As prescribed in KRS 100.197(2)

"At least once every five (5) years, the commission shall amend or readopt the plan elements"

2023-2027 Updates

- **2023-2027 Introduction** (approved by the Planning Commission – May 21, 2024)
- **Base Element** (approved by the Planning Commission - May 21, 2024)
- **Land Use Element** (approved by the Planning Commission - September 19, 2023)

2023-2027 CITY OF MURRAY

COMPREHENSIVE PLAN UPDATE

INTRODUCTION

The City of Murray Planning Commission consists of seven members, with at least two-thirds of the members being citizen members and no more than one member residing outside the Murray city limits but within the county in which the planning commission is located. The mayor shall appoint, increase, or decrease the members of the commission with the approval of the legislative body. This number may be increased or decreased by the action of the Murray City Council. However, at no time shall the membership be fewer than five and no more than I0 members. Citizen members may be any citizen who is not an elected official, appointed official, or public employee of the city or county. The Calloway County Judge/Executive may appoint one member of the Murray Planning Commission when extraterritorial jurisdiction is exercised for subdivision or other regulations.

Kentucky Revised Statutes Chapter 100 Section 183 states that the planning commission shall prepare a comprehensive plan, which shall serve as a guide for public and private actions and decisions to assure the development of public and private property in the most appropriate relationships.

The comprehensive plan shall contain a statement of goals and objectives, a land use element, a transportation element, and a community facilities element. The plan may include additional elements which further serve the purposes of the comprehensive plan. The City of Murray Comprehensive Plan includes a base element consisting of an analysis of the demographics, economics, education, housing, transportation, and history of the city.

COMPREHENSIVE PLAN UPDATE SCHEDULE

The Murray Planning Commission established a policy to update the comprehensive plan, one element per year over a five-year period, beginning in 2022-2023 utilizing the following schedule.

Year 1 – 2022 – 2023 – Land Use Element

Year 2 – 2023 – 2024 – Base Element - Economic data, demographics, education, housing, transportation, and history

Year 3 – 2024 – 2025 – Transportation Element

Year 4 – 2025 – 2026 – Community Facilities Element

Year 5 – 2026 – 2027 – Housing Element and Comprehensive Review of Goals & Objectives

The comprehensive plan was previously updated in 2009 and 2020. These previous plans provide the foundation upon which the current update is being developed. The Murray Planning Commission contracted with the Kentucky League of Cities (KLC) for a five-year period to assist in updating each element of the plan and to review and update the goals and objectives.

COMPREHENSIVE PLAN UPDATE WORKING GROUP

The Murray Planning Commission established a Comprehensive Plan Working Group to collaborate with KLC in drafting and reviewing the comprehensive plan updates. The working group consists of 10 members comprised of two members of the Murray Planning Commission, two members of the Murray Board of Zoning Adjustments, a Murray City Council member, a citizen of the city, the Murray-Calloway Economic Development Corporation president, and three planning staff members. The working group meets periodically with the KLC team to provide feedback and guidance throughout the drafting process and conducts a final review of each element prior to submission of the update to the Murray Planning Commission.

At the request of the working group, the data used throughout this comprehensive plan is consistent to the 2021 and 2022 data years. It is understood that ongoing projects in the city during the writing of this plan may have further impacts on Murray's future growth and development. These projects may be referenced in future updates.

2024 HISTORY UPDATE

Calloway County became Kentucky's 72nd county in 1822. It was named in honor of Col. Richard Callaway who had a long history in Kentucky. He was part of Col. Boone's group in 1775 that began the First Road of Trace from Long Island on the Holston River to Boonesborough on the Kentucky River. His name appeared for Boonesborough in 1775 as a representative of the colony of Transylvania.

Wadesboro was established as the county seat and served in that capacity until 1842. This community flourished with more than 300 citizens. It became a center for land speculation. Many immigrants as well as the speculators came in search of property when the public lands were offered for sale by the legislature. Wadesboro was indeed a thriving town, but it soon lost its prominence when the lands were parceled and sold. The town fell into quick decline and many of the citizens moved away.

Marshall County separated from Calloway County in 1842 and a new county seat for Calloway County was needed. The county seat was moved in 1844 to Murray, a site located near the center of the county. The city was named for John L. Murray, a Kentuckian who served in the U.S. Congress.

The City of Murray experienced early development in the vicinity of the present Calloway County Courthouse. This development was supported by the courthouse activities and local streets in the vicinity were laid out in a typical grid pattern around the courthouse square. There were multiple attempts by a number of railroad companies to construct a line that would go through Murray in the mid-19th century, but most of them wouldn't come to fruition. Upon a successful vote to raise necessary funding for the line, the Paducah, Tennessee, and Alabama Railroad began constructing a north-south line that extended from Paducah through Murray and into Paris, Tennessee. The coming of the railroad in 1890 and the invention of the wireless telephone by native son Nathan B. Stubblefield put Murray on the map.

Farming has remained the county's primary industry since its founding. Growth in the community has tended to occur in a westerly and southwesterly direction from the initial

location of the settlement, avoiding the flood hazard in the lower elevations along Clarks River east and south of the city.

Murray Normal School was established in 1922 in the northwest quadrant of the city, growing from an initial enrollment of 202 students to nearly 9,500 in 2021 during its evolution to Murray State University. The growth of Murray State University over the years has had a significant impact on overall development patterns in the city.

Following World War I, many residents moved north to Detroit to work in the burgeoning automotive industry. For those at home, the years of the Great Depression were difficult and made worse by the flood of 1937. The transformation of farming through federal programs of the New Deal brought hope to area farmers while the Tennessee Valley Authority (TVA) provided inexpensive electricity and flood control for all.

In 1944, TVA built Kentucky Dam, taking possession of the Tennessee River and creating Kentucky Lake. This largest manmade lake east of the Mississippi River necessitated people living in the area to be relocated. The removal was a terrible blow to the families who had settled there. Yet, improvements in the quality of life for everyone in Calloway County and the entire Jackson Purchase Area cannot be overlooked. Calloway County's population increased by 32% between 1960 and 1970 to 27,692 people as TVA employees, as well as some former LBL residents, relocated west of Kentucky Lake.

During and following World War II, local leaders worked to diversify the local economy. The teacher's college and a local hospital were critical to the economic growth as new manufacturing jobs were sought to provide work for returning veterans.

The community's growth has been in a westerly and southwesterly direction, increasing the distance between the original downtown center and the current distribution of population. With the onset of shopping centers, the commercial focus of the city shifted from downtown and South 12th Street as new, highway-oriented retailers and restaurants located along North

12th Street near the university. Low density residential uses developed more recently in the southwestern portion of the city.

From the 1970s into the 1980s, efforts to recruit more manufacturing jobs accelerated. Grant funds were received to expand the wastewater treatment center and industrial and related commercial uses grew north and south along the railroad between the downtown area and the river. In the late 1980s and into the 1990s, the farming market changed, and farm labor shifted into manufacturing and other industries.

In the 1980s, a new four-lane highway opened between Murray and Benton, bringing the interstate highways even closer and allowing for greater increase of economic development. By the end of the decade, “the web” brought even more growth opportunities for the community. With the expansion of industries, the county’s population swelled by 11.2% from 1990 to 2000, reaching 34,177.

Four seismic shifts occurred in the 2000s which also altered the community. They were the First Congressional District changing party voting allegiances, the City of Murray voting to go “wet,” the federal government’s tobacco buyout program, and the four-lane highway from Mayfield to Murray. In 2005, more than 100 evacuees from the floods caused by Hurricane Katrina in New Orleans were resettled in the county and now claim Murray as their home.

With new residents and better roads, the county’s population took a leap of 8% from 2000 to 2010. With 37,177 total residents, Calloway County became one of the fastest-growing counties in the state. In 2010, the West Kentucky Rural Telephone Cooperative received $123.8 million in grants and a loan to provide fiber to every household in their rural telephone exchange, increasing internet access for many in Calloway County.

Transportation was improved considerably with the 2016 Eggner’s Ferry bridge replacement. Tourism spending in Murray and Calloway County amounted to nearly $58 million in 2017.

Another new bridge over Lake Barkley opened in 2018, and that same year, federal funds were authorized to expand the highway from Murray to Paris, Tennessee, to four lanes.

In 2022, Calloway County celebrated the bicentennial of its founding. As local leaders continue to make investments in education, utilities, and transportation while offering a diversified labor market, – commercial, service, farming, and industry – Murray and Calloway County are poised for continued success.

2024 DEMOGRAPHICS ANALYSIS

INTRODUCTION

Just seven miles north of the Tennessee border, the City of Murray is located at the geographic center of Calloway County in one of the westernmost parts of the state of Kentucky. The City of Murray is the county seat of Calloway County due to this centralized location. As of the 2020 United States Decennial Census, Murray is the 25th largest city in the state. This is a drop from its 19th largest city ranking in 2010. In the center of Murray lies Murray State University, also known as MSU. Murray State University is a four-year public university that was founded in 1922. MSU has almost 10,000 students enrolled and has become a central part of Murray's existence, transforming the community into a college town.

Most data within this demographic summary comes from the 2020 United States Decennial Census or the American Community Survey (ACS), particularly their five-year surveys running from 2016-2021. Any data used from different sources will be directly referenced within this summary.

POPULATION

According to the 2020 United States Decennial Census, Murray has a population of 17,307. This is a 2.4% decrease from the 2010 Decennial Census when it had a population of 17,741. Analyzing the last 100 years of Murray's population, we can see that the city has had considerable and consistent growth from 1920 to 2010. Over this 90-year period, the population grew from 2,415 to 17,741. This was a growth of 734.6%, or 25.4% per decade. Table 1 details this growth and the percentage of change from the previous decade.

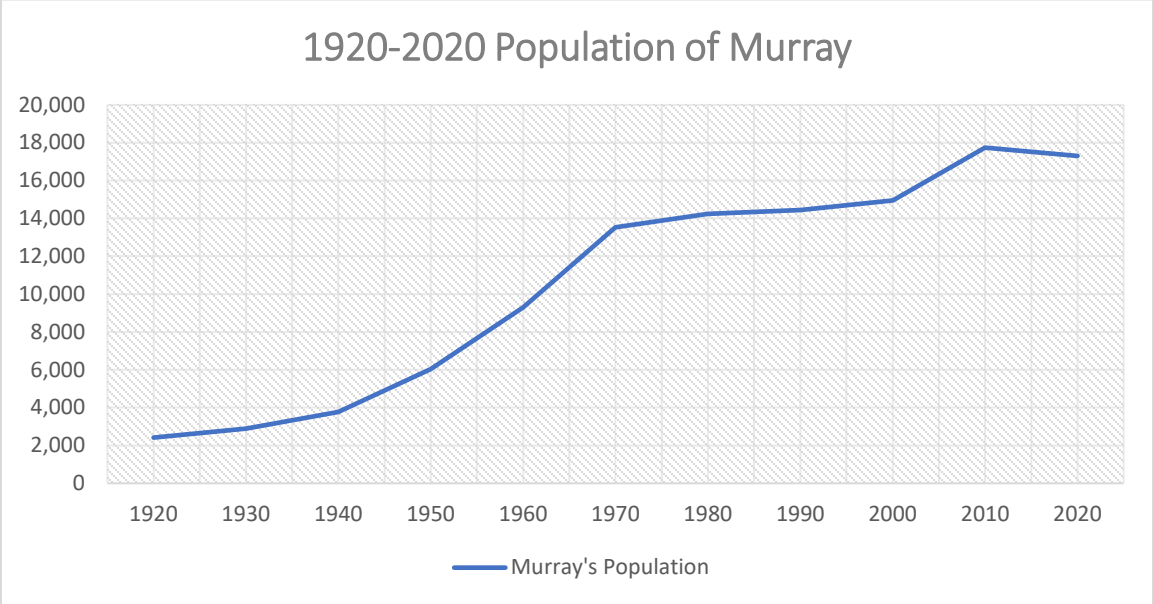
Table 1: Murray Population 1920-2020

Decennial Census	Population	Percent Change +/-
1920	2,415	15.6%
1930	2,891	19.7%
1940	3,773	30.5%
1950	6,035	60.0%
1960	9,303	54.2%
1970	13,537	45.5%
1980	14,248	5.3%
1990	14,439	1.3%
2000	14,950	3.5%
2010	17,741	18.7%
2020	17,307	-2.4%

Source: U.S. Census Bureau 2020 P1 Decennial Census

As Graph 1 demonstrates below, the population of Murray went from a modest 2,415 residents in 1920 to a substantial 13,537 residents in 1970. This was an increase of 11,122 residents in just 50 years. After 1970, the population gains were less substantive, only increasing by 1,413 over 30 years. However, after the turn of the century, another significant increase occurred between 2000 and 2010. The population jumped from 14,950 in 2000 to 17,741 in 2010, an 18.7% increase in one decade. 2020 was Murray's first census over the last 100 years where the population decreased, slightly dropping by approximately 434 people, or a decrease of 2.4%.

Figure 1: 1920-2020 Population of Murray



MURRAY STATE UNIVERSITY POPULATION ENROLLMENT FACTS

In the 2021-2022 school year, MSU had approximately 9,456 students enrolled as full-time and part-time students. Of these students, 7,939 were undergraduates, while the other 1,517 were graduate students. Of the 9,456 students enrolled at MSU, approximately 1,878 were enrolled exclusively in online classes and programs. MSU, like other universities, suffered retention issues due to the COVID-19 pandemic. MSU saw its retention rate of 81% in 2020 drop to 75% in 2021, a 6% decrease.

POPULATION DIVERSITY

According to the 2020 U.S. Census, of the 17,307 residents of Murray, around 15,681 are of one race and 828 are of two races or more. The one-race population makeup of Murray's 17,307 residents is as follow; 14,125 are white, 1,099 are black, 19 are American Indian and Alaska Native alone, 357 Asian alone, nine are Pacific Islander, and 72 are some other races alone. The ethnic diversity of Murray includes 798 residents who are Hispanic, while 16,507 are not Hispanic or Latino.

Table 2: Diversity of Murray in 2020

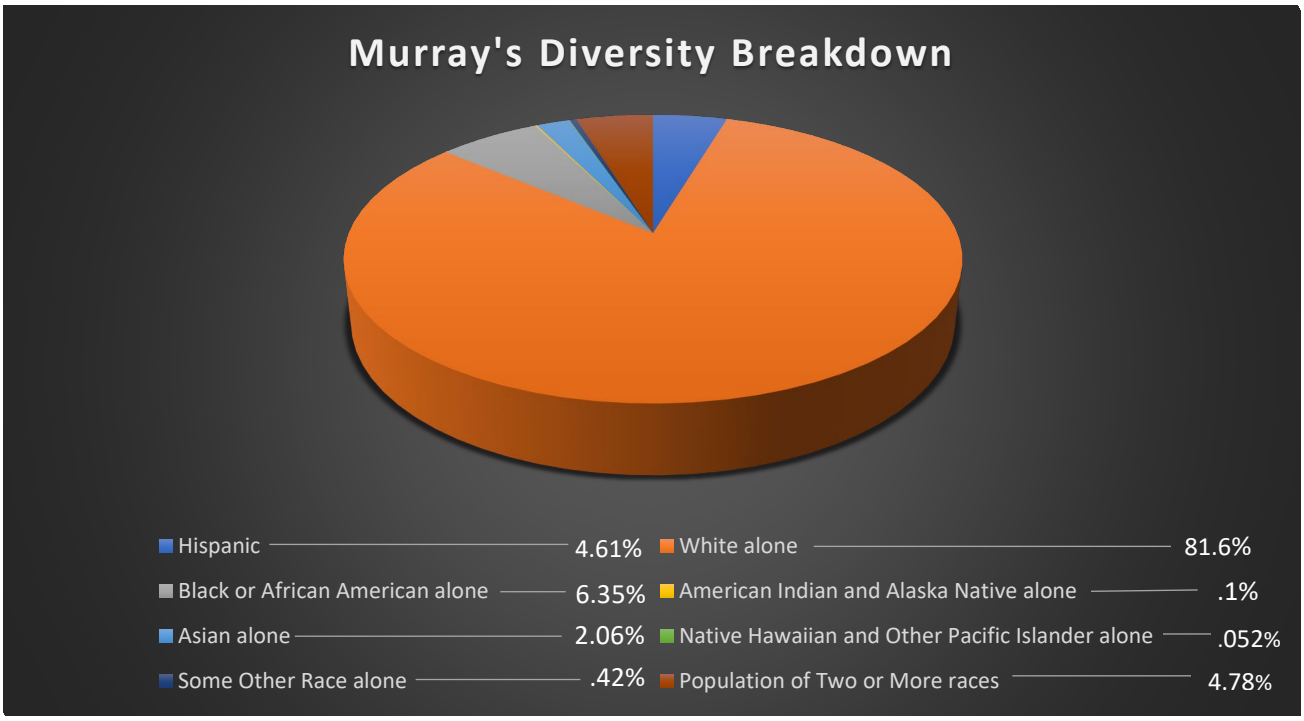
Murray, Kentucky	
Hispanic	798
Not Hispanic or Latino	16,509
Population of one race (excluding Hispanic or Latino):	15,681
White alone	14,125
Black or African American alone	1,099
American Indian and Alaska Native alone	19
Asian alone	357
Native Hawaiian and Other Pacific Islander alone	9
Some Other Race alone	72
Population of Two or More races	828
Total Population	17,307

Source: U.S. Census Bureau 2020 P1 Decennial Census

Murray is 81.6% white, 6% Black, .1% American Indian, 2.1% Asian, 0.05% Pacific Islander, 0.4% some other race alone, and 4.8% two races or more. Calloway County is the 32nd most racially diverse county out of the 120 counties in Kentucky. This puts Calloway County in the 73rd

percentile of diversity scores for Kentucky counties. Much of this diversity is driven by Murray State University. MSU has students from 48 states and 401 international students from 45 countries. These international students make up approximately 4.2% of the student body.

Figure 2: Diversity Percentages of Murray



AGE

According to the 2021 five-year ACS, the median age of Murray residents was 25.6 years old. This is likely due to 35.2% of residents being between the ages of 18 and 24 years, approximately 6,074 residents. Coupled with the 13.7% of residents, or 2,354, under the age of 18, nearly half of Murray residents were under the age of 25 in 2021. Only 35.4%, or 6,099, were between the ages of 25 and 60, and an even fewer 15.7%, 2,714, were over the age of 60. This median age is potentially influenced by the significant number of college-aged students attending MSU and simultaneously living within the city limits.

Table 3: Age Category Breakdown of Murray

Selected Age Categories	Estimates	Percent of Population
5 to 14 years	1,321	7.7%
15 to 17 years	393	2.3%
Under 18 years	2,354	13.7%
18 to 24 years	6,074	35.2%
15 to 44 years	10,162	58.9%
16 years and over	15,166	88.0%
18 years and over	14,887	86.3%
21 years and over	11,405	66.2%
60 years and over	2,714	15.7%
62 years and over	2,506	14.5%
65 years and over	2,096	12.2%
75 years and over	1,052	6.1%

Source: U.S. Census Bureau 2021 ACS 5-year Estimates DP05 Demographic and Housing Estimates

GENDER

According to 2021 ACS estimates, the residents of Murray's gender makeup are almost split right down the middle, with 8,604 male residents, or 49.9%, and 8,637 female residents, or 50.1%, a difference of only 33 people, or 0.2%. This minute difference means statistically the City of Murray has an equal number of males to females.

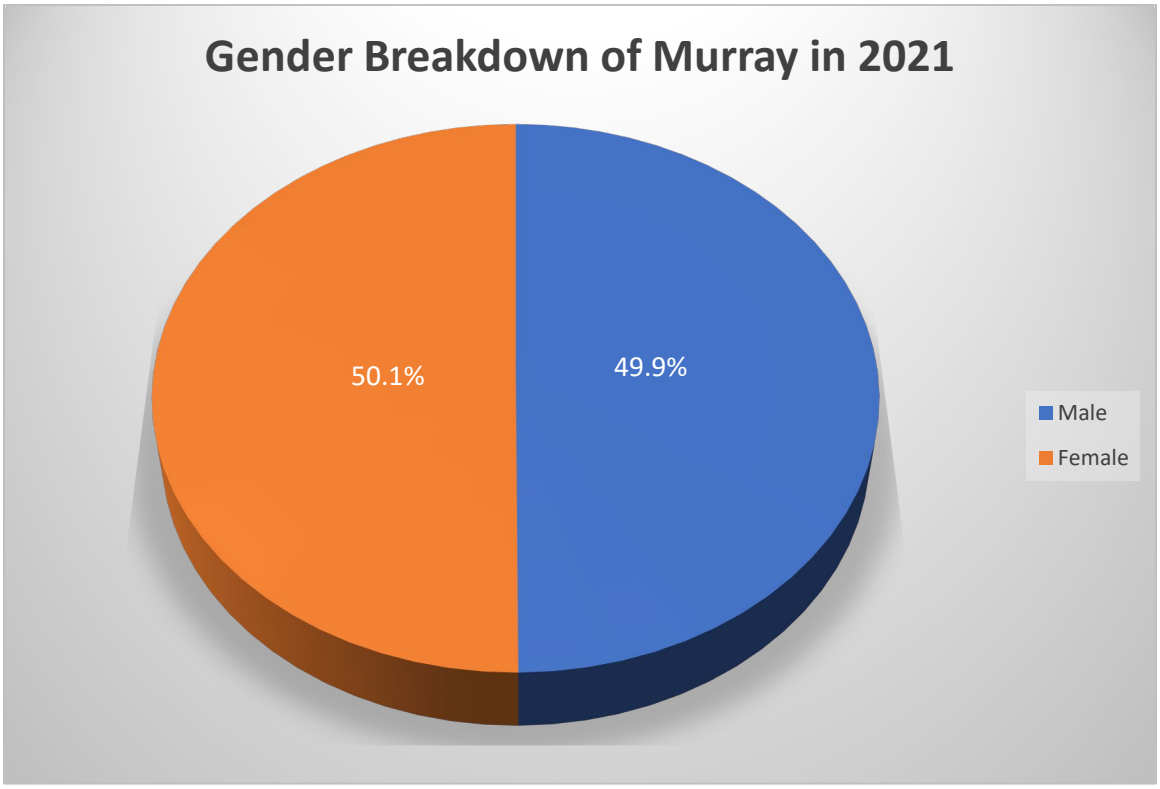
Table 4: Number of Males and Females in Murray

Gender	Number of People	Percent of People
Male	8,604	49.9%
Female	8,637	50.1%
Total	17,241	100%

Source: U.S. Census Bureau 2021 ACS 5-year Estimates DP05 Demographic and Housing Estimates

A significant portion of Murray's female population is driven by MSU's student body male-to-female ratio. MSU's student body is 62.95% female and 37.06% male. The significant gender ratio difference of MSU's student body likely plays a role in its slight advantage in local resident population.

Figure 3: Murray's Gender Breakdown in 2021



CONCLUSION

For many decades, the population of Murray grew at an average rate of approximately 25% per decade until the 2010 Decennial Census. The past decade has seen a drop in population of just under 3%. Subjectively, new economic activity on the north side of the city could portend a turnaround over the next decade. The Murray Planning Commission should follow these developments closely to determine if any changes to the basic elements of the Murray Comprehensive Land Use Plan may be required before the current five-year plan expires in 2026-2027.

2024 EDUCATION ANALYSIS

INTRODUCTION

The City of Murray has many educational institutions within its boundaries that range throughout the educational spectrum, from early childhood learning through pre-kindergarten, all the way to the available master and doctoral degrees at Murray State University. With a growing community, it is critical to have educational resources available to current and prospective residents so they can fulfill their educational needs within one community. All data presented below will be from the American Community Survey, the National Center for Education Statistics, and Murray State University.

MURRAY INDEPENDENT SCHOOLS

In 2021, Murray Independent School District had a total enrollment of 1,670 students in K-12 and 105 preschool students. Students in grades 9-12 attend Murray High School, and students in grades four through eight attend Murray Middle School. Students in kindergarten through grade three attend Murray Elementary School. The Murray Independent School District has approximately 156 certified instructional personnel and 400 total employees. Figure 1 shows the boundary of the Murray Independent School District and the locations of the district's facilities, as well as the boundaries of the Murray Independent School District and the Calloway County School District that surround it.

Over the last 20 years, approximately 100 pieces of property have been taken from within the fixed district boundary by expansions of the Murray-Calloway County Hospital and Murray State University. The loss of students from these properties and the removal of these properties from the tax roll have significantly impacted the revenue of the Murray Independent School District. Due to its landlocked boundaries, enrollment within the Murray Independent School District has stabilized. The Murray High School facility was expanded to the east and south from 2017 to 2019. The front entrance was changed to Sycamore Street from Doran Road.

A district facilities plan for the Murray Independent School District was approved in January of 2024 that includes funding for renovation of all existing facilities as well as the construction of a

new Murray Elementary School with a capacity for 750 students. This plan is slated to be in effect until 2028. The total funding needed for the district is a little more than $52 million[1].

Table 1: Murray Independent Schools Enrollment

Murray High School	475
Murray Middle School	658
Murray Elementary School	537
Murray Pre School Head Start	105
Total Students	1,775

CALLOWAY COUNTY PUBLIC SCHOOLS

In 2021, the Calloway County School District had a total enrollment of 2,896 students in K-12, and 169 preschool students. Students in grades 9-12 attend Calloway County High School, and students in grades six through eight attend Calloway County Middle School. The Calloway County School District has a preschool and three elementary schools serving kindergarten through grade five. The three elementary schools are East Calloway Elementary, North Calloway Elementary, and Southwest Calloway Elementary. The Calloway County School District has approximately 230 certified instructional personnel and 575 total employees. Map CF-9 shows the locations of the Calloway County School District facilities. Enrollment at each of the Calloway County schools is as follows:

Table 2: Calloway County Public Schools Enrollment

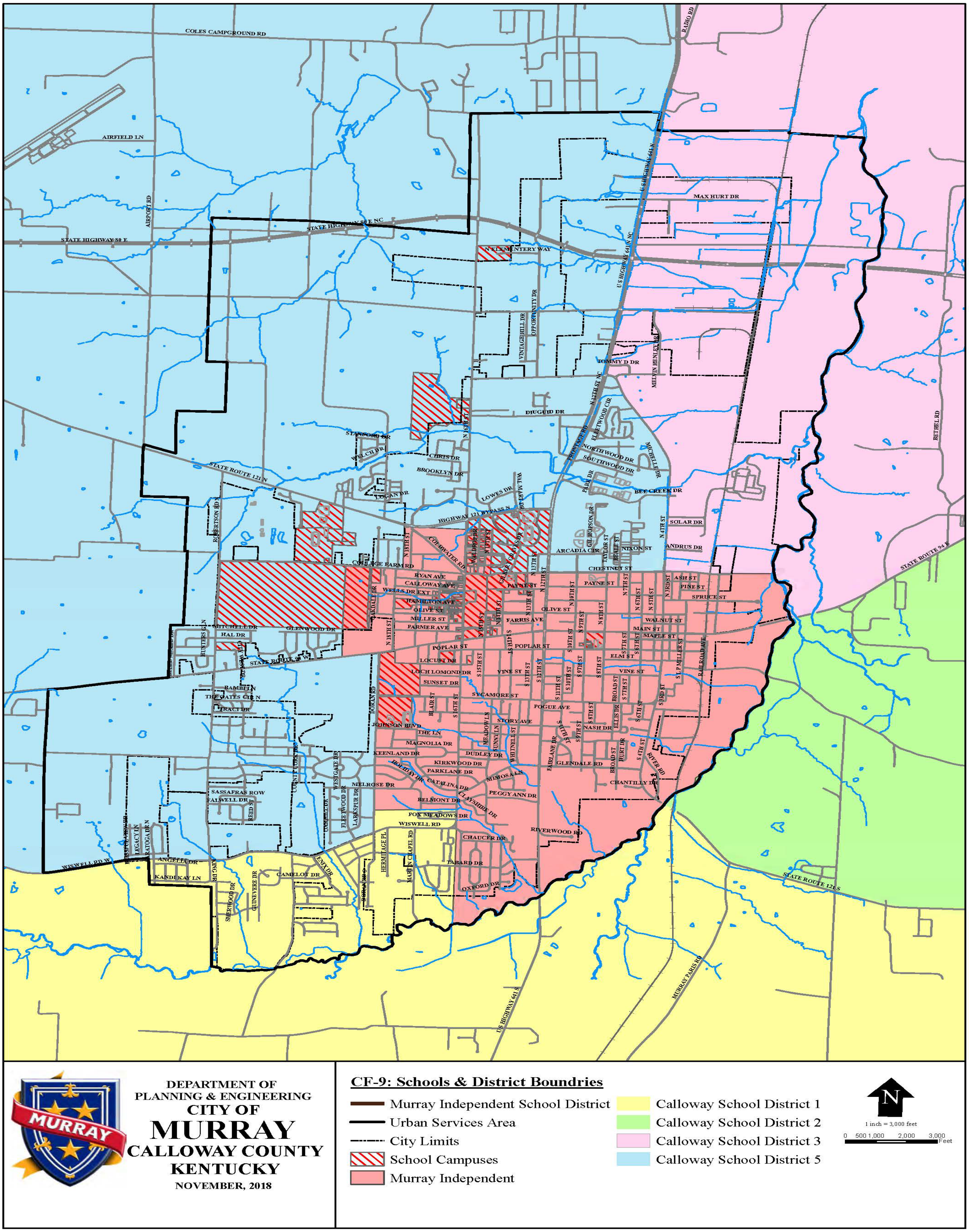
Calloway County High School	862
Calloway County Middle School	677
East Calloway Elementary School	294
North Calloway Elementary School	549
Southwest Calloway Elementary School	441
Calloway County Alternative School	73
Calloway County Preschool	169
Total Students	3,065

[1] https://www.education.ky.gov/districts/fac/documents/murray%20ind%20dfp.pdf

Recent improvements within the Calloway County School District include renovations to the high school's gymnasium. There are no plans for future building renovations. Enrollment is stable and projected population growth in Calloway County does not indicate the need for additional school construction in the near future.

MURRAY/CALLOWAY COUNTY AREA TECHNOLOGY CENTER

The Murray-Calloway County Area Technology Center is located at 126 Robertson Road North on property owned by the Murray Independent School District and is operated by the Kentucky Education and Workforce Development Cabinet. The primary purpose of the area technology center is to serve high school students from Murray Independent Schools and Calloway County Schools by enhancing and expanding career options that lead to continuation of education at the postsecondary level and/or successful employment upon graduation from high school. Students receive instruction in sound academic principles, theory, laboratory, and clinical experiences to ensure they can compete successfully in today's changing workplace. The enrollment in 2021 was approximately 300 students. The programs available are automotive technology, carpentry, culinary arts, health sciences, machine tool technology, marketing education, and welding.


DEPARTMENT OF
PLANNING & ENGINEERING
CITY OF
MURRAY
CALLOWAY COUNTY
KENTUCKY
NOVEMBER, 2018
CF-9: Schools & District Boundries
Murray Independent School District
Urban Services Area
City Limits
School Campuses
Murray Independent
Calloway School District 1
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MURRAY STATE UNIVERSITY

Founded in 1922 as Murray State Normal School, Murray State University has been in operation for 102 years. Established as the western normal school in conjunction with Morehead State as the eastern normal school, MSU has undergone several name changes throughout the years. Just eight years after MSU's founding, the name was changed to Murray State Teachers College in 1930 and then to Murray State College in 1948. Finally, in 1966, the name was changed to Murray State University. The main campus is 258.43 acres with 55 buildings, sports fields, and complexes.

MSU offers its students 11 associate programs, 64 bachelor's programs, 42 master's and specialist programs, and three doctoral programs. These degree programs are administered through MSU's four academic colleges, two schools, and 30 departments. In the 2021-2022 school year, there were almost 9,500 students enrolled at Murray State, with 7,939 undergraduates and 1,517 post-graduates. The student-to-teacher ratio at Murray State is 16 students to every teacher.

The college with the plurality of enrollees is the College of Business with 23% of undergraduate students. Below, Table 3 shows the breakdown of bachelor's degree concentrations at MSU in 2021 with business and healthcare being the top two concentrations. Education sits in third with approximately 1,656 students in the College of Education and Human Services (COEHS). The COEHS impact is seen regionally with 74.3% of teachers in the 18-county western Kentucky region being graduates of Murray State. In the 2021-2022 academic school year, there were 180 student teachers from MSU.

Table 3: Top Fields for Bachelor's Degrees

Degree Field	Percent Enrolled
Other Agriculture, Operations, & Related Sciences	8.34%
Registered Nursing	8.07%
General Studies	6.46%
General Business	5.58%
Elementary Education & Teaching	4.37%
General Biological Sciences	3.77%
Occupational Safety & Health Technology	3.77%
Social Work	3.56%
General Organizational Communication	2.42%
Other Research & Experimental Psychology	2.29%
Community Health & Preventative Medicine	2.29%
Accounting	2.22%
General Fine Studio Arts	2.08%
General Finance	2.02%
Civil Engineering Technology	2.02%
Audiology & Speech-Language Pathology	2.02%

Source: https://datausa.io/profile/geo/murray-ky-31000US34660?enrolledOptions=admitted&trade-flow-domestic_trade=ExportDollar#majors

Master's degree concentrations vary somewhat from bachelor's degree concentrations at Murray State. The number one concentration for master's degrees in 2021 was in the education industry, with the healthcare industry ranking second. Business degrees went from number one in bachelor's degrees to fourth for master's degrees.

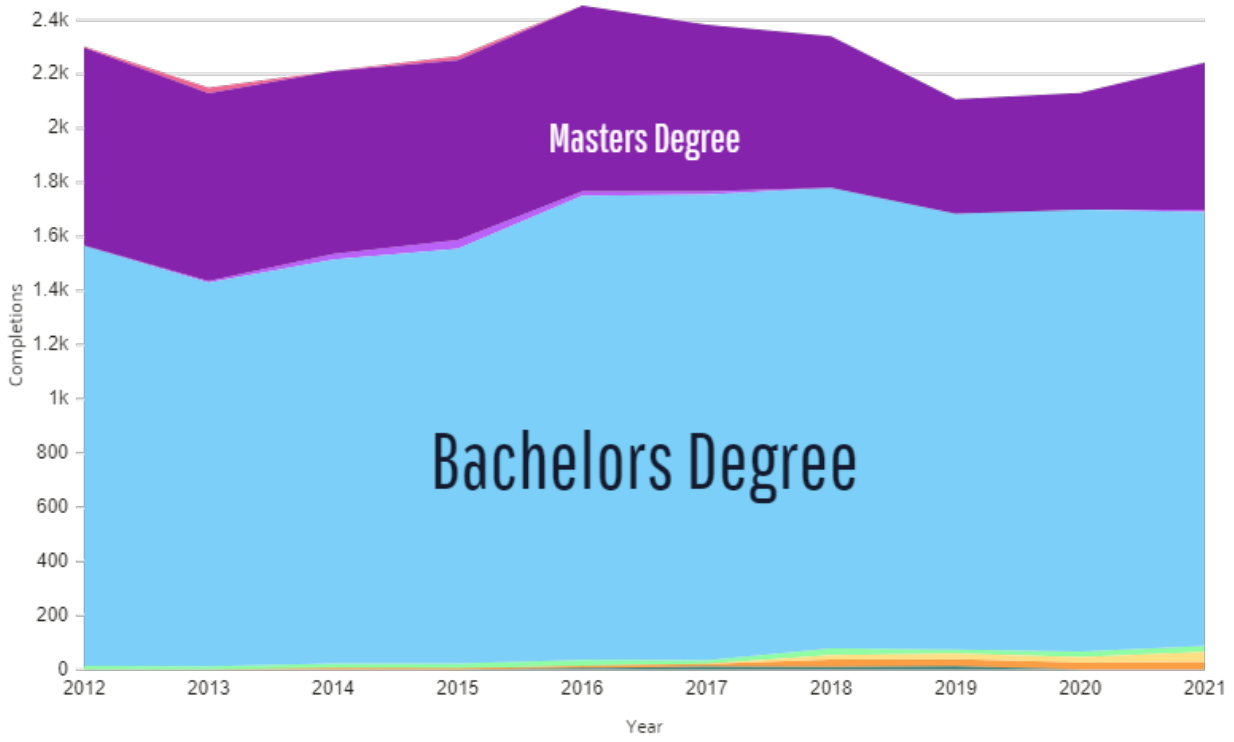
Table 4: Top Fields for Master's Degrees

Degree Field	Percent Enrollment
Other Agriculture, Operations, & Related Sciences	14.70%
General Business	12.90%
Audiology & Speech-Language Pathology	8.82%
Other Educational Administration & Supervision	8.46%
Dietetics	5.88%
Occupational Safety & Health Technology	5.15%
Community Organization & Advocacy	4.96%
Teacher Education	4.04%
Occupational Therapy	3.13%
General Organizational Communication	3.13%

Source: https://datausa.io/profile/geo/murray-ky-31000US34660?enrolledOptions=admitted&trade-flow-domestic_trade=ExportDollar&degree-majors=degree7#majors

As Figure 2 demonstrates below, the majority of degrees awarded from 2012 to 2021 were bachelor's degrees. Awarded bachelor's degrees slowly grew from 2013 to 2016, plateauing until 2018, then dipping in 2018 where they have remained stagnant. The second-most awarded degrees were master's degrees. These degrees fluctuated similarly to bachelor's degrees until 2017, where master's degrees decline significantly until 2019. However, awarded master's degrees did not remain stagnant, increasing in 2021.

Figure 2: Degrees Awarded Over Time



MURRAY STATE UNIVERSITY TUITION COSTS

For the academic year of 2023, the average undergraduate cost of attendance for Kentucky residents in direct expenses at Murray State is approximately $23,659 in an academic year[2]. These direct expenses included items such as tuition, housing, meal plans, campus maintenance fees, and course fees. Adding indirect expenses, the total cost for resident students increases to approximately $28,009. These indirect fees were items like books, transportation costs, and

[2] https://www.murraystate.edu/admissions/BursarsOffice/tuition/UndergraduateTuition.aspx

personal expenditures. The average total cost for Kentucky residents at a four-year public institution is $22,317, which means Murray State University is around 25% more costly to attend[3]. Within the southern region of the U.S., however, Murray State was ranked ninth in best value by U.S. News and World Report[4].

Residents of certain counties in Illinois, Indiana, and Tennessee can receive tuition rates similar to Kentucky residents. Residents of Tennessee not in Henry, Montgomery, Obion, Stewart, and Weakley counties receive a rate between the regional and in-state rates. Regional rates are available for residents of Alabama, Arkansas, Illinois, Missouri, and Mississippi. Regional rates for direct expenses come to approximately $24,211 and the cost of direct expenses for non-regional students is $28,693. Including indirect expenses, these totals rise to $28,561 and $33,043 respectively.

CONCLUSION

The City of Murray provides a wealth of knowledge for its citizens through the educational opportunities that play a major role in the city's operation. Murray Independent Schools and Calloway County Public Schools give locals ample opportunity to receive K-12 education alongside training for trade skills through a shared area technology center. In 2021, the Kentucky legislature passed a law to take effect at the beginning of the 2022 school year that requires school districts to create open enrollment policies to let students attend school districts outside of where they live without any financial obligations or penalties between the school districts for the gain/loss of a student. The impact on future enrollment in both districts remains to be seen.

Possibilities for higher education continue with the presence of Murray State University, a public four-year institution that offers a multitude of undergraduate and graduate programs at competitive costs for both in-state and out-of-state students. As the City of Murray continues

[3] https://educationdata.org/average-cost-of-college-by-state#kentucky
[4] https://www.usnews.com/best-colleges/murray-state-university-1977

to grow, the school systems should be held in top priority as institutions to educate the next generation of prosperous residents.

2024 ECONOMIC ANALYSIS

INTRODUCTION

The City of Murray is home to a diverse local economy that includes a wide variety of industries creating a broad base of jobs for the community, its residents, and visitors to enjoy. With a substantial college-aged population, there are a wide array of socio-economic opportunities in Murray particularly for younger residents. The following sections describe this dynamic using data from the U.S. Census Bureau, particularly five-year surveys and the Decennial Census. Anything not from these sources is specifically mentioned.

INCOME OF MURRAY RESIDENTS

Table 1: Median Household Income

Median Household Income	
Overall	$35,966
Owner-occupied	$65,391
Renter-occupied	$25,727

Source: U.S. Census Bureau 2021 ACS 5-year Estimates DP03 Selected Economic Characteristics

According to the five-year reports of the 2021 American Community Survey, the median household income for the residents of Murray was $35,966 a year. This median household income was significantly below Kentucky's median of $55,454 and the national median of $69,717. There is also a substantial disparity between the incomes of property owners and renters in the City of Murray. For owner-occupied houses, the median income for the household was $65,391. Renter households only made $25,727 a year. Owner households made $39,664 more annually, or approximately $3,305 a month more than renter households in the City of Murray.

The cause for this disparity is likely multifaceted; however, one substantial part of it is likely the high influx of college students and college-aged individuals within Murray from the university. As detailed in further sections, a sizable portion of these demographic groups fall below the

poverty line. It is also important to note that the COVID-19 pandemic and its economic ramifications could have played a role in this disparity as well, regardless of whether the discrepancy is noteworthy.

MAJOR OCCUPATIONS AND WAGES

According to data from the 2021 ACS five-year study, the City of Murray has a diverse workforce employed across several different industries. These industries include a wide range of occupations which can be grouped into five key designations: Instruction, Service, Administrative, Production, and Construction. Three of these designations make up more than 80% of the jobs in Murray. The largest group was instruction, with occupations such as education, business, and management accounting for approximately 33% of jobs. The second-largest designation was service, which had occupations such as personal care, food service, and cleaning and maintenance, and employed nearly 25% of Murray's workforce. The third major occupation group was administrative, which mainly included the office and administrative support and sales occupations for a total employment just under 24% of the workforce. The last two groups of production and construction accounted for 7% and 6% of the workforce respectively.

Table 2: Major Occupations & Wages in Murray

Designation	**Occupations**	**Percent of Workforce**	**Average Annual Wages**
Instruction	Education, Instruction, & Library	8.50%	$80,898
	Management	7.72%	$67,344
Service	Personal Care & Service	9.87%	$12,338
	Food Preparation & Serving	9.54%	$23,444
Administrative	Office & Administrative Support	14.60%	$29,323
	Sales	9.16%	$76,052
Production	Production	5.90%	$62,267
	Transportation	1.04%	$10,347
Construction	Construction & Extraction	2.83%	$24,417
	Installation, Maintenance, & Repair	2.53%	$16,688

Source: https://datausa.io/profile/geo/murray-ky#occupations

The wide array of occupations in the City of Murray also meant a diverse range of wages across the workforce. In terms of annual average wages, those within the health diagnosing and treating practitioner occupations earned $137,571 in 2021. This was the only occupation field within Murray that earned an average wage above $100,000, but these positions also only accounted for 2.13% of the total workforce. The next highest-earning occupation field was for education instruction and library occupations, which had an average annual wage of $80,898. While these occupations only made up 8.50% of employees in Murray, the high figure for this field is likely due to the presence of MSU and the various professors and college heads employed by the university. In addition, these occupations impact Murray's economy more broadly due to the high concentration of such positions. The largest occupation field in Murray, office and administrative support with 14.60% of the workforce, had an average annual wage of $29,323. The occupation field with the lowest wage was transportation, which only earned an average of $10,347 in 2021.

INDUSTRIES

According to the 2021 American Community Survey's five-year estimates, more than one-third of Murray's employees were employed by either educational institutions, health care organizations, or social assistance services. These industries serve an important role for the employment and services they provide to Murray's community. There are significant portions of people in Murray employed in the arts, entertainment, food service, manufacturing, recreation, and retail trade industries. The majority of industries that have a significant number of people working in them are the administrative, construction, finance, transportation, utilities, and waste management industries.

Table 3: Percentage of Murray Employees by Industry Category

Industry	% of Murray Employees
Educational Services, Health Care, & Social Assistance	37.5%
Arts, Entertainment, Recreation, Accomodation, & Food Services	14.8%
Manufacturing	6.1%
Retail Trade	14.1%
Transportation, Utilities, & Warehousing	2.3%
Professional, Scientific, Management & Administrative, & Waste Management Services	5.0%
Construction	3.9%
Finance, Insurance, Real Estate, Rental & Leasing Services	3.9%
Other Services, except Public Administration	4.8%
Agricultural, Hunting, Fishing, & Mining	1.4%
Public Administration	3.4%
Wholesale Trade	2.0%
Information	0.8%
Total Percentage	100%

Source: https://datausa.io/profile/geo/murray-ky/#employment_by_industries

The industries with the highest number of employees in Murray are the educational services, health care, and social assistance industries. This is likely due to the many educational institutions within Murray. According to the university's fall 2021 data, Murray State University had 1,196 employees, with 1,039 full-time, 157 part-time, and 104 graduate assistants. The next largest educational institution was Calloway County Public Schools, which encompasses a preschool, three elementary schools (East, North, and Southwest), a middle school, a high school, and an alternative school. Calloway County had approximately 230 certified instructional personnel in 2021 and a total of 575 employees. The Murray Independent School District, which includes Murray Elementary, Murray Middle, and Murray High School, employed approximately 156 certified instructors and 400 total employees in 2021.

The main health care employer in Murray is the Murray-Calloway County Hospital, which employs approximately 1,000 people. There are also various community assistance employers in Murray. These organizations include United Way, Murray-Calloway Needline, Center for Accessible Living, the Department of Community Based Services, and several others. The second-largest industry category is arts, entertainment, recreation, accomodation, and food

services, followed by manufacturing and retail trade as the third- and fourth -largest industries, respectively. Together, these four industries accounted for more than 65% of Murray's employed persons.

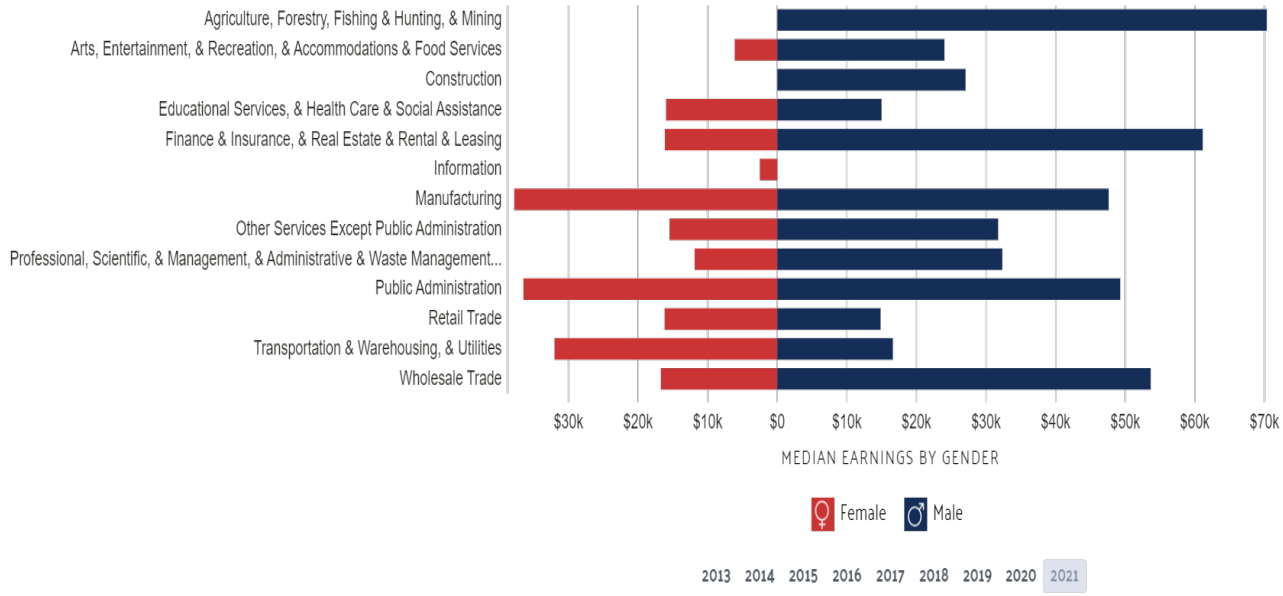
POVERTY AND INCOME DISPARITY ANALYSIS

For the following section, the data used will be in reference to industries in the City of Murray and the median earnings for individuals employed by these industries.

Figure 1 below describes the income disparities between men and women in Murray's industries. For men, the highest-paying industries by a substantial margin were jobs in the agricultural, forestry, fishing, hunting, and mining industries. These jobs paid a median wage of $70,000 per year, greatly surpassing the second-highest paying industry for men, which was manufacturing, paying about $47,000 per year. The third-highest paying industry is public administration with median earnings of $45,000 per year.

For women, the median yearly salaries were significantly below those of men. The highest-paying industry for women was manufacturing at a median wage of $38,000 per year. The second-highest paying industry was public administration at $36,500 per year. The third-highest were the transportation, warehousing, and utilities industries with a median salary of $32,000. Overall, the median earnings for men across all industries in 2021 was $26,757 a year, while women earned $14,765. This meant that women, at the median, made $11,922 less than men across all industries.

Figure 1: Median Income of Industries by Gender

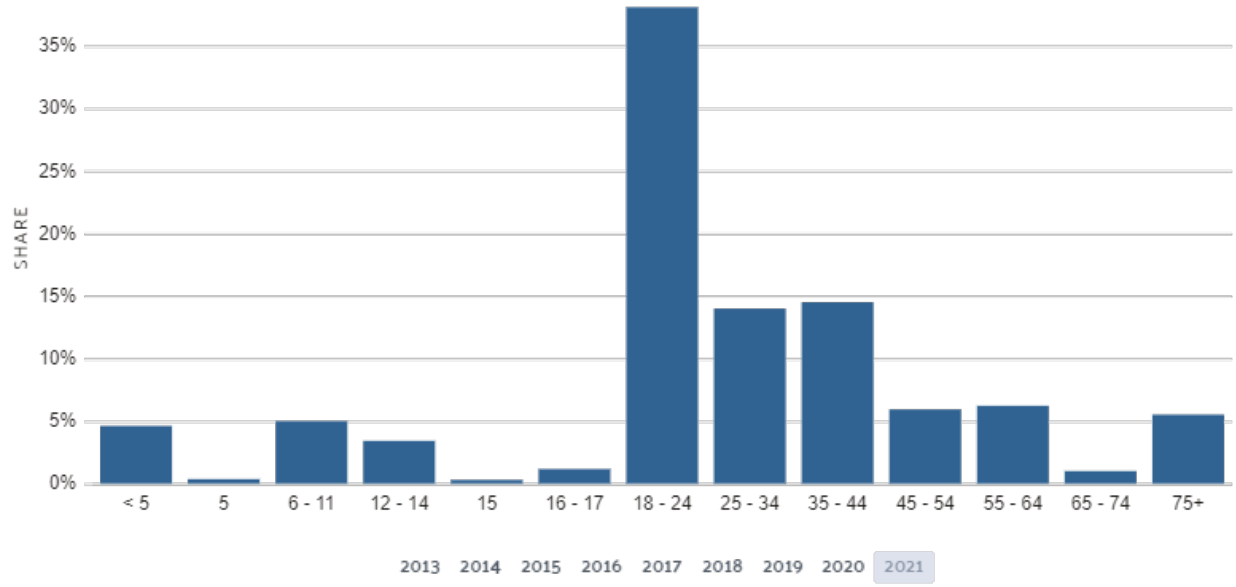


Source: https://datausa.io/profile/geo/murray-ky#median_earnings

According to the Office of the Assistant Secretary for Planning and Evaluation (ASPE), the 2021 federal poverty guideline listed the income level for an individual to be $12,880. The ACS five-year estimate shows approximately 22.8% of Murray residents fell below this federal poverty line. This is substantially higher than the state, 16.5%, and national, 12.8%, 2021 numbers. The demographic racial groups that fall below the line are white, with black residents the second most affected, followed by those of two or more races. The age and gender groups with the highest levels of poverty were males and females 18-24 and males 25-34. These poverty statistics align with the student age population of the city.

Figure 2 details how much of each age category comprises a part of Murray's poverty rate. Those 18–24 years old comprise a substantial 38.1% of residents who fall below the poverty line. It is important to note that Figure 5 also reveals the 35-44 age category containing a larger share of the 2021 poverty rate population than the 25-34 category. It is worrisome that the early-to-mid career professionals are making up a more considerable portion of Murray's struggling residents. In 2013, the 35-44 age category only represented a 3.77% share of the impoverished population. In 2021, that number rose to 14.5%, an almost 11-point increase over eight years.

Figure 2: Poverty Rate Share by Age Group



Source: https://datausa.io/profile/geo/murray-ky#social_needs

CONCLUSION

The City of Murray has a diverse economy that is led mainly by its educational and health sectors. However, the broad job categories and industries within the community allow the city to have a diversified local economy. Older resident homeowners are making almost $70,000 a year. Yet, there is a gap between these individuals and the median household income in Murray of $35,966. Disparities are also present amongst different demographic groups, particularly between men and women, and young people. Due to its college-age population, there are substantial disparities economically. This is evident with the city's high poverty rate for this demographic group, yet a significant number of 35–44-year-olds are still at or below the poverty line, which has been growing since 2013.

2024 HOUSING ANALYSIS

INTRODUCTION

The size and economic diversity of Murray means that there will be a significant number of housing units within its city limits. The characteristics of these housing structures and the individuals in them vary across housing type, number of occupants, type of occupants, and the income of the occupants. The main bulk of the data used for this analysis is from the 2017-2021 American Community Survey's five-year studies (ACS), the 2020 Decennial Census, or other data from the United States Census Bureau. Any data that is not from the U.S. Census Bureau will be specifically mentioned.

HOUSING OCCUPANCY

Of the approximately 7,770 housing units in the City of Murray, 82%, or 6,341 units, were occupied, while 18%, or 1,429, units were vacant. This is a lower occupancy rate than the average across the State of Kentucky, which has an occupancy rate of 87.9%, almost a 6 percent difference. According to data from the 2016 ACS, the occupancy rate in Murray saw a slight decrease falling from 83.6% to 82% in 2021, while the percentage of vacant housing units saw an increase from 16.4% in 2016 to 18% in 2021. While it is unclear what the cause of these changes was, it is likely that there has been widespread turnover in occupancy in the city during this time. This is evident by the slim 36% of homes in Murray becoming occupied between 1990 and 2014, while only 5% of residents have been in the community for more than 30 years.

HOUSEHOLD CHARACTERISTICS

The 2021 American Community Survey found that there are 6,341 occupied households within the City of Murray. Of those, 2,177 were married couple families and 876 were single spouse families meaning there was a total of 3,053 family households. The 48.1% of family households in Murray is a microcosm of larger national trends with household units containing non-family members or single occupants.

There was a total of 3,288 non-family occupied households in Murray in 2021. Of this total, 2,568 contained single occupants, 494 contained cohabiting couples, and 226 contained non-family roommates. Due to Murray being a college town, it is reasonable to assume that a large portion of these non-family households are college students rooming together to save money on housing costs or students living by themselves or with their partner in low-cost housing. Either way, non-family households made up 51.9% of all occupied households.

Table 1: Number of Household Types

Household Category	# of Households
Married-couple family	2,177
Single spouse family	876
Total Family Households	3,053
Cohabiting Couples	494
Non-family Roommates	226
Single Occupant	2,568
Total Non-family Households	3,288
Total Households	6,341

Source: U.S. Census Bureau 2021 ACS 5-year Estimates DP02 Selected Social Characteristics in the United States

HOUSEHOLDS WITH CHILDREN

Of the 3,053 family households in Murray, 1,516 of them contained children under the age of 18. Furthermore, there was a significant disparity between the age groups of the children within these households. 62.7% of children within these households were only between the ages of six and 17 years old. Twenty-seven-and-a-half percent of children in these households were under six years of age, and a small portion of family households had two or more children under the age of six and between six and 17 years old.

The data in Table 2 reveals that there are not many households in Murray with young children, toddlers, and babies. This data is consistent with the broader trend of falling birth rates seen across the nation. The stratification of the ages is also in line with the average family size in Murray of 2.95.

Table 2: Occupied Family Households with Children under the Age of 18

Age of Own Children	% of Households
Under 6 years only	27.5%
Under 6 years and 6 to 17 years	9.8%
6 to 17 years only	62.7%
Total	100%

Source: U.S. Census Bureau 2021 ACS 5-year Estimates B11003 Family Type by Presence and Age of Own Children Under 18 Years

HOUSEHOLD OCCUPANT CHARACTERISTICS

Forty-and-a-half percent of Murray's occupied housing units, a total of 2,568, contained residents who lived alone. It is important to note that college students from Murray State University probably increased this number. The substantial number of residents living alone is represented by the smaller average household size in Murray of only 2.15 residents. Also, 26.5% of Murray households, a total of 1,680, had children under the age of 18 living with them, meaning there was a smaller number of young families. The low number of children is close to the low number of older residents, with only 23.8% of residents being 65 or older, meaning nearly half of Murray residents were between 18 and 65.

Table 3: Household Occupant Characteristics (By Age)

Households with one or more people under 18 years	26.5%
Households with one or more people between 18 and 65 years	49.7%
Households with one or more people 65 years and over	23.8%
Total	100%

Source: U.S. Census Bureau 2021 ACS 5-year Estimates DP02 Selected Social Characteristics in the United States

Table 4: Household Occupant Characteristics (By Occupants)

Households with multiple occupants	59.5%
Households with singular occupants	40.5%
Total	100%

Source: U.S. Census Bureau 2021 ACS 5-year Estimates DP02 Selected Social Characteristics in the United States

HOUSING TYPES

Murray, being a college town, has more duplexes, triplexes, apartment complexes, and more multi-family homes than typically seen in non-university communities. Of the 7,770 total

housing units in Murray, 3,546, or 45.6% of them were two-or-more unit structures. Single-family units slightly outnumbered this figure representing 49.4% of the total units or 3,838 homes. There are not many other types of housing structures, such as mobile homes, in Murray. Only 5.0% of homes make up this category.

Table 5: Unit Size of Housing Structure

Housing Unit Structure	% of Structures
1-unit structures	49.4%
2-or-more-unit structures	45.6%
Mobile homes and all other units	5.0%
Total	100%

Source: U.S. Census Bureau 2021 ACS 5-year Estimates DP04 Selected Housing Characteristics

Table 6: Size of Murray Households

Household Size	# of Households	% of Households
1-person household	2,568	40.5%
2-person household	1,867	29.4%
3-person household	885	14.0%
4-or-more-person household	1,021	16.1%
Total Households	6,341	100%

Source: U.S. Census Bureau 2021 ACS 5-year Estimates B11016 Household Type by Household Size

SIZE OF HOUSEHOLDS

Putting together tables 3, 4, and 5, the data reveals that the significant percentage of multi-unit structures almost corresponds to the number of one-person households and the number of residents living alone. Forty-and-a-half percent of one-person households make up the plurality of all household size categories. This data is representative of Murray State's impact on the housing landscape in Murray. However, 59.5% of households have two or more people within them, pushing the average household size to 2.15 people per household since two-person households make up 29.4% of residences.

AGE OF MURRAY HOMEOWNERS

More than 87% of Murray homeowners were over the age of 35. Only 12.7% of Murray homeowners were 34 or under, another example of the age disparity of homeowners.

According to the National Association of Realtors (NAR), the average age of first-home buyers rose from 33 in 2021 to 36 in 2022. This was the smallest group and oldest of first-time homebuyers that NAR has ever found. In 2022, the median age of a homeowner was 52.6 years old, putting the median homeowner in the 35 to 64 age bracket. A breakdown of homeowner ages is illustrated in Table 6.

Table 7: Age of Homeowners

	# of Households	*% of Households*
Homeowner 15 to 34 years:	332	12.7%
Homeowner 35 to 64 years:	1,204	46%
Homeowner 65 years and over:	1,079	41.3%
Total	2,615	100%

Source: U.S. Census Bureau 2021 ACS 5-year Estimates B25015 Tenure by Age of Householder by Occupants per Room

COST OF HOUSING

According to the 2021 American Community Survey, there were 2,615 owner-occupied units in the City of Murray. From this, 1,377 units had a mortgage, leaving 1,238 without one. For those with a mortgage, the median monthly cost was $1,215 and for those without it was $439. The average of these two comes out to $827. A number of factors contributed to these costs, including mortgages, utilities fees, property taxes, insurance payments, and other types of home loans.

Table 8: Owner-Occupied Monthly Housing Costs Breakdown

Cost per Month	**# of Households**
Less than $300	205
$300 to $499	675
$500 to $799	383
$800 to $999	322
$1,000 to $1,499	627
$1,500 to $1,999	264
$2,000 to $2,499	128
$2,500 to $2,999	11
$3,000 or more	0
Total	2,615

Source: U.S. Census Bureau 2021 ACS 5-year Estimates B25094 Selected Monthly Owner Costs

Table 8 below details the monthly cost for these homeowners as a percentage of their monthly income.

Table 9: Monthly Housing Costs as a Percentage of Household Income in the Past 12 Months

	# of Households
Less than 14.9 percent	1,301
15.0 to 24.9 percent	588
25.0 to 34.9 percent	275
35.0 to 49.9 percent	204
50.0 percent or more	239
Not computed	8
Total	2,615

Source: U.S. Census Bureau 2021 ACS 5-year Estimates B25091 Mortgage Status by Selected Monthly Owner Costs as a Percentage of Household Income in the past 12 months

In 2021 there were 3,574 housing units where rent was being paid in the City of Murray. The majority of these units, 60.2%, paid between $500 and $1,000 per month, but the median gross rent across all of these units was $724. There were 152 units in Murray that did not pay rent.

Table 10: Renter-Occupied Monthly Housing Cost Breakdown

Rent Cost per Month	# of Households
Less than $500	522
$500 to $999	2,152
$1,000 to $1,499	835
$1,500 to $1,999	65
$2,000 to $2,499	0
$2,500 to $2,999	0
$3,000 or more	0
No rent paid	152
Total	3,726

Source: U.S. Census Bureau 2021 ACS 5-year Estimates DP04 Selected Housing Characteristics

The National Center for Children in Poverty (NCCP) defines rent burden as occurring when a household spends more than 30% of its monthly income on rent. For the City of Murray, nearly 45% of households paying rent fell within this definition in 2021. This is a substantial figure that deserves attention to ensure that future residents of the city will be able to afford housing.

Table 11: Gross Rent as a Percentage of Household Income

Percentage of Household Income	# of Households
Less than 15.0 percent	284
15.0 to 19.9 percent	566
20.0 to 24.9 percent	414
25.0 to 29.9 percent	366
30.0 to 34.9 percent	304
35.0 percent or more	1,301
Not computed	491
Total	3,726

Source: U.S. Census Bureau 2021 ACS 5-year Estimates DP04 Selected Housing Characteristics

From this data, it is clearly cheaper to rent than to own in the City of Murray. It costs almost $100 more per month to own a home than it does to rent one in Murray. That is more than $1,100 annually. Although it might seem that renters are saving money, it is important to note that they likely are not because household income is usually lower for those renting. The impact of housing cost is usually felt more for renters than it is for homeowners. This is particularly the case for Murray renters, as a large portion of them are already burdened by their housing costs.

INCOME OF HOMEOWNERS

The income of homeowners was substantially concentrated in one income category. The plurality of the 2,615 homeowners in the City of Murray, 44.4%, made $75,000 or more a year. However, the income of homeowners did not scale perfectly with a decrease in the number of homeowners. There is a significant drop-off once one's income falls below $75,000. Regardless, a slim majority, 50.6%, of homeowners fall into these various categories. 10.8% of homeowners earn $20,000 a year or less. This group of homeowners is likely to be older, retired, and possibly drawing social security. This group could also potentially fall into the various other categories, but there could be a likely concentration of them in the lower income brackets. Seventeen-and-a-half percent, or 457 homeowners, have an income of $20,000 to $34,999 annually. Lastly, 12.4% made $35,000 to $49,999 and 14.9% made $50,000 to $74,999 annually. Table 12 provides a breakdown of homeowner incomes.

Table 12: Income of Homeowners

	# of Homeowners	% of Homeowners
Zero or Negative Income	8	0.3%
Less than $20,000:	274	10.5%
$20,000 to $34,999:	457	17.5%
$35,000 to $49,999:	325	12.4%
$50,000 to $74,999:	389	14.9%
$75,000 or more:	1,162	44.4%
Total	2,615	100%

Source: U.S. Census Bureau 2021 ACS 5-year Estimates B25118 Tenure by Household Income in the past 12 months

INCOME OF RENTERS

For renters in Murray, there was a more diverse range of household incomes. The largest income group of renters were those earning between $20,000 and $34,999, with 26.7% of renters making up this group. The second largest income group earned less, with 26.3% of residents making $20,000 a year or less. Incorporating those with zero or negative income, 62% of Murray renters made $34,999 a year or less. This means the majority of Murray renters earn less than $35,000 a year. Around 33.9% of renters earned $35,000 or more in 2021, with even some higher-income individuals renting instead of owning a residence within Murray. However, as table details below, as household income increases, the number of renters per category decreases.

Table 13: Income of Renters

	# of Households	% of Households
Zero or negative income	339	9%
No cash rent	152	4.1%
Less than $20,000:	979	26.3%
$20,000 to $34,999:	993	26.7%
$35,000 to $49,999:	485	13%
$50,000 to $74,999:	422	11.3%
$75,000 or more:	356	9.6%
Total	3,726	100%

Source: U.S. Census Bureau 2021 ACS 5-year Estimates B25118 Tenure by Household Income in the past 12 months

THE VALUE OF HOMES

According to the 2021 ACS five-year surveys, the median value of an owner-occupied home in Murray was around $161,800 regardless of their mortgage status. There is almost a 50-50 split between Murray homeowners with a mortgage and those without a mortgage. Of the homes with a mortgage, 74% had a value between $100,000 and $299,999. Only 18.3% of homes with a mortgage had a value below $100,000, and 7.7% had a value of $300,000 or above. For homes without a mortgage there was much more stratification of home value. Still, the majority of homes, 64.1%, fell between $100,000 and $299,999. More homes fell below $100,000, with 30.1% of homes in this category. Only 5.7% were worth $300,000 or more.

Table 13: Home Value of Properties with and without a Mortgage

	# with a Mortgage	# without a Mortgage	# of Total Homes	% of Total Homes
Less than $50,000	72	158	230	8.8%
$50,000 to $99,999	180	215	395	15.1%
$100,000 to $299,999	1,019	794	1,813	69.3%
$300,000 to $499,999	99	40	139	5.3%
$500,000 to $749,999	0	22	22	0.9%
$750,000 to $999,999	0	9	9	0.3%
$1,000,000 or more	7	0	7	0.3%
Total	1,377	1,238	2,615	100%

Source: U.S. Census Bureau 2021 ACS 5-year Estimates B25096 Mortgage Status by Value

CONCLUSION

The City of Murray contains a multitude of housing options that meet the needs of the diverse population. With a substantial college-age population, there are numerous multi-family housing developments that support students through their time at Murray State University. The city still maintains a majority in single-family units, but many of these units are owned by the older population of Murray. Even fewer of these units contain children under the age of 18, meaning that the future generation of homeowners in Murray will likely need to be attracted from the greater region.

This is further supported by the city's low rate of occupied housing compared to the rest of the state, although the presence of on-campus housing at Murray State University could be a plausible explanation. Another point to take note of is the increasing cost of homeownership in the city. While not an unfamiliar problem in the rest of the state and the nation, the prospect of owning a home for younger generations is growing increasingly stark as the disparity in cost-to-rent versus cost-to-own grows larger. Creating more options for future generations as Murray continues its housing development can help alleviate this challenge and ensure that current residents will see the city as a place to call home for the long term.

2024 TRANSPORTATION ANALYSIS

INTRODUCTION

As the county seat of Calloway County, the City of Murray is a bustling hub of activity and commerce. Sitting at the crossroads of US641 and KY80, Murray is one of the southernmost communities in southwestern Kentucky, close to the Kentucky-Tennessee border, and centrally located in Calloway County. This advantageous location and the growth of Murray State University present both challenges and opportunities for Murray's transportation network.

AVERAGE DAILY TRAFFIC COUNTS

According to data from the Kentucky Transportation Cabinet, in 2022 the total number of annual average daily traffic counts in Murray was 192,572 motor vehicles over 76 roadways. This comes out to an average of approximately 2,534 vehicles a day per road. The median between these 76 roadways was even lower at 833 vehicles a day. North 12th Street in Murray saw the most traffic in 2022. The section of this roadway between KY121 and KY94 saw an average of 28,677 motor vehicles a day, which means more than 10 million vehicles traveled it in 2022.

CURRENT ROADWAYS

There are currently two principal arterial roadways in the City of Murray. The first is US641, which is a 165-mile principal arterial that runs north-south through the center of Murray, stretching from Clifton, Tennessee, to Marion, Kentucky. US641 had an average daily traffic (ADT) ranging from 7,500 to 23,700 vehicles per day (VPD), but within the section between KY121 and KY94 this number peaked at 28,677. The second principal arterial is KY80, which is 484 miles long, running east-west from Elkhorn City in Pike County, Kentucky, to Columbus, Kentucky, in Hickman County.

COMMUTING

Table 1: 5-year 2021 ACS

Means of Transport	
Car, truck, or van – Drove Alone	69.4%
Car, truck, or van – Carpooled	8.1%
Public Transportation	0.0%
Walked	18.6%
Other Means	0.8%
Worked from Home	3.1%
Total Percentage	100%
Workers per car, truck, or van	1.06

Seventy-seven-and-a-half percent of Murray residents commuted via car, truck, or van. Almost 70% of residents commuted alone, while 8.1% carpooled to work. With this large percentage of workers driving alone, there was only an average of 1.06 people per vehicle on the road. This is supported by the fact that in 2022 there were 31,004 vehicles registered in Calloway County, representing the majority of residents commuting in these ways.[1]

One noticeable way that some residents of Murray commute is the 18.6% who walk to work, which is substantially higher than the national average of 2.5% and the state average of 2.1%. With such a substantial portion of Murray's residents commuting via walking, the necessity of a pleasant and conveniently connected pedestrian network cannot be understated. There were 3.1% of residents working from home, a noteworthy amount representative of the COVID-19 pandemic. To conclude, within the percent of commuters that chose other means of travel, 0.3% chose to use a taxicab or other similar service, and only 0.5% of residents bicycled to work, probably due to the lack of biking infrastructure in Murray.[2]

[1] https://datamart.kytc.ky.gov/
[2] https://www.walkscore.com/KY/Murray

CRASHES AND TRAFFIC ACCIDENTS

Table 2: Crashes in Calloway County in 2021

Types of Crashes	# of Crashes
Crashes Involving Pedestrians	5
Crashes Involving Motorcycles	7
Crashes Involving Deer	47
Total Crashes	891

According to the Kentucky Department of Transportation, there were 891 total crashes in Calloway County in 2021. Of these crashes, five involved pedestrians, seven involved motorcycles and 47 involved deer. According to Murray Police Department's 2022 annual report, there were 2,327 traffic stops, 690 collisions with no injuries, 257 reckless driver incidents, 184 motorist assists, and 52 collisions with injuries. Putting these numbers together, we can find that 742 crashes occurred in Murray, while 149 occurred outside the city limits, meaning 83% of crashes occurred in the city limits.

ACTIVE AND FUTURE CONSTRUCTION PROJECTS

Every two years, the Kentucky General Assembly approves a Six-Year Highway Plan (6YP). This plan is subject to the availability of state and federal highway dollars. On an on-going basis, the Kentucky Transportation Cabinet (KYTC) works with the Area Development Districts (ADDs), metropolitan planning organizations (MPOs), and highway district offices to identify and prioritize projects for future 6YPs. KYTC submits the recommended plan to the legislature which then reviews, modifies, and approves the plan as part of the biennial budget process.

The Enacted Fiscal Year 2022-2028 Highway Plan projects a total of nearly $52 million in state funding to improve the transportation infrastructure in Murray. The 2017-2021 Highway Plan authorized more than $113 million to go toward highway funds in Murray, but only $82 million of that was actually spent as seen in Table 3 below. As demonstrated in Table 4, almost $40 million of this was spent on the relocation of US641 Stateline Road (KY893) in 2020.

Table 3: 2017-2021 Highway Plan

Fiscal Year	Amount Authorized	Amount Spent
2017	$7,739,852.00	$15,871,608.20
2018	$8,951,535.00	$9,495,593.07
2019	$8,911,656.00	$12,404,234.78
2020	$31,688,601.00	$22,557,665.95
2021	$55,774,556.68	$21,893,392.16
Total	$113,066,200.68	$82,222,494.16

Table 4: Current Active Roadway Contracts in Murray

Award Date	Description	Contract Amount	% of Contract Amount Spent
11/2/2020	Relocate US641 Stateline Road (KY893)	$39,222,529.04	94%
2/8/2022	Murray Highway (US641)	$367,417.53	91%
12/16/2022	Murray to Faxon Road (KY80 westbound only)	$917,573.65	90%
9/1/2023	North 4th Street (KY2075)	$384,435.00	0%

MURRAY-CALLOWAY TRANSIT AUTHORITY

The main public transit service in Murray is the Murray-Calloway Transit Authority (MCTA). MCTA's purpose is the provision of safe public transportation services for the residents of Calloway County and the City of Murray. MCTA offers five main routes. These routes include Community Route 1 (CR-1), Community Route 2 (CR-2), Gold Route, Alternative Routes, and an Evening Route (CR-Evening). CR-1 runs Monday through Friday and provides service from 7:00 a.m. to 4:15 p.m. CR-2 runs Monday through Friday and provides service from 8:30 a.m. to 4:41 p.m. CR-Evening provides service Monday through Thursday from 4:45 p.m. to 9:58 p.m. All of these routes are free. The Gold Route runs from 7:00 a.m. to 5:06 p.m. and is free for students and staff of Murray State University. MCTA also provides on-demand scheduled rides that are provided on a first-come, first-served basis with current rates of $1 dollar in the city or $3 in the county. Any same-day rides come at increased rates of $5 in the city or $7 in the county.

MURRAY SMALL URBAN AREA STUDY

The KYTC initiated the Murray Small Urban Area (SUA) in 2023 to examine and identify transportation issues regarding safety and congestion in the City of Murray and the surrounding area. The SUA study included previous planning documents, analyzing existing conditions, soliciting input from the public and local officials, developing traffic forecasts, and developing and evaluating improvement concepts.

The following improvement concepts were developed through the combination of existing conditions, input from the project team, advisory committee, and public, analyzing current traffic patterns and safety concerns, and additional field reconnaissance. Short-term concepts usually include lower-cost improvements that can be accomplished in the near future due to little or no requirements surrounding right-of-way construction.

Table 5: Short-Term Improvement Concepts

ID	Location	Description	Total Cost Estimate	Priority
A	US641	Perform a detailed traffic analysis on US641	$250,000	High
B	Courthouse Square	Convert 5th Street to pedestrian area and convert on-street parking to back-in parking	$240,000	Medium
C	KY94 at 8th Street	Install a four-way stop and curb bump out at the KY94/8th Street intersection	$60,000	Medium
D	US641X at Sycamore Street	Remove the channelized right-turn lane from US641X to Sycamore Street	$60,000	Low
E	KY121 at Lowes Drive	Terminate the westbound KY121 through lane at Lowes Drive	$20,000	Maintenance
F	KY1550 at Oxford Drive	Enhance striping and signing at the KY1550 horizontal curve at Oxford Drive	$15,000	Maintenance

The long-term concepts are typically higher-cost improvements that require the commitment of more significant resources during implementation. They generally require additional right-of-way construction with funding required through a future Kentucky Highway Plan.

Table 6: Long-Term Improvement Concepts

ID	Location	Description	Total Cost Estimate	Priority
G	East Bypass	Construct a new route from the Murray Business Loop to KY94	$19.9 Million	High
H	Main Street (KY94)	Construct a TWLTL and multi-use path on Main Street (KY94)	$6.2 Million	High
I	KY94 at KY1660	Convert the KY94/KY1660 intersection to a roundabout	$1.4 Million	Medium
J	KY121 at KY1660	Convert the KY121/KY1660 intersection to a roundabout	$1.6 Million	Medium
K	West Bypass	Construct a new route between US641 and KY80 west of Murray	$64.1 Million	Low

The bicycle and pedestrian concepts include stand-alone projects or projects that can be added to short- and long-term concepts. Any standalone bike-ped projects require funding that does not utilize Kentucky Road Fund dollars.

Table 7: Bicycle/Pedestrian Improvement Concepts

ID	*Location*	*Description*	*Priority*
2	Main Street (KY94)	Construct a shared-use path on Main Street (KY94)	High
4	Doran Road/ Sycamore Street	Construct sidewalks on Doran Road and buffered on-street bike lane on Sycamore Street	High
5	US641 North of KY121	Construct at shared-use path on US641 with crosswalks at Lowes Drive and Center Drive	High
10	KY121	Construct a shared-use path on KY121	High
13	U B Bailey Road / Coldwater Road	Construct sharrows on U B Bailey Road and a shared-use path on KY121 and Coldwater Road	High
1	KY1327	Construct a shared-use path on KY1327	Medium
3	KY1660	Construct a shared-use path on KY1660	Medium
6	KY1550	Construct a shared-use path on KY1550, shared-use paths on 16th Street and Glendale Road, and sidewalks on Doran Road	Medium
12	US641 South of KY121	Construct a shared-use path on US641 and a buffered on-street bike lane/sidewalk on Arcadia Circle and Hobson Drive	Medium
7	US641X / KY2075	Construct a buffered on-street bike lane and sidewalk on KY2075/US641X	Low
8	8th Street	Construct a buffered on-street bike lane and sidewalk on 8th Street	Low
9	Poplar Street	Construct a buffered on-street bike lane and sidewalk on Poplar Street	Low
11	KY94 to Land Between the Lakes	Construct a buffered on-street bike lane on KY94	Low

CONCLUSION

The City of Murray enjoys a well-connected map of roadways with US641, KY121, KY80, and KY94 serving as the major arteries of the city. These roadways see a vast number of travelers daily for both residents and visitors alike. While this has been advantageous for the vehicle commuters of Murray, the city must look toward improvements in infrastructure for pedestrians on foot or on bike as these travelers make up nearly one-fifth of total commuters. With the help of the Murray-Calloway Transit Authority, all residents of Murray and the surrounding region have access to affordable transportation options. Furthermore, the limited number of incidents with pedestrians involved in crashes means the existing infrastructure does well to protect them from harm. Further improvements for Murray's transportation needs are easily achievable thanks in part to the city's Small Urban Area Study, and as projects within the Kentucky Highway Plan continue to move forward, transportation capabilities in Murray will only continue to grow.

2023 LAND USE ELEMENT UPDATE

INTRODUCTION

The City of Murray Planning Commission engaged the Kentucky League of Cities (KLC) to update the Murray Comprehensive Land Use Plan – Land Use Element. The planning commission appointed the Comprehensive Plan Work Group to work with KLC through the process. Over a period of several months, the Work Group and KLC reviewed the current comprehensive land use plan and the existing land use element to evaluate, analyze, and project the future needs of the city.

The Comprehensive Plan Work Group and KLC recommend that the following changes be incorporated into the existing land use element and that the remainder be readopted as is. This update includes existing land uses and allocations, and future projections and maps to guide growth over the next five years. Of particular note, the Work Group and KLC recommend that new medium density residential areas be designated to reflect changing development trends and an updated Future Land Use map be adopted to reflect these trends.

Kentucky Revised Statutes (KRS) Chapter 100.187 specifies that a comprehensive land use plan shall include a land use plan element, which shall show proposals for the most appropriate, economic, desirable, and feasible patterns for the general location, character, extent, and interrelationship of the manner in which the community should use its public and private land at specified times as far into the future as is reasonable to foresee. Such land uses may cover, without being limited to, public and private, residential, commercial, industrial, agricultural, and recreational land uses.

KRS 100.187 (6) states that the comprehensive plan may include any additional elements such as, without being limited to, community renewal, housing, flood control, pollution, conservation, natural resources, regional impact, historic preservation, and other programs which in the judgment of the planning commission will further serve the purposes of the comprehensive plan.

This Land Use Element has been prepared as part of the City of Murray Comprehensive Plan. The Land Use Element is divided into two sections: Existing Land Use and Future Land Use. The ultimate purpose of the Land Use Element is to create a future land use plan that guides the Murray Planning Commission in its decisions related to the use of land in its area of jurisdiction. The Community Facilities and Transportation Elements of the Comprehensive Plan provide input related to the needs for lands and facilities to support the growth resulting from land use changes. A guiding principle was for the final land use plan to be in alignment with the goals and objectives established within the Comprehensive Plan.

The Murray Comprehensive Plan and this Land Use Element were developed for the Murray Urban Services Area. This area is sometimes referred to as the Murray Planning Area or the Murray Comprehensive Plan Area.

LAND USE GOALS AND OBJECTIVES

The general Future Land Use Goal for Murray is to achieve a balanced pattern of land use that meets the needs of the population, stimulates physical, social, and economic development, and protects the environmental well-being of the community. The desire is for the City of Murray to be seen as a place where people can:

- Provide shelter and meet the basic needs for themselves and their families.
- Provide equal opportunity to all people.
- Enjoy the beauty, safety, and security of the community,
- Become responsible citizens.
- Promote a community which is aesthetically attractive for residents, visitors, and potential investors.
- Create happier, healthier, and smarter children by promoting community wide efforts that improve the well-being of the youth.

More specific land use goals and objectives adopted by Murray for the Comprehensive Plan are:

(1) Economy – in accordance with the zoning ordinance and boundaries, establish more neighborhood businesses along the periphery of residential zoning districts (within buffer zones) that are of a lower impact and limited to neighborhood convenience needs such as groceries, barber and beauty shops, and similar uses that contribute limited traffic into the area, while minimizing resident trips out of the neighborhood for purchases.

(2) Economy – consider incentives and other programs that would promote infill, redevelopment, and community improvement.

(3) Public Facilities and Services – identify land in the Future Land Use Element of the Comprehensive Plan for expansion of the City Park System and designate land as either public or semi-public.

(4) Housing – protect natural resources that enhance the quality and character of development.

(5) Housing – upgrade the city's landscaping requirements for buffer areas between residential and commercial uses.

(6) Housing – inventory older homes and neighborhoods that need revitalization. Seek TIF, CDBG grants, or other funding mechanisms for neighborhood revitalization.

(7) Housing – encourage renovation of older neighborhoods.

(8) Housing – support stricter enforcement of the Property Maintenance Code to help preserve neighborhood aesthetics.

(9) Housing – encourage a greater sense of community within the City's residential neighborhoods through the organization of neighborhood associations or similar groups, with emphasis on safety, beauty, and overall pride.

(10) Housing – allow for a wide range of residential types and densities throughout the city while continuing to support programs that provide more affordable housing opportunities for single and multi-family homes,

(11) Commercial, Industrial, and Agricultural Areas – improve the landscaping standards for site development.

(12) Commercial, Industrial, and Agricultural Areas – adopt minimum standards for building design that will sustain and enhance community character.

(13) Commercial, Industrial, and Agricultural Areas – avoid conditions and patterns that would create hazards in vehicular circulation.

(14) Commercial, Industrial, and Agricultural Areas – as urban expansion continues, secure additional agricultural lands and increase production accordingly, to offset the growing demands of food, raw materials, and other necessities of life.

(15) Historic Preservation – sites and structures shall adhere to Historic Preservation Design Guidelines as administered by the architectural review board.

(16) Historic Preservation – support the Murray Main Street Master Plan by encouraging revitalization through rehabilitation of substandard buildings, removal of unattractive poles, wires, and signs that will make buildings, sidewalks, and other facilities in the downtown area more attractive, efficient, and convenient.

(17) Historic Preservation – continue to seek state and federal funding for historical preservation.

(18) Environment – encourage the use of green space for both residential and non-residential developments.

(19) Environment - continuously review stormwater management practices so that site developments are designed to minimize the volume of runoff by requiring the use of porous pavement, detention facilities, and other dissipating mechanisms.

EXISTING LAND USE

These land use goals and objectives are further discussed in the Future Land Use section. Appendix A contains the Statement of Goals and Objectives adopted for the Comprehensive Plan.

The existing land use section describes the history of land use classification in Murray. It also describes the methodology used to conduct a land use inventory in October 2008. In addition, this section describes and analyzes the land use in the Murray Planning Area as it existed in October 2008. A new inventory was conducted in September, 2022 for a comparison to the October, 2008 inventory.

Land Use Classification

The classification of land use is an important aspect of the Land Use Element of the Murray Comprehensive Plan. The land use classes were changed in the 2002 Land Use Element from those used in the 1990 Comprehensive Plan. The land use classes in the 1990 plan were the same as those used for land use inventories in 1961, 1972, 1976, and 1978. Table LU-1 shows the changes in the land use classes made in the 2002 plan and also used in the land use inventory conducted in 2008 and 2022.

As shown in Table LU-1, residential class was divided into 5 separate classes, single family, two-family, multi-family, congregate living, and manufactured housing. The commercial category stayed the same. The industrial class was divided into two classes,

warehousing and manufacturing. The public, semi-public class was divided into four classes, public use, semi-public use, education, and utilities. The agriculture and streets classes stayed the same, except streets was renamed to transportation.

Table LU-1 Murray Land Use Classification Changes	
2002 to present	**1990 and prior**
Single Family Residential Two-Family Residential Multi-Family Residential Group Quarters Manufactured Housing	Residential
Commercial (Office/Retail/Business/Medical/Lodging)	Commercial
Warehousing Industrial	Industrial
Public Use Semi Public Use (Institutional) Education Utilities	Public, Semi-Public
Agriculture	Agriculture
Transportation	Streets
Source: City of Murray Planning Department	

The Murray 2008 Land Use Element was based on an inventory of existing land uses within the city limits based on the 2002 land use classes shown in Table LU-1. The same land use categories were used for developing the existing land use for this Land Use Element. Using the same land use classes and a similar inventory procedure allowed a direct comparison of the changes that have occurred over the fourteen-year period within the Murray city limits.

Inventory Methodology

The first step in developing the land use plan was to conduct an inventory of the existing land uses in the planning area. The inventory was used to compare the amount of land in each land use category with the last inventory conducted in 2008. Comparison of the two inventories gave an indication of the major trends of land use change in the fourteen-year period. From these trends, areas were designated as appropriate for various land uses in the Future Land Use section.

The land use map that resulted from the 2008 inventory, provided by the Murray planning staff, was used as the base map for the 2022 inventory. Windshield surveys were conducted by driving the Murray streets and noting changes that had occurred within the city limits since 2008. In an area bounded on the north and south by Olive and Maple Streets and on the east and west by First and Eighth Streets, sidewalk surveys were conducted. Sidewalk surveys were also conducted along Main Street from Twelfth Street to Fourth Street. In addition, to documenting obvious changes in the land use since the last inventory, the sidewalk surveys were designed to detect the conversion of single-family residences to two family and multi-family residences that might not be detected from windshield surveys.

Areas outside the Murray city limits but within the Comprehensive Plan area were windshield surveyed by driving the county roads and were included in the 2022 inventory.

Summary of Existing Land Use

The summary of existing land uses within the Murray city limits and the Urban Services Area, as determined from the land use inventory, are shown in Table LU-2. Map LU-1 shows a summary of the land uses in the Murray Comprehensive Plan area.

For the developed land use within the Murray city limits, residential uses comprised 2,354 acres or approximately 44 percent of the total. Commercial uses comprised 637 acres or 12 percent of the total developed land, while industrial and warehousing comprised 322 acres or 6 percent of the total developed land. Public and semi-public uses including roads, education, and utilities comprised 2,032 acres or 38 percent of the total developed land. Agricultural land comprised 1,325 acres or 18 percent of the total land within the Murray city limits. For the developed land use within the Urban Services Area, residential uses comprised 3,172 acres or 44 percent of the total developed land. Commercial uses comprised 823 acres or 11 percent of the total developed land, while industrial and warehousing comprised 618 acres or 9 percent of the total developed land. Public and semi-public uses including roads, education, and utilities comprised 2,619 acres or 37 percent of the total developed land. Agricultural lands comprised 6,382 acres or 44 percent of the total land within the planning area.

Table LU-2 Existing Land Use Summary – 2022 Inventory

City Limits	Acres	% of Total Land	Urban Services Area	Acres	% of Total Land
Single Family Residential	1819	24	Single Family Residential	2564	18
Two Family Residential	138	2	Two Family Residential	171	1
Multi-Family Residential	262	4	Multi-Family Residential	272	2
Manufactured Housing	93	<1	Manufactured Housing	116	<1
Congregate Living Facilities	42	<1	Congregate Living Facilities	49	<1
Commercial	637	9	Commercial	823	6
Warehousing	61	<1	Warehousing	145	1
Industrial	261	3	Industrial	473	3
Public	433	6	Public	452	3
Semi-Public (Institutional)	265	4	Semi-Public (Institutional)	314	2
Education	648	9	Education	800	6
Utilities	50	<1	Utilities	61	<1
Roads, Rights-of-Way	636	9	Roads, Rights-of-Way	922	7
Total Developed Land	**5345**	**72**	**Total Developed Land**	**7162**	**49**
Agriculture	1325	18	Agriculture	6383	44
Vacant	801	11	Vacant	887	7
Total Land	**7471**	**100**	**Total Land**	**14431**	**100**

Source: City of Murray Planning & Engineering, 2022

Table LU-3 shows the existing land uses within the Murray city limits in 2008 and 2022.

Between 2008 and 2022, the total area within the Murray city limits increased by 281 acres or less than 1 percent. Residential lands increased by 175 acres or 8 percent while commercial and industrial/warehousing land increased by 97 acres in total or 11 percent.

Table LU-3 Comparison of Existing Land Uses within the Murray City Limits 2008 - 2022

	2008			2022			
Land Use	Acres	% of Total Land	% of Developed Land	Acres	% of Total Land	% of Developed Land	CHANGE Acres, 2008 - 2022
Single Family Residential	1744	24	34	1819	24	34	75
Two-Family Residential	134	2	3	138	2	2	4
Multi-Family Residential	202	3	4	262	4	5	60
Manufactured	63	1	1	93	1	2	30
Congregate Living	36	1	1	42	1	1	6
Commercial	556	8	11	637	8	12	81
Warehousing	66	1	1	61	1	1	-5
Industrial	240	3	5	261	3	5	21
Public	428	6	8	433	6	8	5
Semi-Public	238	3	5	265	4	5	27
Educational	633	9	13	648	9	12	15
Utilities	48	1	1	50	1	1	2
Roads, Right of Way	666	9	13	636	8	12	-30
Developed Land	**5054**	**70**	**100**	**5345**	**72**	**100**	**291**
Agriculture	1421	20		1325	18		-96
Vacant	715	10		801	10		86
Total	**7190**	**100**		**7471**	**100**		**281**

Public and semi-public lands, including streets, increased by 2 acres or less than 1 percent. Developed land increased by 291 acres or 6 percent.

The following sections discuss each of the existing land use categories. Each section includes a description of the uses included in the category and the amount of land existing in that category within the Murray Planning Area and the Murray city limits. Each section also includes a generalized projection of future land use based on this existing information.

Existing Residential Land Use

Five residential land use categories were recorded during the land use inventory. These five categories are Single Family Residential (detached unit), Two Family Residential (duplex), Multi-Family Residential (three or more units in structure), Manufactured Housing (unit manufactured off-site on chassis, or mobile home), and Congregate Living Facilities (Group Quarters). Map LU-2 shows the lands in the planning area currently used for residential purposes.

There are 3,172 acres or 22 percent of the land within the planning area used for residential purposes. The 2,354 acres of residential lands within the Murray city limits represents 32 percent of the total land. Residential land within the Murray city limits increased by 175 acres or 8 percent from 2008-2022. Residential lands comprise the largest percentage of land within the planning area. Residential uses are likely to continue to be the largest user of land in Murray as the city supports the housing needs for the faculty and staff at Murray State University and the local industries.

The southwestern portion of the planning area should continue to experience the development of single-family residential housing. A majority of the vacant residential land lies in this area. The majority of the development will most likely be building on the large number of existing lots in this area. However, as these lots are used, new subdivisions may be developed. Based on past trends approximately 50-60 new single family residential units would be anticipated in the planning area each year.

Multi-family housing units have been developed in the northeast and northwest portions of the planning area. These units are located in close proximity to Murray State University and primarily serve the student population there. A considerable number of new multi-family units have been added in recent years and it is anticipated that because the growth of Murray State University has stabilized, fewer new units will be built in the near future.

The presence of the Clarks River and industrial areas on the east side of the planning area will most likely continue to limit an expansion of the urban services area and the planning area. The proximity to Murray State University and the other primary and secondary educational facilities should continue to direct residential development in the foreseeable future to the western portion of the planning area.

Existing Commercial Land Use

The commercial land use designates all land used for professional offices; wholesale and retail trade; personal and business services; repair services; contract construction services; recreation and amusement services, other than public parks; parking; commercial transportation services; and motels and transient lodgings. Commercial areas are used for retail and service purposes, and for both professional business and medical office space. Commercial businesses may be on a single lot or in various types of shopping centers. Map LU-3 shows the lands in the planning area currently used for commercial activities.

Commercial activity in the planning area is primarily directed along the major thoroughfares and in downtown Murray. Some limited neighborhood commercial areas exist off the major roadways.

Commercial lands in the planning area constitute 823 acres or 6 percent of the planning area. Commercial land within the Murray city limits increased 81 acres or 15 percent from 2008-2022. A small amount of commercial land lies outside the Murray city limits.

Commercial development in the planning area has typically been strip centers along both sides of the major arterial roadways. These strip centers, with individual entrances and parking lots for each business or center, promote congestion and tend to degrade the character of the neighborhoods where they are located. The development of small business centers scattered in the various neighborhoods should be encouraged.

The Central Business District (CBD) is a 9-block area in Murray centered on the Calloway County Courthouse. Recent improvements have been made to enhance the visual appeal and the viability of the CBD as a commercial center. These efforts to promote commercial activities in the CBD should be continued.

Existing Industrial and Warehousing/Distribution Land Uses

The Industrial and Warehousing land use categories denote development such as manufacturing, warehousing, distribution, service, and research-oriented enterprises. Map LU-4 shows the lands in the planning area currently used for industrial and warehousing/distribution activities.

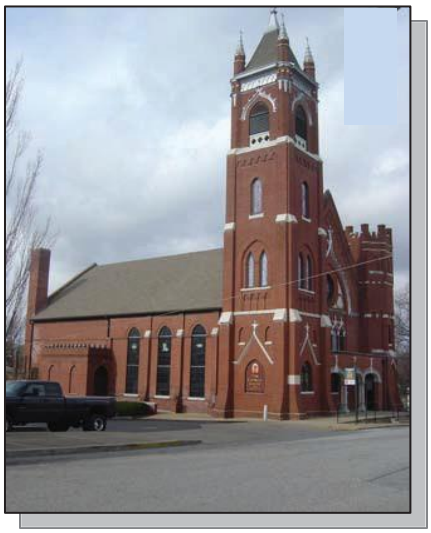
The Murray Planning Area consists of 618 acres of land used for industrial and warehousing activities. This acreage is 4 percent of the total acreage in the planning area. The amount of industrial/warehouse land in the Murray city limits increased by 16 acres or 5 percent from 2008-2022. Industrial land is generally concentrated on the north and east portions of the planning area. A new industrial park along US HWY 641 North at Robert Young Blvd has been developed with several new buildings, two are occupied. The remaining land has been readied for future development.

Existing Public, Semi-Public, Education, and Utilities Land Use

Public land use includes lands used for governmental services such as police and fire stations, community centers, libraries, parks, cemeteries, public parking facilities, and government administration offices and related facilities. Semi-public land use supports institutional and organizational facilities, including hospitals, religious institutions and nonprofit organizations. Education land use includes Murray State University, and the city and county school system facilities. Utilities land use includes facilities used for providing water, wastewater, stormwater, electric, natural gas, and telecommunication services.

Map LU-5 shows the lands in the planning area currently used for public, semi-public, education, and utilities purposes without consideration of land ownership or zoning. For this inventory, the Murray State University farms located within the planning area were classified as educational.

Existing Public, Semi-Public, Educational and Utility land uses are grouped for this discussion because they all relate in some form to the use of property by the general public. These land uses comprise 1,627 acres or 11 percent of the total land in the planning area. Lands used for these four purposes within the Murray city limits increased by 49 acres (3%) between the 2008 and 2022 inventories. These land uses are discussed in more detail in the Community Facilities Element of this Comprehensive Plan.



Education is the largest segment of these four land uses, constituting 800 acres or 6 percent of the planning area. Educational land uses increased by 15 acres from the 2008 to the 2022 inventories. Public and Semi-Public land are about the same as the educational lands. Lands used for Utilities constitute a relatively small fraction of these combined land uses.

The City of Murray and Calloway County government offices are generally located in the downtown area, including the Police Department. The Judicial Center is located on the downtown fringe. The Fire Department, previously located in downtown Murray, has moved to a new Fire Department located at the site of the Fire Station on 16th Street.

Existing Transportation Land Use

Transportation land use includes roadways and road rights-of-way; railroads; public walkways; and bikeways. The lands in the planning area currently used for transportation and related activities are shown on each of the land use maps. Transportation makes up 992 acres or 7 percent of the Murray Planning Area. The area of land consumed by roads and road rights-of-way in the Murray city limits decreased by 30 acres or -5 percent for 2008-2022. The Transportation Element of this Comprehensive Plan discusses the transportation land use in more detail.

Existing Agriculture Land Use

Agricultural land use includes land in an agricultural zoning district and land in zoning districts other than agricultural that is presently in crops or pastures and supporting farming activities.

Map LU-6 shows the agricultural lands in the planning area.

Agriculture lands constitute 6,382 acres or 44 percent of the Murray Planning Area. In the Murray city limits, the amount of agricultural land decreased from 2008-2022. A large portion of the other agricultural land may have been rezoned for other uses, but it was not developed and remained in agricultural production.

Existing Vacant Land

Vacant Land is a subcategory of each of the other land uses. The procedure for determining the existing land use category assigned to a vacant parcel of land was generally as follows:

Vacant Single Family Residential – land parcels without residential structures in areas zoned for single family residential use and the portion of larger agricultural parcels along major thoroughfares that have full urban services, single family zoning, and no residential structures.

Vacant Two Family Residential – land parcels without residential structures in single family zoned areas where the predominant buildings are two family structures, or the development plan showed predominantly two-family structures.

Vacant Multi-Family Residential – land parcels without residential structures in areas zoned for a multi-family land use.

Vacant Commercial – land parcels without a building that could be used for providing a commercial service in areas with commercial zoning and the portion of a larger agricultural parcel that contains a commercial use, like a radio station tower.

Vacant Industrial/Warehousing – land parcels in industrial zones that are not being actively used for agricultural production.

Table LU-4 shows a summary of the existing vacant land in the City of Murray and in the Urban Services Area. Map LU-7 shows the vacant land in the planning area by its parent land use. Vacant land within the Murray city limits comprised 801 acres or 13 percent of the developable (vacant plus developed) area and 11 percent of the total area. Vacant land within the planning area comprised 887 acres or 11 percent of the developable (vacant plus developed) area and 7 percent of the total area. Vacant land within the city limits increased by 86 acres or 12 percent from 2008-2022.

Table LU-4 Existing Land Use Summary – 2022 Vacant Land					
City Limits	Acres	% of Vacant Land	Urban Services Area	Acres	% of Vacant Land
Single Family Residential	360	45	Single Family Residential	444	50
Two Family Residential	5	1	Two Family Residential	6	1
Multi-Family Residential	19	2	Multi-Family Residential	19	2
Commercial	200	25	Commercial	200	23
Industrial/Warehousing	217	27	Industrial/Warehousing	218	24
Vacant Land Area	**801**	**100**	**Vacant Land Area**	**887**	**100**

For the vacant lands within the Murray city limits, residential uses comprised 384 acres or 48 percent of the total. Commercial uses comprised 200 acres or 25 percent of the total, while industrial and warehousing comprised 217 acres or 27 percent of the total. For the vacant land within the Urban Services Area, residential uses comprised 469 acres or 53 percent of the total. Commercial uses comprised 200 acres or 23 percent of the total, while industrial and warehousing comprised 218 acres or 24 percent of the total.

Table LU-5 shows the changes in vacant land between 2008 and 2022 within the Murray city limits. The most significant change was the net addition of 160 acres of industrial/warehousing land. Another significant change was the reduction of vacant residential land by 104 acres. The total amount of vacant land increased by 86 acres. The amount of vacant industrial land reported in the inventory is not a direct reflection of the amount of industrial land available in the Murray Planning Area. Because the 2008 inventory classified land as it was being used, there were several parcels with industrial zoning that were being farmed and were classified as agriculture rather than industrial. When considering future land use, these vacant parcels will be classified as industrial land.

Table LU-5 Comparison of Existing Vacant Land Uses Within the Murray City Limits – 2008-2022							
	2008			2022			
Vacant Land Use	Acres	% of Total Land	% of Vacant Land	Acres	% of Total Land	% of Vacant Land	CHANGE Acres, 2008-2022
SF Residential	436	6	61	360	5	45	-76
2F Residential	4	<1	1	5	<1	1	1
MF Residential	48	1	7	19	<1	2	-29
Commercial	170	2	24	200	3	25	30
Industrial/Warehousing	57	1	8	217	3	27	160
Total Vacant Land	**715**	**10**	**100**	**801**	**11**	**100**	**86**

Annexation

The annexations of property into the City of Murray are listed in Table LU-6. The table shows the date and ordinance number of the annexation, a description of the property, and the number of acres included in the annexation. The same ordinance number for two separate entries indicates that there were two pieces of property referenced separately in the ordinance. Generally, the two tracts were a tract of developable land and a tract of road right-of-way. Since the 2008 Land Use

Element was prepared, a total of sixteen annexations were conducted annexing approximately 274 acres into the City of Murray.

Table LU-6 Murray Annexations 2008-2023

2011-1541	7-28-11	Tract of land on US HWY 641 North, Murray Industrial Park	132.3
2012-1582	4-12-12	Tract of land at 190 Utterback Road	.5
2013-1599	2-8-13	Tract of land at 1620 Martin Chapel Road and right-of-way along Martin Chapel Road	2.6
2013-1601	2-8-13	Tract of land on north side of College Farm Road	2.6
2013-1609	7-25-13	Tract of land east of the intersection of HWY 94 West and Robertson Road North	6.8
2014-1634	5-22-14	Tract of land on the east side of Robertson Road South	14.9
2014-1639	6-26-14	Tract of land owned by City West and City of Murray on the east side or Robertson Road North	9.3
2014-1640	7-10-14	Tract of land on the east side of Bambi Lane	5.2
2014-1651	1-22-15	Tract of land located at Westside Baptist Church	14.2
2014-1654	2-12-15	Tract of land east of Falwell Estates	27.7
2015-1663	5-14-15	Tract of land at the intersection of US HWY 641 North and North 4th Street and Robert O. Miller	21.1
2015-1664	5-14-15	Tract of land located at 126 Robertson Road North	7.2
2015-1673	10-8-15	Tract of land located at 170 Utterback Road	.7
2017-1727	5-11-17	Tract of land located at 255 King Richard Drive	.5
2019-1771	3-14-19	Tract of land located on the east side of Brinn Road	20.0
2022-1818	02-25-22	Paschall Truck Lines Lot 3 at 3200 US Highway 641	8.2
Total Annexed Land			273.8

Of the sixteen annexations, one was greater than 100 acres. The largest annexation was a 132-acre tract in the Industrial Park on US HWY 641 N. Of the annexations, ten were less than 10 acres and 5 were between 10 and 30 acres.

Construction Activity

Table LU-7 gives a summary of the residential construction activity in the City of Murray for the period 2014-2022 as indicated by issued building permits. The year 2014 saw the greatest amount of single-family residential building activity during the study period. The building activity in the two-family segment was considerably higher in 2016 and 2018 during the study period. Multi-Family construction, indicating three or more families per building, was considerably greater in 2016 and 2017 than in previous years.

Table LU-7 Murray Construction Activity from Building Permits – 2014-2022						
	Single Family		Two-Family		Multi-Family	
Year	Units	Project Cost	Units	Project Cost	Units	Project Cost
2014	40	5,053,605	4	292,000	173	13,785,992
2015	15	2,721,101	8	599,000	74	3,729,500
2016	27	4,618,710	23	2,013,00	68	4,056,000
2017	18	3,662,755	6	415,000	68	4,089,095
2018	14	2,421,250	12	1,352,000	29	1,818,750
2019	14	3,289,792	2	184,000	24	1,021,965
2020	19	3,453,400	6	615,000	26	1,317,000
2021	23	5,279,914	0	0	24	3,986,000
2022	16	4,458,200	2	585,000	17	2,961,000

Table LU-8 compares residential and non-residential construction activity for building permits during the years 2014-2020. The total project costs for non-residential construction for the seven years were significantly greater than for residential construction. When looking at all residential construction, Murray has had a significant decline after 2017.

Table LU-8 Murray Residential and Non-Residential Construction – 2014-2020				
	All Residential		Non-Residential	
Year	Units	Project Cost	Units	Project Cost
2014	217	19,131,596	17	9,089,095
2015	97	7,052,601	74	23,547,257
2016	118	10,687,710	13	11,175,257
2017	92	8,166,850	12	3,692,407
2018	55	4,955,000	12	34,524,148
2019	40	4,495,757	6	1,289,777
2020	51	5,385,400	10	9,262,942
TOTAL	**670**	**59,874,914**	**144**	**92,580,883**

FUTURE LAND USE

The Future Land Use section describes the expected land use the planning area into the future. The future land uses were developed based on the goals and objectives established for the plan and sound planning principles. The Murray community contains a unique blend of agricultural, industrial, business, and academic lifestyles. The future land use portion of the plan builds on this unique blend of lifestyles with the goal of enhancing the quality of life in the Murray Planning Area through the integration of modern

growth policies and environmental enhancement. The integration of the environmental enhancements will increase the visual appearance of Murray so that it complements the unique lifestyle and thereby enhances the overall quality of life in Murray.

Future Land Use Principles

The five future land use principals and resulting goals defined in this section are a restatement of the land use goals and objectives adopted by Murray for the Comprehensive Plan and listed at the beginning of this Land Use Element. Each principle is defined along with a related goal and several strategies to achieve that goal. The strategies form the basis for the development of the future land use map for the Murray Planning Area. The strategies outline actions that can be taken to work toward the attaining of the goal. The full list of goals and objectives adopted by Murray for the Comprehensive Plan is contained in Appendix A.

1. Preserve Compact Nature

A compact nature taken from a broad perspective, rather than a site-by-site perspective, describes the overall organization of an area in terms of the relative location of the various land uses. A compact area is one in which trip distances are minimized to the extent possible. Compactness is the opposite of sprawl where there are discontinuous residential growth and strip commercial developments. Some examples of the advantages of a compact area include more efficient water and sewer service because lines are shorter, fewer, and smaller roads are required, and school bus routes are shorter.

The Murray Planning Area is bounded on the south and east by Clarks River, which creates a natural deterrent to the expansion of urban services. Even though limited residential development has already occurred east of the Clarks River and the city's natural gas system has been expanded to serve that area, large scale new development is not envisioned within the 10-year planning period. Similar geographical or topographical deterrents to development do not exist to the north and west.

A compact nature for the planning area must be achieved through sound growth management policies. Strategies generally include limiting the outward growth of the area while enhancing development activities within the planning area. New commercial developments should generally not be allowed on the periphery of the planning area but should be directed toward existing commercially compatible properties within the core of the planning area. The farther residential development occurs from the Murray downtown area, the more the "sense of place" for Murray becomes diluted.

A compact nature does not imply static population growth; rather it means smart, efficient growth directed to those portions of the planning area most able to sustain it in the best interest of the local citizens. Within the existing urban services area, Murray could accommodate growth in residential and commercial activity within the foreseeable future. However, the challenge is to mold and direct that growth to enhance the overall quality of life of the area.

A compact nature does not imply the intrusion of undesirable land uses into other land uses or the construction of high density or high-rise developments not in keeping with the character of Murray. Developing a compact nature should never be accomplished at the

expense of open area, green space, or environmental protection and enhancement.

Compact Nature Goal: Create a land use development pattern that efficiently provides delivery of governmental, commercial, and professional services; utilizes existing infrastructure resources; and maximizes return on infrastructure expenditures while maintaining the small-town nature of Murray.

Strategy 1: Limit Expansion of the Urban Services Area

Murray is planning a small expansion of sewer service on the southwestern edge of the current Urban Services Area (USA). When this expansion is completed and the urban services boundary is revised to include this area, new expansion will be limited, and the focus will be on development inside the urban services boundary. The Urban Services Area contains enough land to accommodate all the projected growth in Murray for the 10-year planning horizon. Since all other utilities are available except sewer service, limiting the expansion of sewer service will effectively limit expansion of the Urban Services Area.

Strategy 2: Keep New Residential Development in the Urban Services Area

Development within the USA must be encouraged to ease the pressure for development outside that area. To provide an incentive for development within the USA, the Planning Staff and the Planning Commission will adopt development alternatives that tend to reduce the cost of the infrastructure for residential development. One method for accomplishing this is conservation developments that maintain gross densities on a tract of land but allow smaller lots and larger amounts of green space. Since developments are generally more compact, the costs of utilities and roadways are reduced.

Other alternatives for reducing development costs and providing development incentives will be explored by the Planning Staff and the Planning Commission. In addition, the Planning Commission will discourage multi-family housing that supports Murray State University in areas that are not near the University.

Strategy 3: Encourage Neighborhood Commercial Activity

The location of commercial development has a direct impact on the traffic generated as residents travel to procure goods and services. In Murray, commercial development is generally concentrated along the major arterial roadways, resulting in significant traffic on these roadways. Some of the congestion could be relieved if goods and services could be procured closer to home. To encourage neighborhood commercial activity, the Future Land Use Map shows designated areas of commercial activity in neighborhoods. The areas will be called Neighborhood Activity Centers (NAC).

The NAC is a mixture of commercial uses that serve the needs of the neighborhood. The NAC must be designed so that it does not attract significant traffic from outside the neighborhood. The NAC must be designed and located to be easily accessible by pedestrians by walking, bicycling, or with low impact type vehicles; thereby minimizing traffic to the extent possible.

The NAC will contain small scale commercial uses that serve the neighborhood and might include commercial services like small groceries, small cafes, barber shops, beauty shops. The main focus of the NAC is commercial activity, but it might also include limited office, semi-public, and residential uses when they can be integrated with a minimum of traffic generation.

The Planning Staff and the Planning Commission will develop standards for the NAC's,

including design standards. Design standards should be developed to minimize asphalt areas and enhance, rather than detract from the beauty of the surrounding neighborhood. Landscaping and green space generation will be an important part of the design standards. Where possible, integrating a neighborhood park into the NAC would be desirable.

2. Enhance Small Town Community Character

Murray is a unique town with a progressive regional university that has won numerous awards for its educational value. Murray has also been recognized as a top retirement destination. Murray is in the center of an agricultural area and has the small town feel generally associated with agriculture. This blend of economies supports services and activities not generally associated with similar sized towns in Kentucky. The blends of these different cultures and the lifestyle they support give the residents of Murray a distinct pride in their community and its character. The character of Murray will be enhanced through land use practices and through the enhancement of the downtown area.

Community Character Goal: Enhance Murray's unique community character by protecting and enhancing core neighborhoods, the downtown, and historic areas, while providing for the efficient flow of people and goods throughout.

Strategy 1: Protect and Enhance Core Neighborhoods

A large part of the historical character of Murray is defined by its downtown area and the core residential areas that developed nearby. These neighborhoods are a resource that cannot be replaced and will be preserved to the extent possible. The Planning Staff and the Planning Commission will establish the boundaries of this core area and establish measures to maintain its integrity. In general, new developments in the core area will be of an architecture that resembles that area. Subdivision of lots into smaller residential lots will be allowed when development can maintain or improve the architectural quality of the neighborhood. The Planning Commission discourages the conversion of single-family residences in the core area to multi-family or commercial uses, except where Neighborhood Activity Centers can be developed.

In addition to the downtown core neighborhoods, the Planning Staff and the Planning Commission will prepare neighborhood plans for the neighborhoods that agree to form active neighborhood associations. The neighborhood plans will serve as guides for implementing public improvement projects and steering public and private investment in a specific neighborhood. The neighborhood association will be the vehicle for locating people in the neighborhood with leadership skills and relationships with the other neighbors. The implementation of the neighborhood plans will strengthen the neighborhood through an association with the public and private sectors.

Strategy 2: Protect and Enhance Downtown Gateways

Downtown as a destination is somewhat defined by the visual appearance of the major gateways leading there. For Murray these major gateways are Main Street and 4th Street. The Main Street gateway generally consists of older stately single-family homes, a library, and a school.

The Planning Commission will maintain the nature of this area by limiting the conversion of single- family residences to multi-family and commercial uses.

The 4th Street north and south gateways consist of mixed commercial uses and the

Calloway County Judicial Center. The Planning Staff and the Planning Commission desires that the appearance of these gateways be improved. Future Land Use Maps indicate that certain areas along the gateways should be converted from commercial uses to residential uses. In addition, architectural standards for new commercial activities will be developed by the Planning Staff and the Planning Commission to improve the appearance of the 4th Street gateway.

Strategy 3: Expand Downtown and Improve Downtown Vitality

Murray has completed improvements to its downtown area as a result of its Downtown Master Plan. The improvements center around the Courthouse Square, the area mostly associated with downtown Murray. The momentum needs to be continued in adjacent properties through rehabilitation and expansion of existing structures, the construction of new structures on vacant lots, and redevelopment of underutilized lots. As Murray continues to grow in the future, a downtown expansion could result from this focus. Where possible, the City of Murray will partner with the private sector to continue to enhance the downtown. Examples of partnering might include purchasing lots and buildings for redevelopment, development incentives, design assistance for innovative design, tax abatement, and the development of "spec" commercial buildings downtown. The Planning Staff and the Planning Commission will designate a downtown area and adopt development procedures and architectural and landscaping standards appropriate to downtown.

Strategy 4: Encourage Neighborhood Renovation and Revitalization

Murray has some older neighborhoods that need a focus for revitalization. In addition, several older neighborhoods not yet to the revitalization stage are candidates for some renovation efforts. Older homes and neighborhoods need to be inventoried to develop projects where grants or other funding mechanisms can be sought for renovation or revitalization. Where grant funding is not possible, incentive programs with the private sector should be developed to accomplish better housing for all citizens of Murray.

Strategy 5: Maintain Murray's Historic Character

Historic preservation is a key element in enhancing the character of Murray. Many different architectural styles exist that represent different eras in the development of Murray. Preservation efforts relate to the maintenance or expansion of a particular property. Historic preservation efforts in Murray currently are in the form of an overlay that creates a historic district where renovation and new construction techniques apply. Continued efforts for historic preservation will be coordinated with downtown revitalization, core neighborhood preservation, and downtown gateway protection.

Strategy 6: Strengthen Murray State University-City Planning Interaction

Murray State University is a major force in the development of Murray. Decisions by MSU are primarily to advance the mission of the institution; however, in many instances they have a major impact on Murray as a community, particularly with regard to the generation of traffic and traffic patterns. MSU has recently revised its Campus Master Plan. Land use decisions by the Planning Commission impact MSU particularly through the location of housing utilized by students. A good working relationship currently exists between the City of Murray and MSU and this relationship should be enhanced where possible. The relationship will be particularly beneficial when dealing with traffic issues as defined in the Transportation Element of the Murray Area Comprehensive Plan.

Strategy 7: Develop Progressive Zoning Ordinance and Land Development Standards
Zoning procedures and the standards by which land is developed are very important in shaping the future character of the Murray area. Different sections of this Land Use Element include items that should be considered in a new zoning ordinance and land development standards. Examples of changes to be considered by the Planning Staff and the Planning Commission include zoning land to match the planned future land use and land "set- asides" to create open space.

3. Enhance, Preserve and Protect the Environment

Murray is a very environmentally aware community. The environmental programs at Murray State University and the ever-increasing awareness of environmental impacts from human activity have fostered this environmental awareness. This principle recognizes the desire of the area's citizens that the development of land occur in an environmentally friendly manner and that the resulting developed land contains significant environmentally friendly green space. Streams, their associated floodplains, and forested areas are the most significant environmentally sensitive features in the Murray area. The common trend in environmentally friendly communities is to recognize that protection of environmentally sensitive areas and the provision of green space are important public facilities like utilities and roadways and not just desirable amenities.

Development in Murray should not compromise environmental integrity. Environmentally sensitive development recognizes that preservation is more important than mitigation of impacts. Sensitive environmental areas should be identified in advance of development and alternative uses of land planned accordingly. Conservation development and best management practices should be used as key measures to protect developing areas. Environmental standards must continually be reviewed and updated to keep pace with changing trends in environmental protection.

Environmental Goal: Maintain a natural environment by protecting, preserving, and enhancing natural resources and promoting design, development and construction practices that create green space, neighborhood connectivity, and a visually pleasing environment.

Strategy 1: Protect Trees and Create Green Space During Development
Trees provide a visual enhancement to the environment as well as provide needed shade. Many of the areas that will eventually be developed in Murray are agricultural areas that have very few trees. To provide the needed preservation of trees during development and the planting of trees after development, the Planning Staff and the Planning Commission will adopt tree preservation, tree replacement, and tree planting measures. These measures will protect high quality vegetation, protect natural corridors, and preserve and enhance community tree crown coverage.

A key element in the development and preservation of trees and green space is the identification of existing high- quality areas. The Planning Staff and the Planning Commission will inventory the developable land within the Murray Planning Area so that plans can be made to protect already existing high-quality areas.

The combination of trees and open/green space will provide an environmentally friendly enhancement to the Murray environment. The Planning Staff and the Planning

Commission will adopt measures for the provision of open/green space in new developments. These measures may take the form of development techniques that create open/green space, conservation easements, dedication of land by developers, or purchase of land during the development process.

The Planning Staff and the Planning Commission will also review and revise, where appropriate, the current landscaping requirements for new developments. A primary focus should be on the creation of green space buffers between developments of differing land use and density and improving the appearance of commercial and industrial properties. In addition, the Planning Staff and the Planning Commission will adopt measures to create vegetative corridors connecting developments and neighborhoods.

A key strategy in maintaining the visual appearance of an area is the installation of underground utilities. Murray currently requires the installation of underground utilities in new developments. This practice should be continued, and opportunities taken to bury existing above ground utilities when they are presented.

Strategy 2: Protect Floodplains and Water Quality

The Murray Planning Area contains the Clarks River and several of its tributaries. The quality of water in the Clarks River is dependent on the quality of water in these tributaries, especially during rainfall events. The sediment and nutrient trapping ability needed to protect the Clarks River and its tributaries lies in the headwater drainage system in the Murray Planning Area that consists of intermittent and ephemeral streams. Another issue is the loss of water storage capacity due to landscape alteration during development. Landscape alteration can lead to downstream flooding. Often, channel erosion and instability result from actions taken to control flooding.

The Planning Commission recognizes the importance of protecting the water resources in the Planning Area and, when evaluating developments, will look toward the protection and preservation of the existing stream network, including intermittent, ephemeral, and perennial streams. The Planning Staff and the Planning Commission will also inventory all streams in the Planning Area to identify all perennial, intermittent and significant ephemeral waterways, and natural drainage features.

Murray has a stormwater program that includes requirements used by the Planning Commission in the evaluation of new developments. These requirements will be reviewed by staff to incorporate the latest watershed protection measures to control the quality of runoff. Measures include watershed protection best management practices like bio-filtration; drainage buffer zones; the mitigation of channel degradation, particularly downstream of drainage structures; and prohibiting or limiting development in sensitive streamside zones.

Strategy 3: Promote Environmentally Sensitive Development

This strategy somewhat overlaps Strategies 1 and 2; however, the intent is to encourage the incorporation of environmentally sensitive measures into a development site plan throughout the site design process. Identifying and mapping sensitive areas and integrating environmental and more conservation-oriented design measures into site design can result in the creation of significant amount of valuable open/green space in the majority of new developments. The Planning Staff and the Planning Commission will incorporate into the review process the identification of sensitive areas during site design

and the use of open space generation techniques, like clustering, to facilitate the goal of attaining environmentally sensitive development in the Murray Planning Area. Land development standards will also be revised to incorporate safety and visual aesthetics in the physical design of developments.

Strategy 4: Promote the Use of Green Building Standards

Buildings are some of the largest consumers of energy and thereby have a large long-term impact on the environment. Ideally, structures shall produce more energy than they consume. This is done through a host of practices such as green roofs, solar panels, use of natural light, and utilizing environmentally safe construction materials. The ideas behind the design practices are for structures to be as energy efficient and environmentally friendly as possible.

The City of Murray will develop a new initiative to look for builders, of both residential and commercial structures, to adopt U.S. Building Council LEED design practices. As a part of this strategy, the city will consider the adoption of an incentive package for anyone that can build a structure that is LEED Certified. There are many state and federal funds that can possibly assist with this LEED construction initiative.

4. Develop and Enhance Quality of Life Measures

Quality of life is a key component for Murray to keep its current residents, attract new residents including retirees, and attract new commercial and industrial investment to the community. Murray currently has a high quality of life, but there are measures that can be taken to increase its attractiveness. There are many things that contribute to a high quality of life and some of these measures have already been addressed in Principles 1-3. Additional measures are discussed in this section.

Quality of Life Goal: Develop new programs, events, and other quality of life measures while enhancing existing cultural and recreational opportunities and where possible integrate these quality-of-life measures into all aspects of life in Murray.

Strategy 1: Enhance and Expand the Park System

The Community Facilities Element of this Comprehensive Plan discusses in detail the Parks and Recreation System in the Murray area. The Parks and Recreation Master Plan identified a need for the development of additional parks and recreational programs. The development of new park sites can be integrated into the development process by the use of conservation easements, land dedication, and in some cases the purchase of land. In many instances the open/green space created by conservation development practices may be suitable for parks.

The addition of park land is important to the citizens of Murray. The Planning Staff and the Planning Commission will evaluate new developments with an eye toward the acquisition of land suitable for parks. This will be facilitated by the revisions to review procedures described in Principles 1-3.

Strategy 2: Develop System of Recreational Walking and Bicycle Trails

Like parks, recreational walking and bicycle trails are an important component of the quality of life. When incorporated with open/green space, they present an area that is not only visually pleasing but also contributes to a healthy lifestyle for the citizens using them. Recreational trails can also be used to provide neighborhood connectivity. The Parks and

Recreation Master Plan identified a greenway connecting many of the neighborhoods in the southern and western portion of the Planning Area. In many instances land for this greenway trail and other recreational trails can be acquired during the land development process using techniques previously described for open/green space.

The development of recreational trails has been discussed for a number of years in the Murray area. A few trails have already been developed, particularly in the Clarks River area. Bicycle use was integrated into the rights-of-way of US Highways 641 and 80 but trails do not exist within the city to access these major highway trails.

The development of new recreational trails is an important aspect of Murray's growth in the quality of life. The Planning Staff and the Planning Commission will evaluate new developments looking toward neighborhood connectivity and the acquisition of land suitable for new recreational trails. Like the acquisition of park land, the revisions to review procedures described in Principles 1-3 will facilitate the process.

Strategy 3: Enhance the Use of Sidewalks

Sidewalks are a form of recreational trail and facilitate the opportunity of residents to move within and between neighborhoods without the use of automobiles. Sidewalks on both sides of the street in residential neighborhoods also contribute to a friendly atmosphere giving residents the opportunity to interact more freely than if sidewalks were limited to only one side of the street. The existing subdivision regulations require sidewalks within the street right-of-way on each side of arterial and collector streets in all subdivisions that are developed inside the corporate city limits, those lying in whole or in part inside the city limits, and those lying one-half mile from outside the corporate city limits. In certain instances, the Planning Commission may waive the use of sidewalks.

As part of the revision of the zoning ordinance, the subdivision regulations will be reviewed, and consideration will be given to extending the requirement for sidewalks to the entire Urban Services Area. In addition, the sidewalk waiver provision in the subdivision regulations will be reviewed. Changes in the subdivision regulations will also be considered to increase the width of sidewalks on one side of the street in appropriate situations to facilitate inter-neighbor and intra-neighborhood connectivity through the accommodation of alternative means of transportation.

5. Maintain Economic Opportunity

Approximately 29 percent of jobs and 32 percent of income result from jobs in education, health care and social assistance, giving a stable employment base. Approximately 11 percent of the jobs and 17 percent of the income come from manufacturing. Despite current challenges in the manufacturing sector due to the national downturn, future economic potential for the Murray area appears good. The completion of the industrial park on US HWY 641 North gives the area excellent future potential for attracting new industrial investment and the resulting jobs. The continued growth of the Murray Calloway County Hospital and the completion of the expansion there also bode well for the future of the Murray area. Agriculture will also continue to play an important role in Murray's economic future.

The quality of life is high in Murray and the actions taken as a result of this Comprehensive Plan should ultimately make it even better. The quality of life and proximity to Kentucky Lake and the Land Between the Lakes National Recreational Area should prove to be positive and important factors for the Murray area in recruiting new businesses, new

residents and including retirees, and developing income from tourism.

Economic Goal: Build upon Murray's quality of life assets and location to encourage new capital investment and the creation of quality jobs to enhance Murray's strong economic base.

Strategy 1: Designate Lands for Quality Employment Opportunities

Land use planning and zoning efforts in Murray should make sure that there is an adequate amount of appropriately planned or zoned land available for investment to create employment opportunities. Designation of lands for future economic activity will be used in this plan to avoid the conversion of agricultural land to other uses that are not compatible with economic development goals.

Strategy 2: Redevelop Appropriate Sites

An important strategy for Murray is to redevelop sites that are currently vacant or underutilized to create employment opportunities. In many cases these sites can be developed for specific uses at costs less than new sites on vacant land. There are several sites along arterial roadways as well as the area east of 4th Street in the proximity of downtown that could be redeveloped to provide employment opportunities. The City of Murray will investigate strategies that might be used to partner with the private sector in redeveloping appropriate properties. Examples of strategies include tax abatements, brownfields redevelopment, the revision of building codes, and the development of "spec" buildings.

Strategy 3: Develop New Opportunities

Cultural and sports tourism represent excellent opportunities for the Murray area to increase economic activity. Murray currently has several excellent festivals promoted by the Convention and Visitors Bureau. In addition, Murray State University facilities like the West Kentucky Livestock and Exposition Center and the Murray State CFSB Center support a number of sporting and cultural events. An opportunity currently being pursued by Murray is the development of a sports complex to host youth baseball tournaments.

With the facilities available for hosting cultural and sports tourism in the Murray area, the area is uniquely positioned to capitalize on new economic and employment opportunities in this area. Like for other economic development activities, the City of Murray should, where necessary, use its resources and possibly incentives to the private sector to develop new events and new facilities for these events.

Strategy 4: Use Public Capital to Foster Private Investment

The marginal profitability of a private venture may sometimes prevent the realization of a job-creating opportunity. Government entities generally have access to capital markets at rates not available to private entities. Often deals can be made for governments to leverage their resources and create incentives to assist private entities in job creation ventures. A limited program for this exists at the Purchase Area Development District. In conducting its capital planning each year, the City of Murray should, not only look to plan and implement public capital investment to maintain and enhance existing public facilities, but also look at capital expenditures to stimulate private investment in the community.

Future Land Use Map

General

The Future Land Use described in this section of the plan is shown on Map LU-8 and depicts the generalized land use categories that will guide development and redevelopment throughout the planning period. Each land use category shown on the map permits a range of land uses, densities, functional uses, and intensities as set forth in the zoning ordinance. The Future Land Use Map; the future land use principals, goals, and strategies in this plan; and the zoning ordinance are all key criteria in establishing the boundaries of the land use categories depicted on the Future Land Use Map and will determine the exact type of land use and the density and intensity appropriate at any one location.

In developing the land use boundaries shown on the map, areas were identified based on their primary anticipated future land use. For example, in several residential areas there was an existing mix of predominantly single-family detached structures and a small number of multi- family units. Since these areas were desired as future low density residential areas, the entire area was shown as low density.

The boundaries between different land use categories depicted on the map generally follow existing or proposed geographic features such as roadways, rail and utility rights-of-ways, the edges of natural and manmade watercourses, or property lines. In some instances, the boundaries may be offsets from these features, like 100 feet off the road right-of-way. Where the location of the boundary between contiguous land uses cannot be clearly determined from the map, the Planning Staff and the Planning Commission will establish the boundary.

The boundaries shown on the map for the commercial areas specified as Neighborhood Activity Centers (NAC) are not fixed. These areas are shown in generalized locations where it was believed this use would be appropriate. The Planning Staff and the Planning Commission will establish the actual boundaries of these areas as development plans are reviewed.

Summary of Future Land Use

Table LU-9 shows the distribution of future land uses inside the Murray city limits as compared to the existing land use determined from the land use inventory. The total area within the incorporated Murray city boundary is 7,471 acres or approximately 52 percent of the Murray Planning Area. The three largest changes from existing land use to future land use are in the agriculture, commercial, and industrial land uses. Agriculture land use is decreased by 1,079 acres and is indicative of the industrial and commercial expansion occurring in the city. Commercial land use is increased by 285 acres indicative of the expansion of future commercial lands. Industrial land use increased by 453 acres. The industrial land use change was primarily due to the completion of the Industrial Park on US HWY 641 North. The City Limits Future Land Use Summary is shown in Table LU-9.

Compared to the future land use acreages in the 2008 Land Use Element; future residential land uses decreased by 134 acres, future commercial land uses increased by 192 acres, and future industrial land uses increased by 146 acres. The total of future public, semi-public, education, utilities, and transportation land uses increased by 42 acres.

Table LU-9 Murray City Limits Future Land Use Summary -2022

Land Use	2008 FUTURE (Total Acres)	2022 EXISTING (Total Acres)	2022 FUTURE (Total Acres)	2022 Difference between existing and future (Acres)
Residential	3064	2738	2930	192
Commercial	930	837	1122	285
Industrial	846	539	992	453
Public	438	433	446	13
Semi-Public	231	265	258	-7
Education	666	648	669	21
Utilities	49	50	50	0
Transportation	755	636	758	110
Agriculture	211	1325	246	-1079
Total	7190	7471	7471	0
Source: City of Murray Planning Department				

Table LU-10 summarizes the future land uses in the planning (urban services) area as compared with the existing land use. There are 14,431 acres within the Murray Planning Area boundary. When considering the entire planning area, considerable changes are evident in the residential and industrial land uses. The large increase in future residential land use results from the conversion of large areas of existing agriculture in the southwestern portions of the planning area, currently outside the city limits, to low density residential land use. The large increase in future industrial land use results from the conversion of large areas of agricultural land use in the northern portion of the planning area, currently outside the city limits, to industrial land use. The corresponding decrease in agricultural land use is evident in the table.

Compared to the future land use acreages in the 2008 Land Use Element, residential land uses in the planning area decreased by 257 acres, commercial land uses increased by 181 acres, and industrial land uses increased by 239 acres. The total public, semi-public, education, utilities, and transportation land uses increased by 51 acres.

Table LU-10 Murray Planning Area Future Land Use Summary - 2022				
Land Use	**2008 FUTURE (Total Acres)**	**2022 EXISTING (Total Acres)**	**2022 FUTURE (Total Acres)**	**2022 Difference between existing and future (Acres)**
Residential	5448	3,641	5,191	1,550
Commercial	1283	1,023	1,464	441
Industrial	1512	836	1,751	915
Public	459	452	467	15
Semi-Public	288	314	306	-8
Education	823	800	822	22
Utilities	61	61	61	0
Transportation	1134	922	1,160	238
Agriculture	3423	6,382	3,209	-3,173
Total	14,431	14,431	14,431	0
Source: City of Murray Planning Department				

The following sections describe the Future Land Use by individual land use categories. Descriptions are provided for the Murray incorporated area and the Murray Planning Area (Urban Services Area).

Future Residential Land Use

Residential land use generally allows for the non- transient population and includes single family dwellings, multi-family dwellings, congregate living facilities, and manufactured home parks. MSU student dormitories are not included in this category but are considered educational land use. Residential land use is divided into three categories; Low Density Residential, Medium Density Residential, and High Density Residential and each are discussed below.

These classifications are used instead of the classifications used in the land use inventory as they better reflect the development densities contained in the zoning ordinance. Mobile home parks were included in the Medium Density Residential category and congregate living facilities were included in the High-Density Residential category. By

making many types of housing compatible to an area, the city can accommodate a wide variety of residential preferences, responsive to changing market demands.

Some land uses other than residential living quarters are allowed in all residential areas. These other land uses support and complement the residential category by allowing essential services to be located near living quarters. Churches and related activities are generally allowed in low density residential areas. In medium- and high-density residential areas, churches and other non-profit public or private facilities like schools, parks, and recreational facilities may be allowed. Also, supporting commercial activities like small animal clinics, coin laundries, barbershops, beauty shops, fraternity and sorority houses, nursing homes, rest homes, retirement homes, convalescent homes, day care nursing schools, and similar activities may be allowed in medium-density residential areas. In high density residential areas, coin laundries, barber shops, beauty shops, drug stores neighborhood groceries, restaurants, and similar activities may be allowed.

When locating other land uses in close proximity to residential uses, land compatibility must be considered to avoid the introduction of urban activities that might have a detrimental effect on residential activities. Where residential and commercial uses are allowed in close proximity, landscaping and screening standards should provide an adequate separation of the two uses.

One of the guiding principles of this plan is environmental enhancement. Site development standards for all residential developments will be revised to promote the environmental enhancement “green” initiative for Murray. This includes the planting of trees, preservation of green space, walking trails, and building construction. In addition, the Planning Staff and the Planning Commission will consider ways to monitor developments to ensure that the “green” initiatives undertaken are preserved throughout the development and post-development period.

Another guiding principle of this plan is enhanced quality of life through access to public parks. Also, in conjunction with the Transportation Element of this Comprehensive Plan, land development standards will be revised to require the connection of all existing and future residential developments through a system of non-vehicular means of transportation like sidewalks, bike lanes, walking trails, etc.

The lands designated for the three future residential categories are shown on Map LU-11. Tables LU-11 and LU-12 compare the future residential land uses inside the Murray city limits and the Murray Planning Area with the existing land use from the 2022 inventory. The inventory’s categorization of residential land use as single family, two family, multi-family, manufactured housing, and congregate living was consolidated to match the future land use categorization by calling existing single family residential comparable to low density residential; existing two- family, three family, four family residential, and manufactured housing comparable to medium density residential; and existing multi-family residential and congregate living comparable to high density residential.

Table LU-11 Murray City Limits Future Residential Land Use Summary			
Land Use	**EXISTING (Total Acres)**	**FUTURE (Total Acres)**	**Difference (Acres)**
Low Density Residential	2179	2157	-22
Medium Density Residential	236	553	317
High Density Residential	323	220	-103
Total	**2738**	**2930**	**192**

Table LU-12 Murray Planning Area Future Residential Land Use Summary			
Land Use	**EXISTING (Total Acres)**	**FUTURE (Total Acres)**	**Difference (Acres)**
Low Density Residential	3008	4357	1349
Medium Density Residential	291	601	310
High Density Residential	350	233	-117
Total	**3649**	**5191**	

In general, lower density residential land use is primarily concentrated in the southern and southwestern portions of the planning area. Lower density residential development trends in recent years have been toward the southwestern part of the planning area. The future land use map shows the trend for residential development to continue to increase to the southwestern portion of the planning area. An expansion of the urban services area is planned in the southwestern portion of the planning area to support this development trend.

Higher density residential developments are generally located in the northwestern portion of the planning area. The future land use map envisions that future high-density residential developments would continue to be located primarily in this area. Medium density residential development is generally scattered throughout the planning area, providing a mix of available housing. The future land use map envisions the continuation of medium density residential development mixed with high- and low-density developments throughout the area.

Low Density Residential: Generally, single family detached housing will be the predominant land use in the low-density residential category, although manufactured homes, patio homes, and two-family dwellings may also be permitted in appropriate locations. Low density residential areas are for housing developments with gross densities up to 4.3 dwelling units per acre. The intent of this land use category is not to allow the maximum density to be attained throughout an entire area designated for a low- density residential land use. Rather, the intent is that in each area there be a mix of developments

of various densities to achieve an average density that is less than the maximum density. In addition to the other types of uses allowed in all residential categories, home occupations may be allowed in this category where it is incidental to the principal use.

Map LU-9 shows that in the Murray Planning Area and within the Murray city limits, low density residential land use occupies the largest single land use category. The existing low-density residential land use determined from the inventory within the Murray city limits was 2179 acres. The future land use map shows a low-density residential land use of 2157 acres for a decrease of -22 acres. This decrease is primarily the conversion of low-density residential portions of the planning area to medium-density residential uses. The existing low-density residential land use determined from the inventory for the Murray Planning Area was 3008 acres. The future land use map shows low-density residential land use in the planning area of 4,357 acres for an increase of 1,349 acres. This additional acreage is mostly in the southwestern and west central portions of the planning area where agricultural land use is converted to low density residential land use.

The following criteria provide guidance to the Planning Staff and the Planning Commission for the evaluation of Low-Density Residential development:

- Vacant tracts shall generally be predominantly developed for single-family residential uses.
- Residential planned development projects with mixed residential densities and varied housing types and limited non-residential uses, where supported by adjacent land use patterns may be considered.
- All new developments in low density residential areas should be supported by an adequate level of street connectivity and other public services.
- Existing core single family residential neighborhoods near downtown and in the Murray State University area may be protected by discouraging the conversion of single-family dwellings to multi-family or commercial uses.
- Revitalization of older, single family residential neighborhoods will be encouraged to help promote growth in surrounding neighborhood businesses, schools, and existing infrastructure.
- Small lot subdivisions with high densities may be allowed in infill and redevelopment areas in existing neighborhoods where they fit in with the character of the neighborhood.
- Office and commercial uses that serve the neighborhoods may be allowed where appropriate at the edge of these residential areas that front arterial roadways.
- Maximum allowable densities are defined in the zoning ordinance; however,

any low- density residential area depicted on the Final Land Use Map should be developed so that the average density is less than the maximum density.

Medium Density Residential: The medium density residential category is intended to be used for the development of neighborhoods of one- and two-family detached structures or lower density developments with structures containing no more than four units per structure. Mobile home parks are generally included in specified areas in this category. Medium density residential areas are for single or small unit multiple family housing developments with gross densities up to 12.9 dwelling units per acre. The intent of this land use category is not to allow the maximum densities to be attained throughout an entire area designated for medium density residential land use. Rather, the intent is that in each area there be a mix of developments of various densities to achieve an average density that is less than the maximum density. Developments should be designed to provide a wide variety of housing types. If the design of each development is coordinated with the surrounding area, single-family homes, duplexes, and larger apartment buildings could co-exist in one neighborhood.

Table LU-11 shows that medium density residential future land use comprises 553 acres, indicating an increase of 317 acres from the existing land use of 236 acres. This increase is primarily from the recommended conversion of three formerly planned low-density residential areas at these locations.

1. West and south of the Murray State University campus.
2. In the southern part of the city adjacent to Doran and Wiswell Roads.
3. In the eastern part of the city between Chestnut and Olive Streets and 5th and 7th Streets.

These changes are illustrated in Map LU-8, Map LU-8.1 and Map LU-8.2. Increasing possible density in these areas is consistent with currently adopted overall Goals and Objectives and the Land Use Goals and Objectives. These areas of increased density are consistent and compatible with both existing zoned properties and proposed future land uses. These areas also meet the land use criteria for providing guidance to the planning commission in evaluating Medium Density Residential Development. There are no anticipated detrimental impacts to transportation or community facilities and services with these proposed changes.

Rationale for Conversion of Low-Density Residential Usage to Medium-Density Residential Usage

1. West and south of the MSU campus

The rationale for increasing allowable density around the MSU campus is straightforward. This will allow for more student accommodations near campus, helping to maintain a campus that is walkable/bikeable for much of the student population. This will also help to reduce traffic congestion and parking issues on campus.

2. In the southern part of the city adjacent to Doran and Wiswell Roads

The rationale for increasing allowable density for the area adjacent to Doran and Wiswell Roads is that the proposed area already abuts an area of R-3A zoning and that increasing density in this area will enable the city to better meet increasing demand for higher density housing. Special design considerations such as increased setbacks from adjacent single-family homes, increased buffering, and tree preservation may be needed to ensure harmony between residential uses of varying densities.

3. In the eastern part of the city between Chestnut and Olive Streets and 5th and 7th Streets

The rationale for increasing allowable density in the eastern part of the city between Chestnut and Olive Streets and 5th and 7th Streets is that much of the area is already zoned R-3 thus the Future Land Use Map should reflect that. This would also allow single family Planned Development Projects through the conditional use process.

Increasing possible density in these areas is consistent with currently adopted overall Goals and Objectives and the Land Use Goals and Objectives. These areas of increased density are consistent and compatible with both existing zoned properties and proposed future land uses. These areas also meet the land use criteria for providing guidance to the Planning Commission in evaluating Medium Density Residential Development. There are no anticipated detrimental impacts to transportation or community facilities and services with these proposed changes.

The following criteria provide guidance to the Planning Staff and the Planning Commission for the evaluation of Medium Density Residential development:

- Vacant tracts shall generally be predominantly developed for single-family and multi- family residential uses to facilitate development of a compact nature in locations with high levels of public infrastructure capacity.
- Residential planned development projects with mixed residential densities and varied housing types and non-residential uses where supported by adjacent land use patterns may be considered.
- Mobile home parks may be considered where ready access exists to public services, including transportation and social services.
- All new developments in medium density residential areas should be supported by an adequate level of street connectivity and other public services.
- Office and commercial uses that serve the neighborhoods may be allowed where appropriate at the edge of these residential areas that front arterial roadways.
- Maximum allowable densities are defined in the zoning ordinance; however, any medium density residential area depicted on the Final Land Use Map should be developed so that the average density is less than the maximum density.
- New medium density developments may be appropriate as buffers between low density areas and high density residential or commercial areas.

High Density Residential: The high-density residential category is intended to be used for the development of neighborhoods at the higher densities allowed by the zoning ordinance. Congregate living facilities are generally included in this classification. High density residential areas are for large, dense multiple family housing developments with gross densities up to 15.8 dwelling units per acre. The intent of this land use category is not to allow the maximum densities to be attained throughout an entire area designated for high-density residential land use. Rather, the intent is that in each area there be a mix of developments of various densities to achieve an average density that is less than the maximum density. The existing high- density residential land use determined from the inventory within the Murray city limits was 323 acres. Map LU-9 shows for the Murray city limits the high density residential future land use is 220 acres indicating a decrease of 103 acres. This decrease is primarily the conversion of land with lower density multi-family developments in the city to medium-density residential land use. The existing high-density residential land use determined from the inventory for the Murray Planning Area was 350 acres. The future land use map shows in the Murray Planning Area the high density residential future land use is 233 acres for a decrease of 117 acres.

Future demand for high density residential areas will continue to increase in the Northwest planning area, near the university, and nearby high-volume commercial areas. Future development sites should be large enough for proper site design. The future land use map shows two new significant areas of high-density residential development. They are an area west of 12th Street in the Stadium View Drive area adjacent to the TVA power line easement and an area east of 12th Street and south of Glendale Road.

The following criteria provide guidance to the Planning Staff and the Planning Commission for the evaluation of High- Density Residential development:

- Vacant tracts shall generally be predominantly developed for multi-family residential uses to facilitate development of a compact nature in locations with high levels of public infrastructure capacity.

- Residential planned development projects with mixed residential densities and varied housing types and non-residential uses where supported by adjacent land use patterns may be considered.

- Suitable accessibility to commercial areas should be available in high density residential developments not only by street connectivity but also by encouraging the use of sidewalks, bike lanes, walking trails, etc.

- All new developments in high density residential areas should be supported by an adequate level of street connectivity and other public services.

- Developments on two-lane roads that are at, or near capacity during peak travel times and that are not suitable for widening should not be approved.

- Housing oriented to students shall be discouraged at locations distant from the Murray State University campus but shall be encouraged at suitable locations near the campus.

- Office and commercial uses that serve the neighborhoods may be allowed where appropriate at the edge of these residential areas that front arterial roadways.

- Access to public transportation shall be a consideration for new developments.

- Maximum allowable densities are defined in the zoning ordinance; however, any high-density residential area depicted on the Final Land Use Map should be developed so that the average density is less than the maximum density.

- New high-density developments may be appropriate between medium density areas and commercial areas.

Future Commercial Land Use

Commercial land use generally allows for the activity necessary to provide goods and services. The commercial activity includes businesses of all types and professional and business office space. Commercial ventures create jobs that provide an essential part of the Murray and Calloway County economy. These ventures may be located in free-standing buildings or in various types of shopping centers. Shopping centers generally contain on-site and off-street parking and are owned and operated by a single entity. Shopping centers are broadly classified on the basis of size and service radius. A neighborhood shopping center is small, serving the immediate needs of the surrounding neighborhood while a community shopping center is larger, serving the needs of several neighborhoods. A regional shopping center serves several communities and generally includes a large area and several shopping locations. Murray can be classified as a regional shopping location containing several businesses that cater to residents and businesses in the surrounding counties.

Commercial areas in Murray provide for all types of wholesale and retail enterprises, including grocery stores, restaurants, fruit markets, drugstores, barber shops, beauty shops, shoe repair shops, laundry and dry-cleaning shops, movie theaters and drive-in's, offices, hotels and motels, auto sales, bakeries, antique shops, clothing stores, and electronic sales and repair shops. Churches are permitted in commercial areas in Murray. Land uses other than commercial activities are allowed in commercial areas. Examples of these uses include libraries, parks, recreational facilities, utilities, and public protection facilities.

In the development of commercial areas, it is important that the uses accommodated should not have a detrimental effect on residential and other non-residential neighbors. In most instances, transitional businesses, commonly in the form of professional office facilities, offer a buffer that can help provide protection of residential uses from the undesirable external effects of other more intensive commercial uses. In all cases, landscaping and screening standards between residential and commercial developments should be designed to provide adequate separation. In addition, site development standards for commercial developments should be revised to promote the environmental enhancement "green" initiative for Murray that is one of the basic principles of this plan. This includes the planting of trees, preservation of green space, walking trails, and building construction. In addition, the Planning Staff and the Planning Commission will consider ways to monitor developments to ensure that the "green" initiatives undertaken are preserved throughout the development and post-development period.

Map LU-9 shows the future commercial land use in the Murray city limits and within the Murray Planning Area. The existing commercial land use determined from the inventory within the Murray city limits was 837 acres. The future land use map shows 1,122 acres of commercial land use in the Murray city limits, an increase of 285 acres. This increase is primarily the result of the conversion of agricultural and residential land to commercial land. The existing commercial land for the Murray Planning Area was 1,023 acres. The future land use map shows 1,464 acres of commercial land in the Murray Planning Area, an increase of 441 acres. The increase in commercial land within the planning area, but outside the city limits, results from conversion of agricultural land to commercial land.

The major commercial areas in Murray are generally concentrated along and adjacent to US HWY 641. The downtown central business district is also a major commercial area for Murray. The primary expansions of commercial activity in this Land Use Element include an area on the north side of Chestnut Street near the intersection of 4th Street and Chestnut Street and areas along Opportunity Drive. Commercial expansion is also included in the area between North 12th Street and north 16th Street in the vicinity of the TVA Electrical Transmission Line. Development of limited commercial Neighborhood Activity Centers is also projected for residential neighborhoods in the southwest portion of the planning area.

General guidance for future commercial uses includes avoiding strip commercial uses as discussed in earlier sections of this element. In addition, new commercial developments should be created so there is suitable accessibility. Also, they should complement existing commercial developments, should not be a detriment to other land uses, particularly residential uses, and should not greatly diminish the level of service on roadways. Developments on two-lane roads that are at or near capacity during peak travel times and are not suitable for widening will not be approved. Consideration will be given to all developments as to the most

efficient way of transporting customers by public transportation or by non-vehicular means.

Commercial land use in Murray is divided into five categories: Neighborhood Businesses, Highway Businesses, Central Business District, Medium Density Businesses, and Professional Office. A brief, general description, and Planning Staff and the Planning Commission guidance for each of these uses is given below.

Neighborhood Businesses: Businesses that meet the needs of the immediate neighborhood by providing a narrow range of retail services and convenience goods and services.

The following criteria provide guidance to the Planning Staff and the Planning Commission for the evaluation of Neighborhood Business development:

- Planned development projects and other non-commercial uses may be considered where supported by adjacent land use patterns.
- All new developments in neighborhood commercial areas should be supported by a high level of street connectivity and other public services.
- Neighborhood Activity Centers, a mixture of commercial uses that serve the needs of the neighborhood in residential areas, are desirable and should be encouraged. They should not attract significant traffic from outside the neighborhood and be easily accessible by walking, bicycling, or with low impact motorized vehicles, thereby minimizing parking areas and traffic to the extent possible.
- Neighborhood business commercial areas are for the regular convenience of adjacent residential neighborhoods and shall be in environmentally well planned and visually appealing developments that are quiet and well buffered from adjacent residential areas.
- Safety and visual aesthetics should be incorporated in the physical design based on new land development regulations to be adopted.
- Existing commercial businesses serving neighborhoods should be preserved and enhanced instead of creating undesirable larger commercial developments.
- Office uses in neighborhood centers shall be at a scale that serves the adjacent neighborhood.

Highway Businesses: Businesses that provide for a broad range of general retail including areas where commercial activities have replaced or are replacing residential areas.

The following criteria provide guidance to the Planning Staff and the Planning Commission for the evaluation of Highway Business development:

- Planned development projects and other non- commercial uses may be considered

where supported by adjacent land use patterns.

- All new developments in highway commercial areas should be supported by an adequate level of street connectivity and other public services.
- Highway commercial areas shall be in environmentally well planned and visually appealing developments that are well buffered from adjacent residential areas.
- Strip commercial areas are discouraged in favor of larger concentrations of general commercial areas.
- New developments and redevelopment activity shall have a balanced mix of activities permitted by the zoning ordinance.
- Redevelopment and expansion, especially in marginal and deteriorating commercial areas, shall take advantage of the opportunity to improve signage, access, and landscaping.
- Access should be provided for all modes of transportation.
- Street cuts should be minimized to improve access management and allow more area for landscaping.

Central Business District: The area that forms the center for commercial, financial, professional, governmental, and cultural activities.

The following criteria provide guidance to the Planning Staff and the Planning Commission for the evaluation of development in the Central Business District:

- Planned development projects and other non- commercial uses may be considered where supported by adjacent land use patterns.

- All new developments in downtown commercial areas should be supported by a high level of street connectivity and other public services.

- The central business district with its many unique and historic structures should be protected and improved.

- Development of mixed uses with storefront retail, professional office, and residential dwelling uses should be promoted.

- Access to public transportation should be encouraged.

- Priority should be given to the development of vacant or under-utilized buildings and lots.

- All new projects should improve the overall appearance of the area by removing or enhancing unsightly utilities, signs, and other outdated physical features.

Medium Density Businesses: Businesses that provide limited retail and services and professional offices in areas adjacent to residential neighborhoods.

The following criteria provide guidance to the Planning Staff and the Planning Commission for the evaluation of Medium Density Business development:

- Planned development projects and other non-commercial uses may be considered where supported by adjacent land use patterns.

- All new developments in medium density commercial areas should be supported by a high level of street connectivity and other public services.

- Medium density commercial areas shall be in environmentally well planned and visually appealing developments that are quiet and well buffered from adjacent residential areas and have transit accessibility and reduced parking.

- Existing commercial businesses serving neighborhoods should be preserved instead of creating undesirable larger commercial developments.

Professional Offices: Areas generally serving as transitional space between residential and commercial uses and providing for a mixture of office related activities.

The following criteria provide guidance to the Planning Staff and the Planning Commission for the evaluation of Professional Office development:

- Planned development projects and other non-commercial uses may be considered where supported by adjacent land use patterns.

- All new developments in commercial areas should be supported by an adequate level of street connectivity and other public services.

- New developments should strive for a campus-like design with well landscaped common space.

- Commercial services, subject to the zoning ordinance, should be only at a scale to serve the needs of the office development.

- Buildings and sites that have access to multiple road frontages should be designed and landscaped to be equally visually pleasing from all viewpoints.

Future Industrial Land Use

The industrial category is intended to be used for the development of industrial, manufacturing, warehousing, distribution, and other related uses. Industrial and warehousing uses are generally considered to be those that might cause the most undesirable impacts on other land uses. Traditionally, noise, odors, toxic chemicals, and transportation impacts from large trucks and workers are associated with industrial activity. Typical industrial and warehousing activities include manufacturing, packaging, mini-warehouses, commercial warehousing, and distribution centers. Other industrial activities include construction yards, machine repair shops, bulk storage of liquids, scrap storage and processing yards, and research facilities.

In Murray, industrial activity is described as either light or heavy. Heavy industry includes those industries where the processing of products results in emission of any atmospheric pollutant, light flashes or glare, noise, or vibration that may be heard and/or felt off the premises. Heavy industry also includes those operations that constitute a fire or explosion hazard. Industries where the processing of products cause none of these impacts are considered light industry.

Permitted accessory uses in the industrial areas include off street parking areas and structures, dwelling units for caretakers, fenced outdoor storage areas, internal areas serving food to employees, offices, and recreational areas for employees. Permitted conditional uses include outdoor storage and processing areas, retail sales and consumer services, non-residential planned development projects, churches and related activities, and adult oriented businesses.

The location of additional new industrial areas must take into consideration the traffic generated by the industrial activity as well as potential noise, odors, and the other potential negative aspects of industrial activity. However, locating new industrial areas in the planning area has the positive effect of locating jobs near the population center and decreasing commuting times and distances for those employed in the industrial areas. Locating new industrial land in the planning area also takes advantage of the infrastructure that exists in the form of roads, water, wastewater, and electricity.

Newly developed industrial areas should be encouraged to provide attractive building facades and the integration of stormwater runoff controls into site landscaping to limit the negative impacts of industrial activity in terms of visual appearance and stormwater runoff. In many cases the use of landscaped screens would be of benefit to improve the acceptability of industrial areas.

Map LU-9 shows the future industrial land use in the Murray city limits and within the Murray Planning Area. The existing industrial land use determined from the inventory within the Murray city limits was 539 acres. The future industrial land use map shows 992 acres of industrial land use in the Murray city limits indicating an increase of 453 acres. This increase is primarily the result of the conversion of agricultural lands in the industrial areas of Murray to industrial land use. The existing industrial land use determined from the inventory for the Murray Planning Area was 836 acres. The future land use map shows 1,751 acres of industrial land use in the Murray Planning Area, an increase of 915 acres.

The increase in industrial land use within the planning area, but outside the city limits, resulted from the conversion of agricultural land use to industrial land use near the new industrial park on US HWY 641 North.

Industrial and warehousing land use is generally located in the north and northeast portion of Murray, east of 12th Street and US HWY 641 North. A new industrial park has been

completed west of US HWY 641 North in the northern portion of the planning area. Future industrial growth is expected to occur in these areas with the expansion in the area of the new industrial park west of US HWY 641 North.

The following criteria provide guidance to the Planning Staff and the Planning Commission for the evaluation of Industrial development:

- Non-residential planned development projects and other non-industrial uses may be considered where supported by adjacent land use patterns.
- All new developments in industrial areas should be supported by an adequate level of connectivity to arterial streets and other public services.
- New developments and buildings should be well landscaped to provide a visually pleasing buffer between sites and adjacent land uses.
- Approved industrial uses should monitor the negative effects of vibration, noise, air quality, water quality, and outdoor storage on surrounding properties.
- New industrial land uses should not be located adjoining residential land uses.
- Lot sizes, setbacks, buffering, and storage/loading areas should maintain compatibility with adjacent properties.

Future Public, Utilities and Educational Land Use

The future public and utilities category is intended to be used for lands owned by county, municipal, state, and federal governments, by government owned public corporations and agencies, or by public utilities. The Education category is used for lands owned by public agencies for primary and secondary schools, vocational and technical schools, and colleges and universities licensed by the Kentucky Education Cabinet. The Murray State University farms are classified as Education rather than Agriculture. Since government and public educational can locate in any land use, no attempt was made to designate additional future lands for these uses. Publicly owned land used for public housing was classified as future residential land use rather than public land use and was included in the residential land use portion of the plan.

Map LU-12 shows the future public, educational, and utilities land use in the Murray city limits and within the Murray Planning Area. For the Murray city limits the land currently in public and utilities ownership is 1,423 acres; in the Murray Planning Area the land use includes 1,656 acres. Potential future needs for new government lands include the addition of park land and new general government offices. Future needs can be accommodated by the purchase of sites in other land uses or on existing government properties.

Land currently in educational facility ownership comprises 648 acres within the city limits and 800 acres within the planning area. The only known expansion of Education land being considered is to the Murray State University farms. Since this expansion will be on Agricultural lands no attempt has to made to specify a location of this land use change on the future land use maps. Other appropriate locations for future development of educational facilities can be accommodated on sites that are compatible with adjacent areas and where appropriate accessibility exists. Future educational sites are subject to the zoning ordinance and the principles in this plan.

The following are appropriate concerns when considering public sector developments for general government, utilities, and educational facilities.

- Government, Utility, and Education lands and their uses are not subject to regulation through the Comprehensive Plan and Zoning Ordinance; however, government facilities should be compatible with respect to the surrounding area and make every effort to comply with restrictions for the area.

- The expression of public concern may be used to direct the location and use of government lands in accordance with the principles detailed for similar uses in other land use categories.

- Buildings and structures of government agencies, public utilities, and public educational institutions shall be well landscaped to provide a visually pleasing buffer between sites and adjacent land uses and shall take measures to mitigate the negative effects of vibration, noise, air quality, water quality, and outdoor storage on surrounding properties.

- All new educational developments should be supported by an adequate level of street connectivity and other public services.

Future Semi-Public Land Use

The semi-public category is used for lands that are owned by non-profit corporations, organizations, and agencies that have services available to the public. The most common example is land owned by a church. Other examples might include meeting facilities, fraternal lodges, and recreational areas or facilities on land owned by a non-profit agency that allowed public use of the area or access to the facility. Membership owned golf courses, like country clubs, were included as semi-public facilities.

Map LU-13 shows the semi-public land use in the Murray city limits and within the Murray Planning Area. Land currently in semi-public uses comprises 265 acres within the city limits and 314 acres in the planning area. There are no known planned new developments resulting in the addition of Semi-Public lands. Future development of Semi-Public lands can be accommodated on sites where semi-public uses are a permitted or conditional use, subject to the zoning ordinance and the principles in this plan.

The following are appropriate concerns when considering developments for semi-public facilities.

- Separate zoning does not exist for semi-public uses which are often allowed as conditional uses within other land uses.

- All new semi-public developments should be supported by a high level of street connectivity, when necessary due to traffic demands, and other public services.

- New developments and buildings shall be well landscaped to provide a visually pleasing buffer between sites and adjacent land uses and shall take measures to monitor the effects of vibration, noise, air quality, water quality, and outdoor storage on surrounding properties.

Future Agriculture Land Use

The agriculture category is for lands that are used for the cultivation of crops, the raising of animals, or for lands that are being preserved in their natural state. Map LU-14 shows the future agriculture land use in the Murray city limits and within the Murray Planning Area. Land currently in agriculture uses comprises 1,325a acres, or 18 percent of the land in the city limits. Future agricultural land use in the city limits is expected to decrease to 246 acres or 3 percent of the total area. Existing agricultural land use in the planning area is 6,382 acres or 44 percent of the area. The future agricultural land use shown on Map LU-14 for the planning area is 3,209 acres or 22 percent of the total area.

The following criteria provide guidance to the Planning Staff and the Planning Commission for the evaluation of developments in agricultural areas:

- Prime farmland should be retained for agricultural uses when other suitable sites in non- prime farmland areas are available.

- Agricultural Development Districts should be taken into consideration when considering annexation plans.

- Planned development projects and other non-agriculture uses may be considered where supported by adjacent land use patterns.

- The construction of single-family dwellings or placement of mobile homes shall be limited in a manner to maintain the agricultural nature and appearance of the land and not at such density and location to create the appearance of a single-family residential subdivision or mobile home park.

- Uses attracting spin-off urban type development should not be allowed.

Future Transportation Land Use

Future transportation land use is illustrated on Map LU-15. The Transportation category is used for transportation facilities including roads, road rights-of-way, airports, and other ancillary facilities. The Transportation Element of this Comprehensive Plan discusses present and future transportation facilities in considerable detail.

Land currently in transportation uses within the city limits comprises 636 acres. Future transportation land use in the city limits is expected to increase to 758 acres. Existing transportation land use in the planning area is 922 acres. The future transportation land use shown on Map LU-15 for the planning area is 1,160 acres.

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We also acknowledge the former planning staff whose previous work has been incorporated into the 2023 Land Use Update.

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SEPTEMBER, 2022

LU-1: Existing Land Use

- Urban Services Area
- City Limits
- Agriculture
- Commercial
- Single Family
- Two Family
- Multi Family
- Group Quarters
- Manufactured Housing
- Education
- Public Use
- Semi-Public Use
- Industrial
- Warehousing
- Utilities

N

1 inch = 3,000 feet

0 500 1,000 2,000 3,000 Feet

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LU-2: Existing Residential Land Use

- Urban Services Area
- City Limits
- Single Family
- Two Family
- Multi Family
- Group Quarters
- Manufactured Housing

N

1 inch = 3,000 feet

0 500 1,000 2,000 3,000 Feet

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LU-3: Existing Commercial Land Use

- Urban Services Area
- City Limits
- Commercial

N

1 inch = 3,000 feet

0 500 1,000 2,000 3,000 Feet

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LU-4: Existing Industrial and Warehousing Land Use

- Urban Services Area
- City Limits
- Warehousing
- Industrial

N

1 inch = 3,000 feet

0 500 1,000 2,000 3,000 Feet

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LU-5: Existing Public/ Education/ Utilities Land Use

- Urban Services Area
- City Limits
- Public Use
- Semi-Public Use
- Education
- Utilities

N

1 inch = 3,000 feet

0 500 1,000 2,000 3,000 Feet

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LU-6: Existing Agricultural Land Use

- Urban Services Area
- City Limits
- Agriculture

N

1 inch = 3,000 feet

0 500 1,000 2,000 3,000 Feet

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LU-7:Vacant Land

- Urban Services Area
- City Limits
- Agriculture
- Commercial
- Single Family
- Two Family
- Multi Family
- Group Quarters
- Manufactured Housing
- Education
- Public Use
- Semi-Public Use
- Industrial
- Warehousing
- Utilities

N

1 inch = 3,000 feet

0 500 1,000 2,000 3,000 Feet

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LU-8: Future Land Use

- Urban Services Area
- City Limits
- Agriculture
- Commercial
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Education
- Public Use (Governmental)
- Semi-Public Use (Institutional)
- Industrial
- Transportation
- Utilities

N

1 inch = 3,000 feet

0 500 1,000 2,000 3,000 Feet

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LU-9: Future Residential Land Use

- Urban Services Area
- City Limits
- Low Density Residential
- Medium Density Residential
- High Density Residential

N

1 inch = 3,000 feet

0 500 1,000 2,000 3,000 Feet

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LU-10: Future Commercial Land Use

- Urban Services Area
- City Limits
- Commercial

N

1 inch = 3,000 feet

0 500 1,000 2,000 3,000 Feet

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LU-11: Future Industrial Land Use

Urban Services Area
City Limits
Industrial

N

1 inch = 3,000 feet

0 500 1,000 2,000 3,000 Feet

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LU-12: Future Public / Education / Utilities Land Use

- Urban Services Area
- City Limits
- Public Use (Governmental)
- Education
- Utilities

N

1 inch = 3,000 feet

0 500 1,000 2,000 3,000 Feet

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LU-13: Future Semi-Public Land Use

- Urban Services Area
- City Limits
- Semi-Public Use (Institutional)

N

1 inch = 3,000 feet

0 500 1,000 2,000 3,000 Feet

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LU-14: Future Agricultural Land Use

- Urban Services Area
- City Limits
- Agriculture

N

1 inch = 3,000 feet

0 500 1,000 2,000 3,000 Feet

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LU-15: Future Transportation Land Use

- Urban Services Area
- City Limits
- Transportation

N

1 inch = 3,000 feet

0 500 1,000 2,000 3,000 Feet