.
6. Engage with regional and state partners to explore opportunities for the development of a public transportation system serving the community.

Goal: To provide a standard for adequate on-street and off-street parking in all areas of the community.

Objectives:

1. Require sufficient off-street parking for residential uses for newly constructed dwellings, especially in multi-family developments.
2. Require sufficient off-street parking and loading for commercial and industrial uses.
3. Pursue funding to undertake a parking study in the city.

Goal: To provide for the safe movement of pedestrians.

Objectives:

1. Require the construction of sidewalks in all new housing developments.
2. Encourage the construction of new sidewalks within existing areas of Irvine.
3. Promote the maintenance of existing sidewalks, as property owners are the owners of sidewalks located on their properties.
4. Research and implement incentives to encourage property owners to maintain existing sidewalks.
5. Encourage all new and replacement sidewalks to be ADA-compliant.
6. Encourage placement of streetlights in high pedestrian traffic areas.

Goal: To alleviate traffic hazards and to provide for expansion of existing roadways.

Objectives:

1. Encourage city, county, and state government to improve and upgrade existing roadways.

2. Seek funds from state and federal agencies to alleviate traffic problems.
3. Cooperate with Kentucky Transportation Cabinet to identify pressing needs and begin the process of upgrading roadways.
4. Encourage limited access on any new road construction and minimize new access to existing roads.
5. Encourage the development of storm sewers separate from the sanitary sewer along with the development of new roads or upgrades of existing roads.

Goal: To provide for continued upgrading and development of sewer and water facilities.

Objectives:

1. Annex land before city utilities are extended.
2. Annex existing developed areas which city water and/or sewer utilities presently serve.
3. Encourage the separation of storm sewers from the sanitary sewer system to allow for an adequate sanitary sewer system and storm sewer system in existing areas of Irvine.
4. Pursue funding sources to plan a new storm sewer system within the city.
5. Once planning is complete, pursue funding sources to construct a new storm sewer system in phases.

Services

Goal: To provide adequate levels of public safety to the entire community.

Objectives:

1. Support an active enforcement program for building codes, zoning regulations, and related safety requirements.
2. Maintain adequate personnel and training within the police and fire departments to serve the needs of the entire community, including pursuit of new revenues to provide for competitive levels of compensation.
3. Ensure adequate water supplies for fire protection.
4. Encourage the county government and other appropriate agencies to maintain and continuously upgrade the level of disaster and emergency services.
5. Plan for adjustments needed when the Chemical Stockpile Emergency Preparedness Program (CSEPP) ends.

Goal: To encourage citizens to participate in their local government.

Objectives:

1. Build and launch a website for the city, including all local ordinances and policies and online services for residents and businesses.
2. Utilize online and mobile resources in conjunction with existing media to engage the citizenry.
3. Expand use of citizen ad hoc committees to advise on public issues.
4. Consider video recording council meetings and relevant public city-sponsored events to share online.
5. Review best practices for citizen engagement and implement in Irvine.

Goal: To encourage effective and efficient city government.

Objectives:

1. Encourage better communication and coordination among units of local government in order to achieve planned and orderly growth.
2. Encourage the coordination of various ad hoc committees to develop specific strategies prioritizing the various goals and objectives and develop specific tasks to accomplish, with methodologies on how they will be accomplished.



3. Provide an orientation for all new members of the City Council and the Planning and Zoning Commission.
4. Encourage adequate professional staff for efficient city government.
5. Encourage capital improvement budgeting and programming.
6. Support active building and zoning code enforcement.
7. Encourage the employment of a qualified engineer.

### Quality of Life

Goal: To provide for recreational needs of the community.

#### Objectives:

1. Work with local organizations on maintenance and expansion of recreation programs in the community.
2. Pursue the creation of a joint parks and recreation commission to oversee all park facilities in the cities and county.
3. Ensure that recreational programs and facilities serve all people, regardless of disability.
4. Encourage the use of floodplains for passive recreational uses.
5. Encourage the development of recreational and entertainment businesses in Irvine.
6. Pursue the development of a community center, with an emphasis on serving youth.

Goal: To promote and maintain high quality levels of public education.

#### Objectives:

1. Encourage maintenance of current facilities and upgrades when needed for better educational opportunities.
2. Encourage expansion of facilities when enrollment deems necessary.
3. Encourage continuation of adult education classes and expansion when necessary.
4. Work with the Estill County ATC to provide broader community education opportunities.

Goal: To encourage greater efficiency and cost effectiveness in the health delivery system.

#### Objectives:

1. Encourage the expansion of health services provided by the Estill County Health Department.
2. Support and encourage appropriate services provided by Mercy Health Marcum and Wallace Hospital.
3. Encourage education programs in preventive medicine.
4. Encourage expanded funding for mental and behavioral health programs for all ages and support organizations and institutions providing these services.
5. Encourage the attraction of qualified medical specialists to Estill County.
6. Maintain adequate sanitary sewer system in existing areas of Irvine and ensure expansion into any underserved or newly adopted areas of the city.
7. Encourage and support efforts for substance abuse recovery and prevention.

Goal: To ensure that all development is sensitive to the environment and its constraints.

#### Objectives:

1. Control development in floodplains and take preventive measures against flooding.
2. Require measures to reduce and contain urban runoff and ensure adequate drainage.
3. Control development on problem soils and slopes over fifteen percent in order to reduce sedimentation and prevent erosion and collapse.
4. Encourage innovative design that merges following code with mindfulness of environmental constraints.

## CHAPTER II

### 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 and spatial needs. The use of future population projections then allows the prediction of future land use and space needs. Population composition provides the break-down by categories such as age groups, household sizes and income levels. This information assists in determining the division of space needs for schools, recreation areas, and other community facilities for each population characteristic category. The current and projected future population distribution determines where the various land uses, transportation routes and community facilities should be located throughout the county or urban area.\*

The following exhibits and comments discuss these trends in Irvine and Estill County allowing the development of a master land use plan.

\*F. Stuart Chapin and Edward J. Kaiser; Urban Land Use Planning (Urbana: University of Illinois Press, 1979), p. 162.

#### Past Population Characteristics

##### 1. Size

The growth pattern of both Irvine and Estill County from 1940 to 2020 is shown in Exhibit 2-1. The population of Irvine has decreased steadily since 1940, showing a slight increase from 1980 to 1990. This may reflect the fact that industry has left the city and that the population has moved outside the city limits. Estill County, on the other hand, after a large loss from 1940 to 1960, showed growth and reached a new high of 15,300 in 2000 before gradually declining.

## Exhibit 2-1

### Population Change in Irvine & Estill County, 1940-2020

Irvine			Estill County	
Year	Population	% Change	Population	% Change
1940	3,631		17,978	
1950	3,259	-10.2%	14,677	-18.4%
1960	2,955	-9.3%	12,466	-15.1%
1970	2,918	-1.3%	12,752	+2.2%
1980	2,889	-1.0%	14,495	+13.7%
1990	2,930	+1.4%	14,600	+0.7%
2000	2,850	-2.7%	15,300	+4.8%
2010	2,480	-13%	14,700	-3.9%
2020	2,350	-5.2%	14,100	-4.1%

Source: United States Census Bureau, <http://www.census.gov>.

## 2. Population Composition – Age Distribution

The age composition of Estill County's population has undergone significant changes over the last decade as can be seen in Exhibit 2-2. Following the trend throughout the United States, Estill Countians are having fewer children and, therefore, the percentage of the population under five years of age has decreased sharply. The number of children aged 5-17 has decreased nearly as much. The main adult population aged 18-64 has decreased to a lesser degree. The percentage of persons 65 years and older has reflected national trends by increasing dramatically as “baby boomers” are reaching retirement age.

## Exhibit 2-2

### Estill County Age Composition Changes, 2011-2019

Age Group	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	% Chng '11-'20
Under 5	860	867	842	826	837	842	771	750	786	746	-13.3%
5-17	2490	2450	2420	2380	2370	2320	2320	2300	2290	2210	-11.2%
18-64	9114	9070	9040	8970	8820	8770	8760	8660	8500	8530	-6.4%
Over 65	2220	2270	2300	2370	2450	2470	2530	2600	2650	2700	+21.6%

Source: United States Census Bureau, <http://www.census.gov>.

### 3. Population Distribution

Estill County and Irvine have both shown a consistent population decrease over the last 80 years, notwithstanding a slight rise around the end of the last century. However, Irvine has continued to decline in population in relation to the County since 1990. It has decreased from a high of 23.7% of the County's total population in 1960 to 16.7% of Estill County's total population in 2020 (Exhibit 2-4). This indicates that the population of Estill County is concentrated outside of Irvine in the rural portions of the county.

Exhibit 2-4

#### Percentage of Estill County Population in Irvine

Year	Irvine Population	Estill County Population	% of Total Population in Irvine
1940	3,631	17,978	20.2%
1950	3,259	14,677	22.2%
1960	2,955	12,466	23.7%
1970	2,918	12,752	22.9%
1980	2,889	14,495	19.9%
1990	2,930	14,600	20.1%
2000	2,850	15,300	18.6%
2010	2,480	14,700	16.9%
2020	2,350	14,100	16.7%

Source: United States Census Bureau, <http://www.census.gov>.

Typically, urban areas grow as they begin to be able to provide a wide variety of services such as water, sewer, schools, police, and fire protection as well as having the population base to support economic activities such as places of employment and variety and competition in goods and prices. Once these services are in place, urban areas are equipped to handle growth more readily. Irvine needs to examine these services carefully to determine how they might be able to encourage population growth in the city.

#### Components of Change in Population

The Census data presented thus far shows steady growth in the county population from 1960 to 2000. It is often significant to examine the components affecting the changes in population: natural increase and net migration. Natural increase is determined by the number of births minus the number of deaths. Net migration is the total number of persons who migrated into the county minus the total number of persons who migrated out. Because the national birth rate is declining, it can be important to examine these factors within each county to determine what is affecting the population and to better enable accurate population predictions. The components of Estill County's population change from 1950 to 2019 are shown in Exhibit 2-5.

## Exhibit 2-5

### Components of Population Change in Estill County

Years	Natural Increase	Net Migration
1950-59	+1911	-4122
1960-69	+1313	-1027
1970-79	+886	+857
1980-89	+619	-488
1990-99	+354	+671
2000-09	+213	-807
2010-19	-377	-752

Source: United States Census Bureau, <http://www.census.gov>.

Although the natural increase in Estill County has been declining, the county grew quite rapidly over the several decades because of a dramatic reversal of the trend of net migration. From a time in the 1950's when nearly 28% of the population left Estill County, the trend slowed and reversed until in the 1970's when the number of people moving into Estill County increased the population by 6.7%. This trend, however, reversed again moving from the 1990's into the 2000's.

Migration may be the most important variable affecting the population growth of an area because it is so intimately tied with the economic health of the area. Migration is often directly related to the employment opportunities of a city, county, or the surrounding counties. New employment opportunities in a county or in its neighboring counties will be reflected in a corresponding in-migration to the area.

### Future Population Projections

#### Estill County

The Kentucky State Data Center at the University of Louisville provided the population forecasts for Estill County shown in Exhibit 2-6. These projections were made in 2022 and show a continuation of the trend of population loss established in the last 20 years. While city forecasts are not available, it is safe to deduce that under status quo conditions, Irvine's forecast will follow a similar trajectory.

## Exhibit 2-6

### Estill County Population Projections

2025	2030	2035	2040	2045	2050
13,752	13,283	12,765	12,210	11,671	11,110

Source: "Population and Household Projections: Kentucky, Kentucky Counties, and Area Development Districts: 2020-2050." Kentucky State Data Center, University of Louisville. August 2022.

## CHAPTER 3

### ECONOMIC ANALYSIS

#### Introduction

There are essentially two reasons for the examination and analysis of the local economy in the preparation of a comprehensive plan.\* They are:

1. Economic activity supports a given population which in turn influences the kind and amount of land brought into development.
2. The general health of the economy influences the pace of land development. The health of the local economy has two components:
  - a. Stability – the ability to withstand fluctuations in the regional and national economies: and
  - b. Balance – the more diversified the local economy and employment base, the more difficult it is to disrupt the local economy. Diversification also makes it easier to expand the economy because more skills and resources are available on which to draw.

By keeping these reasons in mind, the analysis of a community's economic development can be applied to land use planning. The economic base of Irvine will be analyzed on a countywide basis due to the availability of data in countywide statistics. Because Estill County is not an independent economic unit but is part of a larger economic system which includes all of its adjacent counties, the counties adjacent to Estill County will also be examined so as to provide an overall picture.

\*F. Stuart Chapin, Urban Land Use Planning (Urbana: The University of Illinois Press, 1965), pp. 153-54.

#### Labor Force and Employment

There are two key questions to address in developing a description of Estill County's present economic condition:

1. How are the residents of Estill County employed, both within and outside of the county?
2. What are the industries and businesses located inside Estill County?

Exhibit 3-1 presents data regarding the job market in Estill County. The total number of jobs in Estill County increased dramatically between 1970 and 2000 and still showed over 5% growth from 1990 to 2000. Additionally interesting is that non-service jobs decreased while service jobs increased. Also of note is that government jobs increased by a significant margin.

### Exhibit 3-1

#### Employment Characteristics of Estill County

Characteristics	1970	1990	2000	Change ('90-'00)	%Chng
Total # of Jobs	2,489	3,942	4,144	202	5.1%
Non-Services	799	1,533	1,425	-108	-7.0%
Services	1,249	1,778	1,958	180	10.1%
Government	441	631	791	160	25.4%

Sources: U.S. Department of Commerce, 2022, Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C., reported by Headwaters Economics Economic Profile System, [headwaterseconomics.org/eps](http://headwaterseconomics.org/eps).

#### Location of Employment

Exhibits 3-2, 3-3, and 3-4 provide information about where residents of Estill County are employed and how far they travel to work. Around one fourth of Estill County's employed persons work in Estill County. That means that three fourths of our resident workforce leave the county each day. Also, nearly one quarter of Estill Countians leaving for work are going to Madison County, with another 23% going to Fayette County. It is also of note that of the 952 workers coming into Estill County for work from elsewhere, 28% come from Madison County. Please notice that in Exhibit 3-2, Inflow of Earnings describes what Estill Countians bring home from other counties, and Outflow of Earnings is what outsiders working in Estill County take back home. In 2021, Estill Countians brought \$176,356,000 home from other counties, which averages \$47,414 per commuter.

### Exhibit 3-2

#### Commuting Patterns for Estill County

Personal Income in Thousands of 2022 \$

	1990	2010	2021	Chng '10-'21
Total Personal Income	\$343,072	\$512,359	\$612,350	\$99,991
Cross County Commuting Flows				
Inflow of Earnings	\$102,735	\$154,937	\$176,356	\$21,419
Outflow of Earnings	\$16,560	\$29,880	\$36,766	\$6,886
<u>Net Residential Adj. (In-Outflow)</u>	<u>\$86,175</u>	<u>\$125,057</u>	<u>\$139,590</u>	<u>\$14,533</u>

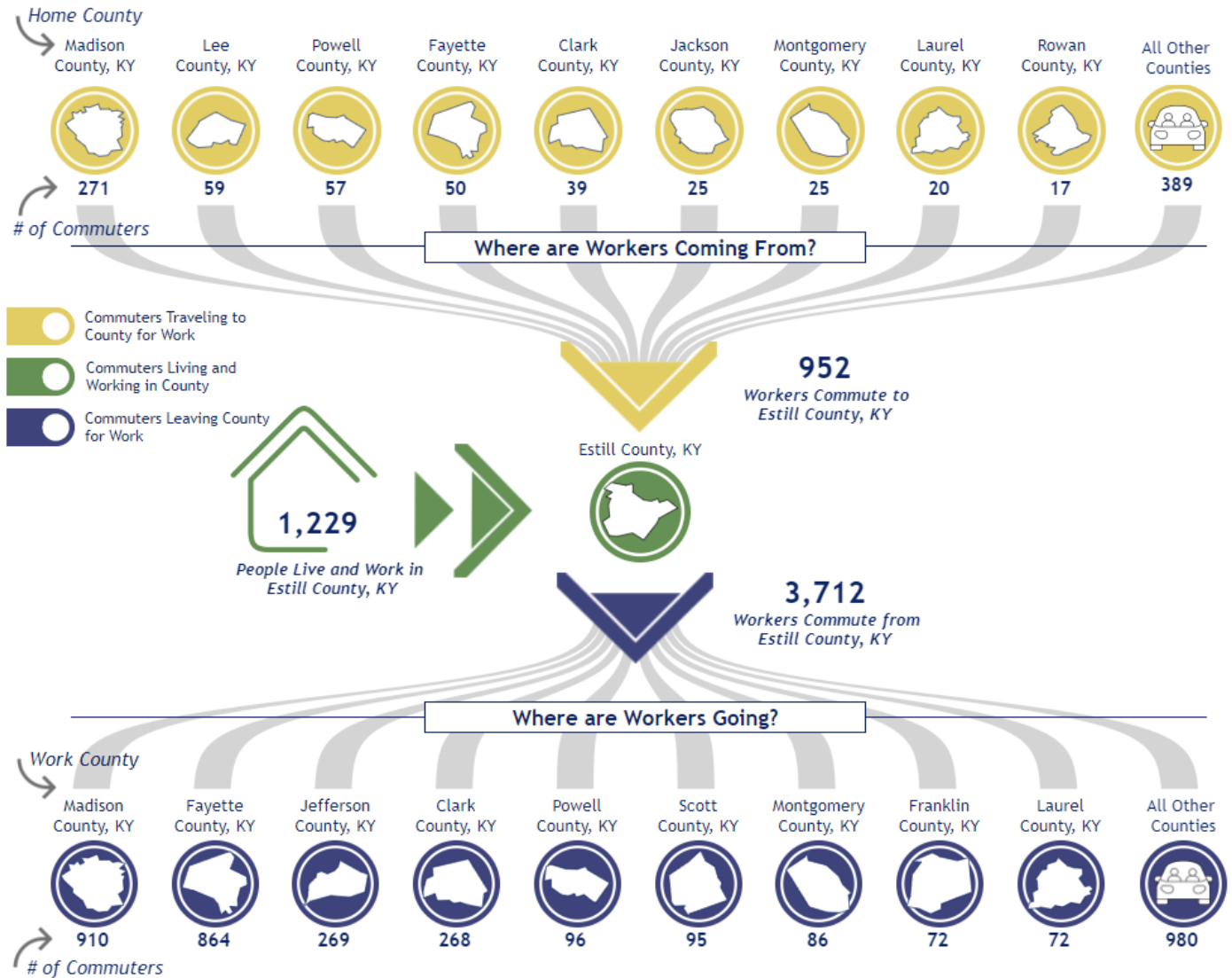
#### Percent of Total

Net Residential Adj. Share of Total				
Personal Income	25.1%	24.4%	22.8%	-1.6%

Sources: U.S. Department of Commerce, 2022, Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C., reported by Headwaters Economics Economic Profile System, [headwaterseconomics.org/eps](http://headwaterseconomics.org/eps).

### Exhibit 3-3

#### Workers Entering and Leaving Estill County Daily, 2022



Source: Kentucky Center for Statistics, <http://kystats.ky.gov>, Last updated January, 2023.



## Exhibit 3-4

### Time Traveled to Work – Estill County Residents, 2021

Workers 16 Years and Older, 2021*	4,777	
Place of work:		
Worked Inside Estill County	2,075	43.4%
Worked Outside Estill County	2,702	56.6%
Travel Time to Work:		
Less than 10 Minutes	816	17.1%
10 to 14 Minutes	425	8.9%
15 to 19 Minutes	314	6.6%
20 to 24 Minutes	280	5.9%
25 to 29 Minutes	462	9.7%
30 to 34 Minutes	526	11.0%
35 to 39 Minutes	161	3.4%
40 to 44 Minutes	162	3.4%
45 to 59 Minutes	512	10.7%
60 or More Minutes	881	18.4%
Mean Travel Time (Minutes)	32.8	

\*ACS 5-year estimates used. 2021 represents average characteristics from 2017-2021.

Sources: U.S. Department of Commerce, 2022. Census Bureau, ACS Office, Washington, D.C.

Using these statistics, it is clear to see that a substantial portion of the employed residents of Estill County have not found employment within Estill County. This is one indicator of the relative economic health of the county.

### Diversification

In addition to knowing how many people are employed and unemployed, and whether they work in or out of the county, it is important to identify the types of jobs they currently hold. The greater the variety of jobs that are available in Estill County, the more stable the local economy can be. If the majority of people work in a single type of employment, national and regional pressures upon that field can devastate a local economy.

An increase in the diversity of types of jobs is healthy because it enables Estill County to be fairly stable in spite of changes in one industry. Exhibit 3-5 presents data about the employment diversification in Estill County.

### Exhibit 3-5

#### Diversity of Employment in Estill County

	1970	1990	2000	Chng '90-'00
Total Employment (# of jobs)	2,489	3,942	4,144	202
Non-Service Related	799	1,533	1,425	-108
Farm	415	609	526	-83
Forestry & Fishing	3	27	36	9
Mining	57	179	106	-73
Construction	83	260	268	8
Manufacturing	241	458	489	31
Services Related	1,249	1,778	1,958	180
Transport & Utilities	229	227	189	-38
Wholesale Trade	23	59	53	-6
Retail Trade	493	672	776	104
Fin., Ins., Real Est.	57	122	135	13
Services	447	698	805	107
Government	441	631	791	160
<u>Percent of Total</u>				
Total Employment				5.1%
Non-Service Related	32.1%	38.9%	34.4%	-7.0%
Farm	16.7%	15.4%	12.7%	-13.6%
Forestry & Fishing	0.1%	0.7%	0.9%	33.3%
Mining	2.3%	4.5%	2.6%	-40.8%
Construction	3.3%	6.6%	6.5%	3.1%
Manufacturing	9.7%	11.6%	11.8%	6.8%
Services Related	50.2%	45.1%	47.2%	10.1%
Transport & Utilities	9.2%	5.8%	4.6%	-16.7%
Wholesale Trade	0.9%	1.5%	1.3%	-10.2%
Retail Trade	19.8%	17.0%	18.7%	15.5%
Fin., Ins., Real Est.	2.3%	3.1%	3.3%	10.7%
Services	18.0%	17.7%	19.4%	15.3%
Government	17.7%	16.0%	19.1%	25.4%

Source: U.S. Department of Commerce, 2022. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C., reported by Headwaters Economics' Economic Profile System, [headwaterseconomics.org/eps](http://headwaterseconomics.org/eps).

There are a few significant trends to note in the above exhibit. The first is that Estill County is following the broader national trend of an increasing percentage of people being employed in service industries. Another is the significant decrease in Estill County in the percentage of people employed in farming, mining, transportation & utilities, and wholesale trade. Finally, the increases in forestry & fishing, retail trade, and government are notable. These numbers reflect some broader national trends, but they also illustrate the decline in local coal and railroad operations. The increase in retail trade is encouraging because it means more Estill Countians are shopping locally and/or more visitors are spending money in the county.

### Unemployment

Another aspect of the economy in the region is the unemployment rate. Exhibit 3-6 shows the unemployment rates for 2017-2021 for Estill and its surrounding counties, the state, and the nation. These figures change annually and can vary widely. It must be noted that generally, Estill County performs better in this metric than its fellow Appalachian counties of Jackson, Lee, and Powell but worse than its neighboring Bluegrass counties of Clark and Madison. It is also worth noting that the Covid-19 pandemic did not affect unemployment in Estill County as severely as it did the nation as a whole. Notwithstanding, Estill County's unemployment rate is generally higher than those of the state and country.

Exhibit 3-6  
Unemployment Rates for Estill and Surrounding Counties

	2017	2018	2019	2020	2021
Estill	5.9	5.3	4.7	7.3	5.2
Madison	4.2	2.7	3.6	5.9	4.1
Clark	4.5	4.0	3.7	6.3	4.4
Powell	6.5	5.8	5.1	7.2	4.8
Lee	8.3	6.2	5.4	6.7	5.6
Jackson	8.3	6.8	6.1	8.3	6.3
Kentucky	4.8	4.2	4.1	6.5	4.4
United States	4.4	3.9	3.7	8.1	5.3

Source: Kentucky Center for Statistics, <http://kystats.ky.gov>, Last updated January 2023.

### Manufacturing Employment

The retention of jobs is just as important as the attraction of new employers. There were five manufacturing plants in Estill County as of 2018. They are listed below with their accompanying employment figures:

#### Exhibit 3-7

##### Estill County Manufacturing Firms, Their Products and Employment

<u>Firm</u>	<u>Product</u>	<u>Employment (2018)</u>
Carhartt	Workwear	120
Concrete Materials Company	Ready-mix Concrete	3
Estill Wood Products	Wood Pallets	49
Isaacs Lumber	Sawmill	2
Hinkle	Crushed Limestone	11

Source: 2020 Kentucky Directory of Manufacturers, Kentucky Cabinet for Economic Development, January 8, 2020.

Every effort should be taken by local government to cooperate with these industries. Through yearly discussions with plant managers, any expansion of existing facilities can be identified, and the community can make itself ready for any anticipated needs of the industry.

### Other Major Employers

The aforementioned industries do not represent the majority of jobs present in Estill County. Other employers include education facilities, retail trade and related service industries. In addition to local manufacturers, major employers in the county include Mercy Health Marcum and Wallace Hospital, Estill County Schools and CG Bank.

Per the Bureau for Labor Statistics in 2018, the top 5 industries in Estill County in terms of small business employment were retail (17%), accommodation & food (14%), health care (14%), other services (4%), and construction (4%). Employment for Estill Countians by sector is shown in Exhibit 3-8. A further breakdown of retail trade is shown in Exhibit 3-9.

### Exhibit 3-8

#### 2021 Employment for Kentucky's Top 10 Occupations

	Estill County Employment	5 Years Change	Kentucky Employment
Office & Admin. Support	268	-8%	239,047
Transportation & Material Moving	176	-3%	212,295
Sales & Related	184	-13%	169,753
Production	144	-25%	167,217
Food Prep. & Serving Related	262	-6%	154,137
Healthcare Practitioners & Tech.	240	-5%	125,168
Management	95	-1%	90,376
Education, Training, & Library	223	-13%	90,023
Business & Financial Operations	65	8%	85,794
Installation, Maintenance, & Repair	79	-2%	79,686

Source: CEDIK Workforce Data Profile, U.K. CEDIK, [http://cedik.ca.uky.edu/data\\_profiles/workforce](http://cedik.ca.uky.edu/data_profiles/workforce).  
 From U.S. Census/QWI, 2021, <https://qwiexplorer.ces.census.gov/static/explore.html>.

### Exhibit 3-9

#### Retail Trade in Estill and Surrounding Counties

County	# Retail Establishments	Retail Employment	Retail Share of Total Employment	Pull Factor
Estill	64	235	17%	0.5
Madison	443	3,504	18%	1.2
Clark	179	1,010	17%	1.1
Powell	61	268	20%	0.8
Lee	28	229	19%	0.8
Jackson	36	45	13%	0.4

Top Retail Employment Subsectors in Estill County: Health & Personal Care Stores (18%), Gasoline Stations (13%), Eating & Drinking (12%), Building Materials & Gardening Stores (5%).

Retail Pull Factors for Top 5 Subsectors in Estill County: Health & Personal Care Stores (1.4), Food & Beverages (1.0), Miscellaneous (0.8), Gasoline Stations (0.7), Building Materials & Gardening Stores (0.3).

Pull Factor explained: If the PF > 1, then the retail subsector is attracting shoppers from outside the county and/or local residents spend on average more on retail than the state residents. Conversely if the PF is less than one. It is notable that the only subsector with a pull factor over 1 is health & personal care stores.

Source: County Retail Profile by CEDIK, University of Kentucky, [http://cedik.ca.uky.edu/data\\_profiles/retail\\_sector](http://cedik.ca.uky.edu/data_profiles/retail_sector), Referencing Chmura/JobsEQ 2019, <http://www.chmuraecon.com/jobseq>, U.S. Census/QWI, 2018 <https://quexplorer.ces.census.gov/static/explore.html#x=0&g=0>, and Woods & Poole Economics, 2019 estimates, <https://woodsandpoole.com>.

#### Planning for Economic Development

When planning for industrial or, more broadly, economic development, there are a number of steps which should take place. These include infrastructure development, site selection, and generating sufficient community interest. This provides a very basic plan of action; many of the factors may presently be in place in Estill County or will be in the near future.

The first step in industrial or economic development is infrastructure development. This includes all the various aspects which make up community life, such as an adequate transportation system, good water and sewer utility systems, good cultural and recreational facilities, adequate residential land available for development, and fire and police protection.

Another step is the establishment of a local development authority. The Estill County Industrial Development Authority, Inc. has been formed for many years, but its activities have been extremely limited in recent years. While Estill County 21<sup>st</sup> Century, Inc. DBA Estill Development Alliance is quite active and has taken on some of the activities of the IDA, funding is incredibly limited, and the EDA is

responsible for many efforts beyond industrial development. Tasks of the IDA should include identifying good industrial sites, determining the needed infrastructure for those sites, potential funding sources, and potential industries. If funds are available, a professional staff should be employed to locate industry for Estill County. Cooperation at all levels of government is essential to attracting industry to any community.

After setting the groundwork for promoting economic development, the negotiation for a site or sites should begin. The industrial authority should analyze various sites in the community as to size, access by roadway and rail, the slope and soils of the site, the availability of utilities, and any other factors which the community feels important. The site or sites should then either be purchased or placed under option by the industrial authority.

Lastly, community interest should be generated, and the members of the community should work together in the marketing of their area. Residents should be made aware of economic development activities and help to promote their area.

### Conclusions

Estill County currently experiences a relatively high unemployment rate. While the unemployment rate for Estill County may be lower than its neighboring Appalachian Counties, it is regularly higher than its Bluegrass neighbors, the state, and the nation.

However, the labor force available to fill new jobs which might be created in the county is quite high. According to CEDIK at the University of Kentucky (using data from the U.S. Census), the Estill County labor force totaled 5,344 persons in 2021; however, the workforce participation rate for Estill County is just over 46%. That is in stark contrast to the national rate of nearly 63%. That means there is a surplus of people over 16 years old in Estill County who are not currently working or looking for employment. In addition, in 2021 nearly 900 Estill Countians commuted 60 minutes or more to work each day. It can be assumed that many of these people would prefer employment within their home county if this employment were available.

The attraction of new manufacturing firms to Irvine at this time may be limited due to the lack of availability of adequate sites. The future land use map shows potential industrial sites in Irvine.

A direction toward enterprise development should be strongly encouraged. The city and county officials should work to attract both local and outside entrepreneurs to Estill County in order to develop service-related businesses. As more and more people are employed within Estill County, the need for retail and service establishments will be greatly increased and will need to be actively pursued.

## CHAPTER 4

### HOUSING

#### Existing Housing Units

The existing inventory of occupied housing units in Irvine and Estill County has only slightly changed based on information from the Census. In 2011, there were 5,680 occupied housing units in Estill County with 1,120 of those in Irvine. By 2020, those numbers had changed to 5,640 and 1,130, respectively. These numbers are illustrated in Exhibit 4-1. Relatedly, the number of vacant housing units increased for both the county and city. In 2011, vacant units in Estill County numbered 1,200 and 323 in Irvine. By 2020, those numbers had increased to 1,290 and 336, respectively. Combined, these numbers most likely reflect the decrease in population in both the county and city.

Exhibit 4-1  
Count of Existing Occupied Housing Units in Irvine and Estill County

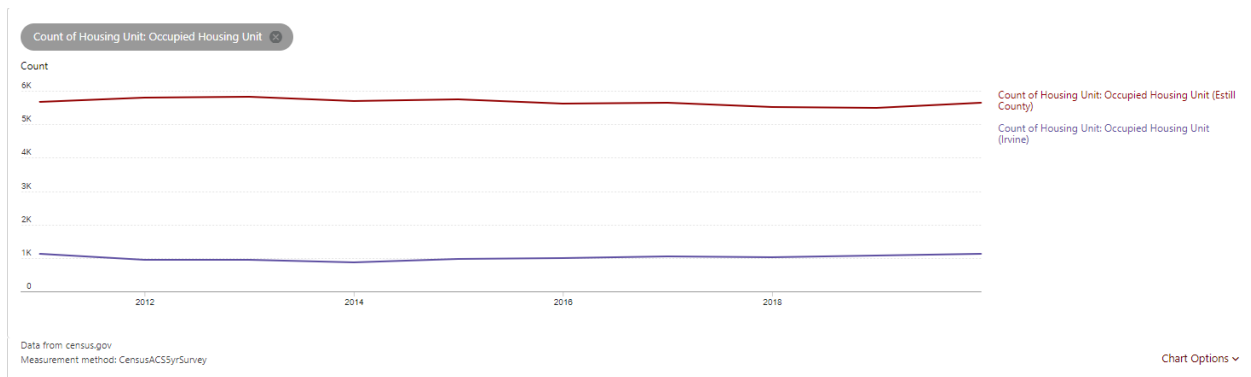
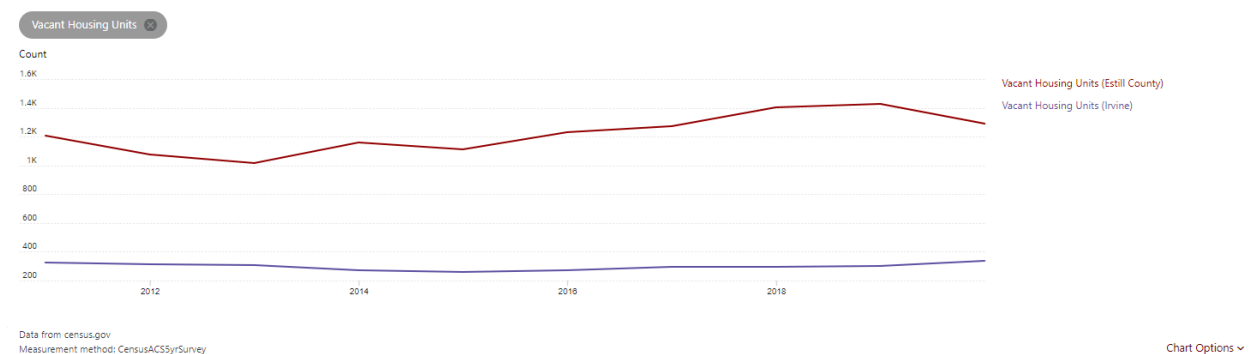


Exhibit 4-2  
Count of Vacant Housing Units in Irvine and Estill County

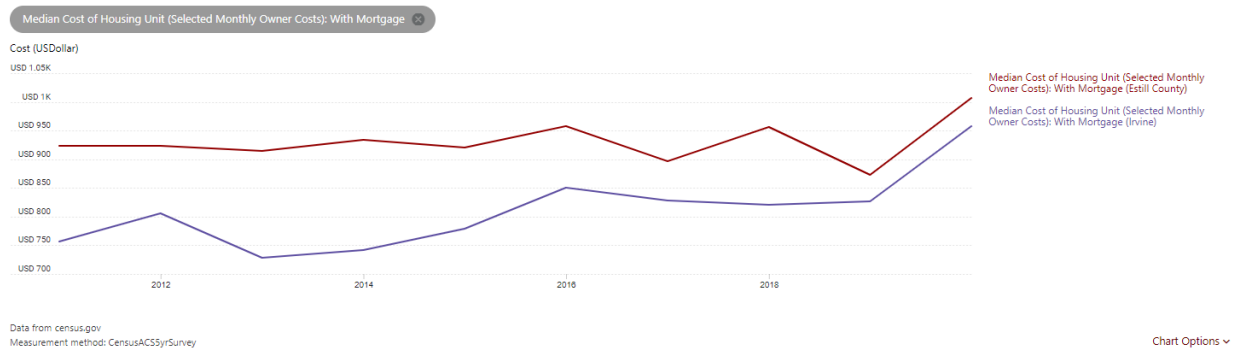


#### Financial Considerations

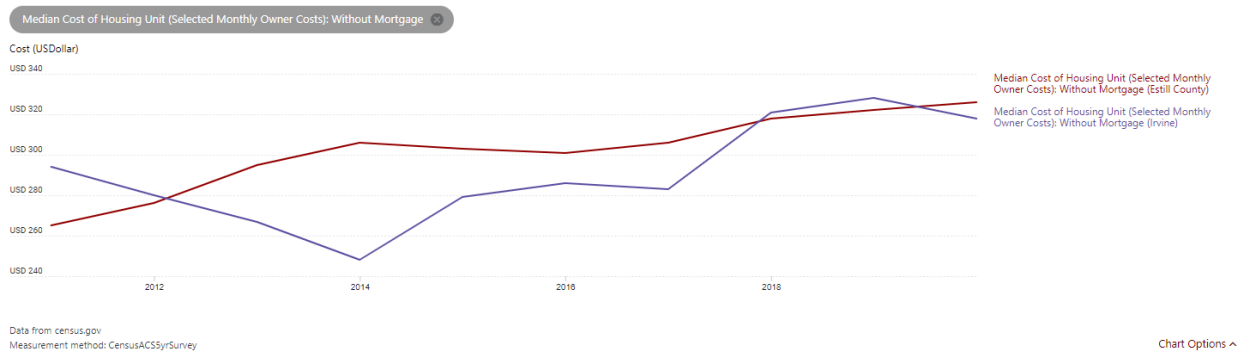
Low cost of living is often an advantage touted by smaller and rural communities when attempting to attract new residents. As shown in Exhibit 4-3, the cost of housing has increased in Irvine and Estill County for those with mortgages, from \$923/month in 2011 to \$1,020/month in 2020 in Estill County and from \$757/month in 2011 to \$957/month in 2020 in Irvine. For those owners without mortgages, monthly costs increased from 2011 to 2020 from \$265 to \$326 in Estill County and from \$294 to \$318 in Irvine.



### Exhibit 4-3 Median Monthly Housing Costs for Owners With a Mortgage in Irvine and Estill County

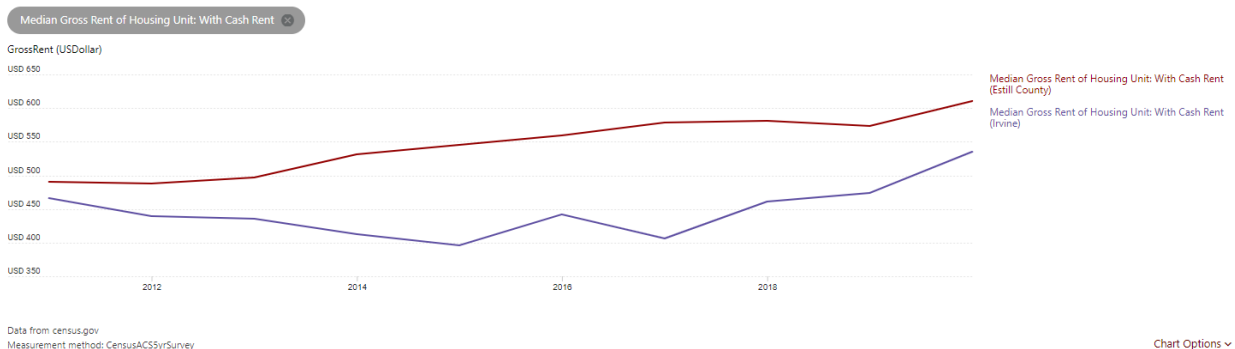


### Exhibit 4-4 Median Monthly Housing Costs for Owners Without a Mortgage in Irvine and Estill County



For renters, costs have also risen from 2011-2020. As can be seen in Exhibit 4-5, median monthly rents have increased from \$490 to \$610 in Estill County and from \$466 to \$535 in Irvine.

### Exhibit 4-5 Median Gross Rent in Irvine and Estill County

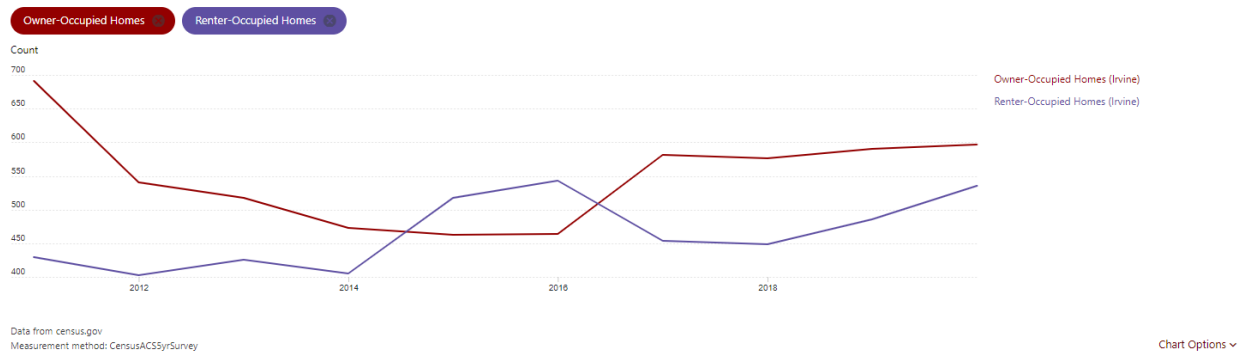


## Home Ownership Versus Rental

The 2010s was an interesting time for home ownership in the City of Irvine. According to U.S. Census data, the middle of the decade was a time when renting was more prevalent than owning a home.

Additionally, ownership only slightly rose from 2017-2020 while renting had a significant uptick. By the numbers, Irvine had 691 owner-occupied homes in 2011 with only 596 in 2020. For comparison, Irvine had 430 renter-occupied homes in 2011 versus 535 in 2020.

Exhibit 4-6  
Owner-occupied Versus Renter-occupied Housing Units in Irvine



## Public Housing

The Housing Authority of Irvine has been serving Irvine and Estill County since 1959. The Authority currently has 120 housing units, broken down as follows in Exhibit 4-7:

Exhibit 4-7  
Current Housing Units Overseen by Housing Authority of Irvine

Community	1 Bedroom	2 Bedroom	3 Bedroom	4 Bedroom
Mountain Crest	16	46	18	4
Wallace Circle	6	12	10	4
James Street	2		2	

Improvements to the Authority's properties over the past 10 years include: new heating and air units, new roofs and guttering, new siding, new hardwood laminate flooring, new combination carbon monoxide/smoke detectors, new entry signs to the property, additional playground equipment, new washers and dryers for their laundromat. The Authority is currently installing new front entry doors and new landscaping.

The biggest challenge identified by the Authority is funding. They must combine several years of funding to accomplish a project of any significant size. Therefore, major items needing replacement must wait until they raise enough funds to get it done. Water lines need replacement and/or repair, but they do not receive enough funding for a project that size. They are currently (August, 2023) searching for additional funding.

As of August 2023, the Authority has a waiting list of 70 individuals and families. This statistic highlights the need for additional affordable, decent, and safe housing in Irvine and Estill County.

## CHAPTER 5

### COMMUNITY FACILITIES

#### Educational Facilities

The Estill County School District includes the cities of Irvine and Ravenna. The District recently restructured to include one early learning center, two elementary schools, one middle school, and one high school, and added a brand new area technology center. Exhibit 5-1 shows the enrollments at each school for the 2021-2022 school year from the National Center for Educational Statistics.

#### Exhibit 5-1

##### Enrollment in Estill County Schools (2021-2022)

School	Grades	Students
Estill County High School	9-12	630
Estill County Middle School	6-8	478
Estill County Success Academy	6-12	13
West Irvine Intermediate	3-5	412
Estill Springs Elementary School	K-2	482
South Irvine Early Learning Center	PK	129

Exhibits 2-1 and 2-6 predict no significant increase in population and therefore it is not foreseen that new classroom space will need to be constructed. However, this does not mean that a continued program of maintenance and new construction to replace outdated facilities should not be instituted. That said, following the adoption of the “recallable nickel,” Estill County Schools’ facilities are in an excellent state currently, following a multitude of upgrades. From the perspective of industrial and other business prospects, the adequacy of public schools often plays an important role in the location of a new enterprise.

#### Fire Protection

As of August, 2023, the Irvine Fire Department is staffed by 3 full-time and 3 part-time employees. Beyond employees, the department has 28 volunteers on its active roster. According to the U.S. Fire Department Profile 2020 released by the National Fire Protection Association, the national average in 2020 of career firefighters per 1,000 people is approximately 1.7 and of volunteer firefighters per 1,000 people is approximately 5.5. Using a 2020 population of 2,350, Irvine should have 4 full-time firefighters and 13 volunteer firefighters to meet the national average. The department fleet currently consists of 3 pumpers, 1 95’ ladder truck, 1 brush truck, and 1 special response unit. From an equipment perspective, the department has up-to-date decontamination equipment and a side-by-side UTV for its use. Their facilities are currently adequate. The CSEPP program has been incredibly helpful to the department from a financial perspective. Recruitment and retention of both employees and volunteers is a point of emphasis for future operations of the IFD. Increased staffing is the main component of need for improvement in the city’s ISO rating. The city may want to consider ensuring wages are competitive, reviewing the pay structure and overtime policies, and examine approaches to supporting and showing gratitude to volunteers. Conversations between decision makers and firefighters, as well as

some job shadowing, may assist the city council in better understanding the needs of its First Responders.

#### Police Protection

As of July, 2023, the Irvine Police Department is staffed by 7 full-time officers. The department currently has 8 cruisers with 3 that need to be replaced immediately. The average age of the department's fleet is 8 years. As far as law enforcement equipment, immediate needs are new tasers to replace the current obsolete models and new ballistic vests to replace the current vests that are 3 years expired. According to the International City/County Management Association, the average ratio for officers to residents is 2.5 per 1,000 residents. Using a 2020 population of 2,350, Irvine should have roughly 6 officers according to that ratio. It must be noted that those ratios do not take several factors into consideration: mutual aid agreements, the high levels of substance abuse in Estill County, vacation time, in-service (40hrs/yr.), recertifications, injuries, court time, sick time, and the increased aggression of the criminal violators that officers deal with (domestics, fights, search warrants, people under the influence of methamphetamine). Many of these examples require multiple officers. Also, multiple officers on scene can drastically decrease the level of physical force needed to make an arrest, which in turn decreases the injuries to both officer and offender, which in turn decreases medical bills for treatment and worker's compensation claims. The Department is required to cover shifts 24/7, and with only 6-7 officers, the overtime is more expensive than the additional positions.

#### Emergency Medical and Rescue Services and Emergency Management

Irvine and the whole of Estill County are served by Estill County Emergency Medical Service. ECEMS is currently (August, 2023) staffed by between 35 and 45 full and part-time employees. They have two ambulances on duty 24 hours a day with an additional ambulance on duty for the busiest 12 hours of each day. The biggest need ECEMS has is a new, larger facility. Their current facility is beyond capacity in terms of ambulance bays, storage, and living area. From a financial perspective, EMS has a county-wide taxing district which provides a small portion of their annual budget. Beyond that, they rely on reimbursement from insurance for the services they provide. Unfortunately, the vast majority of their runs count on Medicare or Medicaid for reimbursement, and those reimbursements average about 20% of the original charge. Irvine currently appoints one member of the EMS board.

The Estill County Rescue Squad serves Irvine and the entirety of Estill County. It is a volunteer organization with 33 active members on its duty roster, as of August, 2023. They respond to emergency calls with five trucks, 2 boats, and a side-by-side UTV. The ECRS currently receives some financial support from the Estill County Fiscal Court. The Squad collaborates regularly and with great success with other first responders from all three local governments. The Squad's most immediate need is a dedicated set of battery-operated extrication tools. Beyond those tools, the Squad regularly needs new trucks, a new swift water rescue boat, and new high angle rope rescue gear.

Emergency Management for all of Estill County is handled by the Estill County Emergency Management Agency. This includes 911 dispatch for all local first responders. Irvine currently financially supports 911 enough for part of a dispatcher salary. Mutual aid and cooperation are consistent and effective in service to the community. The biggest challenge to 911 dispatch is employee turnover, as keeping salaries competitive is a constant struggle. From an EMA perspective, the most glaring issue is the planned ending to the Chemical Stockpile Preparedness Program (CSEPP). CSEPP has provided funding for EMA and other first responder activities for many years, and the impact on local governments will be substantial.

### Library Services

Irvine is served by one library, the Estill County Public Library, which has one facility located on Broadway in Irvine. This facility opened in 2020 and is much larger with more offerings than the old location on Main Street. The ECPL offers many services, including a bookmobile, youth programming, adult programming, inter-library loans, free internet access, computer usage, copies and faxes, notary, community meeting space, and a makerspace. The library has 9 employees as of July 2023, and is consistently looking for ways to serve the community in new and innovative ways.

The ECPL currently has over 5200 library cards in circulation, and in June 2023, over 4,000 books were checked out, with over 1,000 of those through the bookmobile. The library's meeting facilities are well used by the community, with a 161 capacity space on the bottom level, a 16 capacity room on the main level, and a makerspace facility on the main level. These facilities were used 87 times in June 2023 alone.

### Health Services

The residents of Irvine and Estill County have excellent access to local healthcare for a community their size. Below is a sampling of many of those healthcare service providers. Please note that this list may not be exhaustive, and providers, as well as the services they offer, change regularly over time.

Mercy Health Marcum and Wallace Hospital is a licensed 25-bed critical access hospital in Irvine. Marcum and Wallace offers an extensive array of medical Specialty Clinics including Cardiology, Surgery, Nephrology, Urology, Orthopedics and Podiatry with specialists from Richmond and Lexington. It also offers Full-service Lab, Respiratory Care, Radiology, Sleep, Nuclear Medicine, Cardiac and Rehabilitation services. The hospital was Kentucky's first Level IV Trauma Center and is an accredited Chest Pain Center. Marcum and Wallace has an 8-bed Emergency Department and services are available 24 hours a day, 7 days a week.

The Estill County Health Department is a public health agency in Irvine. It provides clinical services including screenings, communicable disease control, and vaccines; community health services such as harm reduction and H.A.N.D.S.; and environmental health services such as food service and on-site septic management.

Irvine Nursing and Rehabilitation is a residential skilled nursing facility in Irvine that provides long-term skilled nursing services, short-term and long-term rehabilitation services (including physical therapy and occupational therapy), and specialized services such as wound care and respiratory therapy.

Local primary care providers include Estill Medical Clinic, Mercy Health – Irvine Primary Care, Riverview Health, and White House Clinics.

Local pediatric care providers include A+ Pediatrics and Children's Clinic.

Local dentists include Eagles Nest Family Dentistry, Irvine Family Dentistry, Kentucky River Dentistry, and White House Clinics.

Local pharmacies include Estill Clinic Pharmacy, Harness Health Pharmacy, Irvine Health Care Pharmacy, Walgreens, and White House Clinics.

Local mental health and therapy providers include Kentucky River Foothills and New Vista.

Local chiropractors include Estill County Chiropractic.

### Recreational Facilities

According to the “2023 NRPA Agency Performance Review” by the National Recreation and Park Association, which surveyed over 1,000 parks and recreation departments in all sizes of communities, there are an average of 10.8 acres of park land per 1,000 residents. Additionally, there are 2,287 residents per park and 3,759 residents per playground.

Looking at recreational facilities specifically located within the Irvine City limits, there is only Rising Park that is considered a fully public park. There are playgrounds located at Mountain Crest and Wallace Circle, but those are specifically for those residents. There is a playground at Estill Springs Elementary, but it is specifically for students. There is also a park that opened in June of 2023 called the Irvine High Memorial Park, but it is located on school district property as well.

Outside of the Irvine City limits, the Veterans Memorial Park is located in Ravenna, the Matilda Hamilton Fee Park is located at Lock 12 behind the Estill County Golf Club, and the Kentucky River Recreation Park is located in the county on Wiseman Crossing Road. Veterans Memorial Park is the only traditional park area that is fully developed, as of August 2023. Additionally, the Kiwanis Ball Park is located in Ravenna.

Based on the average figures noted at the beginning of this section and using the 2020 Census population numbers of 2,350 for Irvine and 14,100 for Estill County, the target for designated park land in Irvine should be 25.38 acres and in Estill County should be 152.28 acres. The residents per park and residents per playground figures will not be addressed merely because Irvine has less than one acre of park area for its entire population.

As noted in other sections, Irvine faces challenges finding developable land between rough terrain and flooding risks. However, land exists already within the confines of the city that is not possible to develop as residential or commercial enterprises, but it would be just right for green space and other recreational applications for the enjoyment of residents and visitors.

### Historic Preservation Analysis

Special areas and sites within Estill County have been identified as having distinct significance to the entire community because of the historic, aesthetic, or cultural values attached to them. Natural features such as unique rock outcroppings and streams should also be recognized. Due to the unique quality of these sites, they should be protected, not only for this generation, but especially for the future generations to come.

Due to the lack of governmental funds, the work of identification, restoration, and preservation of historic sites has been delayed. However, both federal and state statutes have been enacted to prohibit the demolition or destruction of any site having historical significance. Exhibit 5-5 shows sites within Estill County that are on the National Register of Historic Places.

If a development within Estill County is suspected of having significance to the community, interested citizens or groups should work with local historians and through local and state agencies to have the site

properly recognized. Exhibit 5-5 does not include all the sites of historical and cultural value to Estill County, but it is hoped that concerned citizens will help to preserve the heritage of the community.

Additionally of note, three of the National Register listings are located in Irvine. The Irvine Grade School, which is now the Irvine Grade School Apartments, is listed on its own. The Riverview Hotel was listed on its own and then again as part of the Irvine Historic Business District, which is essentially the core of downtown Irvine. The map used in the Irvine Historic Business District's application to the National Park Service is included as Exhibit 5-6.

#### Exhibit 5-5

##### Estill County Listings on National Register of Historic Places

Site	Location
Cottage Iron Furnace	7 mi. NE of Irvine in Daniel Boone NF
Red River Iron Furnace	KY-975, in Daniel Boone NF
Ashley Petroglyphs	Address Restricted
Irvine Grade School	228 Broadway, Irvine
Irvine Historic Business District	Roughly the junction of KY-52 and KY-89
Riverview Hotel	Main Street, Irvine
Sparks Indian Rock House Petroglyphs	Address Restricted
Ravenna Motor Vehicle Service Building	512 Main St, Ravenna

Exhibit 5-6

Map of Irvine Historic Business District





## Water & Sewer Analysis

Irvine Municipal Utilities provides water and sewer services for the City of Irvine. The IMU water treatment facility has a capacity of 2 million gallons per day and currently processes 1.1 million to 1.2 million gallons per day. The wastewater treatment facility has a capacity of 2 million gallons per day and has current usage of around 600,000 gallons per day. Current needs are being well met with room for growth.

In August 2023 a \$1.4 million project is underway to run new lines under the Kentucky River for general upgrades and to provide redundancy in service provision.

For future needs, IMU points to necessary line upgrades. Relatedly, a transportation upgrade plan would be welcomed by IMU in order to plan which lines (under which streets) should be upgraded in order to cause the least damage to transportation infrastructure. From an economic development perspective, IMU points to the possibility of extending sewer infrastructure to the west. A plan to serve the Stacy Lane/Whispering Woods area is noted as a reasonable first goal for sewer service expansion.

## Garbage Collection

The Irvine Street & Sanitation Department consists of 4 full-time employees and a part-time substitute driver. Two employees work sanitation daily except on holiday weeks where the decreased time for routes requires four employees. The department has two garbage trucks, but one is used most of the time with the exception of holiday weeks when both are used. Additionally, the department employs a truck & trailer to do special pick-ups, a street sweeper, mowers, and a tractor.

## Other Utilities

Electricity for all of Irvine, as well as some other areas of the county, is provided by Kentucky Utilities. Most of the remainder of the county is served by Jackson Energy, and some areas in the northern part of the county are served by Clark Energy. Natural gas service is provided to the city by Columbia Gas of Kentucky. Landline telephone services are provided by Windstream, and Voice Over IP (VOIP) telephone services are provided by Irvine Community Television as well as other smaller providers. Cable television is provided by Irvine Community Television. Broadband internet is provided by Irvine Community Television and Windstream. An effort is underway by multiple service providers to expand fiber optic services throughout Estill County. Wireless telephone services are provided by Appalachian Wireless and AT&T, and multiple other carriers use the infrastructure of those two companies to provide service in Irvine as well.

## Conclusions

- Combine city and county services wherever possible to take advantages of efficiencies gained through the eradication of duplication of services.
- Regularly review the needs of city departments and take steps to ensure those departments have what they need to provide the city with the best services possible. This should include face time between decision makers and employees so everyone knows the challenges everyone else faces.
- Review existing city property and look at other properties deemed suitable for additional recreational space within the city. Consider forming a joint parks and recreation board to oversee all recreational facilities in the cities and county. Form a long-term plan for recreational facilities to be adopted and constructed over time and form a maintenance plan for those facilities.

- Continuously review revenue creation opportunities for the city, both for current needs and those in the future.
- Consider creating a capital fund in which a limited amount of funds can be budgeted each year. Use the fund as match for larger grants for which the city currently does not have the means to apply.
- Become educated about public-private partnerships (P3) and other creative ways other governments have used or are using to make larger infrastructure investments possible.
- Identify funding and other resources to prioritize and undertake further work on identifying, surveying, and preserving historic structures and sites within the city to protect the cultural identity of the community.

## CHAPTER 6

### TRANSPORTATION ANALYSIS

An assessment of the condition of streets in Irvine was performed in June of 2023 and it was found that only about five percent of the streets were in good to excellent condition, forty-five percent were fair to good condition and fifty percent were in poor to fair condition. Many of the streets have been subjected to normal wear and are now in need of upgrading to provide adequate service to the community. The most notable deficiency is the incredible amount of patching following utility work, with many of the patches done poorly. These patches shorten the lifespan of the streets and some need immediate attention.

It was also found that the storm sewer and sidewalk system was in need of repair. On many streets, the right-of-way has been determined by the contour of the land, and thus the pavement width is minimal. These streets often have one side reserved for parking, since no off-street parking was provided in the original layout.

Immediate action should be given to the establishment of a systematic street improvement program. Most streets are in need of resurfacing, and the number will increase as the community extends their corporate limits.

No other program can save Irvine as much money as can an effective systematic streets improvement program. Annually, certain streets should undergo improvement until every street is in acceptable condition. Once the initial cycle has been completed, another cycle begins. Nevertheless, the legislative body is given a measuring stick whereby it can intelligently estimate the costs of yearly street maintenance.

It is noted that alleyways lack signage in the city. If an alley is named, it should have a sign.

In addition to the multitude of patches on city streets, many cracks and other fissures exist in multiple streets and have allowed vegetation to grow. As a part of regular maintenance, herbicide should be applied to remove the vegetation and lengthen the useful life of the pavement. A related issue is the silt build-up in many curbs and gutters. Regular removal will contribute to longer life of the infrastructure by reducing standing water.

The Council may wish to employ a consulting engineer on a retainer basis. This will ensure a professional set of eyes is available when transportation issues arise. Given that maintenance of city infrastructure is one of the biggest responsibilities of the city, keeping an engineer on retainer appears to be the most cost-effective solution to ensure the city is receiving professional recommendations for improvements on a regular basis in order to save money over the long term.

#### Rights-of-Way

Adequate rights-of-way are important in the design of new streets as well as in the improvement of existing streets. Narrow rights-of-way often prohibit the widening of existing streets because of intensive development adjacent to the rights-of-way. Such conditions increase the costs of street improvements.

There is presently no uniformity of rights-of-way widths in the city of Irvine, thus making it somewhat more difficult to improve existing streets other than basic leveling and resurfacing.

### Pavement Widths

Pavement widths were examined throughout the city. Most of the streets have insufficient pavement widths to carry the present traffic loads. Every major traffic artery (State-maintained roads) should have at least 40-foot pavement widths, which allows for two twelve foot traffic lanes and two eight foot parking lanes. Minor or local streets should have at least 27-foot pavement widths. This is the standard that many cities use, however, a smaller pavement width may be determined by the Planning Commission.

The state-maintained roads, in most cases, have adequate pavement widths within the urban areas. Congestion does exist at some points such as in downtown Irvine, but traffic flows and pavement widths are generally satisfactory.

### Surface Conditions

Almost every street in Irvine has a bituminous asphalt surface. Many local streets lack adequate surfacing due to continuous patching without resurfacing.

Because of the poor conditions of many of the pavement surfaces, the city should initiate a street-paving program on a systematic basis. Such a program would require that a certain number of streets be improved every year until all the streets within the city are resurfaced. Unpaved streets and those streets carrying heavy volumes of traffic should be given high priority. Additionally, streets with the most patching and those with unsatisfactory patching should be given priority to limit the accelerated degradation.

### Street Classification

The following definitions are used to define roadways in Irvine.

1. Street: An improved public way for vehicular and pedestrian traffic, whether designated as a street, highway, thoroughfare, parkway, throughway, road, avenue, boulevard, lane, place, or however otherwise designated, excepting, however, an alley.
  - a. Arterial Street: A fast or heavy traffic street of considerable continuity and used primarily as a traffic artery for intercommunication among large areas.
  - b. Marginal Access Street: A minor street which is adjacent to and substantially parallel with an arterial street, and which provides access to abutting properties and protection from through traffic.
  - c. Major Street: A non-arterial street which carries traffic from minor streets to arterial streets, including the principal entrance streets of a residential development and streets for circulation within such a development.
  - d. Minor Street: A street used primarily for access to abutting properties.
  - e. Cul-de-sac or Dead-end Street: A minor street with only one outlet.

### Parking

In performing the assessment of the transportation facilities of Irvine, the parking situation was examined and needs further study. However, the following recommendations are made:

- develop a downtown parking plan.
- establish loading/unloading areas for businesses.
- establish handicapped parking spaces and accessible sidewalks where not already implemented.
- Reassess parking configurations on Main Street to meet motorist needs while encouraging pedestrian usage of sidewalks.
- Ensure that all public parking areas are marked, with wayfinding signage directing motorists to dedicated parking areas.

### Signs/Striping

Signs and striping in the community need much revision. In general, traffic islands and road markings at intersections and parking striping need to be more clearly designated. Stop signs and other street signs need replacement or better designation such as four way stops. Nonconforming and outdated signs should be removed or replaced. Proper turning procedures should either be designated by signs or striping of the road surface.

More one-way and do not enter signs should also be placed on Broadway at highly traveled intersections.

The City Council should designate which streets need new signage and better striping. The Kentucky Transportation Cabinet should be contacted regarding state-maintained highways. Currently, multiple signs on both city-maintained and state-maintained streets are installed incorrectly, have incorrect heights, have incorrect posts, and/or have incorrect reflectivity.

### Traffic Counts

Awareness of traffic counts on major roadways is important when planning for future infrastructure needs as well as recruitment or development of new business enterprises in the community. The Kentucky Transportation Cabinet publishes a regularly updated and interactive map at <https://maps.kytc.ky.gov/trafficcounts/>. The relevant statistic is the AADT, or average annual daily traffic. This is the total count of vehicles that drive over a specific measuring point in a year and then divided by 365. The AADT gives a mean estimate of the traffic that travels the roads on any typical day. The most notable AADT number is the stretch of KY-52 leading into downtown Irvine, across the Kentucky River. An average of 13,424 vehicles traverse this route every day. (In comparison, 5,083 vehicles cross the Joseph Proctor Memorial Bypass daily.) Other routes of note are:

- 8,828 – River Drive from the Main Street intersection to Court Street
- 6,439 – River Drive from Court Street to Powell Avenue
- 4,591 – River Drive from Powell Avenue to Ravenna
- 7,258 – Main Street from River Drive to Broadway
- 5,381 – Main Street from the Broadway to Orchard Ave
- 6,797 – Main Street from Orchard Ave to Rice Street
- 1,686 – Broadway from the Main Street intersection to Court Street
- 944 – Broadway from Court Street to Estill Avenue
- 1,215 – Court Street from the River Drive intersection to Laurel Street
- 1,499 – Carhartt Avenue
- 1,267 – Rice Street from Main Street to Wallace Circle

### Major Improvements

The Kentucky Transportation Cabinet in its Six Year Highway Program has scheduled three projects to be undertaken for Estill County. They are:

- Improve safety on Carhartt Avenue to the Railroad Bridge – spot improvements.
- Improve level of service, safety, and connectivity on KY-82 from KY-89 to new construction located north of Hudson Mill Road – reconstruction.
- Improve geometrics on KY-89 from KY-1886 to the Estill/Clark County line – major widening.

Other major improvements that should be undertaken by the Transportation Cabinet or by the appropriate legislative body are:

- Downtown parking study for Irvine.
- Sidewalk maintenance and replacement (by property owners where appropriate) for Irvine.
- Examination of storm water drainage for Irvine.

## Conclusions

The eventual accomplishment of the recommendations outlined in this section depends upon the cooperation of all citizens. As funds are made available, the aforementioned recommendations should be fulfilled. In the beginning of such a program, the administration and legislative bodies of Irvine should adopt the following policies:

1. Give first priority in any new street construction to those streets that will contribute to the overall street program.
  2. Establish a long-range but systematic street improvement program.
- Based on inspection by a professional transportation engineer, the following recommendations are made:

- 50% of streets are critical and need repaving in the next 3 years.
- 25% need repaving in the next 5 years.
- 20% need repaving in the next 10 years.
- 5% need repaving in the next 15 years.

The plan should ideally provide for every street in the city to be repaved every 15 years. Considering the high level of need in the short-term, the Council should make a priority list for repaving, including every street in the city. When complete, approach the municipal aid department of the Kentucky Transportation Cabinet with the plan and ask for financial assistance to address critical needs immediately while exhibiting the plan to budget for continued maintenance moving forward in perpetuity. In making the priority list, divide the total number of miles of street by 15 to arrive at the target mileage to budget for repaving annually.

Additionally, provide an updated list of streets to be repaved annually to all utilities serving Irvine, and encourage them to plan their upgrades accordingly to limit patching.

3. In planning for future facilities such as schools, hospitals, industries, and other heavy traffic generators, consult with the Kentucky Department of Transportation or the Bluegrass Area Development District as to the effect that a given location might have on the city's traffic circulation.
4. In all matters where street improvements are to be made, the city should not be influenced as to location by political pressure or by special interest groups. Decision should be based on a long-range plan and on the relative merit or need of the various areas of the city.
5. Adhere to the strict enforcement of the zoning ordinance so the legislative bodies can regulate the amount and type of development to be permitted in all areas.
6. Adhere to the strict enforcement of the subdivision regulations so the Planning Commission can control access points, eliminate the need for future street widening and assure that all new streets are constructed to acceptable standards. This will ensure that the taxpayers will not have to pay for costly street improvements.

## CHAPTER 7

### EXISTING LAND USE

Irvine's land use pattern has occurred due to the environmental limitations placed on the community by the Kentucky River and its floodplains and by the steep slope of the land. These factors have caused the linear growth of the community. West and South Irvine have developed due to the availability of building sites that exist outside of the corporate limits.

Since there is very little vacant land for construction, development has been forced outside the city limits into Estill County. The existing land use map illustrates areas in Irvine and the periphery areas.

The main objective of this chapter is to tabulate and analyze the existing configuration of land uses in order to show how Irvine's growth has originated and how this growth will affect future land use patterns.

#### General Description

Existing land use is probably the most frequently used of all the basic data required in planning studies and has a wide variety of applications. The great value of this land use information justifies a thorough compilation and analysis of existing data.

Exhibit 7-1 presents a general land use acreage breakdown for 2023. This information was taken from the original analysis done by Bluegrass ADD in 1989 and amended to include annexations completed between then and July 2023. As a result, one must be aware that the figures are only estimates. Exhibit 7-2 shows this data in a graphic format.

#### EXHIBIT 7-1

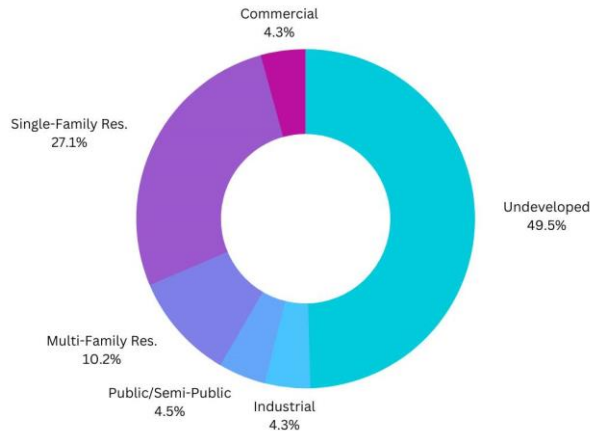
##### General Land Use in Irvine, 2023

<u>Land Use Category</u>	<u>Acres</u>	<u>% of Total Area</u>	<u>% of Developed Area</u>
Commercial	44.21	4.3%	8.5%
Industrial	44.94	4.3%	8.6%
Public/Semi-public	46.81	4.5%	9%
Residential Single-Family	280.78	27.1%	53.7%
Residential Multi-Family	105.66	10.2%	20.2%
Undeveloped	512.95	49.5%	N/A
Total	1,035.35		

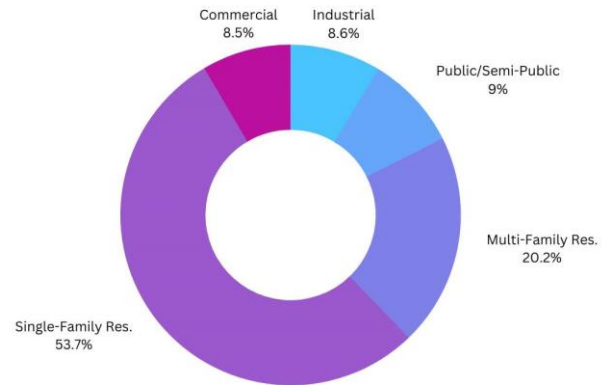
## EXHIBIT 7-2

### Graphical Land Use in Irvine, 2023

Total Allocation by Percentage



Developed Allocation by Percentage



Of the approximate 1,035.35 acres within the corporate limits of Irvine, 512.95 acres is undeveloped. This is mainly due to environmental limitations. The land use category with the greatest percentage of the total and developed area is single-family residential. Approximately 53.7% of the developed area is devoted to this type of land use. The land use categories with the smallest percentage of total and developed area are commercial. Only 8.5% and 8.6% of the developed area in Irvine is utilized for commercial and industrial purposes, respectively. Public/semi-public land use is only slightly more prevalent, with 9% utilization of developed land. It must be noted that since 1989, annexations have allowed for significant growth in the city's allocations of multi-family residential and industrial land use categories.

#### Spatial Distribution

Each of the land use categories, for the most part, is evenly distributed throughout the city of Irvine. Only industrial land uses are concentrated in particular areas. The primary locations of such industrial uses are in the northwest portion and southeast portion of the city.

It is suggested that when future development occurs within the Irvine corporate limits, it should be, if at all possible, concentrated in areas where that type of land use presently exists.

#### Summary

The information presented in this chapter will be used along with population projections and the housing analysis to determine the amount of land that should be set aside in each land use category for future development. Chapter 9 will focus on future land use and the importance of reserving land for all purposes.



## CHAPTER 8

### ENVIRONMENTAL ANALYSIS

#### Introduction

The growth pattern of Irvine has been determined and will continue to be determined by environmental factors. These include the Kentucky River and its flood prone areas, the streams of Big Doe Creek, Alexander Branch, Cow Creek, Chamberlain Branch, Sweet Lick, White Oak Creek, Clear Creek, and Station Camp Creek and the restrictive slopes to the North, South and East. Development has also been limited by the existence of Daniel Boone National Forest. This chapter will examine the presence of these environmental determinants.

#### Physiography

Estill County is located in the Bluegrass physiographic region, and more specifically, Irvine and Ravenna Planning Area is part of the Outer Bluegrass and Knobs region bordering on the Mississippian Plateau. The Outer Bluegrass is a small, narrow area along the northwestern edge of Estill County. The Knobs area extends from the Planning Area to the Madison County line and north into Clark County. This is an area of narrow ridgetops, hillsides, and narrow flood plains. These hills are generally capped by resistant sandstone and limestone and the hillsides and valleys are underlain by easily eroded shale. Runoff from this area is rapid and the springs that characterize this area are small and usually run dry during drought periods. For these reasons, the development potential is hindered by the slope and by the stability of the soil.

#### Soils/Topography

The Irvine Planning Area is characterized by four soil associations. According to a General Soil Map by the United States Department of Agriculture, Soil Conservation Service, they are Colyer-Shrouds-Allegheny, Fairmont-Shrouds-Allegheny, Huntington-Neward-Morehead, and Shelocta-Brookside-Latham.

The Colyer-Shrouds-Allegheny association is located in the west-central and northwestern parts of Estill County and extends from the Planning Area to the Madison County line and north to Clark County. Characteristic of this association are narrow ridgetops that gradually break to moderately steep or steep side slopes. Elevations range from 100 to 150 feet between the ridgetops and narrow flood plains. Colyer soils make up about 45 percent of this association with Shrouds and Allegheny having 10 percent a piece. The remainder of the association is made up of minor soils with Fairmont and Trappist soils on the uplands, Muse, Cruze, and Woolper soils in the colluvial areas and Newark, Lindside, and Melvin soils on flood plains.

The Fairmont-Shrouds Allegheny Association is located in a narrow, hilly area along the Kentucky River on the northwestern edge of Estill County and extending along the Madison County border in a narrow strip. This association is also concentrated around the community of Wisemantown. The landscape is characterized by long, narrow ridgetops that break abruptly to strongly sloping or moderately steepside slopes. These slopes, in turn, break abruptly to steep

slopes along drainageways which may flow into the Kentucky River. Elevation between the ridgetops and drainageways are about 200 feet. Fairmont soils comprise about 38 percent of this association with Shrouts soils at 19 percent and Allegheny at 12 percent. Minor soils include Colyer, Trappist, and Monongahela soils on uplands; Elk, Captina, and Woolper soils on colluvial slopes and stream terraces; and Huntington and Bruno soils on flood plains.

The Huntington-Newark-Morehead association is located in long narrow areas adjacent to the Kentucky River and to Station Camp, Red Lick, Millers, and Cow Creeks. The landscape is characterized by flood plains along these streams and by stream terraces, at a slightly higher elevation, that rise abruptly from the level of the flood plains. Huntington soils make up about 32 percent of this association. Newark soils about 18 percent, and Morehead soils about 16 percent. Minor soils are the Bruno, Lindsides, and Melvin soils on floodplains; the Elk Captina, Purdy, and Lanton soils on stream terraces; and the Muse, Shelocta, and Cruze soils on uplands. The Huntington-Newark-Morehead association is the major soil association in the planning area. Although this soil association is not well suited to urban development, the city of Irvine has been constructed on this type of soil. This, of course, is due to the fact that much of the other land has a steep slope and as such is prohibitive.

Shelocta-Brookside-Latham Association. This association is located in the mountainous area of the southern and eastern half of Estill County. The landscape is characterized by steep sided mountains, long narrow ridgetops and ridge crests, and long narrow flood plains along streams. The mountainsides are divided by a nearly continuous limestone escapement. Elevations between the ridgetops and the flood plains range from 400 to 600 feet. Shelocta soils make up about 33 percent of this association, Brookside soils about 22 percent, and Latham soils about 11 percent. Soils of minor extent are the Canneyville, Whitley, and Gilpin soils on uplands; the Captina and Morehead soils in colluvial areas and Newark soils on flood plains.

The amount of slope or the rise in vertical feet for every 100 feet of horizontal distance, and the type of soil is generally classified in Exhibit 8-1. By analyzing the soil types listed in Exhibit 8-1, a developer may realize the potential of a site. Further information should be obtained through the Soil Conservation Office and this Plan should not be used as the sole source of information. All of the soil associations have slow to very slow infiltration rates.

When cutting and grading occurs, stripping of vegetation from the soil and loss of topsoil must be kept to a minimum to avoid erosion and the flow of sediment from the building site. By just keeping the vegetation on soil water, velocity can be reduced, and water runoff can be controlled from the site. By detaining runoff one can trap sediment and control the amount of water release to downstream areas. It is estimated that sediment is the greatest single pollutant of lakes, streams, ponds, and reservoirs. Sediment lowers the quality of water for municipal, industrial and recreational uses. Sediment is not only a pollutant in itself, but it carries with it pesticides, phosphates and other chemicals. By alleviating sedimentation, valuable topsoil can be retained and additional flooding of streams can be reduced. A sedimentation plan for the future should be a strong consideration.

Ideal slopes that should be developed are from six percent to twelve percent. Slopes below and above that may be developed but considerable filling and cutting must be done. Within the study

area, slopes less than 5% are limited mainly to flood plains. Generally, urban type uses are limited to slopes of less than 15%. Commercial and industrial sites are usually restricted to more nominal slopes, generally those of less than 5%. Residential and engineered structures are suited more to slopes between 5% and 15%, although it should be noted that septic tank absorption fields rapidly lose their effectiveness at slopes above 8%. Slopes above 15% usually have rock outcrops that hinder construction and have a poor ground water supply. Sliding and downhill creep are more common in higher development and recreation uses could be utilized. Higher percentage slopes with a southerly exposure could be possible sites for solar homes. It should be pointed out, however, that much of the Planning Area does have much development at slopes of less than 15%.

### Surface Drainage

The main drainage area of the planning area is the Kentucky River which flows to the northeast. Smaller watersheds empty into the Kentucky River and among those Station Camp Creek, Clear Creek, White Oak Creek, and Cow Creek are the most important. The direction of flow for the smaller watersheds is primarily from the north, south, and west, with Station Camp Creek being the most significant.

Exhibit 8-2 shows flood plains in Irvine and Ravenna. However, areas adjacent to streams should not be developed due to the possibility of flooding. The conservation or floodway district of the zoning ordinance should be strictly enforced and should adhere to the Flood Insurance Program already established. Flood plains have historically been used for recreational purposes and the cities and county governments should encourage such development.

### Climate

The climate of the planning area is temperate and is favorable for many types of plants and animals. Generally, summers are warm and humid, and winters are moderately cold. Precipitation is well distributed throughout the year. The average growing season is about 175 days. At times, temperatures in the hilly areas differ from those recorded nearer the Kentucky River. Lower temperatures can occur near the ground due to air drainage. Exhibit 8-3 shows the average temperatures and average precipitation, including average snowfall specifically, by months as recorded by the NOAA.

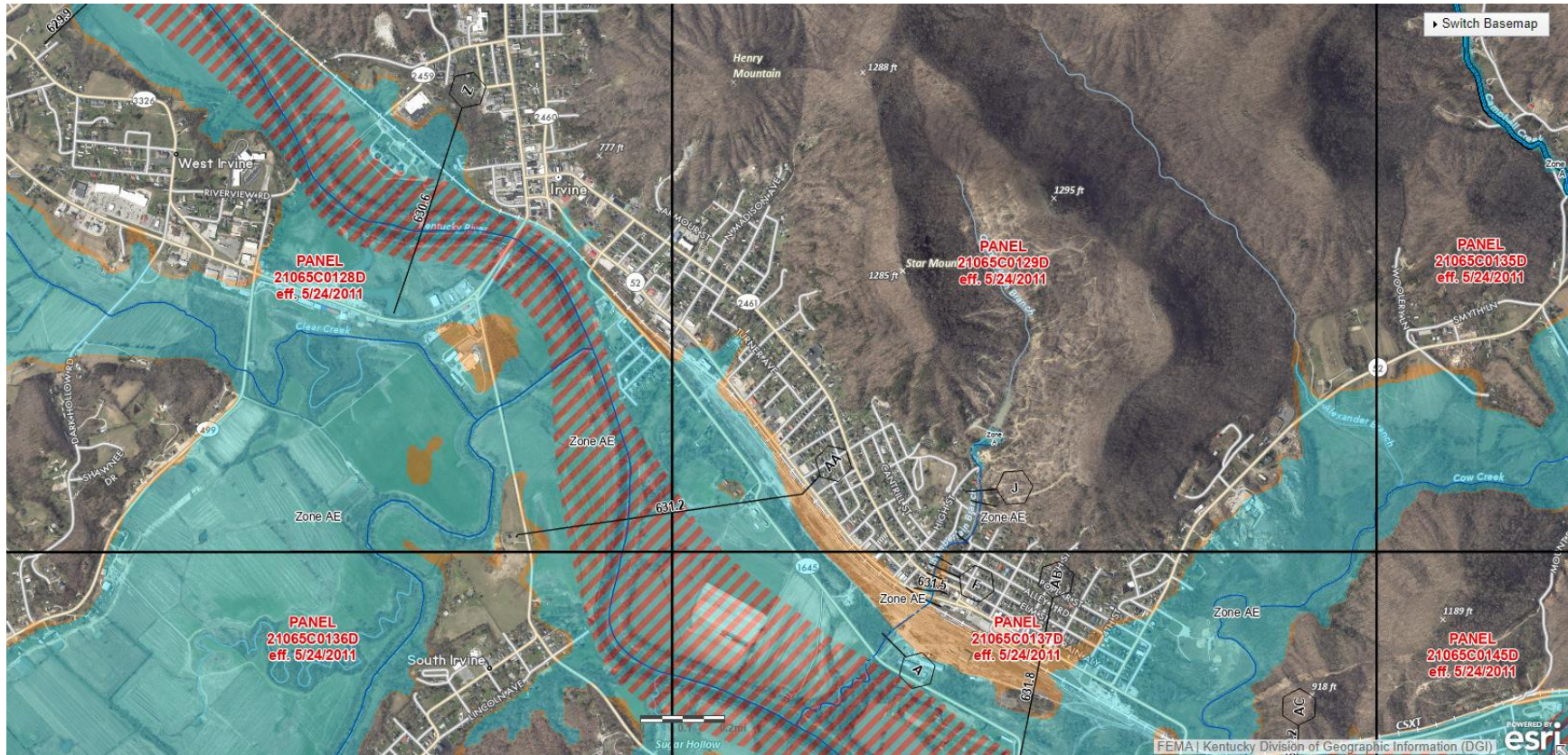
Exhibit 8-1

Significant Properties of Soils in the Irvine-Ravenna Area

Soil Assoc.	Percent of Association	Dominant Scope (%)	Depth to Bedrock (A)	Erosion Hazard	Infiltration Rate	Recreational Usage	Development Potential (Bldgs 3 stories or less w/basement)
Coyler	45	20-40	½ - 1 ½	High	Very slow	Severe, Sloping	Severe, shale rock at depth of 8 to 20 inches
Shrouts	10	20-30	5-10	High	Very slow	Severe, Steep	Severe, high shrink, well potential, poor stability
Allegheny	10	12-20	5-10	Med.	Slow	Slight, Gently sloping	Slight
Huntington	32	0-4	5-10	Low	Moderate	Severe, subject to Flooding	*Severe, subject to flooding, sloping in some areas.
Newark	18	0-2	5-10	Med.	Slow	Severe, subject to Flooding	*Severe, seasonal high water table
Morehead	16	0-4	6-10	Med.	Slow	severe, subject to Flooding	*Severe, seasonal high water table
Shelocta	33	25-40	4-8	High	Moderate	Slight to Moderate	Slight
Brookside	22	30-45	6-9	High	Slow	Severe, steep	Severe, steep
Latham	11	2-20	6-10	High	Very slow	Severe, slow Permeability	Severe, moderate to high shrink, well potential
Fairmount	38	20-56	1 – 1 ½	High	Very slow	Severe, strongly Sloping to steep	Severe, limestone rock at depth of 10 to 20 inches
Shrouts	19	20-30	5-10	High	Very slow	Severe, steep	Severe, high shrink-well Potential, poor stability
Allegheny	12	12-30	5-10	Med.	Slow	Slight, gently Sloping	Slight

\*Although land in this soil association is subject to flooding, parks and open space should utilize such flood prone areas.

Exhibit 8-2  
Flood Plain Map

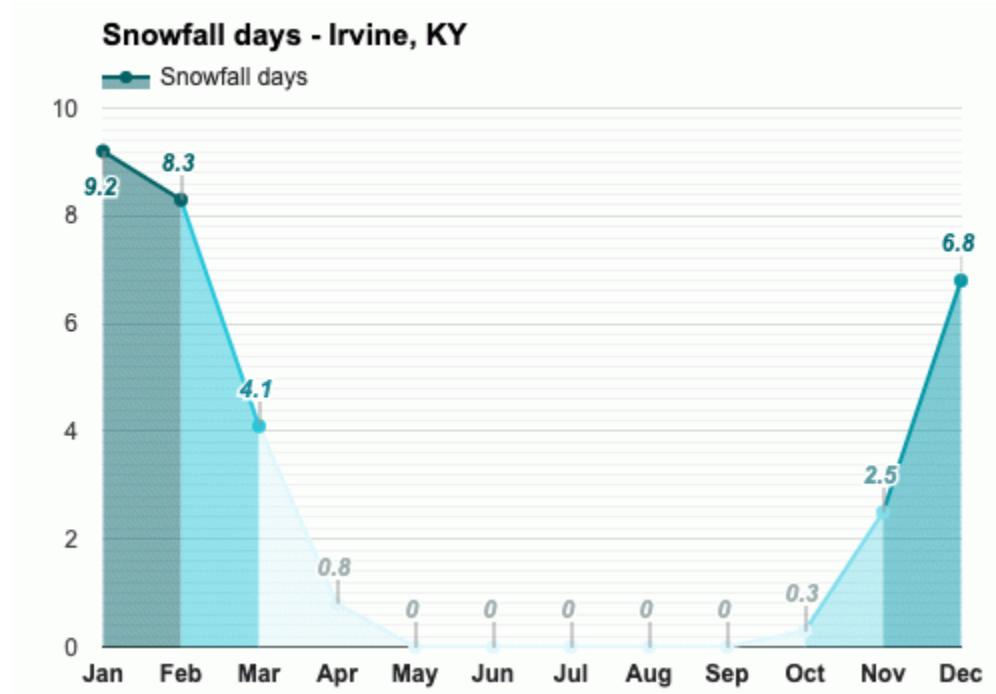


For reference, the areas overlayed in blue are in the 100-year flood plain; additionally, the areas overlayed in tan are in the 500-year flood plain.

### Exhibit 8-3

#### Average Temperature and Precipitation in Estill County

Month	High/Low (°F)	Days of Precip.	Amt. of Precip.(inches)
January	42/21	8	3.60
February	47/26	6	3.64
March	57/32	9	4.21
April	69/42	7	3.84
May	76/53	9	5.62
June	83/61	10	5.19
July	85/64	9	5.02
August	84/62	8	3.44
September	80/56	7	3.01
October	69/43	7	3.25
November	57/32	6	3.72
December	48/29	8	4.17
Annual Avg	66/43	7.8	4.06
Annual Total		94	48.71



Source: National Oceanic and Atmospheric Administration (NOAA), <http://www.noaa.gov>.



## CHAPTER 9

### FUTURE LAND USE

#### Introduction

The land use ideas presented in this chapter are designed to serve as guidelines for the future growth of Irvine. The Future Land Use Map (Exhibit 9-3) graphically displays the suggested areas for expansion. The proposed guidelines are intended not only to assist the local government but also assist developers and other interested parties in making future growth decisions.

The goals and objectives of the Comprehensive Plan as a whole were carefully considered in preparing the future land use map and chapter for Irvine. Several criteria were used in determining the direction of future growth patterns: topography, floodplains, and existing land use.

#### General Development Policy

Since population projections for Irvine are not readily available, these populations must be deduced. In Chapter 2, the population projections for Estill County from the Kentucky State Data Center are shown. These projections predict not only a continued decline in population but also a slight acceleration in that decline through 2050. In recent history, the decline in city population tends to be more severe than in the county; however, for the purposes of this plan, a rough estimate of a 4% population decrease will be used for each 5 year segment. Exhibit 9-1 reveals these calculations for a projection. The projections show that by the year 2050, approximately 1,839 persons will reside within the city limits, representing a 21.7% decrease from the Census population in 2020. This is an alarming projection that must be addressed. Exhibit 9-2 shows the number of acres per 100 persons based on the current land use measurements.

EXHIBIT 9-1  
Population Projection for Irvine based on 4% decrease every 5 years

<u>Year</u>	<u>Decrease from Prior Period</u>	<u>Projected Population</u>
2025	94	2,256
2030	90	2,166
2035	87	2,079
2040	83	1,996
2045	80	1,916
2050	77	1,839

EXHIBIT 9-2  
Land Use - Acres/100 Persons\* Irvine City Limits

<u>Land Use Category</u>	<u>Acres</u>	<u>Acres Per 100 Persons</u>
Residential	386.44	16.44
Commercial	44.21	1.88
Industrial	44.94	1.91
Public/Semi-Public	46.81	1.99
Total	522.40	22.22

\*Based on a 2020 population estimate of 2,350 persons and land only within the city limits.

Traditionally, this section of a comprehensive plan is used to reflect population increases in recommendations for future land use planning. In other words, the current mix of land usage categories is multiplied by the growing population to exhibit the number of acres predicted to be needed based on current circumstances, in order to accommodate a larger population. In this case, however, a shrinking population shifts the focus of the city's needs.

For the cause of future planning as the tides change toward population growth, the City may still consider annexation as a path toward accommodation of more residents and accompanying development.

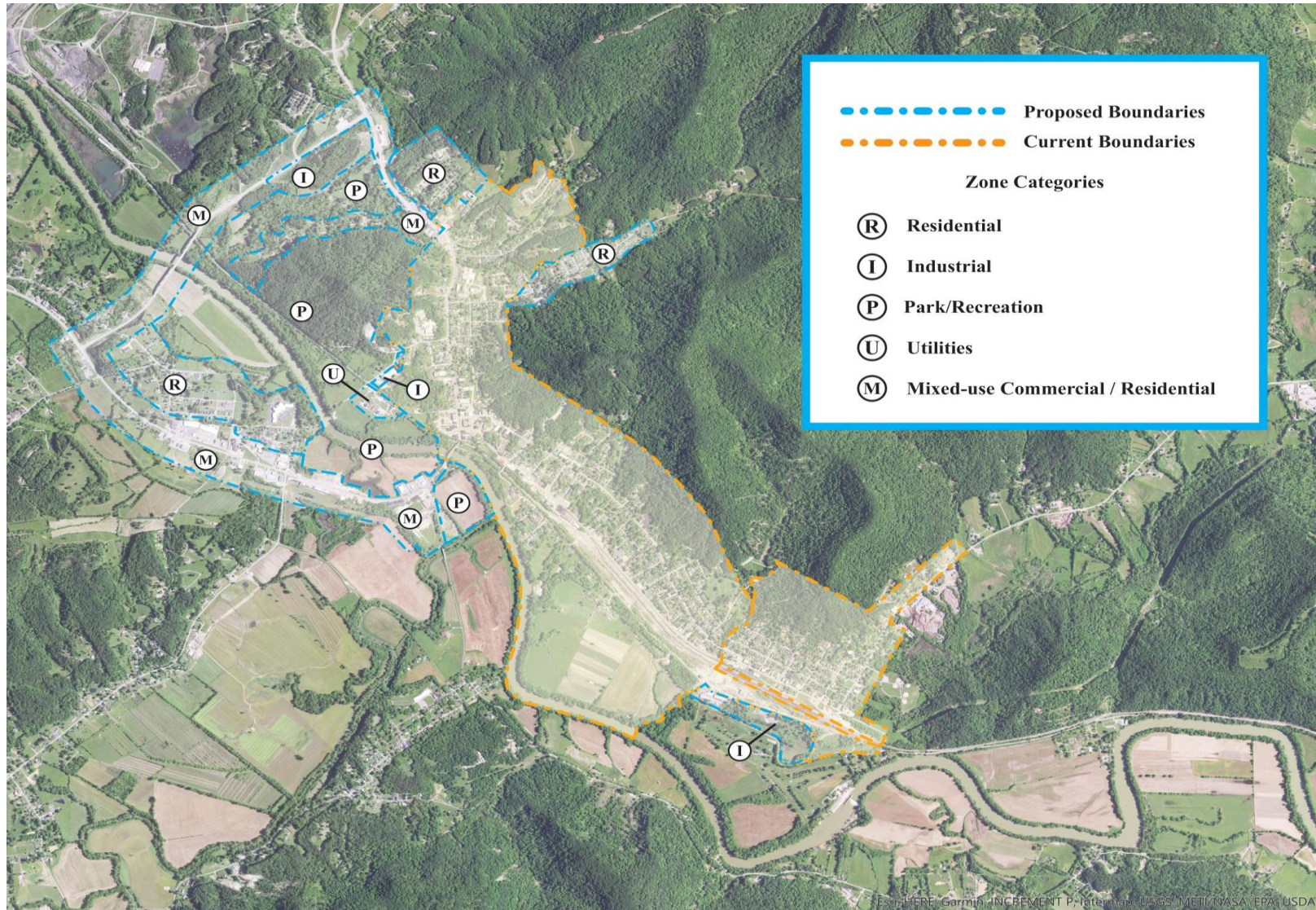
Even though a large percentage (49.5%) of the land within the Irvine city limits is classified as vacant or undeveloped, little is suitable for conventional development. The topography of the Irvine area puts severe physical limitation on easterly growth because of the Daniel Boone National Forest and contiguous growth in a westerly direction is limited by the Kentucky River and its floodplains. The presence of these floodplains prevents any real gain in commercial, residential, or industrial districts, yet the land is ideal for recreational uses. The development of parks and recreational facilities should be encouraged.

Areas which are already developed help determine the direction of future growth. Planned future residential areas tend to be extensions of existing developments, future commercial growth will most likely follow the strip pattern as topographic barriers prevent any other type, and the location of future industrial facilities has been designated away from the central part of the city yet is still accessible from existing transportation routes. One benefit to this sort of displaced industrial development is that it will prevent any industry from serving as a blighting influence to a residential area or creating traffic problems.

After studying the Future Land Use Map and this chapter, one will note that the majority of the land designated for future growth lies outside the Irvine City Limits. In order for the city to take advantage of this development, many areas surrounding the city should be considered for annexation.



Exhibit 9-3  
Proposed Future Land Use Map



## Proposed Future Land Use Map

As referenced above, Exhibit 9-3 is the proposed Future Land Use Map. This map is far from comprehensive and is just one suggestion of how Irvine could expand its corporate territory for future growth opportunities. Anecdotally, many in the community regularly comment that the city should have expanded to encompass “the grade” when the improved KY-52 was first constructed. Likewise, many comment that the Joseph Proctor Memorial Bypass forms a natural boundary for the city. As businesses have opened along KY-52 and KY-89, it is safe to assume these business owners are choosing these locations because of the central location and draw of “town” as a hub for business in Estill County. Mutual aid agreements also ensure these businesses gain the benefit of city services while not paying the taxes that support them.

It must also be noted that many considerations go into a city annexing new territory. If the council decides to pursue any of the areas included on the Future Land Use Map or any others, all impacts on residents, service provision, utility coverage, and many other facets of adopting new territory must be weighed to determine whether any annexation is in the best interest of the city.

Some notes about the proposed Future Land Use Map are as follows:

- Portions labeled “R” are mostly existing residential areas.
- Portions labeled “I” include traditional industrial development as well as the recent Industrial Tourism designation. To the south, the developable land adjacent to the Kentucky Steam Heritage Corporation development appears to be a natural adoption in the future. To the northwest, a significant parcel available as of August 2023 is at the intersection of KY-89 and the Proctor Bypass and appears developable for industrial applications. Also, a relatively small area including the current Carhartt Administrative Facility is marked as Industrial.
- Portions labeled “P” are areas mostly located in the flood plain. While the majority of these areas are not suitable for what most would consider park development, they are greenspace areas which could be used for public recreation without much cost except regular mowing. Recreational access points for the Kentucky River may also be developed where suitable.
- The portion labeled “U” is specifically for the area containing the regional wastewater treatment facility.
- The portions labeled “M” encompass KY-52, the Proctor Bypass, and KY-89 which complete the “circuit” connecting the current northwestern and southwestern exits from Irvine together. These areas contain mostly commercial structures with a small number of residences mixed in, but there is also a significant amount of area with prospect for development.

NOTE: Design assistance for Proposed Future Land Use Map provided by Alight Marketing Agency, <http://www.alightagency.com>.

## CHAPTER 10

### IMPLEMENTATION

Preparation and implementation of plans for a community require a considerable period of time. During this period, legislative bodies and the citizens will make important decisions affecting the community's future development. The Comprehensive Plan is a guide from which these decisions can be made. As such, the Plan serves the following purposes:

The Plan is a guide for the Planning and Zoning Commission and for City and County Departments when making recommendations and conducting specific studies.

The Plan is a guide for use by the Legislative bodies when evaluating proposals for physical change and for the scheduling of infrastructure improvements.

The Plan is a reference source of information, as well as a statement of public policy and is helpful to citizens and business owners in making decisions regarding their own development plans.

Proper implementation of this Comprehensive Plan is an integral part of carrying out the stated goals and objectives in Chapter 1. A number of existing techniques will continue to be used, and new techniques or modifications to existing ones should be analyzed to determine if they can be effective in addressing the goals and objectives. This Plan alone does not amend the existing zoning ordinance, subdivision regulations, or other approved regulations that relate to planning and zoning. The purpose of this chapter is to provide general directions and guidelines to the Planning Commission, Estill County Fiscal Court, Irvine City Council, and the Ravenna City Council in the review of development of existing and new planning techniques that may carry out the objectives of the Comprehensive Plan.

#### 1. Zoning Ordinance

Amendments to the existing zoning ordinance may be considered to develop a standardized set of criteria to assist in determining an adequate density for development, assuring that the various land uses will be located so as to maximize the functions of each and to minimize the detrimental effects.

#### 2. Subdivision Regulations

A review of subdivision regulations, similar to that proposed for the zoning ordinance, should be undertaken to establish standards for development that will assure quality developments which will not have a negative impact on the community, environment, and local governments.

#### 3. Capital Improvements Plan

A long-range capital improvement program (to document when capital facilities are expected to be constructed in the areas they will serve) would be an integral part of the staging of development. This document would provide detailed information on the scheduling of the planning, land acquisition, and the design and construction of capital facilities.



#### 4. Public Facilities Assessment

The adequacy of all public facilities should be carefully assessed before major development of any type can occur.

#### 5. Codes

Housing, building, plumbing, electrical, and gas codes are effective methods for implementing the Comprehensive Plan because they insure adequate standards -of health, sanitation, and safety. Many existing and sub-standard structures can be rejuvenated through the enforcement of these codes. More importantly, the codes insure that new construction satisfies established minimum standards of safety and design and that these conditions of safety will prevail for a reasonable period of time.

#### 6. Mandatory Referral

This process requires that all physical planning matters which come before the legislative bodies be referred to the Planning and Zoning Commission for their recommendation. In this way, the Commission can coordinate all elements of the cities and county growth by relating them to formal plans. In reviewing proposals, the Commission should be guided by/the principles stated previously in this Plan.

#### 7. Other Recommendations

Investigate the legal, economic, and practical aspects of the following planning techniques for possible inclusion into the Planning Commission's regulations or local jurisdiction ordinances:

- Rural Residential Developments
- Official Map
- Transfer of Development Rights (TDR)
- Rural Preservation Plan
- Historic Preservation Plan
- Downtown Revitalization Plan
- Floating Zones
- Environmental Controls
- Local Scenic Easements
- Landscape and Buffer Ordinances

The recommendations and proposal set forth in the Comprehensive Plan are the result of detailed study and consideration on the part of Planning and Zoning Commission. It is the Commission's conviction that the implementation of this Plan will significantly contribute to the long-range development of Irvine and surrounding Estill County.

To be accepted, the Plan must be reviewed regularly so that it reflects changing conditions and trends. The Commission intends to periodically review and revise the Plan and in so doing the commission requests citizen input. It is essential that all residents of Irvine and Estill County acquaint themselves with the Plan and offer their constructive suggestions. The realization of the goals and objectives of the community will depend to a great extent on the degree to which there is public awareness and support.