



BENTON

COMPREHENSIVE PLAN 2021



Created by the residents of Benton, Kentucky, with assistance from the Kentucky League of Cities.



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City of Benton
Comprehensive Land Use Plan Update
2021

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2021 Comprehensive Land Use Plan Update

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1. Introduction

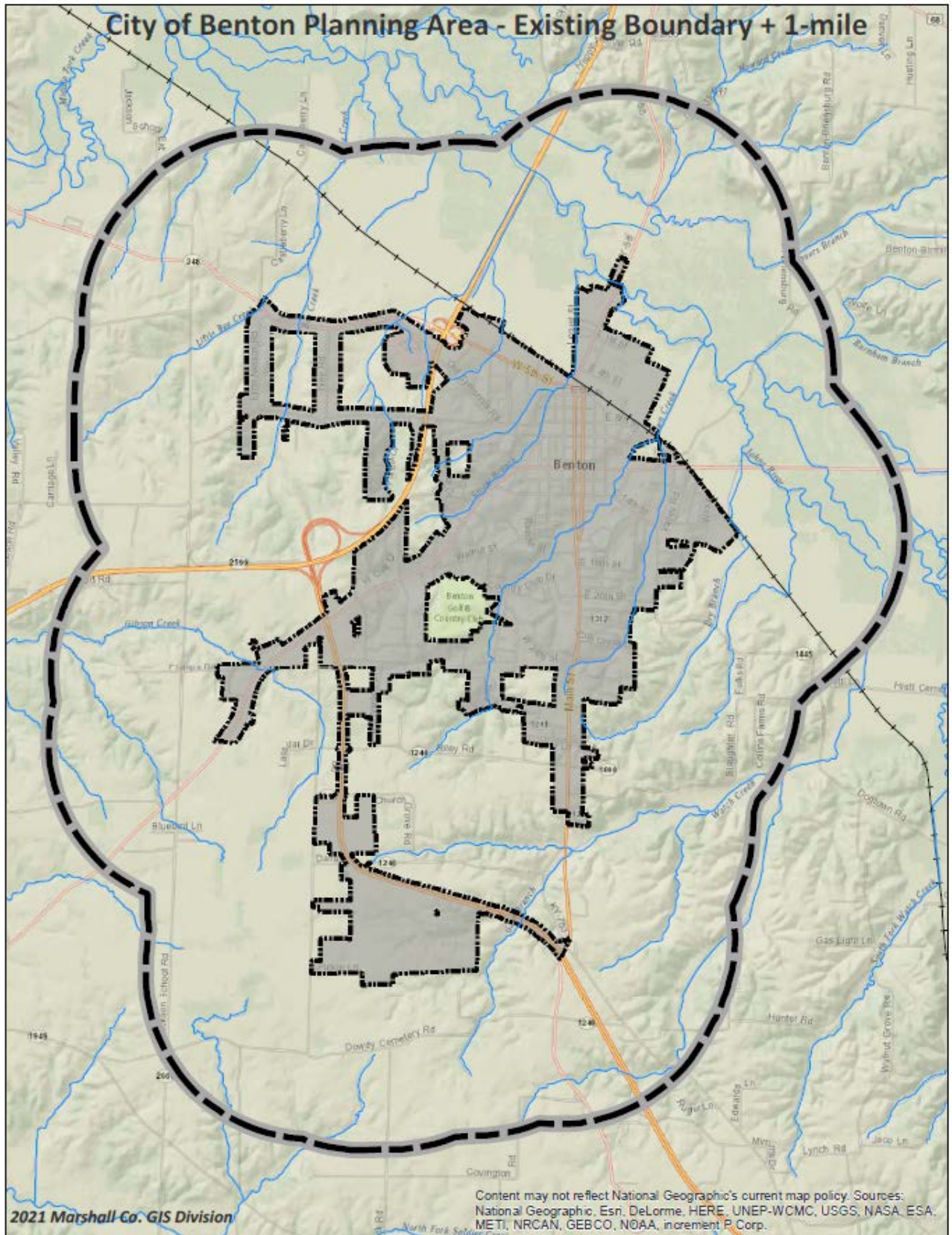
Introduction

The City of Benton selected the Kentucky League of Cities Community and Economic Development Services (KLC CEDS) to assist the Benton Planning Commission with the development of the Benton Comprehensive Land Use Plan update. KLC's approach was to review the most recent Comprehensive Land Use Plan which was last updated in 2008, engage the public through a strategic planning process, giving residents the opportunity to voice their concerns, hopes and dreams for the future of their city. KLC CEDS updated the research data and reviewed the city's existing planning principles, as well as the goals and objectives, and updated them. The final step in completing the Comprehensive Plan update was to develop strategic recommendations to guide the city as they implement the Comprehensive Land Use Plan.

In fulfilling the requirements of KRS 100.183, KLC worked with city leaders, staff and members of the community to identify community problems or concerns. KLC gathered information, analyzed the facts found through research, considered various alternatives and recommended solutions. This work informed the final recommendations and strategies that city officials will use when making future decisions.

Scope of Study Area

The scope of the Comprehensive Plan Update study area included the corporate boundaries of the city and one mile outside city boundaries where growth is expected to occur. The study area is shown on the following page in the City of Benton map.



Scope of Work

The scope of work for this endeavor included a review of all aspects of the required elements of the Comprehensive Plan under KRS 100 including demographics, economic conditions, environmental considerations, land use, transportation needs, housing and a thorough review of community facilities. The process involved local leadership input, community-wide public engagements, discussions with youth, a design component, in-person inspection of the city conditions by the consultants and a meeting where the final plan and goals and objectives are introduced to the public through public hearings and adopted. Kentucky League of Cities worked to honor previous and ongoing work in the community by connecting existing efforts to the planning process.

During the update process, the research data (demographics and economic characteristics, existing land uses, housing, environment, transportation, history, community facilities and services) received a thorough review. Numerous resources were investigated to update these data points and assessments were made as to how these factors had evolved since the completion of the last comprehensive plan. Using existing information, each section of the plan was updated.

Given that 2020 census data will not be available until after this document has been created, the data included herein is the most current available. Once new data is available the planning commission may want to update those sections which are impacted.

What started as a flu-like virus in China quickly escalated into a global pandemic which resulted in decimating the world's economy. Starting in March 2020, the virus spread in the United States, and the pandemic has rippled through the economy impacting every sector of

every state including Kentucky. Although vaccinations and Center for Disease Control measures have begun to mitigate affects, recovery may be long and protracted. We have incorporated assumptions throughout this update that reflect the challenges that the local community may face.

The 2021 Comprehensive Land Use Plan Update offers a common vision, goals and objectives with strategies and recommendations to assist with implementing the plan. Using it as a guide and taking small, strategic steps over time will improve the quality of life for all residents of Benton.

By engaging the public, citizens have a voice in how they want their city to be and they begin to understand their role in how to accomplish the goals they set. The process to update the Comprehensive Plan consisted of the following steps:

July 14, 2020

The City of Benton began working with the KLC Community and Economic Development Services staff. The early work involved review and revision of the goals and objectives, review of the previous comprehensive plans, changes that have occurred since 2008, activities made and proposed by the public and private sectors and an evaluation of existing conditions.

August 3, 2020

KLC staff met in person for a combined session with the Benton City Council and Planning Commission to review the scope of work, establish the timeframe for completion and respond to questions.

August 17, 2020

KLC staff met in person with the county economic development director, and three separate focus group meetings with a variety of citizens who shared their ideas for the future of the city. That evening, staff met with members of the city council via zoom to review progress to date.

August 18, 2020

Staff presented a revised version of the Goals and Objectives to the City Council and the Planning Commission for review.

September 16 and 17, 2020

KLC Staff met in multiple focus group settings at the City of Benton to receive input from citizens. These groups represented the following sectors of the community:

- Parks, trails, recreation, tourism
- Education
- Financial
- Business
- Housing
- Social services
- Arts, nonprofits, civic clubs, churches, organizations

- Marshall County High School students
- Senior Citizens
- Planning Commission and City Council members

September – December 2020

For the months of September through December, KLC staff worked on each section of the Comprehensive Plan to research, analyze and draft narrative about the current state of the community.

October 13, 2020

Another public meeting option was held in Benton for people to provide their input.

October 22, 2020

A social media engagement was provided for the public to participate in expressing their ideas for the future of the community via Zoom.

February 15, 2021

A public meeting was held for residents to review the direction of the strategic plan and to receive final public comments on draft documents.

April 12, 2021

A public hearing was held to adopt the goals and objectives and to adopt the comprehensive plan.

Upon adoption by the City of Benton Planning Commission and in compliance with KRS 100.193, a copy of the plan was sent to the Benton City Council and the Marshall County Fiscal Court, the city of Calvert City (an adjacent planning unit) and the Jackson Purchase Area Development District for their review. The goals and objectives and the comprehensive plan will be automatically adopted if no changes are brought forward by the legislative bodies or the Jackson Purchase Area Development District. Per KRS 100.193, the goals and objectives are considered adopted if no action is taken by the legislative bodies within 90 days of adoption by the Benton Planning Commission.

In accordance with KRS 100 and upon the recommendation of the City of Benton Planning Commission, on April 19, 2021 the City of Benton City Council met and adopted the Goals and Objectives of the 2021 City of Benton Comprehensive Land Use Plan Update by a vote of 6 to 0.



Rita Dotson
Mayor
City of Benton, Kentucky

April 19, 2021

In accordance with KRS 100, on May 3, 2021 the City of Benton Planning Commission held a public hearing to receive public comment regarding the proposed 2021 City of Benton Comprehensive Land Use Plan. Following the Public Hearing, the City of Benton Planning Commission met and adopted the 2021 City of Benton Comprehensive Land Use Plan Update by a vote of 6 to 0.



Bob Rose
Chairman
City of Benton Planning and Zoning Commission

May 3, 2021

2. Goals and Objectives

Benton Comprehensive Plan 2021 Update

Goals and Objectives

April 12, 2021

OVERALL GOAL:

The City of Benton is a safe, caring, welcoming, and thriving community that offers great opportunities for residents, businesses, and visitors.

Overall Objective:

- To utilize the community planning process as the process by which the community's goals are achieved.

Economic Recovery Goal

The City of Benton will emerge from the Covid-19 pandemic stronger than before.

Objectives

- Strive to find every efficiency possible in continued delivery of high-quality public services.
- Encourage the community to follow best practice health guidelines.
- Support community members facing job, food and/or housing insecurity.
- Encourage community support of local businesses.
- Develop a list of community priorities for possible stimulus proposals, i.e., ensure "job and investment-readiness" of the community should recovery funds become available.

Economic Development Goal

The City of Benton offers a range of economic opportunities for residents, existing businesses and industry, and new businesses and industry.

Objectives

- Ensure alignment of community economic goals across for-profit, government and non-profit sectors.
- Ensure adequate space and infrastructure to support existing businesses, expansions, and relocations.
- Work with community to develop “Local First” entrepreneurial business and service strategies, especially supporting local food initiatives.
- Support K-12 education initiatives to prepare youth to be higher education and/or workforce ready.
- Support childcare provision as an essential economic development infrastructure.
- Provide a range of housing opportunities and prices.
- Revisit business regulations on a regular basis to ensure efficiency and effectiveness.

Central Business District Goal

Downtown Benton is the thriving heart of the community, offering a variety of economic, cultural and social opportunities.

Objectives

- Promote the Central Business District as Kentucky Lake’s Downtown and develop a downtown business support, development and recruitment package to support that vision.

- Work to ensure that a visit to Kentucky Lake is not complete without a visit to downtown Benton.
- Work with downtown-oriented entrepreneurs to position downtown as a personal service, food, art, and entertainment destination.
- Explore options to reduce the barriers to entry to new businesses by allowing such things as temporary pop-up shops and eating establishments.
- Craft guidelines to allow more outdoor use of public space for eating and entertainment.
- Create strong linkages from downtown to local and regional trails.
- Identify and protect historic resources in the district.

Land Use Goal

The City of Benton is recognized as having a desirable land use pattern that promotes quality of life, efficient services, and economic development.

Objectives

- Direct growth into appropriate areas, those with an ability to efficiently provide infrastructure and services without reducing capacity within the city.
- Develop guidelines for compatibility between surrounding land uses and for suitable transitions between land uses.
- Prioritize contiguous new development, including infill and redevelopment, in the interest of providing community services and public facilities in the most cost-effective manner.

- Promote annexation and expansion of the city limits to eliminate unincorporated islands and peninsulas and to provide definable natural and governmental boundaries of the city's service area.
- Connect land uses with alternative transportation options.

Transportation Goal

The City of Benton offers safe and convenient accessibility across the community.

Objectives

- Work to provide multiple means of accessibility in the community beyond the private automobile, including trails, bike lanes and sidewalks.
- Ensure that city streets retain acceptable levels of service.
- Ensure that new developments retain continuity and connectivity with the existing street pattern as well as allowing for future extension into appropriate areas.
- Work to ensure that parking is adequate but not over-required in development regulations.
- Ensure best engineering practices with new streets within the city.
- Develop guidelines for "Complete Streets" in appropriate locations.

Housing Goal

The City of Benton offers a range of housing that is affordable, high quality, and appealing.

Objectives

- Ensure that adequate and affordable housing opportunities are available for both rental and purchase.
- Review development regulations to ensure that new neighborhoods are attractive, safe, and compatible with and well connected to the rest of the community.
- Develop guidelines to govern the redevelopment of existing areas in the community to ensure compatibility with surrounding land uses.
- Utilize appropriate building codes and inspection procedures to promote proper construction and maintenance.
- Promote the reconstruction, redevelopment, or demolition of blighted residential properties.
- Ensure multiple modes of transportation connection between neighborhoods and the city.

Public Services Goal

The City of Benton provides first class community services and facilities at a reasonable cost.

Objectives

- Maintain water and sewer treatment and transmission systems in proper working order and expand and upgrade facilities as needed to meet demand.
- Require all new development to comply with city laws by connecting to the public waste-water treatment system.

- Promote interconnection and coordination of utility planning to minimize development and maintenance costs and to maximize efficiency.
- Ensure that the city has adequate fire and police protection for existing and future growth.
- Protect the city's water supply by continuing the designated well-head protection area and ensure compatibility with all related development proposals.
- The community should continue to support, through appropriate policies and financing, the provision of community facilities, such as schools, library and hospital.

Recreation Goal

The City of Benton offers citizens a variety of high-quality recreational opportunities.

Objectives

- Support adequate recreation funding as an economic and quality of life investment.
- Plan and develop adequate public greenspace for passive recreation in downtown and across all neighborhoods to enhance the quality of life for all residents.
- Plan for maintenance and improvement of existing active recreation facilities as well as developing new venues as the community grows.

- Support trail development in the community and the region, including the study of a Trails from Benton to the Ohio River along the Clarks River, from Benton to Jonathan Creek at Kentucky Lake, and to Kentucky Dam State Park.

Landscape Conservation Goal

The City of Benton is recognized for conservation of sensitive landscapes.

Objectives

- Develop a plan to identify appropriate areas for conservation and how such lands should be managed and used.
- Encourage cooperation between public and private sectors for conservation planning.

Historic Preservation Goal

The City of Benton values historically important sites and activities.

Objectives

- Develop a historic preservation inventory.
- Promote appropriate restoration and use of sites and activities and develop incentive plans to accomplish this.
- New development should respect and be compatible with existing historic sites and activities.
- Promote development of activities related to historic events and locations within the City.

Environment Goal

The City of Benton is recognized for its healthy environment.

Objectives

- Surface and subsurface water sources should be protected from adverse impacts associated with urbanization.
- New development planning should identify and protect streams, wetlands, unsuitable soils, significant trees, and other significant natural features.
- Ensure that no new development is in 100-year floodplains, with floodplain maps updated as needed. **State and local permitting are required before projects begin.**
- New developments should incorporate appropriate stormwater management to ensure that runoff rate does not increase from pre-development conditions.
- Ensure that new industrial or business development does not degrade air or water quality.

Community Health Goal

The citizens of Benton lead healthy, active lives.

Objectives

- Develop plans for active lifestyle opportunities in the community.

- Continue the relationship with the Marshall County Health Coalition which is structured to offer citizens healthy goal choices, assistance and training.
- Support healthy food initiatives and access for all citizens.
- Discourage residential land uses in areas with high noise activity from industrial, business, or transportation uses.
- Encourage safe alternative mobility options.
- Continually monitor air and water quality to ensure safe levels for citizens.

Growth Management Goal

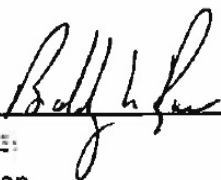
The City of Benton is recognized for its high-quality growth.

Objectives

- Review and revise when needed for innovation, fairness, consistency, and efficiency growth management tools such as Zoning and Subdivision and Development Regulations.
- Where transition of land use types and intensities occur, appropriate screening and buffering should be used.
- Develop infill redevelopment plans to encourage market action.
- Ensure highest engineering standards for streets, stormwater, infrastructure, and other related areas in new developments.

- New construction or development occurring along arterial roadways should incorporate access control measures in order to promote efficient traffic movement.
- Development or redevelopment occurring in areas served by inadequate roadways should be required to make provisions for upgrading those roadways.
- Appropriate landscaping and other site amenities are encouraged for all development.
- Ensure that review of new development plans include review by water and sewer officials, police and fire departments, street departments, other utility providers, and health department officials.
- Revise Subdivision and Development regulations to require more engineering detail on subdivision plats and development plans and to clarify submission and approval procedures.

In accordance with KRS 100, on April 12, 2021 the City of Benton Planning Commission held a public hearing to receive public comment regarding the proposed Goals and Objectives of the 2021 City of Benton Comprehensive Land Use Plan Update. Following the Public Hearing, the City of Benton Planning Commission met and adopted the Goals and Objectives of the 2021 City of Benton Comprehensive Land Use Plan Update by a vote of 7 to 0.



 Bob Kees
 Chairman
 City of Benton Planning and Zoning Commission

April 12, 2021

3. Demographics

2021 Benton Comprehensive Plan Section Three: Demographic Analysis

Introduction

The City of Benton serves as the County Seat for Marshall County. Rooted in tradition, Benton has grown from a tiny, sparse town into a modest city with a strong economy. While Benton has not changed much over the years, the city has established itself as a secure and functional place with a proud history of tradition.

This demographic analysis will rely upon 5-year American Community Survey (ACS) data from the United States Census Bureau unless otherwise specified, as in the “Projections” component. This data provides detail and continuity not otherwise available. ACS data is also useful in that it provides margins of error, or ranges in which the actual value of the statistic may fall, which is useful for determining the magnitude and validity of trends.

The span of the analysis will focus on the past decade as data are available for a more in-depth examination. While some older decennial census data may be used, it will only be implemented to further contextualize Benton’s current demographic composition.

Total Population Trends: 1990-Present

As of the most recent estimates, Benton has a population of 4,477 and has been growing at a steady pace over the last few decades. As shown below in Table 3.1 between the 1990 decennial census and the most recent 2019 estimates, Benton has grown by 11.6% for an average of .34% annually. This is substantially higher than the growth of the Jackson Purchase area, yet lower than the growth of the entire county and state.¹

Table 3.1: Decennial Population Growth in the Region

Year	KY	Jackson Purchase	Marshall Co.	Benton	Calvert City
1990	3,686,892	181,346	27,205	4,000	2,719
2000	4,041,769	193,495	30,125	4,197	2,701
2010	4,336,367	196,393	31,448	4,349	2,566
2019 Est.	4,467,673	195,782	31,100	4,477	2,513
Net % Change	10%	1%	3%	6%	-7%
Growth by year (people/yr)	23,661.3	127.1	54.2	15.6	-10.4

Compared to Calvert City, the second largest city in Marshall County, Benton has seen high levels of growth. Whereas Calvert City has seen a steady loss of population, totaling a loss of nearly 7% over the past three decades, Benton and the surrounding areas in Marshall County have seen substantial growth. Much of this disparity is likely due to the industry in Marshall County. As discussed in the Transportation and Economic sections of this comprehensive plan, much of Benton's workforce commutes. While Calvert City provides jobs for many people in the county, Benton acts both as the county seat and a residential area for the county.

The 2019 *Comprehensive Economic Development Strategy* published by the Jackson Purchase Area Development District indicates that while four of the counties that make up the Purchase region: Calloway, Graves, Marshall, and McCracken, have experienced slight to moderate population increases since the 1970's, the causes of the population decline in the four counties adjacent to the rivers can be partially attributed to a shrinking industrial base and national trends of moving from rural to urban areas to seek employment.

Figure 3.1: Growth Comparison for Benton and Calvert City

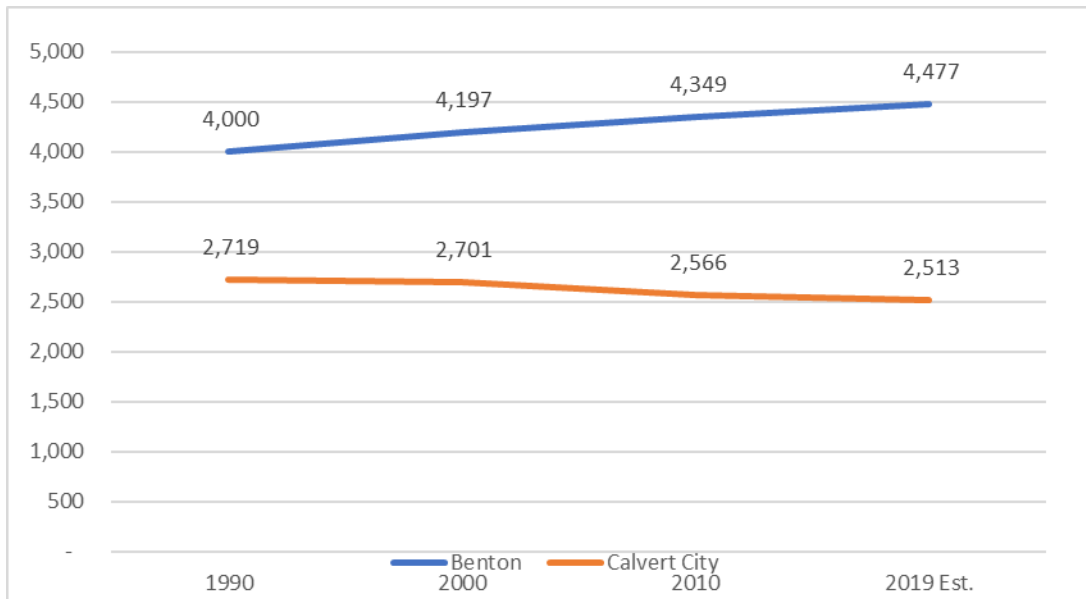


Table 3.2: Annual Population Comparison, 2010-2018²

Year	Benton Population	Marshall County Population	Jackson Purchase Population
2010	4,365	31,386	195,482
2011	4,354	31,409	196,017
2012	4,395	31,393	196,448
2013	4,382	31,296	196,448
2014	4,380	31,223	196,845
2015	4,379	31,181	196,579
2016	4,483	31,213	196,370
2017	4,464	31,177	196,263
2018	4,460	31,166	196,229
2019	4,477	31,192	196,001

Although Benton has consistently grown over the last few decades, the 2017 and 2018 estimates suggest a slight loss in population. Between 2016 and 2018, there was an estimated population loss of 23 people. While this figure is very small, it is significant to note as it is in-line with the trend for the Jackson Purchase area and Marshall County, as shown above in Table 3.2.

Over the last decade, the region has begun to lose population, with Marshall County seeing a population loss of just over 1% and the Jackson Purchase area losing around .3%.¹ While it is too soon to know whether or not the trend will continue, the overall status of Benton with regard to its total population is straight-forward: it is aligned with the majority of the region. Since both the Jackson Purchase and Marshall County have demonstrated losses over a longer period of time, there is the potential that Benton will continue to follow suit.

Age, Sex, and Race

While Benton's total population figures have consistently trended toward growth except for the 2017 & 2018 estimates, one demographic of interest is the aging of the residents. The median age of the county and the entire region is substantially over the national average, suggesting an older population.

Table 3.3: Median Age Comparison

Measure	Benton	Marshall County	Jackson Purchase Area	Kentucky	U.S.
Median Age	41.2	44.9	41.1	38.5	38.5

Within the region, Benton is equal with the rest of the region: Marshall County and the Jackson Purchase area estimate is 44.9 and 41.1 respectively, while Benton's median age is 41.2 as of the most recent estimate. However, comparing Benton to the state and the U.S., Benton's median age is higher. Kentucky's median age is 38.5 while the U.S. median is 38.5.

Even with this higher figure, there is evidence that the aging demographics of Benton are already beginning to trend toward a younger population. Table 3.4, shown below, indicates that there is not a statistically significant change of the median age for Benton. The median age

in 2019 is estimated to be 41.2 years which is below Marshall County and is not statistically different than the Jackson Purchase area, Kentucky and the United States.

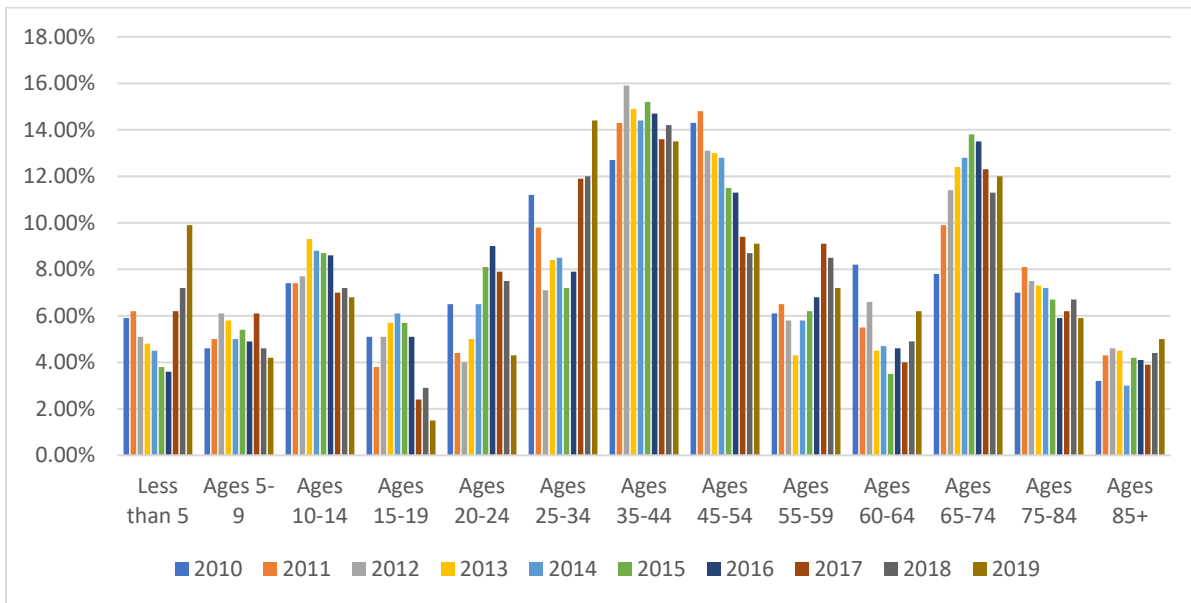
Table 3.4: Median Age by Year, Benton

Year	Median Age
2010	40.6
2011	44.2
2012	44.3
2013	40.3
2014	43.2
2015	43.2
2016	42.7
2017	39.8
2018	40.6
2019	41.2

Figure 3.2 below provides a cluster graph of the age distribution from 2010-2019. The graph indicates three distinct peaks in the age brackets 10-14, 35-44, and most notably 65-74. The primary factor behind the high median age are the populations between 35-44 and 65-74.

Nearly a third of the entire population of Benton falls into these two brackets. Interestingly, both ranges for children under 5 and ages 25-34 show increases as of the two most recent estimations, thereby implying that the birthrate is higher in the 25-34 age bracket. This, as well as a gradual decline in some elderly age ranges, likely explains the current trend behind the decreasing median age.

Figure 3.2: Benton Age Clusters, 2010-2019



In terms of percentage changes between 2010 and 2019, there are some shifts as illustrated in Table 3.5 below. While both the youngest and oldest age brackets saw growth percentage changes, this mostly has occurred over the past two years, and is primarily due to the relatively small population in each. Still, these changes are indicative of both an increased birthrate and an aging, presumably healthier population.

Otherwise, what is evident here is a gradual shift of the population away from the middle age groups. This is particularly evident in the shifts between brackets 15-19 and 45-54. While the birthrate shows signs of increasing, if the city loses their younger population an aging population seems as though it will continue to be an issue, an important note for city decision-making in the future. It logically follows that if the greater region is marketing itself as a place for empty-nesters and retirees, facilities and amenities that cater to those demographic groups are and will continue to be located within the city boundaries of the region's urban areas

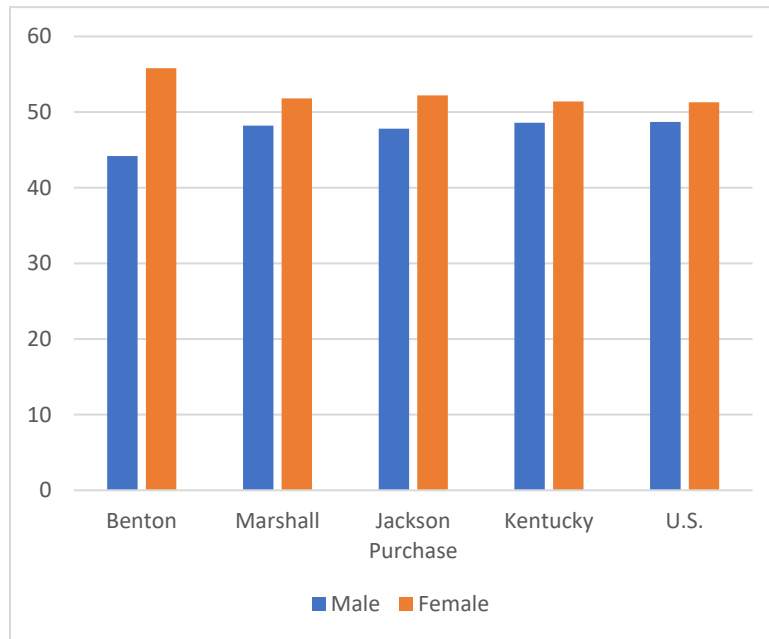
due to access to utilities, medical facilities and basic staples such as grocery stores. The evidence indicates that Benton has a choice to make about what it wants to be. The most logical and sustainable choice is to market to young people and young couples for sustainable growth and to provide services in healthcare and other related fields for the older population in the surrounding region. This will impact the types of facilities and housing that the city needs to provide.

Table 3.5: Age Distribution Comparison for Benton, 2010 and 2019

Year	Ages <5	Ages 5-9	Ages 10-14	Ages 15-19	Ages 20-24	Ages 25-34	Ages 35-44	Ages 45-54	Ages 55-59	Ages 60-64	Ages 65-74	Ages 75-84	Ages 85+
2010	5.90%	4.60%	7.40%	5.10%	6.50%	11.20%	12.70%	14.30%	6.10%	8.20%	7.80%	7.00%	3.20%
2019	9.90%	4.20%	6.80%	1.50%	4.30%	14.40%	13.50%	9.10%	7.20%	6.20%	12.00%	5.90%	5.00%
Net % Change	67.80%	-8.70%	-8.11%	-70.59%	-33.85%	28.57%	6.30%	-36.36%	18.03%	-24.39%	53.85%	-15.71%	56.25%

To further contextualize the populace of the city, Figure 3.3 indicates the entire region, including the city, is essentially on par with both the state and the nation in terms of sex distribution. This is the typical split, nearly 50%-50%, with females marginally outnumbering males due to longer life expectancies.

Figure 3.3: Sex Distribution Percentage Splits, 2018



The community's racial composition, as shown in Table 3.6 below, indicates that Benton is largely homogenous white. While there has been a slight decrease in the white population since 2010, going from 98.2% to 93.4% as of the 2019 estimation, the change has been marginal, but statistically significant.

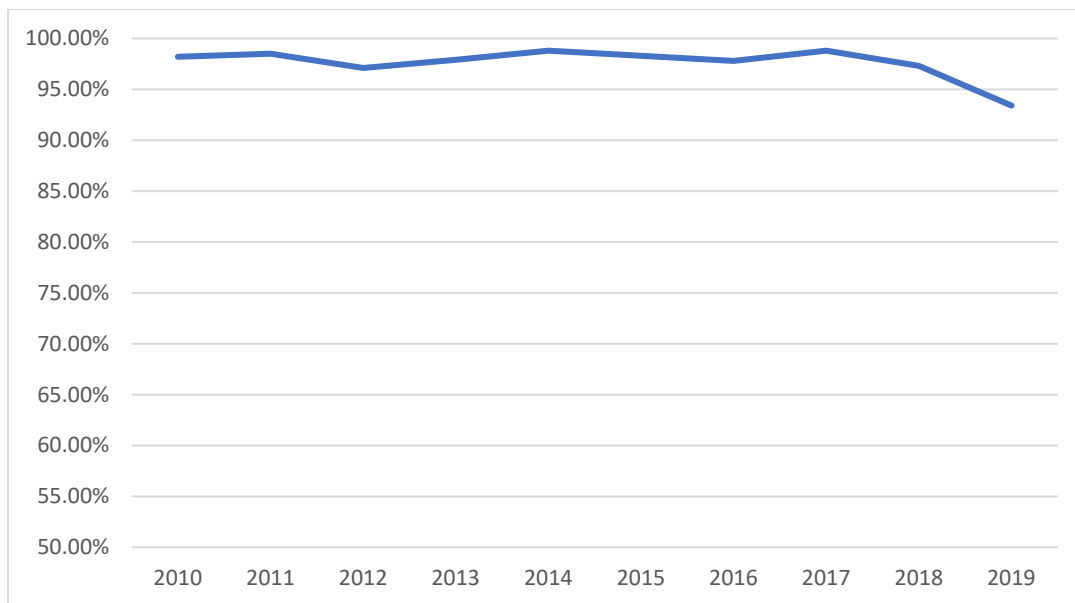
This is better shown below in Figure 3.4, which tracks the annual measure of the white population in Benton.

Notably, the second most dominant racial group in Benton is "Black," which constitutes 3% of the population. Outside of these two, racial groups in Benton are minimal as of the 2019 estimation, with a trend upward of the Hispanic population in the 2019 estimate.

Table 3.6: Race Distribution in Benton

Year	White	Black	American Indian	Asian	Native Hawaiian	Hispanic	Multiple Races
2010	98.20%	0.20%	0.00%	0.00%	0.00%	1.50%	1.10%
2011	98.50%	0.50%	0.00%	0.00%	0.00%	1.70%	0.70%
2012	97.10%	0.90%	0.00%	1.00%	0.00%	1.50%	0.60%
2013	97.90%	0.60%	0.00%	0.80%	0.00%	0.70%	0.70%
2014	98.80%	0.60%	0.00%	0.30%	0.00%	0.10%	0.40%
2015	98.30%	0.80%	0.00%	0.50%	0.00%	0.10%	0.40%
2016	97.80%	1.50%	0.00%	0.30%	0.00%	0.00%	0.30%
2017	98.80%	1.20%	0.00%	0.10%	0.00%	0.00%	0.10%
2018	97.30%	1.10%	0.00%	0.00%	0.00%	0.30%	1.50%
2019	93.40%	3.00%	0.00%	0.00%	0.00%	2.50%	3.30%

Figure 3.4: White Population in Benton



Marshall County exhibits a similar composition, with 97.4% of its population being white. The Jackson Purchase area, while substantially more diverse, still has a very homogenous composition with 89.4% of its population being white.

Family Statistics: Marriage and Fertility

This section details family-related trends within the City of Benton. While some crucial statistics, such as household income and education, are important in this regard, they are discussed in-depth in the Economic Section of this comprehensive plan.

Considering the demographic trend discussed in the sections above, it is important to discuss childbirth and marriage due to their impact on total population trends. As shown in Figure 3.5, there has not been a substantial growth or decline in either divorce or marriages.

A final takeaway to consider from Figure 3.5 is the “widowed” rate. From 2010 to 2019, this category increased gradually from 8.3% to 13.6% respectively. Once more, while this consistent increase is unlikely to persist continually due to uneven age distribution, it signifies the aging of a larger group of people in the city. As these groups age, statistics such as this will increase and decrease depending upon the relative size of the population within the given age bracket.³

Figure 3.5: Marriage Statistics Ages 15+

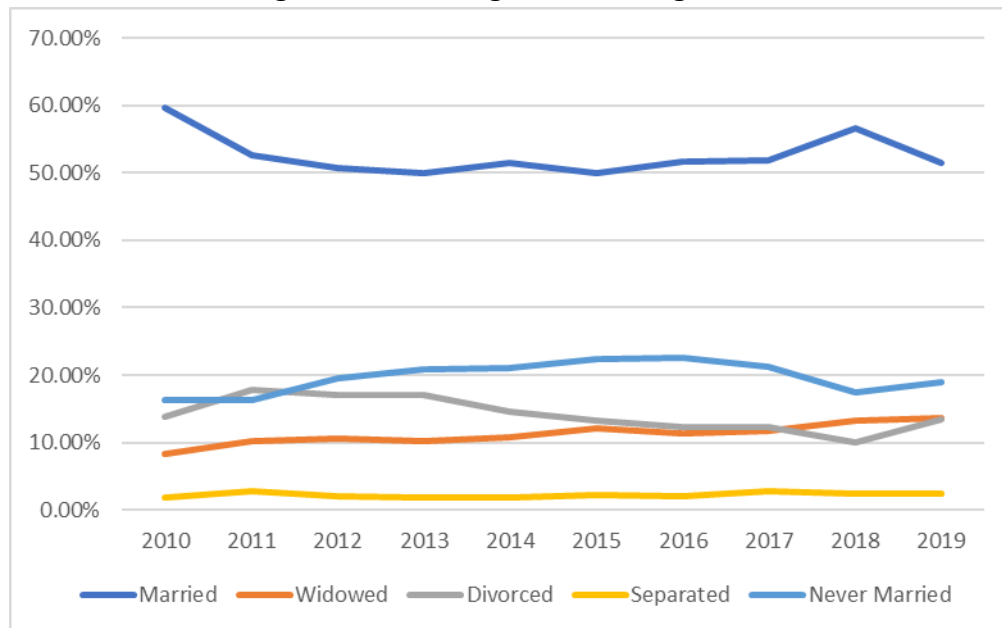
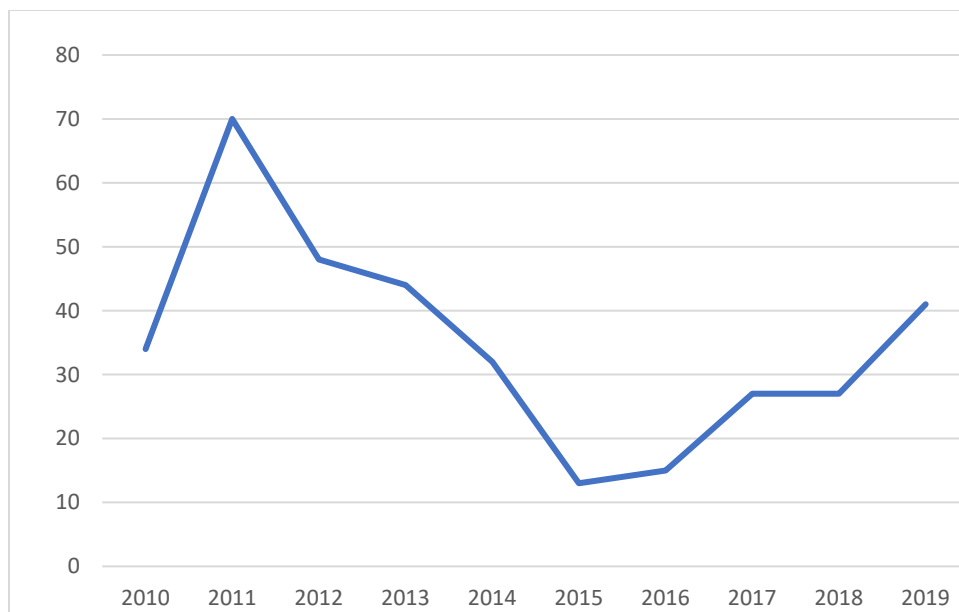


Table 3.7 and Figure 3.6 reflect the previous trend of low birthrates has begun to increase since 2017. This is confirmation of increased family settlement in Benton. The 2017 estimates suggest a 13.3% increase in birthrates, which plateaus in 2018 but grows to 51.9% in 2019. However, as indicated previously, such a trend is more likely to reverse than continue given the distribution of aging in the city.

Table 3.7: Annual Births Per 1,000 Women, Ages 15-50

Year	Births Per
2010	34
2011	70
2012	48
2013	44
2014	32
2015	13
2016	15
2017	27
2018	27
2019	41

Figure 3.6: Births Per 1,000 Women, Ages 15-20



While these birthrate statistics lack the same validity as other statistics supplied here, they paint the same story: a cluster of the population in Benton has begun to establish families, thus reversing previous trends created by smaller population groups as defined by age.⁴

Projections for the Region

This section will utilize 2011 and 2016 projections provided by the Kentucky State Data Center, population projections from ESRI via Opportunity Marshall⁵, and projections from the Kentucky League of Cities, as each is the most recently available. Analysis in this section will primarily be provided for the county and the Jackson Purchase area.

Regionally, the projections suggest substantial growth in the state through the year 2040. From 2010-2040, the state is projected to grow by over 12%. However, the Jackson Purchase area and Marshall County are projected to decline by .35% and 4.7% respectively, while Benton is project to grow by 7.1% from 2018 to 2040. These projections are indicating

that the region's decennial growth is unlikely to continue and will actually continue to decline while the city grows at a slow pace. While the projections are less accurate the farther they are extended, this should certainly be noted as indications of a regional decline have emerged in the most recent data available.

Table 3.8: Benton Population Projections⁶

Benton Pop. Projections	
Year	Projection
2010	4,365
2012	4,395
2014	4,380
2016	4,483
2018	4,460
2020	4,500
2022	4,528
2024	4,556
2026	4,583
2028	4,611
2030	4,639
2032	4,667
2034	4,695
2036	4,722
2038	4,750
2040	4,778

Figure 3.7: Marshall County Population Projection

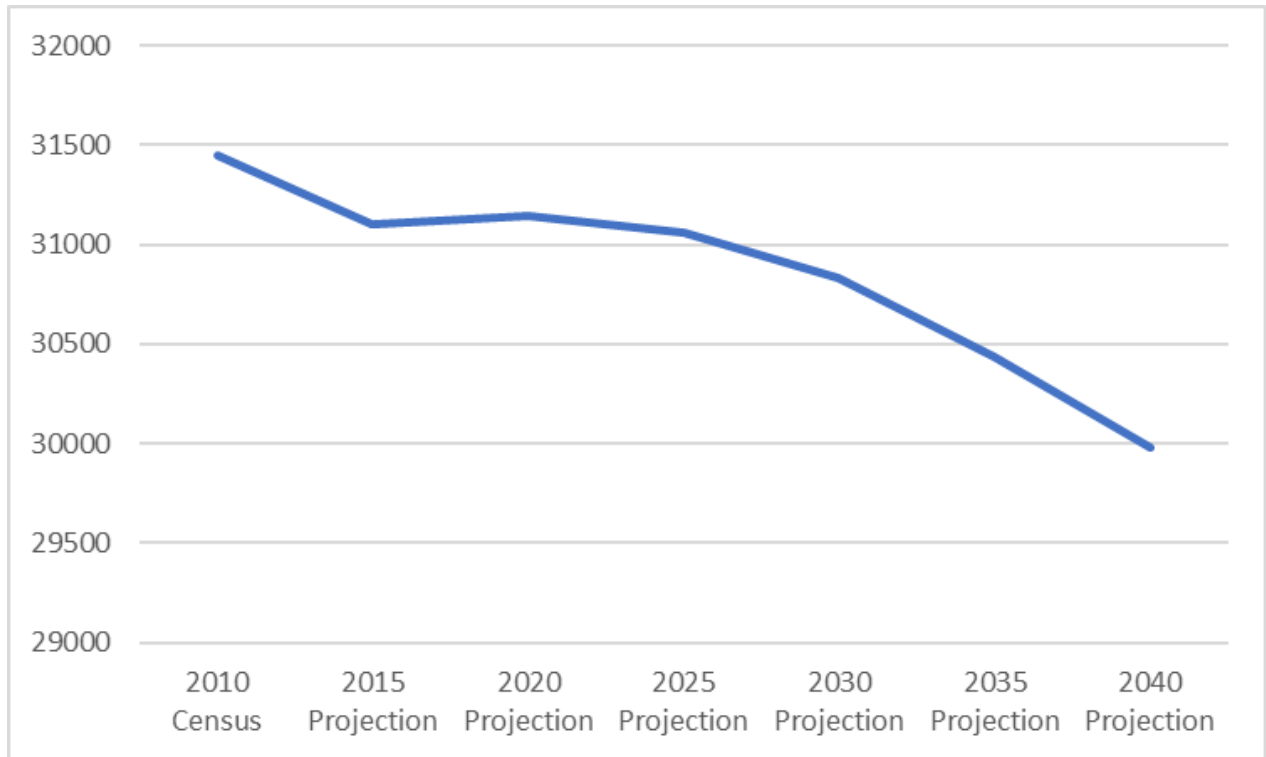
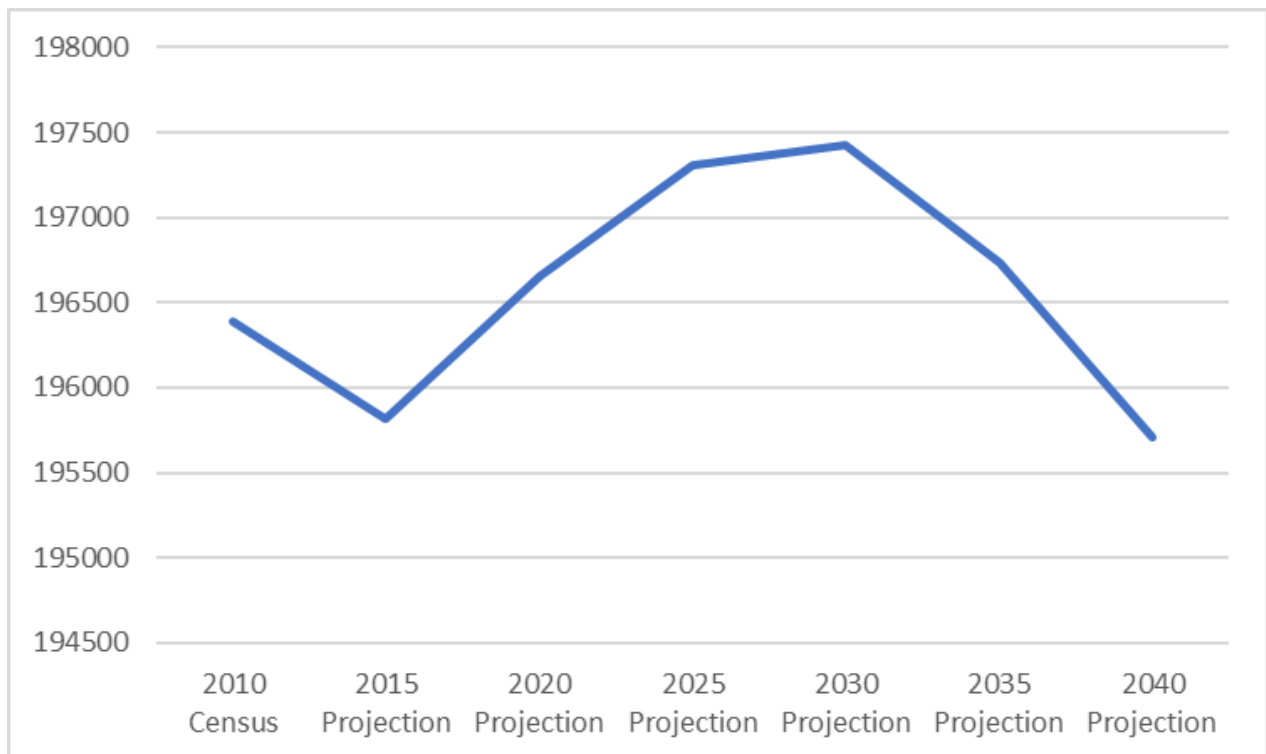


Figure 3.8: PADD Population Projection



Benton's population is expected to grow at a slow pace. Marshall County Economic Development projects 8.5% growth from 2010-2025 for the city which matches the 7.3% growth KLC projects from 2018-2040, reaching a population of 4,778 in 2040.

To further characterize the future of the region we begin by examining population pyramids supplied by the Kentucky State Data Center. These were created in 2011 and are useful for visualizing the projected changes in the state and county based upon contemporary estimates. Like all projections, they are more inaccurate the farther out they are applied. However, in this context, they provide an illustration of what is anticipated nearly everywhere in America: an aging population.

It should also be noted that Marshall County, like the Jackson Purchase area and Benton, already has an aging population relative to the state. There are several primary factors contributing to an aging population throughout the country, including: declining marriage and birth rates, as well as better healthcare and infrastructure which facilitates longer lifespans. Still, cities like Benton must acknowledge these trends in order to act toward maintaining a healthy and capable populace and labor force.⁷

Figure 3.9: Marshall County Population Pyramid

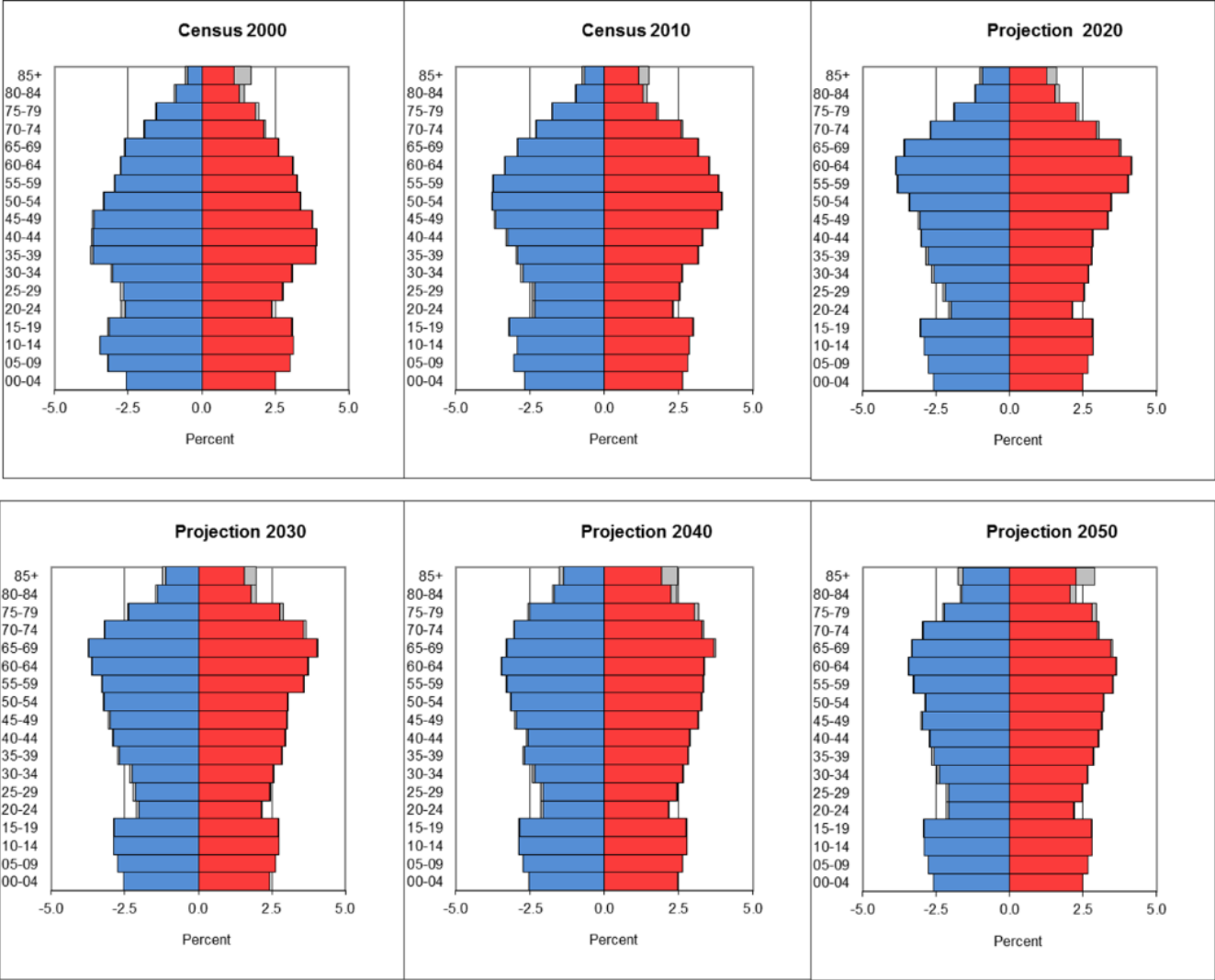
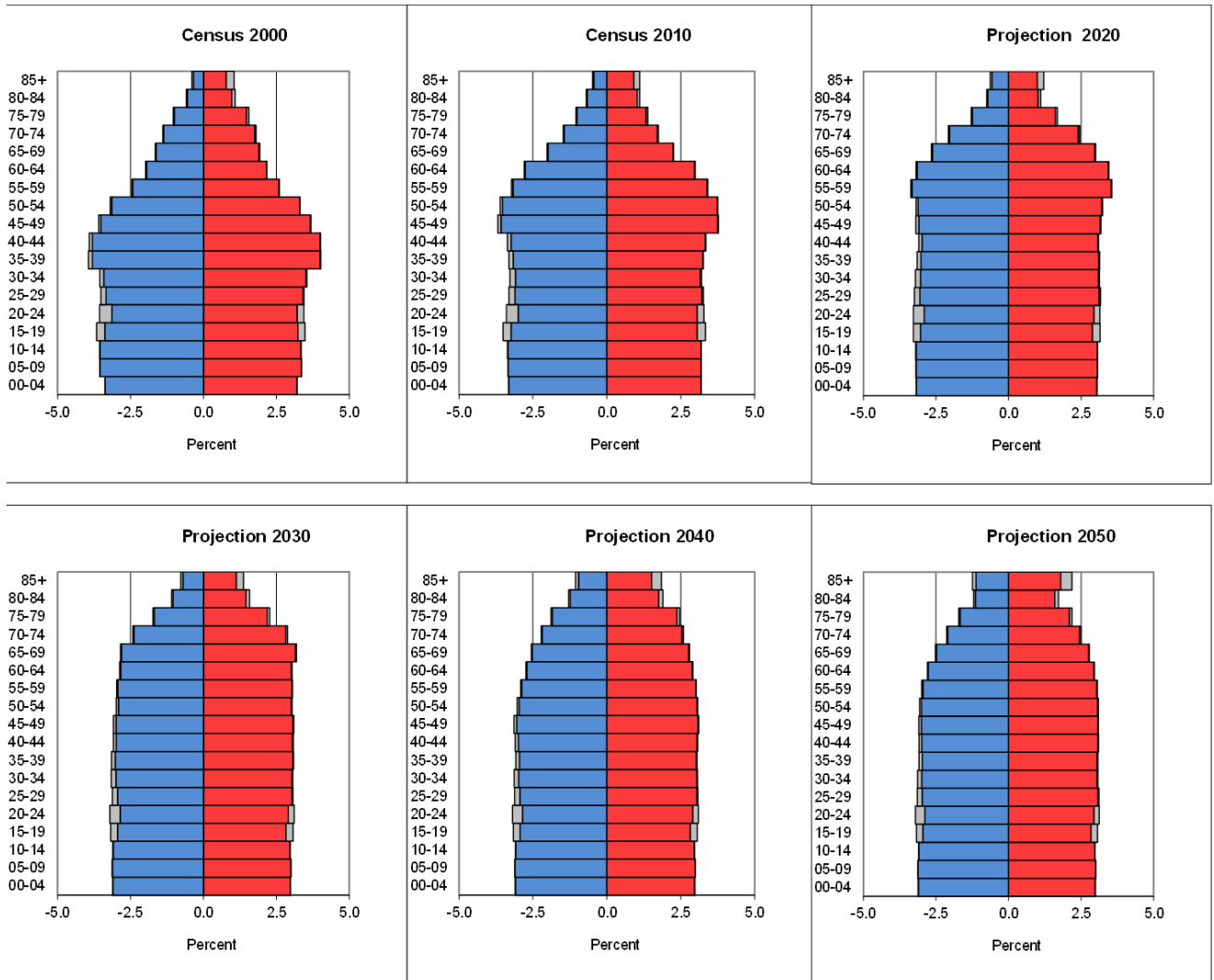


Figure 3.10: Kentucky Population Pyramid



Conclusion

The City of Benton has grown gradually since the 1990 census. However, recent trends in the region suggest that this growth could be relatively short-term considering the substantial losses seen by the county and the Jackson Purchase area in recent years. Contributing to this potential future loss is an aging population that, as it continues to age, will see higher mortality rates relative to birthrates.

Benton has seen an increase in families according to the most recent ACS estimates, with birthrates and marriage rates increasing following a period of gradual decline. However, this trend is unlikely to be long-term, and it is probable that it will actually reverse, or plateau given the uneven distribution of aging among the populace.

While Benton is a city with a functional and diverse economy, acknowledging these trends is key in public decision-making. As the population of Benton ages, it is imperative for the city to maintain a young and capable workforce in order to remain competitive with other, larger cities in the region.

4. Economic Analysis

Benton 2020 Comprehensive Plan Section Four: Economic Analysis

Introduction

The onslaught of the COVID-19 pandemic resulting in a global economic recession makes the 2020 US Census year critically important for city leaders to review the following numbers within a year or two to assess how the economic situation has evolved since this analysis was completed.

Labor Force Analysis

Statistics on the labor force of Benton, Marshall County, the Purchase Area Development District (hereinafter, Purchase ADD), and the Commonwealth of Kentucky (hereinafter, Kentucky), is stored by the United States Census Bureau, and gathered by the American Community Survey (hereinafter, ACS).

Education

Table 4.1: Education Levels¹

	Benton		Marshall County		Jackson Purchase Area		KY	
	Total	Percent	Total	Percent	Total	Percent	Total	Percent
2019								
Population 25 years and over	3,283		22,678.00		134,563		309,093	
Less than 9th grade	176	5.40%	949.00	4.20%	5,703	4.20%	166,412	5.50%
9th to 12th grade, no diploma	135	4.10%	1,624.00	7.20%	9,806	7.30%	248,372	8.20%
High school graduate (includes equivalency)	1,193	36.30%	8,664.00	38.20%	47,164	35.00%	993,098	32.90%
Some college, no degree	821	25.00%	5,000.00	22.00%	30,234	22.50%	628,993	20.80%
Associate's degree	232	7.10%	2,082.00	9.20%	12,405	9.20%	251,136	8.30%
Bachelor's degree	263	8.00%	2,483.00	10.90%	17,131	12.70%	428,646	14.20%
Graduate or professional degree	463	14.10%	1,876.00	8.30%	12,120	9.00%	302,236	10.00%
High school graduate or higher	2,972	90.50%	20,105.00	88.70%	119,054	88.50%	2,604,309	86.30%
Bachelor's degree or higher	726	22.10%	4,359.00	19.20%	29,251	21.70%	731,082	24.20%

Benton's labor force is estimated to have 90.5% of the population with a high school degree or higher level of education, higher than the state estimates of 86.3%. Marshall County and the Jackson Purchase area's estimates are 88.7% and 88.5% respectively.

Benton has a higher percentage of workers who have a graduate or professional degree (14.1%) than the surrounding areas. This is a strong asset for the city in the competitive 21st century economy. As technology becomes more prevalent in today's workforce, those who have skills that complement and enhance technology are key.

Income

The following table shows the estimated median income for the City of Benton broken down by education level. When deciding on future land use it is important to know the breakdown of income to guide decisions on housing, revenue projections, and future growth. The first variable shows the median income by household, and then each one below is at the individual level.

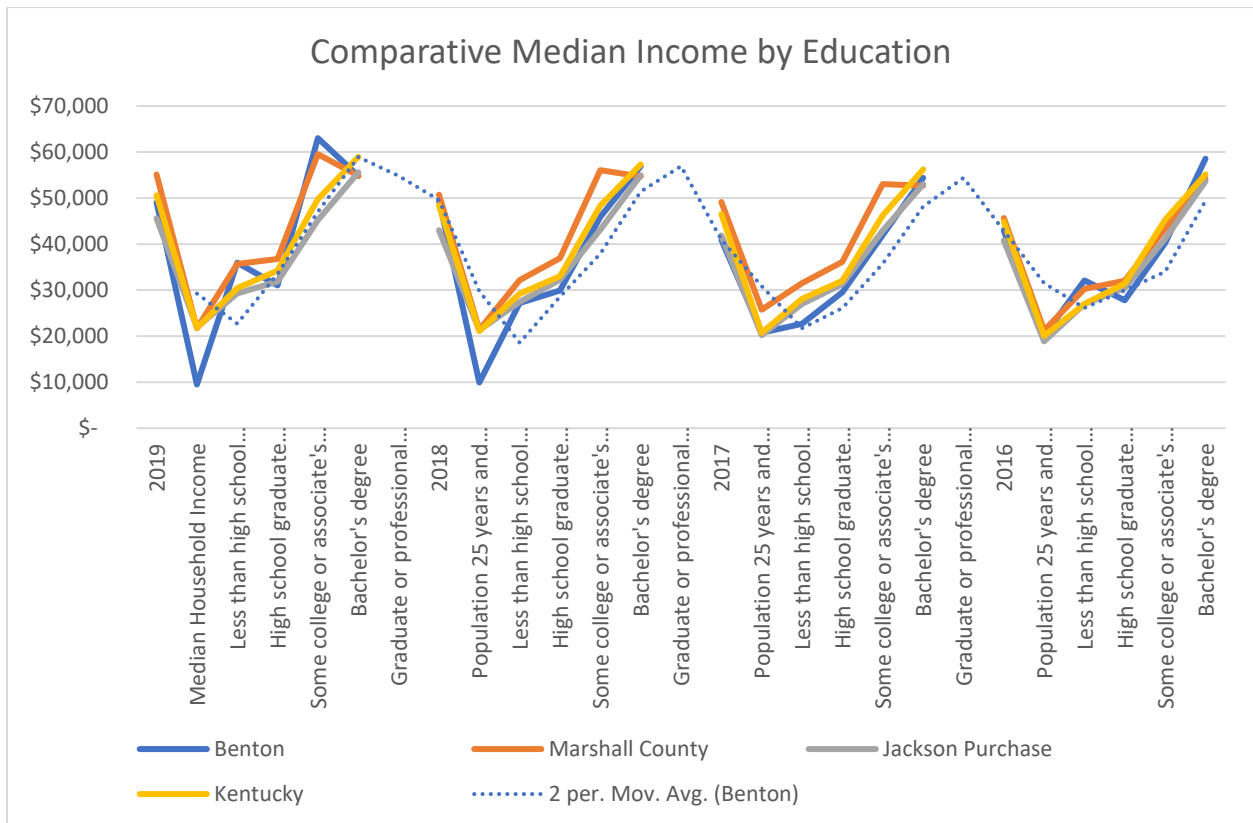
Table 4.2: Median Income by Education Level

Median Income by Education	Benton	Marshall County	Jackson Purchase	Kentucky
2019	Estimate	Estimate	Estimate	Estimate
Median Household Income	\$ 49,043	\$ 55,113	\$ 45,589	\$ 50,589
Less than high school graduate	\$ 9,485	\$ 21,719	\$ 21,896	\$ 21,778
High school graduate (includes equivalency)	\$ 35,946	\$ 35,688	\$ 29,290	\$ 30,445
Some college or associate's degree	\$ 31,016	\$ 36,754	\$ 31,872	\$ 34,220
Bachelor's degree	\$ 63,018	\$ 59,531	\$ 45,204	\$ 49,743
Graduate or professional degree	\$ 54,805	\$ 54,831	\$ 55,597	\$ 58,942

The median income of Benton is in line with Marshall County and the Jackson Purchase area, as well as the rest of the state. Benton's median household income is estimated to be \$49,043; Marshall County is \$55,113; Jackson Purchase is \$45,589 and Kentucky is \$50,589. The

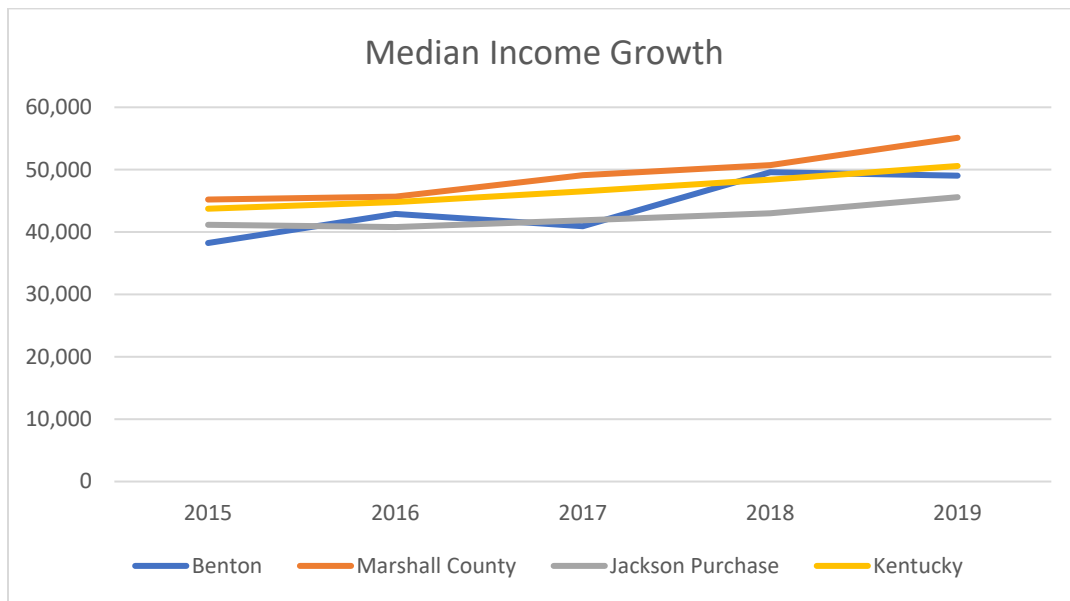
estimate is also equal at each level of education. The income for those with less than a high school degree is lower than expected, however this is likely due to statistical anomalies and is closer to the income of Marshall County.

Figure 4.1: Median Income by Education 2016-2019



Over the past four years (2016-2019), significant growth has occurred in the median income for Benton, as well the region and the state. For Benton, this growth is likely due to the recent expansions of technology companies and increased tourism development. The income for Marshall County could be a result of healthy growth among manufacturing plants located in nearby Calvert City.

Figure 4.2: Median Income Growth 2015-2019²



Benton's median household income was estimated to be \$38,241 in 2015 and grew to \$49,043 in 2019. The median income has grown by an estimated \$6,849 in the state of Kentucky from 2015-2019. Because there is clear growth in the median income of Marshall County, the Jackson Purchase region, and Kentucky, it can be assumed that Benton's median income of households went up as well.

Poverty

Poverty is an important topic to analyze in order to identify the percentage of residents below the poverty level and living on government assistance. The federal poverty line is updated every year to keep pace with inflation and is a set number. For 2020, that number is \$12,760. From that number, add a given value for each additional member of the household. For each additional member of the household then add a given value, \$4,480 for 2020. For a

household of three persons in 2020 the household income must be above \$21,720 (\$12,760 +\$4,480+\$4,480) to not be in poverty.

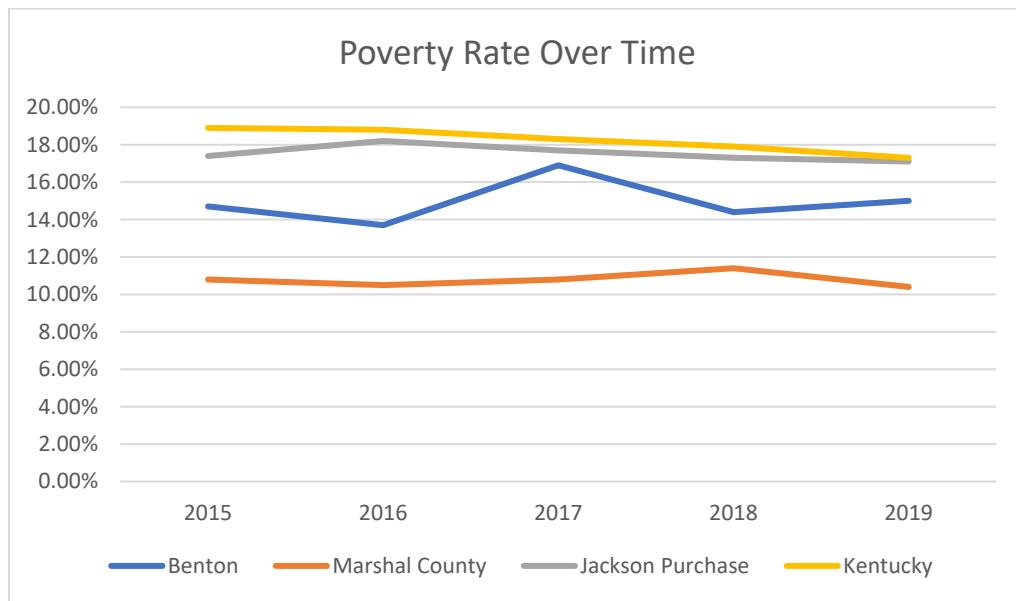
Table 4.3: Poverty Rate by Education³

Poverty Rate	Benton		Marshall County		Jackson Purchase		Kentucky	
2019 (\$12,140)	Total	Percent	Total	Percent	Total	Percent	Total	Percent
Persons Below Poverty Line	609	15.00%	3,177	10.40%	32,185	17.10%	747,010	17.30%
Children (under 18) below line	207	22.20%	849	18.30%	99,800	24.00%	231,275	23.50%
Population 25 years and over	384	13.30%	1,947	8.80%	17,810	13.50%	420,785	14.20%
Less than high school graduate	30	16.80%	494	20.60%	4,071	27.80%	130,053	32.80%
High school graduate (includes equivalent)	241	23.20%	882	10.50%	7,360	16.10%	156,415	16.20%
Some college, associate's degree	113	11.60%	465	6.70%	4,733	11.30%	102,572	11.90%
Bachelor's degree or higher	0	0.00%	106	2.50%	1,646	5.60%	31,745	4.40%

Benton's poverty level is in between Marshall County and the Jackson Purchase area.

Marshall County has statistically significantly lower levels of poverty than the Jackson Purchase area, which is equal with the level across the state. Marshall County's low poverty rate is likely because of the high number of those with a high school education, which allows the population to obtain higher paying jobs. As will be discussed later, there is a low unemployment rate, so it makes sense that there is a lower poverty rate as more of the population is employed. The largest sectors in Marshall County's economy are manufacturing, construction and trade, typically higher paying job sectors.

Figure 4.3: Poverty Rate 2015-2019



Overall, the region has a lower poverty rate than state level, however, it is above the national average of 11.8%. The poverty rate is one of the most important statistics as the recession continues. The rate is likely to increase, causing more individuals to be eligible for federal aid.

Unemployment Rate

With the onset of the coronavirus pandemic, the unemployment rate shot up to 13.9% in April 2020. As of October, the rate had gone down to 6.4%, one percent below the Kentucky rate of 7.4%. It is still too early to know the extent of the damage brought about by COVID-19.

The unemployment rate reflects the number of workers in the labor force who do not have a job but are actively seeking employment. The key factor is that people need to be seeking employment in order to be included in the unemployment rate, which can mean anything from going door to door applying for jobs to doing an online search for available jobs.

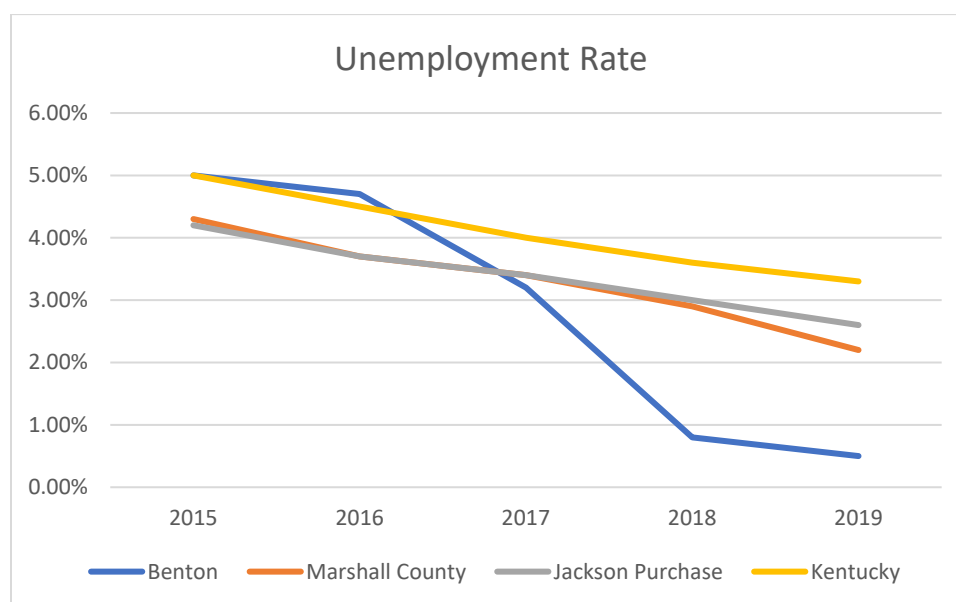
Before the recession, Benton had a very low level of unemployment, estimated to be .5%. Marshall County’s unemployment rate at the end of 2019 was estimated to be 2.2%, about equal to the Jackson Purchase area’s level of 2.6% and the state’s level of 3.3%.

Table 4.4: Unemployment Rate 2019 ACS Estimates²

	Benton	Marshall County	Jackson Purchase	Kentucky
2019 Unemployment Rate	0.50%	2.20%	2.60%	3.30%

Benton, Marshall County and the Jackson Purchase has jobs for those who are looking for them. The unemployment rate for the region is below the “natural rate” of unemployment of 3%-4%. The natural rate is the level where companies can find workers and workers are able to find work with relative ease. With an unemployment rate this low, companies may have issues finding workers to fill open jobs.

Figure 4.4: Unemployment Rate 2015-2019



The economic recession has had a negative effect on employment. The recovery is going to be uneven and employment levels need to be monitored. The Bureau of Labor Statistics updates the estimated unemployment rate every month and local leaders should monitor those numbers going forward.

Table 4.5: 2020 Unemployment⁴

	Marshall County	Kentucky
February 2020 (not seasonally adjusted)	5.2%	5.2%
March 2020 estimated unemployment rate	6.1%	15.4%
April 2020	14%	16.6%
October 2020	6.4%	7.4%
November 2020	4.9%	5.7%

Labor Force Participation

Labor force participation (LFP) is the ratio of the combined employed and unemployed population to the labor force. What this statistic shows is the number of people who are “sitting on the sideline” or those who do not have a job and are not looking for a job.

The following is the estimated labor force participation rate for the population between the ages of 16 and over.

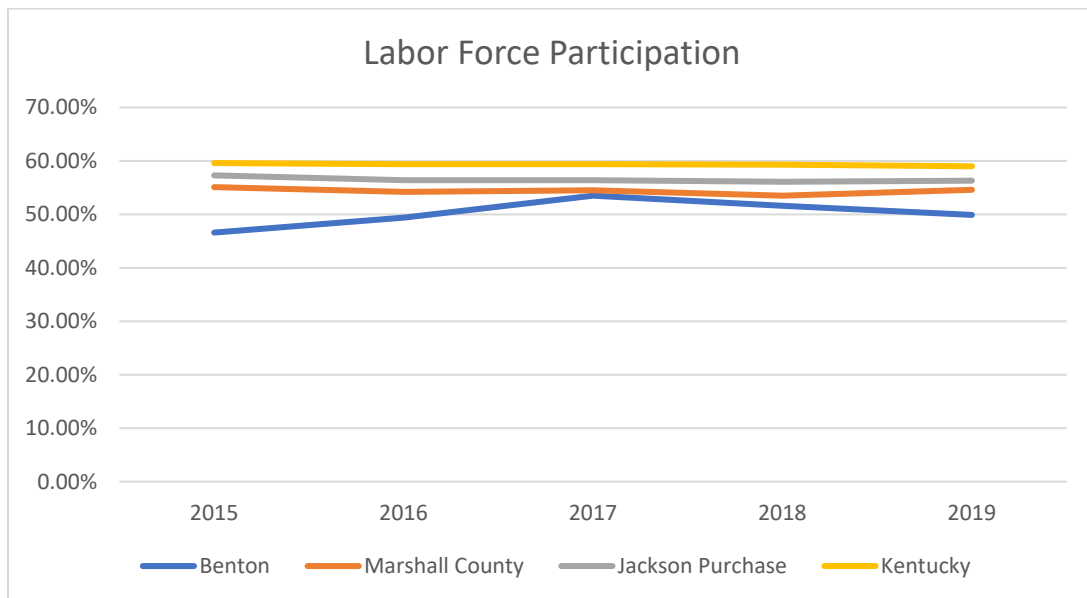
Table 4.6: Labor Force Participation Age 16+²

	Benton	Marshall County	Jackson Purchase	Kentucky
2019 Labor Force Participation	49.90%	54.60%	56.30%	59.00%

Benton and Marshall County have lower than expected rates of labor force participation. This is likely due to a variety of factors. One reason could be workers retiring

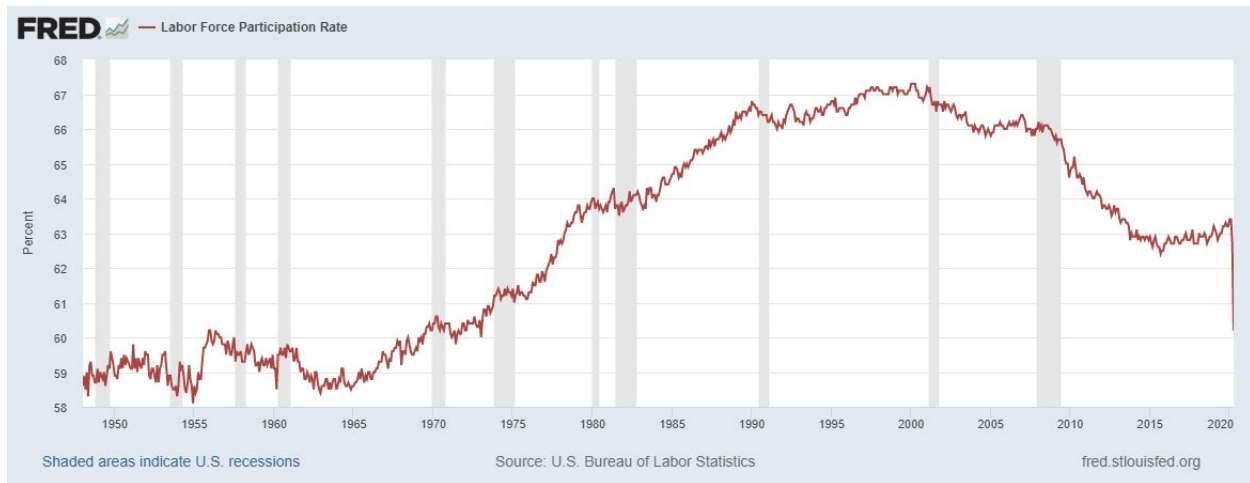
early, or not being able to find jobs to fit their skills. This is important to consider because of the low unemployment rate. As companies look for new employees there will be a need to bring these “discouraged” employees back into the economy.

Figure 4.5: Labor Force Participation 2015-2019



The labor force participation (LFP) over the past five years has been relatively unchanged at the local, regional and state level. While it is positive that people have not dropped out of the labor force, LFP has not returned to the level before the Great Recession, highlighted by the graph below showing the LFP of Marshall County.

Figure 4.6: United States Labor Force Participation⁵



As more data on the current recession becomes available, there needs to be a focus on how the crisis affects the labor force. The effects are already starting to be shown, highlighted by the drop-off at the end of the graph. The longer it takes for the economy to recover the more discouraged unemployed workers will become. Some may stop looking for work and would not count as unemployed, making the statistics look more positive than the actual situation. On the flip side, as more companies begin hiring, they could hire those who were not originally looking for work, which would not change the unemployment rate and not show the gains to the economy.

The following is the estimated labor force participation rate by sex for the population above 16 years of age.

Table 4.7: Labor Force Participation by Sex Age 20-64⁶

	Benton	Marshall County	Jackson Purchase	Kentucky
Male	49.9%	74.0%	75.1%	76.6%
Female	75.6%	69.2%	67.4%	68.6%

The labor force participation rate for Benton is unique because females are estimated to be participating at a higher rate than males. While the difference is estimated to be over 15%, it is not statistically significant due to the statistical difficulties posed by Benton's smaller population. The estimate indicates that females are active and contributing to the economy at least at the same level as men, similar to the estimates for Marshall County. As the health and economic crisis continues, it may be shown that more women are dropping out of the labor force because of the decreasing availability of childcare and the need to homeschool children. Historically, the longer workers stay out of the labor force the less likely they are to return, meaning Benton could lose an important portion of its workforce in the future.

Industry

According to Kentucky Lake Economic Development reports the following businesses are currently the largest employers in the City of Benton:

- Community Financial Services Bank
- Peel & Holland
- Marshall County Hospital
- Champion Home Builders Inc.
- 3A Composites USA Inc.
- FLW LLC

The following is a breakdown of the industry in Marshall County as of 2018

Table 4.8: Marshall County Industry Makeup²

	Employment	Percent
Total all Industries	12,330	100.0
Total Private Industries	9,306	75.5
Natural Resources and Mining	27	0.2
Construction	1,464	11.9
Manufacturing	2,439	19.8
Trade, Transportation and Utilities	1,919	15.6
Information	95	0.8
Financial Activities	431	3.5
Professional and Business Services	537	4.4
Education and Health Services	707	5.7
Leisure and Hospitality	1,416	11.5
Other Services and Unclassified	272	2.2
Source: Kentucky Cabinet for Economic Development, <i>Marshall County Industry</i> .		

The following is list of companies who have located or expanded in Marshall County as of December 2019.

Table 4.9: Marshall County Recent Manufacturing Expansions⁷

Date	Company	Product/Service	Employment	Investment
Manufacturing Expansion				
12/19/2019	Cymetech Corporation	Chemicals, hydrocarbons, specifically dicyclopentadiene, resin former, resin oil heavies, after market auto/truck parts, RM in fertilizer, RM in plastics.	2	953,062
12/20/2018	Cymetech Corporation	Chemicals, hydrocarbons, specifically dicyclopentadiene, resin former, resin oil heavies, after market auto/truck parts, RM in fertilizer, RM in plastics.	0	703,000
11/9/2018	The Lubrizol Corporation	Carbopol polymers	N/A	25,000,000
Service & Technology Expansion				
7/25/2019	MegaFit Meals, LLC	Wholesale healthy meals	50	2,925,000
12/20/2017	Trimac Transportation Inc	Trucking, except local	N/A	150,000
9/28/2018	United Systems & Software Inc	Software & professional IT managed services	50	5,300,000
Service & Technology Location				
12/14/2018	Core Scientific	Block chain data center	35	44,522,205

Conclusion

Benton has built a strong economy. There are jobs available to those who are looking, with increasing wages. The workforce is strong and ready to participate in the modern economy, shown by the high percentage of the population with at least a high school degree

(90.5%). However, due to the worldwide economic recession, Benton, like all other cities, is in a new situation that is less certain.

The economic recovery is projected to take many years according to the Federal Reserve Bank and other prominent economist even though a COVID-19 vaccine was approved by the Federal Drug Administration in December 2020. When the recovery begins, Benton will need to take time to analyze and review the impacted sectors for changing trends. Strategies and recommendations for moving forward can be found in the Benton Strategic Plan.

5. Environmental Analysis

2021 Benton Comprehensive Plan Section Five: Environmental Analysis

Overview of the Geology and Soil

Benton's topography is described as a gently rolling plain. The whole of Marshall County has an elevation ranging from 302 feet to 550 feet, accounting for both the lowest and highest points in the county. The elevation of Benton as recorded at the courthouse is 430 feet.¹

The city has several waterways, including Town Creek, Watch Creek, and Straw Branch, which all flow into the larger Clarks River located to the northeast of town. These waterways limit the potential for nearby development to some degree, but also provide the city with water resources which may be utilized for recreation and are important to maintaining a high environmental quality.

In terms of geology, the region is situated on several formations and deposits of gravel, sand, silt, and clay. Specifically, these features are the McNairy Formation and Porters Creek Clay deposit. While the McNairy Formation lies primarily east of Benton, it provides another important water resource in the region as it provides substantial volumes of groundwater. Additional geological features in the region include limestone and chert bedrock, with loess being the predominant topsoil of the region and alluvium lining the waterways of Clarks River and its tributaries.²

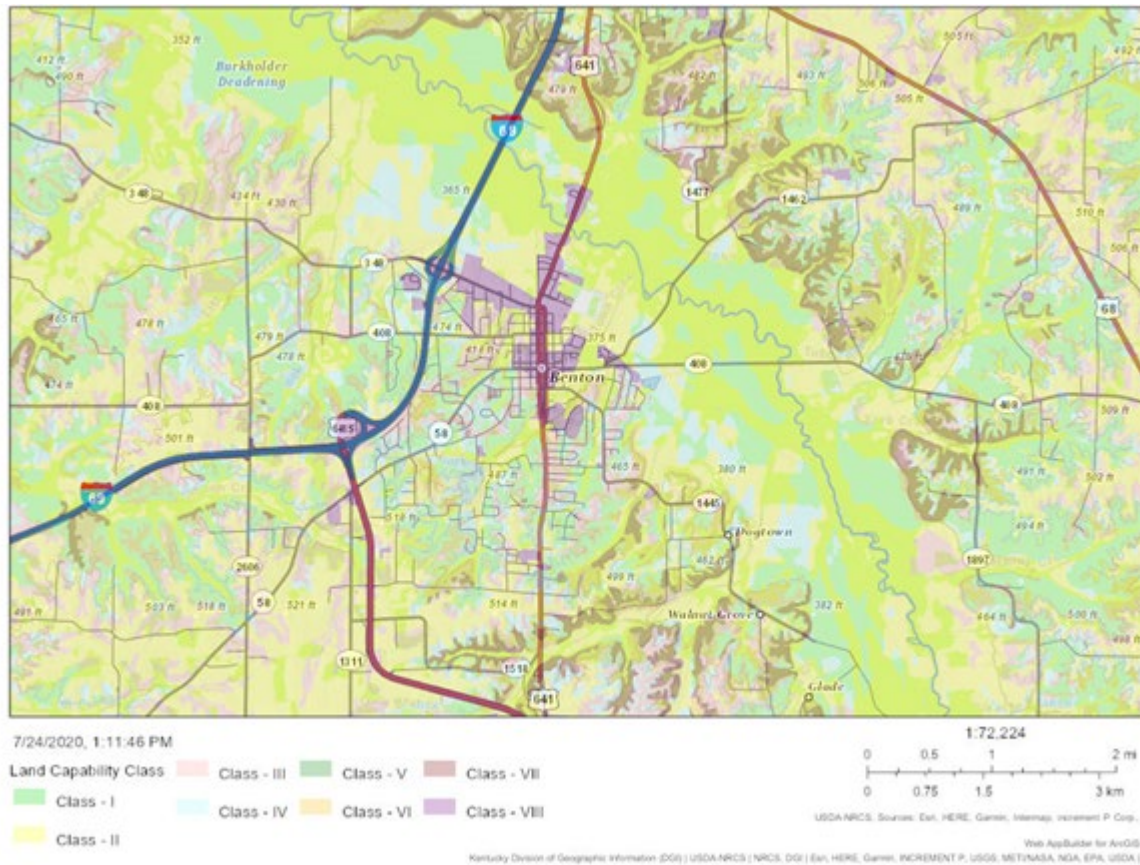
The western edge of Kentucky, including Marshall County, is close enough to the New Madrid Fault to feel the effects of earthquakes. However in a 2014 report, *Earthquakes in Kentucky*, Kentucky Division of Emergency Management and Kentucky Geological Survey wrote that while Western Kentucky will experience earthquakes in the future these risk are minimal

and “implementing seismic design requirements for residential and commercial buildings in western Kentucky that are similar to or even higher than those in areas of higher seismic hazard, such as California, is not justified.”

Regarding soil condition and utility, below is a map indicating soil capability classes. Soil capability classes are ranked I-VIII. Soils in class I have very few usage restrictions and demonstrate a high capacity for supporting commercial plant life. Soils in class VIII are soils which cannot facilitate commercial plant life, and have very limited usage.³ Aside from the city center, which falls under class VIII given its development, most of the soil surrounding Benton falls between classes II and V, with the majority being in class II specifically. What this indicates is that the soils are decent and well-suited for agriculture and wildlife, but conservation, planning, and soil management are required to prevent serious environmental deterioration.

The land surrounding Benton may provide excellent development areas for the city’s future. There are no areas in Benton or Marshall County that are considered farmland of statewide significance.

Figure 5.1: Benton Soil Capability



4

Water

Water Resources

Marshall County is bordered on the east and north by the Kentucky Lake and the Tennessee River. The Tennessee River joins the Ohio River near Paducah, which continues to flow into the Mississippi River.

Benton, just as the rest of the region, has plentiful water resources including multiple rivers and creeks. The Clarks River runs through the northern edge of Benton and continues near the eastern border of the city. Clarks River is a lengthy tributary of the Tennessee River

spanning from Murray through Paducah where it meets the Ohio River. East of Benton and along the Clarks River, a wildlife refuge has been established, limiting development in this area.

Regionally, Benton is located in the lower Tennessee Watershed which spans from Paducah through much of central and western Tennessee, following the length of the Tennessee River.⁵

Groundwater

Benton's primary drinking water source is groundwater, which is extracted through wells in the city. The following map delineates the established Wellhead Protection Zones in Benton. These zones are primarily specified to ensure that any activity deemed potentially harmful to the water supply may be directed in other areas of the city. Additionally, the specification of these zones establishes areas requiring heightened maintenance and management to prevent high levels of contamination in the water supply for the city.⁵

The larger blue area listed as Zone 3 illustrates the area contributing to the supply of water in Benton. The smaller red circles listed as Zone 1 represent areas in which heightened safety measures are taken to prevent against microbial contamination. The map also shows the withdrawal site for city water which is located in the red zone to the left, between Elm Street and Poplar Street.⁶

[illegible]

Wells drilled in thicker parts of these formations can provide over 800 gallons of water per minute.⁸ Examining the most recent data from the Kentucky Geological Survey, even common materials for the region, such as hydrogen sulfide and iron, are not present in high concentrations in or around Benton.⁹ It does not appear as though groundwater quality is

problematic for the city. The University of Kentucky reports that groundwater resources in Marshall County are abundant and all areas of the county have the ability to produce enough water for domestic needs from drilled wells at reasonable depths.

Drinking Water Quality

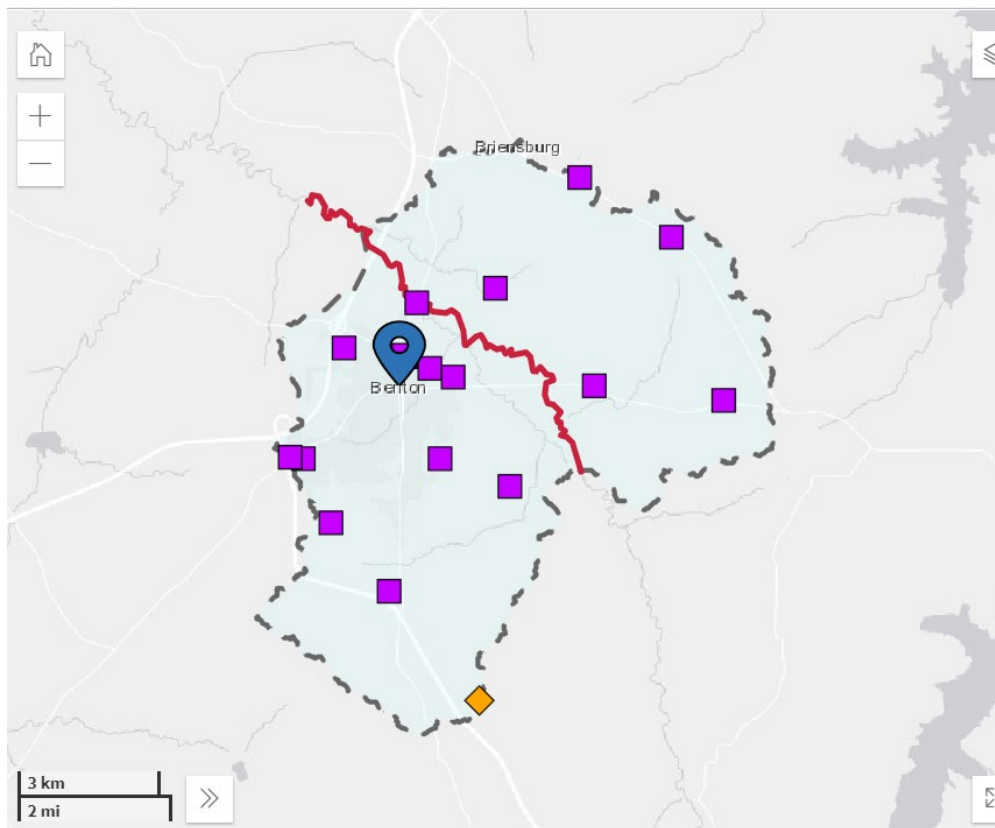
The Environmental Protection Agency (EPA) and state regulatory agencies require that water suppliers provide annual Consumer Confidence Reports (CCRs) to their consumers. These reports detail the quality of the drinking water in the region and disclose any contaminants.^[14] These contaminants have legally established maximum containment levels (MCL) which are also disclosed as a method of comparison in these documents. These reports are typically released every July, but the 2020 report is not yet available for Benton. Though this is likely due to the Covid-19 Pandemic, the most recent report available is from the 2019 Benton Water System Report.

As disclosed in the 2019 report, Benton's water is primarily sourced through three groundwater wells. This means that the water supply is susceptible to contamination as the water accumulates byproducts of human and animal activity, but the report states that there were no contaminants near or above the legal threshold for safe public consumption. The report specifically outlines the primary sources of potential contamination as being residential activities and nearby fuel tanks. Most contaminants were listed as being below the Maximum Contaminant Level Goal (MCLG), with only lead exceeding the goal while still following health standards. Similarly, there were no disinfectants in violation of legal limits. Overall, none of the 36 contaminants examined demonstrated high concentrations in the water supply, with most of them being relatively low compared to the state and the nation.¹⁰

Impairments

Waterway impairment refers to the pollution of waterbodies in excess of state and national standards established in the Clean Water Act.¹¹ These standards are established for various designated uses of waterways, such as swimming, fishing, and the ability of the water source to sustain aquatic life. Benton has 18 monitoring sites as shown below in the purple squares throughout the map. The map also presents one discharge site (orange square) used for the disposal of waste and stormwater, as well as Clarks River traced in red.⁷

Figure 5.3: Waterway Impairments



In Benton, the only impaired waterway listed is a section of Clarks River between miles 34.8 and 42.6, as shown above in red. The impairment listed by the EPA is based on the river's ability to support aquatic life. This means that the section of Clarks River running through

Benton is contaminated enough to be detrimental to aquatic life in the waterway, meaning that it is only partially supported.⁷ A report from the Kentucky Division of Water also indicated that some waterways in the Clarks River Watershed were not fit for swimming given elevated levels of E. coli. However, the site nearest to Benton did not contain contaminants of this magnitude.¹²

Restoration and Management Efforts

There is currently no watershed planning committee in Benton to monitor or plan the use and development of waterways in the area. There have been several other projects operating within the Watch Creek-Clarks River Watershed to restore and protect its water resources. Aside from regulatory agencies, there are two primary groups working in the region to protect and enhance the water resources of the region: The Four Rivers Basin Team and the Four Rivers Watershed Watch. The former is a collaboration of stakeholders, conservation groups, and regulatory agencies, and the latter is a volunteer group focused on monitoring the water supply. Efforts of both groups have secured a handful of grants over the years to continue their work.⁷ In 1992 Benton was listed as a “primary concern” for urban runoff due to urbanization. While the water quality is not of concern, it will be important to make sure runoff is monitored and managed.

Superfund Sites

Superfund sites are areas contaminated by hazardous waste, typically from manufacturing facilities and poorly managed waste disposal.¹³ The Environmental Protection Agency (EPA) classifies these sites into two categories: National Priority List (NPL) sites and non-NPL sites. Determinations are based upon the severity of the contamination and the risks

associated with it. Sites that make it to the NPL must undergo a long-term cleanup process administered primarily by the EPA, while other non-priority sites may be given short-term removal or cleanup designations.¹⁴

There are three active non-priority superfund sites in Benton, and two priority sites in nearby Calvert City. Of the three listed in Benton, the “West Kentucky Battery” site received a No Further Remedial Action Planned (NFRAP) designation from the EPA, indicating that no additional attention is needed for the location.¹⁵ The remaining two, denoted as “Marshall Schools Mercury”¹⁶ and “Marshall County Hazmat Response,” are listed as removal-only sites. Therefore, the latter two sites only require short-term cleanup. Both removal-only sites are classified by the EPA as being unprepared for their anticipated use, indicating that the cleanup process is incomplete.¹⁷

Given the scale of the sites and their proximity to Benton, it is important to note the two sites in Calvert City which are classified on the NPL. The first site, Airco, was at one point a landfill site in Calvert City. It was placed on the NPL in 1984 and cleanup began around 1992 on the contaminants seeping into the groundwater and soil. There were high concentrations of 13 volatile organic compounds (VOCs) found in the groundwater from the area, the two most prominent being 1,2-dichloroethane and benzene. Regarding soil impacts, the discovery of a wax-like substance containing high concentrations of chlorinated VOCs in 2014 led to additional removal efforts, resulting in the excavation of 112 tons of soil.

While much of the cleanup for the site is complete, such as the creation of a flood protection dike and fencing installation surrounding the location, monitoring is ongoing as of

the 2017 edition of the 5-year EPA review.¹⁸ Biennial groundwater monitoring conducted by the potentially responsible party (PRP) is ongoing to ensure that further modifications to the cleanup plan are no longer needed. While a new EPA review was anticipated for late-2019, no further updates have been provided since 2017.

With regard to the second NPL superfund site in Calvert City, B.F. Goodrich, remedial activity and cleanup have been ongoing since the 1980s. However, efforts have been expanded since a 2015 investigation uncovered the continued contamination of groundwater, soil, and the Tennessee River with a variety of oils and petroleum. Given the expanded scope of the project, implementation of the remedy given by the EPA in 2018 is not expected to be complete until 2024.

Air Quality

There are many ways to measure the air quality in a location. Located in Calvert City, the Commonwealth of Kentucky Energy and Environment Cabinet Department of Environmental Protection Division of Air Quality maintains and monitors two air quality monitors. These monitors are located at the Tennessee Valley Association (TVA) electrical substation. All quality assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A, and have the monitoring objective to “detect and quantify air toxic pollutants.” The monitor types are as follows:

Table 5.1: Air Quality

Monitor Type	Inlet Height (meters)	Designation	Analysis Method	Frequency of Sampling
Volatile Organic Compounds	2.0	SPM-Other	EPA Method TO-15	24 hours every sixth day
Collected Volatile Organic Compounds	1.9	SPM-Other	EPA method TO-15	24 hours every twelfth day

In their 2020 update, the Kentucky Division of Air Quality (KDAQ) announced a new monitoring plan for air quality in Calvert City. With the cooperation of EPA, KDAQ is currently working to establish a special-purpose monitoring study of volatile organic compounds (VOCs) near Calvert City, Kentucky. The measurement goal of the study is to estimate the 24-hour concentrations of VOCs in ambient air, over the course of one year of sampling, with a focus on five pollutants of interest: Ethylene Dichloride, Vinyl Chloride, 1,3-Butadiene, Acrylonitrile and Benzene.

As a result of the COVID-19 pandemic, KDAQ and EPA are expecting decreases in area-wide emissions, as many sources have reduced operations. Since the study is short term, with the sampling phase lasting one year, KDAQ and EPA have agreed to delay the start of sampling until emissions return to a more representative level. The commencement of monitoring will be determined jointly by KDAQ and EPA, based upon economic conditions, staff safety, the procurement of access agreements for the remaining two monitoring sites, and finalization of the study's Quality Assurance Project Plan.

In 2016 the National Environmental Public Health Tracking Network tested the fine particulate matter (PM_{2.5}) in the air of Marshall County. Common particles are dust, dirt, soot and smoke. The national standard for fine particulate matter is 12.0µg/m³ (micrograms per

cubic meter) because above that level the air quality is more likely to affect one's health. In 2016, the annual level of particulate matter was $9.0\mu\text{g}/\text{m}^3$ in Marshall County.

Ground-level ozone is a dangerous pollutant that occurs when emissions from cars, power plants, factories and other sources come in contact with each other in heat and sunlight. In addition to causing health problems, ground-level ozone is one of the largest parts of smog and needs to be monitored. In 2016 the National Environmental Public Health Tracking Network found that Marshall County residents were only exposed to unhealthy levels of ozone for one day.

Indoor Air Quality

In 2012 Marshall County Health Department commissioned a study with the University of Kentucky College of Nursing to study the indoor air quality in Marshall County. They did this by measuring fine particulates from May 14 to June 13, 2012, using the TSI SidePak AM510 Personal Aerosol Monitor. The average PM_{2.5} level from the 12 other locations studied was compared to the average PM_{2.5} levels in Georgetown and Lexington, Kentucky before and after implementation of their smoke-free laws, as well as the outdoor National Ambient Air Quality Standard (NAAQS; $35\mu\text{g}/\text{m}^3$) for 24 hours. The findings were:

- The level of indoor air pollution in public venues measured in Marshall County (average PM_{2.5} = $83\mu\text{g}/\text{m}^3$) was approximately 4.1 times higher than Georgetown and 4.6 times higher than Lexington after implementation of their smoke-free laws.

- The level of indoor air pollution in Marshall County’s public venues was 2.4 times higher than the National Ambient Air Quality Standard for outdoor air.

Most of this pollution was due to indoor smoking, with the report concluding that “Marshall County public venues are exposed to harmful levels of SHS (secondhand smoke).” While there are private businesses and facilities as well as some governmental buildings that have established no smoking areas, as of April 2020, neither Marshall County nor Benton has enacted smoke-free ordinances.

Like most states, Kentucky does not regulate indoor air quality. There are no federal standards for permissible exposure limits to indoor pollutants such as mold, wood smoke, dust, or other contaminants. Indoor air quality management policies are the domain of the local community and government.

Public Health

The Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute publish annual County Health Rankings. Marshall County ranked 22 out of the 120 counties in Kentucky in 2020. Marshall County did the best in quality of life measurements, ranking 6th in Kentucky. The measures used were percentage of the population with poor or fair health (19%), poor physical health days (4.4), poor mental health days (4.6) and low birthweight percentage (7%).

Comparing physical inactivity, Marshall County was on par with the state average at 27%. The local community has reduced the number of those who smoke to 18% compared to

24% statewide. In terms of obesity, Marshall County at 37% was three percentage points above the state average of 34%.

In the physical environment measurements, Marshall County ranked 88th out of 120 counties in Kentucky. The measures were air pollution (11.1), drinking water violations (none), severe housing problems (11%), Driving alone to work (90%) and long commute driving alone (30%).

Outside of the broad categories, Marshall County placed well with a low violent crime rate (88 reports per 100,000 population). Access to exercise opportunities was at (57%) and the community ranked in the lower percentage of primary care physicians (2,410:1), dentist (3,900:1) and mental health providers (3,900:1).¹⁹

6. Land Use Analysis

2021 Benton Comprehensive Plan Section Six: Land Use Analysis

Introduction

Under KRS 100, the comprehensive plan 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 City should use its public and private land at specified times as far into the future as is reasonable to foresee.

In addition, land uses may cover, without being limited to, public and private, residential, commercial, industrial, agricultural, and recreational land uses. Further, KRS 100.191 requires research and analysis as to the nature, extent, adequacy, and the needs of the community for the existing land and building use, transportation, and community facilities in terms of their general location, character, and extent, including, the identification and mapping of agricultural lands of statewide importance and analysis of the impacts of community land use needs on these lands.

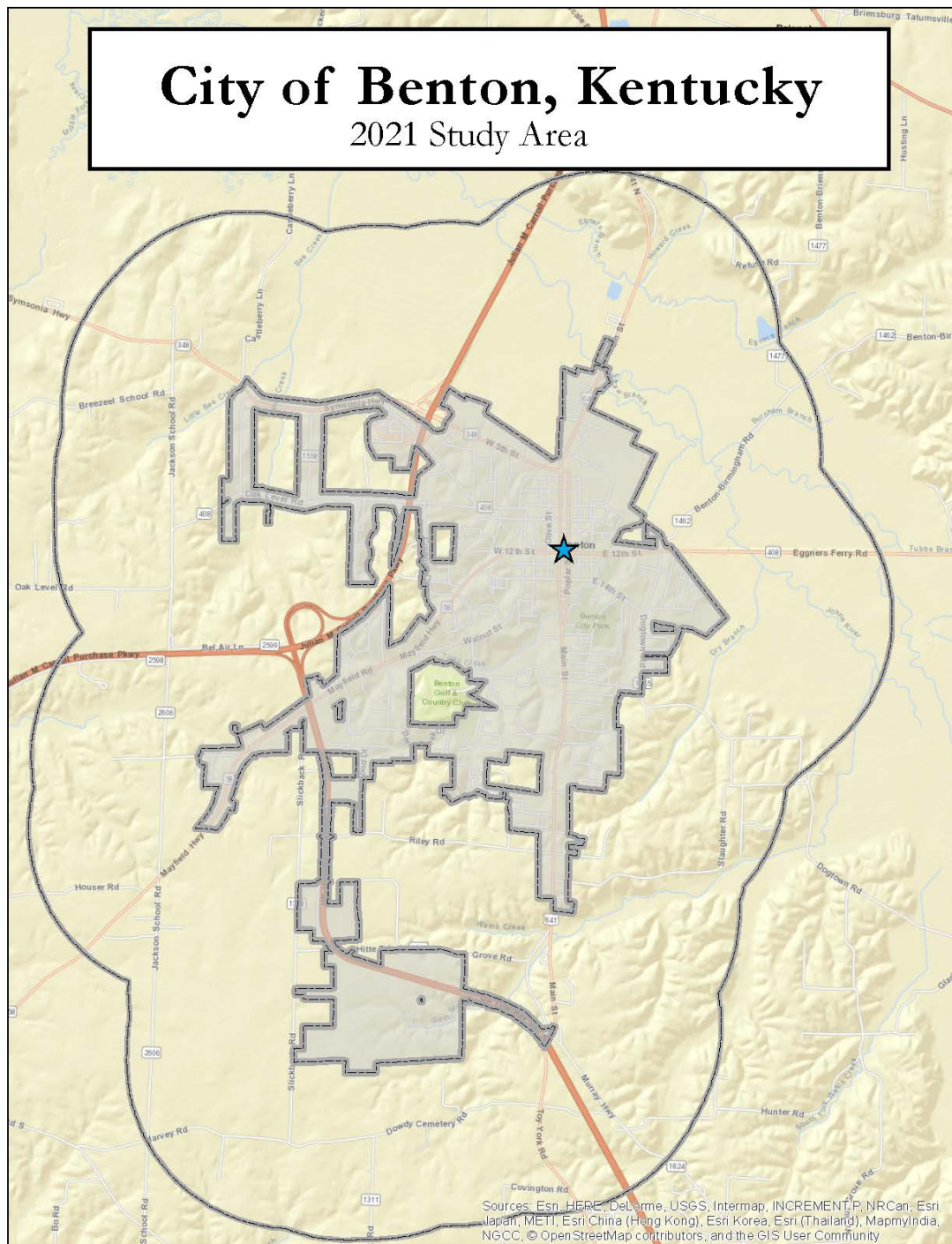
Land Use Planning and Study Area

The boundary area to be studied for the purposes of this comprehensive land use plan update is defined by the map prepared by the Marshall County GIS Division on March 17, 2021, labeled Figure 6.1: City of Benton, Kentucky 2021 Study Area, exhibited below.

The study area consists of the land within the incorporated city limits of Benton plus one mile. The plan examined the present uses of the properties within the city boundary to determine the number of acres currently in use, how many acres remain available for building

and development, and the availability of land to meet the future growth of the City over the next five years.

Figure 6.1: City of Benton Study Area



Population Growth Overview

The population of the City of Benton is 4,477, according to the most recent estimate of the U.S. Census Bureau in 2019. Census data for 2020 was not available at the time this plan was written. The city's population grew from 4,000 to 4,477 (6%) during the period of 2010-2019, significantly faster than Marshall County (3%) and Calvert City (-7%), but much slower than the state of Kentucky (10%).

Table 6.1 Decennial Growth in the Region

Year	KY	Jackson Purchase	Marshall Co.	Benton	Calvert City
1990	3,686,892	181,346	27,205	4,000	2,719
2000	4,041,769	193,495	30,125	4,197	2,701
2010	4,336,367	196,393	31,448	4,349	2,566
2019 Est.	4,467,673	195,782	31,100	4,477	2,513
Net % Change	10%	1%	3%	6%	-7%
Growth by year (people/yr)	23,661.3	127.1	54.2	15.6	-10.4

From 2020-2026, the population in the City of Benton is expected to grow modestly from 4,500 in 2020 to 4,583 in 2026 for a total of 83 people, according to data from ESRI via Opportunity Marshall and the Kentucky League of Cities. See the Demographics section of this plan for more details.

Existing Land Uses

Existing land uses have been categorized according to use within the City's zoning ordinance. The following classifications are currently being used:

R-1 Single-Family Residential District

The single-family residential district includes structures along with yard space on which the structures are situated.

R-2 Duplex (Two-family) Residential District

The duplex district includes structures that contain two-family residential units along with the land on which the structures are situated.

R-3 Multi-Family Residential District

The multi-family residential district includes apartment-type dwelling units and the land on which the units are located. These structures are occupied by three or more housing units.

ZLL Zero Lot Line Residential District

The zero lot line residential district includes residential real estate in which the structure comes up to, or very near to, the edge of the property line.

C-1 Central Business Commercial District

The central business commercial district includes the downtown commercial and business core, generally characterized by high-density, closely clustered retail space, upper-story housing, financial services, service-oriented businesses, and government offices.

C-2 Neighborhood Commercial District

The neighborhood commercial district includes retail and wholesale trade, highway-oriented businesses, neighborhood convenience shopping and comparison-shopping areas outside the central business commercial district.

MU Mixed-Use Overlay District

The mixed-use overlay district is a set of requirements that are superimposed over the existing underlying zoning district and the physical area it encompasses.

I-1 Light Industrial District

The light industrial district is to provide for wholesale and warehousing uses as well as those industrial uses that include fabrication, manufacturing, assembly, or processing of materials that are in refined form and that do not in their transformation create smoke, gas, odor, dust, noise, vibration of earth, soot or lighting to a degree that is offensive when measured at the property line of subject property.

I-2 Heavy Industrial District

The heavy industrial district includes both manufacturing and warehousing structures and is also accompanied by related industrial uses such as railroads, outdoor storage space and lay-down yards.

A Agricultural District

The agricultural district includes land that is designated for farming.

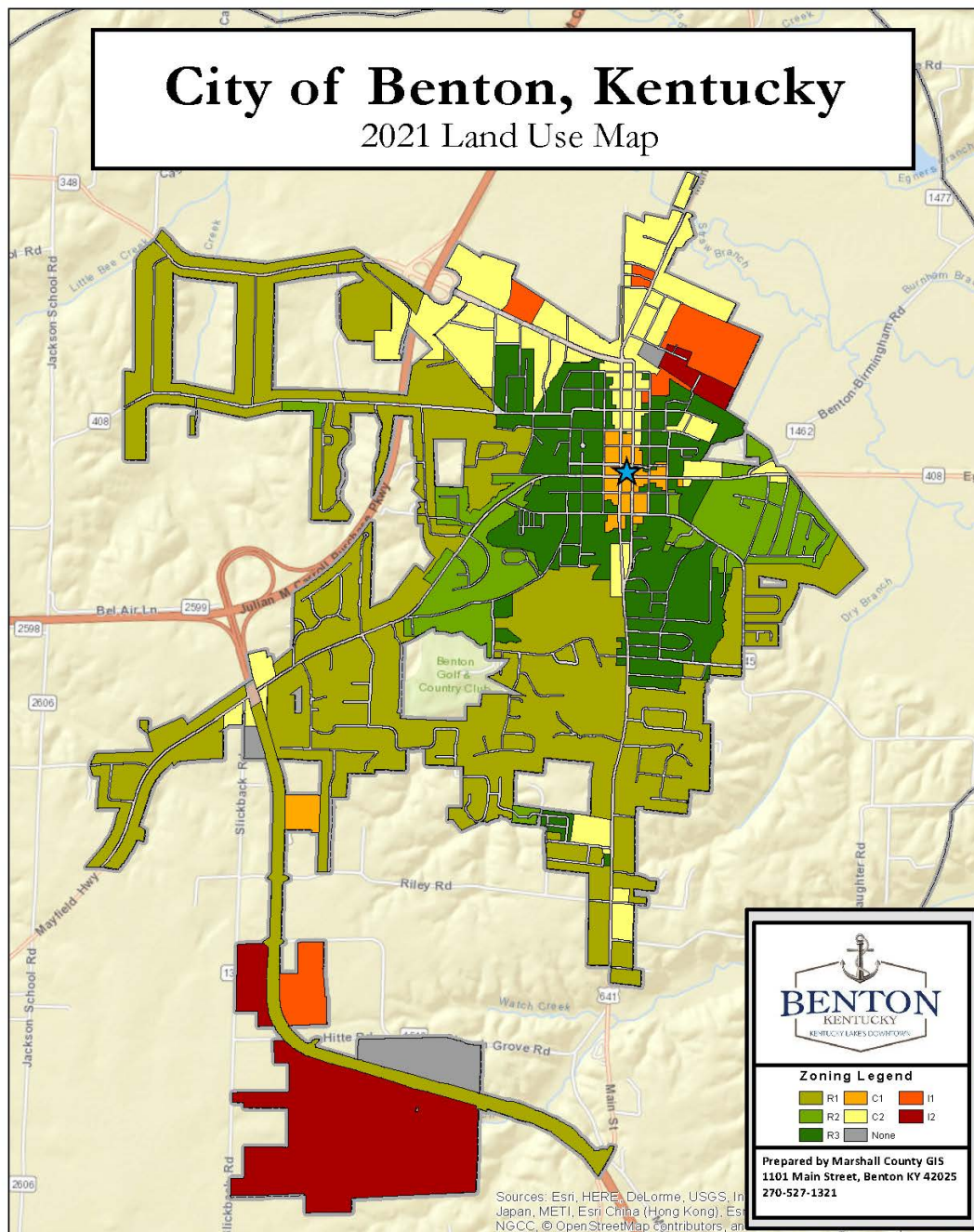
F Floodway District

The floodway district is an area that has been designated by the Federal Emergency Management Agency to be a flood-risk to nearby communities and properties.

Summary of Existing Land Uses

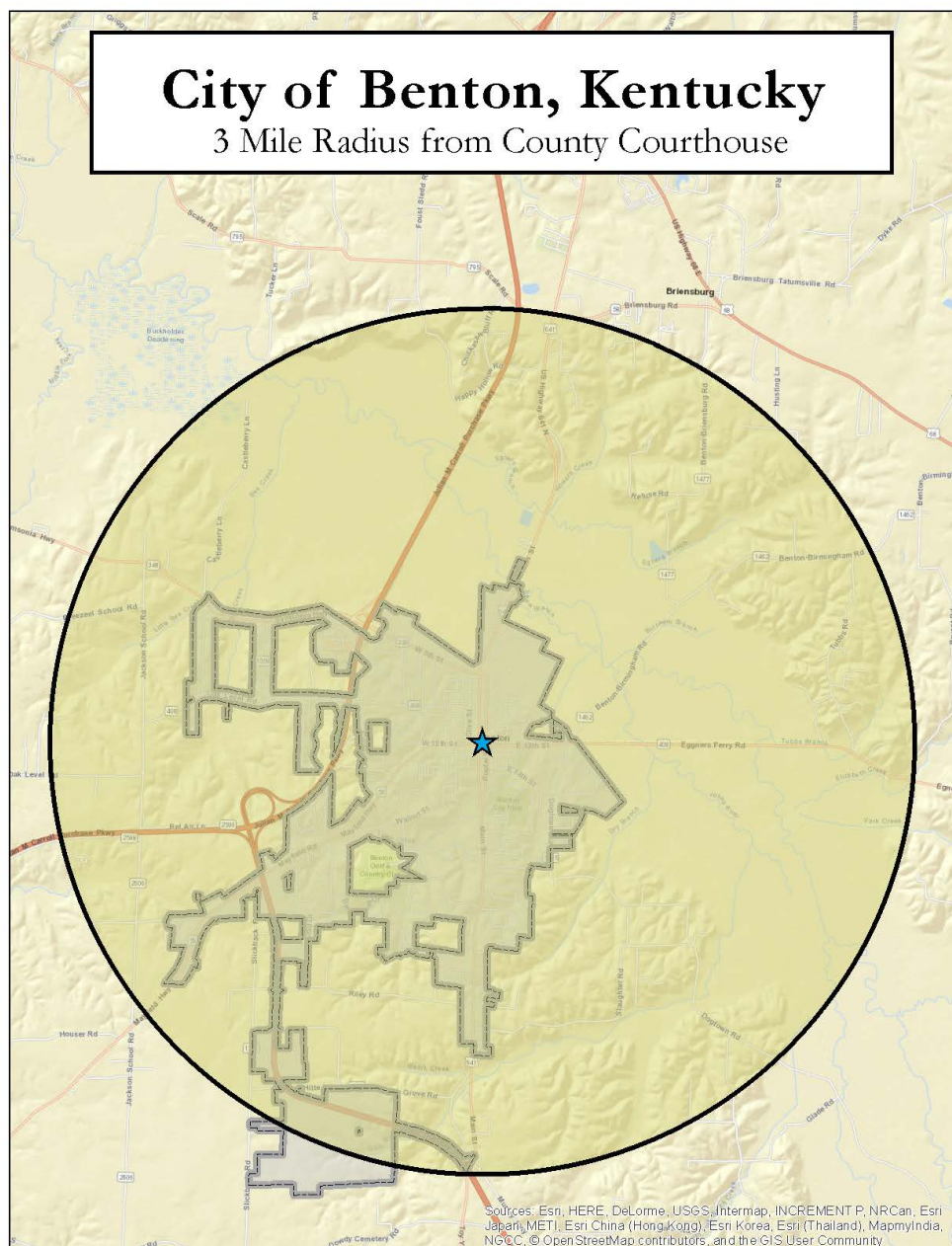
The existing land use for the City of Benton planning area is on the map entitled Figure 6.2 2021 Land Use Map.

Figure 6.2 2021 Land Use Map



It is important to note that the Benton Planning Commission requires that any subdivision development within a three-mile radius from the Marshall County Courthouse must be platted and approved by the Benton Planning Commission and conform to the standards set forth in the zoning ordinance as illustrated in Figure 6.3 City of Benton, Kentucky 3 Mile Radius from County Courthouse.

Figure 6.3 City of Benton, Kentucky 3 Mile Radius from Courthouse



The City of Benton encompasses an area of approximately 3,231 acres within its incorporated boundary, according to the Kentucky Secretary of State Land Office Division. The breakdown of existing land use by designation and acreage is presented in the following table:

Table 6.2: Existing Land Use Table

Use	Acres	% of Specific Area	% of Total Boundary Area
Residential	2,077 Acres		64%
R1 Single-Family	1,431 Acres	69%	
R2 Duplex (Two-Family)	244 Acres	12%	
R3 Multi-Family	402 Acres	19%	
ZLL – Zero Lot Line	0 Acres		0%
Commercial	356 Acres		11%
C-1 Central Business Commercial	45 Acres	13%	
C-2 Neighborhood Commercial	311 Acres	87%	
Mixed-Use Overlay	0 Acres		0%
Industrial	440 Acres		14%
I1 Light Industrial	105 Acres	24%	
I2 Heavy Industrial	335 Acres	76%	
A – Agricultural	0 Acres		0%
Public	583 Acres		All Zones
Semi-Public	57 Acres		All Zones
Transportation	298 Acres		9%
Unzoned Acreage	60 Acres		2%
Total Land in Boundary	3231 Acres		100%
Total Developed Land	2,577 Acres		80%
Available Land	654 Acres		20%
Vacant Land for Future Use Including 1-mile boundary	13,052 Acres		
Total Planning Area	16,283 Acres		

Source: Marshall County GIS Division

In determining potential future growth, it is useful to analyze the comparative existing land use growth data since the last comprehensive land use update in 2008 with the present conditions as of March 1, 2021. A Comparison Land Use Table provides a side-by-side view of the changes in size and type of land use allocations.

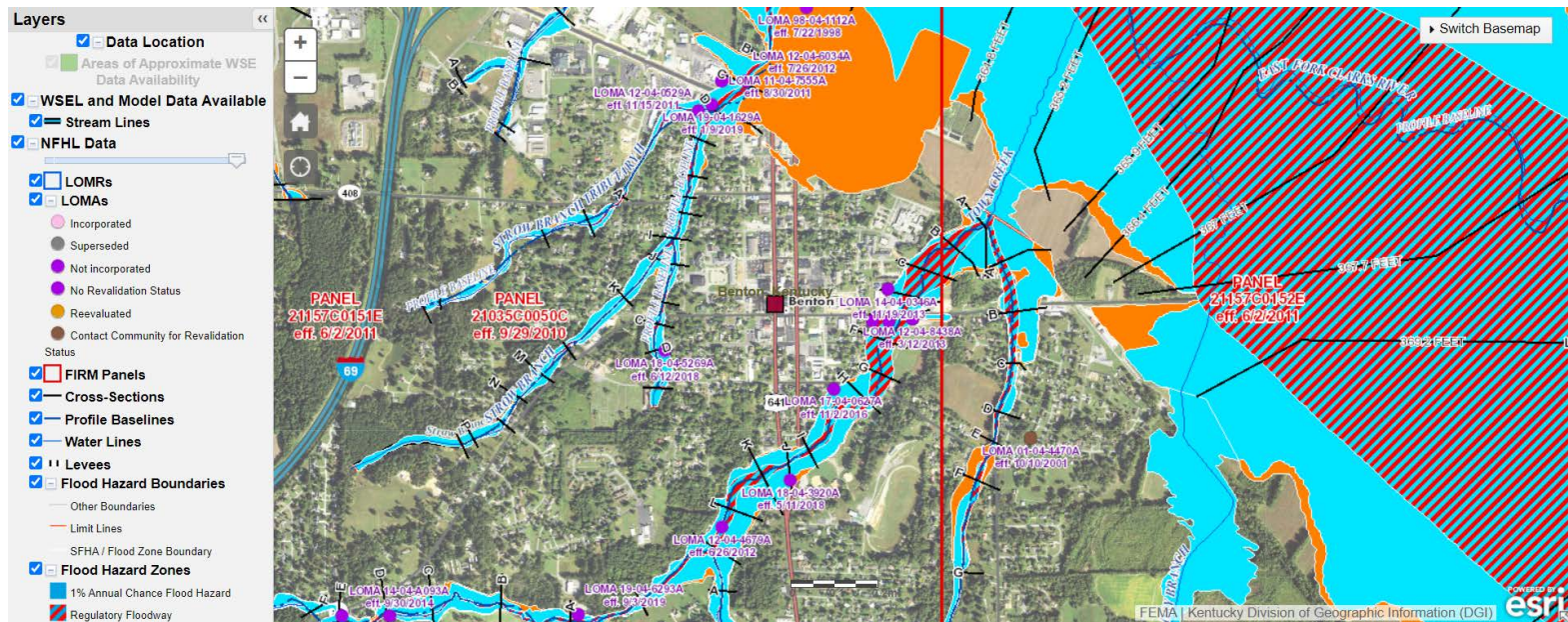
Table 6.3: 2008/2021 Comparison Land Use Table

Use	2008 Land Use Acres	2021 Land Use Acres
Residential	1,888 Acres	2,077 Acres
R1 Single-Family	1,861 Acres	1,431 Acres
R2 Duplex (Two-Family)	3 Acres	244 Acres
R3 Multi-Family	23 Acres	402 Acres
ZLL – Zero Lot Line	0 Acres	0 Acres
Commercial	260 Acres	356 Acres
C-1 Central Business Commercial		45 Acres
C-2 Neighborhood Commercial		311 Acres
Mixed-Use Overlay	0 Acres	0 Acres
Industrial	53 Acres	440 Acres
I1 Light Industrial		105 Acres
I2 Heavy Industrial		335 Acres
A – Agricultural		0 Acres
Public	228 Acres	583 Acres
Semi-Public	196 Acres	57 Acres
Streets/Transportation	499 Acres	298 Acres
Total Land Area	3,124 Acres	3,231 Acres
Vacant Land for Future Use	6,287 Acres	13,052 Acres
Total Planning Area	9,411 Acres*	16,283 Acres*
		*Existing Land Use Map includes 1-Mile Boundary beyond current city limits.

Sources: 2008 Comprehensive Land Use Plan created by the Purchase Area Development District; 2021 Land Use Map created by the Marshall County GIS Division.

Approximately 276 acres within the current city boundary lie within the federal floodplain. As such, this land is unsuitable for future development. A map of the floodplain from the Kentucky Floodplain Portal for the City of Benton may be viewed below.

Figure 6.4: Floodplains Surrounding Benton



Source: Kentucky Flood Hazard Portal - <https://watermaps.ky.gov/RiskPortal/>

Future Land Use

Future land use development should conform to the goals and objectives set forth in the comprehensive plan.

Guiding Principles for Future Land Use

The overall guiding principle for future land use development is that the City of Benton is and will remain a safe, caring, welcoming and thriving community that offers great opportunities for residents, businesses, and visitors. To achieve this goal, the planning commission will utilize the community planning process to preserve and perpetuate the core values of the residents of the City. The planning commission and the city are committed to these Guiding Principles for future land use:

1. Economic Recovery Principles – The City will emerge from the COVID-19 pandemic stronger than before if the community follows public health guidelines; provides community support in housing, food security and employment; and prepares for future economic opportunities.
2. Economic Development Principles – The City will offer a broad range of economic and business opportunities by and through retaining and supporting existing businesses and industries and successfully recruiting new businesses and industries. This principle requires the alignment of the business community, education and workforce development, and adequate infrastructure.
3. Central Business District Principles – The downtown serves as the heart of every thriving city. The City should promote and support its downtown businesses by beautifying streets and facades; providing more outdoor greenspace such as

pocket parks; filling in business gaps; reducing barriers to entry for new businesses; refocusing new business recruitment efforts on start-ups and entrepreneurs; and creating strong linkages between the downtown and the local and regional trails, essentially connecting the downtown to the lake.

4. Land Use Principles – The city will be recognized for having a desirable land use pattern that promotes the quality of life, the efficient delivery of services, and the economic vitality of the community.
5. Transportation Principles – Transportation and travel throughout the city will be safe, convenient, and accessible for all residents and visitors.
6. Housing Principles– Having a variety of housing stock available is a primary attractor for people moving and staying in the city. It is also a fundamental building block for developing a great quality of life, attracting and retaining new businesses, and fostering diversity. A safe and well-connected neighborhood utilizing a multi-modal transportation scheme promotes ease of access to all parts of the city for residents and visitors. Compatibility with surrounding land uses and a clear set of building codes will ensure proper and efficient growth and maintenance.
7. Public Services Principles – To achieve the goal of being a great city, Benton will provide first class community services and facilities at a reasonable cost. Water, wastewater, and sewer treatment facilities must be properly maintained and upgraded to meet future demands. Interconnected and coordinated utility

planning is critical to promote growth and minimize construction and maintenance costs. Cities primarily exist to serve and protect the public. The City of Benton does so through its police, fire, and utility services, which must be continuously evaluated and monitored.

8. Recreation Principles – Quality of life and recreation go together. The city will continue to offer its citizens high-quality recreational opportunities by planning, expanding, and maintaining its public spaces, such as parks, greenspace, trails and connections to the many lakes, waterways, and nature trails.
9. Landscape Conservation Principles – The city will identify appropriate areas for conservation and develop guidelines for how sensitive landscapes will be managed and used. The city will foster cooperation between the public and private sectors for conservation planning.
10. Historic Preservation Principles – The city values historically important sites and activities through historic preservation, provides appropriate incentives for historic restoration, celebrates history through community activities, and requires that new development respects and is compatible with existing historic sites.
11. Environmental Principles – The city will be known for its healthy environment. The principles to achieve this goal include protection of surface and subsurface water; protection of streams, wetlands, significant trees, and other significant natural features; ensure that no future development occurs within the 100-year

floodplain; implement appropriate stormwater management practices; and ensure that new businesses or industries do not degrade the quality of the water or the air.

12. Community Health Principles – The City of Benton encourages its citizens to adopt a healthy lifestyle by providing healthy activities; creation of great outdoor spaces; supports healthy food initiatives and access for all citizens; and continually monitors air and water quality.

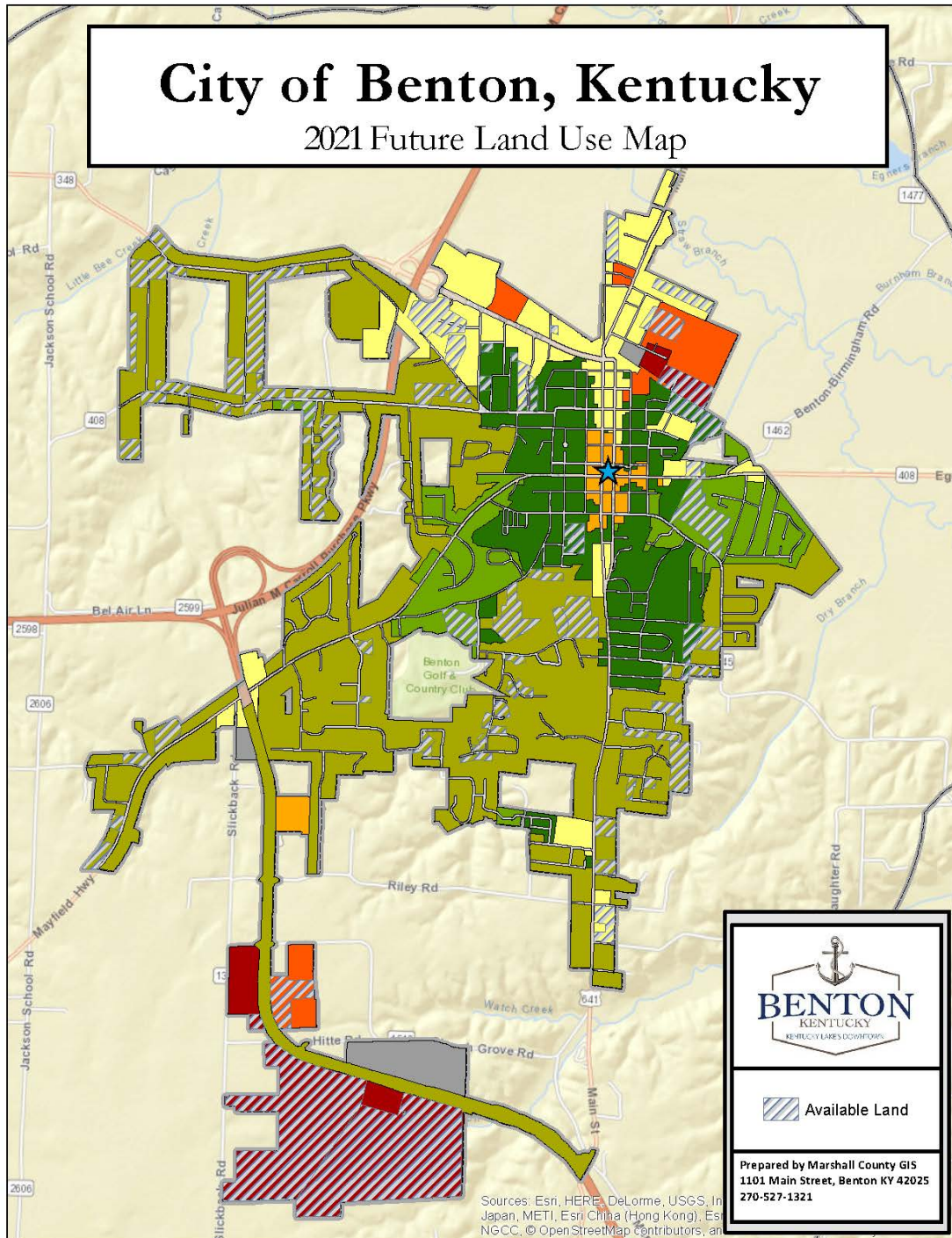
13. Growth Management Principles – Encouraging and enforcing high-quality growth is a priority for the City of Benton. High-quality growth is achieved through innovative, fair, consistent, and efficient growth management. Zoning and subdivision development regulations are reviewed and updated regularly. Infill redevelopment plans encourage market action. New construction or development along arterial roadways will incorporate access control measures to promote efficient traffic movements. All new development will include a review by water and sewer officials, police and fire departments, street department, utility providers, and public health departments. The city should require more engineering detail on subdivision plats and development plans to clarify submission and approval detail procedures. Appropriate screening and buffering should be used wherever land use types and intensities occur. Development or redevelopment occurring in areas served by inadequate roadways should be required to make provisions for upgrading those roadways.

Appropriate landscaping and other site amenities are encouraged for all development.

Available Land for Future Development

Within the current City boundary, approximately 654 acres remain available for future development.

Figure 6.4 Future Land Use



Benton is forecast to grow by fewer than 100 people through 2026, as illustrated below.

Table 6.4 Benton Population Projections

Benton Pop. Projections	
Year	Projection
2010	4,365
2012	4,395
2014	4,380
2016	4,483
2018	4,460
2020	4,500
2022	4,528
2024	4,556
2026	4,583
2028	4,611
2030	4,639
2032	4,667
2034	4,695
2036	4,722
2038	4,750
2040	4,778

Benton's current density rate is 2.55 households per acre. At this same rate, adequate vacant land exists to accommodate the projected population growth rate in Benton.

In addition, only 65 building permits for all categories of land use were issued from 2015-2020. At the same or similar growth rate over the next five years, sufficient land is within the existing boundary to meet the future growth needs of the city.

If Benton has a sudden growth spurt, the City of Benton has approximately 13,052 acres within a 1-mile area immediately surrounding the city limits. It would be prudent for the planning commission and the city council to consider the questions of where, would and could growth occur, and what properties are available for annexation. Given past trends, it is

reasonable to assume that growth around south Business Highway 641 toward SW1, west along Symsonia Highway 348, and north along Highway 641 toward Draffenville are the most likely areas for future development.

Future Transportation Impacts

Ease of access and the efficient flow of people and goods along and through the city's transportation infrastructure are critical to the future growth and vitality of the City of Benton. Transportation includes air, public transportation, roads, railroad, trails, sidewalks, and riverports. The interaction between these modes of transportation and land use are important factors in determining the city's future.

1. Air Travel – There are no expected expansions in air travel that would impact Benton's future land use.
2. Public Transportation – Although public transportation and rideshare services have grown and morphed over the past 13 years, the impact on future land use is minimal. Current infrastructure is adequate to accommodate the needs of public transportation.
3. Streets and Roads – Benton and Marshall County expect a few street and road improvement projects to be completed over the next five years that could potentially impact future land use. The first project is a widening project at Lone Valley Road that will improve access and reduce congestion on US-62 from KY-95 to the existing four-lane highway near the I-24 interchange and the I-69 connection. The design phase is expected to begin in 2021 with construction

starting in 2024. I-69 has replaced the Purchase Parkway from Exit 21 at Mayfield to the I-24 Exit 25 Interchange at Calvert City. It then extends to US 41 and the KY 425 Henderson Bypass at the south edge of Henderson.

The most expensive project is the repaving of I-24 in both directions from mile point 17.32 to 29.14. The design phase is scheduled to begin 2024 and the construction phase is scheduled to begin in 2025. The total projected cost is nearly \$10.5 million.

The 2020 Kentucky Department of Transportation road plan for Marshall County is included in the Transportation section attachments.

In 2019 the Delta Regional Authority allocated a grant to Marshall County to make safety improvements along US Highway 641 South near the area of the Southwest One Industrial Park, which is about two miles from I-69 on US Highway 641 and three miles south of Benton. The grant was for \$415,456 to help fund the \$3,515,456 commercial freight safety project.

The city is involved in discussions and decisions that directly and indirectly impact the City of Benton. Improvements or expansions that potentially alter the traffic flow and impinge upon land within the city should be carefully considered in all decision-making processes.

4. Railroads – No active rail travel exists in the city. Abandoned rail beds have been converted to walking and hiking trails.

5. Trails – Several abandoned rail beds have been converted to walking, hiking and bike trails in the past. Over the next five years, the City would like to expand its trail system and connect with the region and the lake area. The City will likely need to acquire rights-of-way for areas that are not in the public domain. Thoughtful and forward-thinking proactive planning will be required before any projects can be implemented.
6. Sidewalks – The City has created a sidewalk improvement plan and has been steadily replacing, repairing and extending sidewalks throughout the City to improve safety and accessibility. The City will acquire easements where necessary.
7. Riverports – The City does not own or have direct access to any riverports.

Future Water and Wastewater Impacts

The water treatment staff has identified the following needed improvements that may impact future land use.

- Wastewater lines to the industrial park in 2018 need to be annexed into the City.
- Stormwater needs to be upgraded.
- Wastewater needs to increase its amount of discharge.
- All three lift stations need to be upgraded or preferably consolidated into one station.

- Main sewer lines need manholes for access.
- Treatment plant needs upgrades to two wetland cells (filter beds).

Other Impact Areas and Conclusions

The City and Planning Commission need to carefully consider additional demands upon other areas of infrastructure related to land use, particularly transportation and environmental impacts. When projecting future land use, it is important to be aware of the demands and stresses upon the ancillary services of the City. The planning for future growth should also consider the location, configuration and components of street development, stormwater runoff, utilities, and potential environmental issues. These concerns are addressed in other sections of the Comprehensive Land Use Plan, but it may be instructive to highlight the importance of the impact that every land use decision has upon the city and its resources once again. Benton is poised and ready for continued growth at its current steady pace. However, one major business announcement may place an untenable strain on the city's resources, infrastructure, and services. Prudent planning and preparation will ensure that the city continues to maintain its small-town charm as an important county seat in the larger picture of the entire Purchase area.

7. Transportation Analysis

2021 Benton Comprehensive Plan Section Seven: Transportation Analysis

Introduction

For Benton to attract jobs and have a healthy, vibrant community, much depends on ease of access and the ability to move people and goods to desired destinations. Each transportation mode of mobility is detailed in this section. A balanced transportation system should be encouraged through a comprehensive multi-modal approach. This approach provides for the most efficient utilization of all modes of transportation including air, rail, waterways, highways, bicycle paths and pedestrian walkways.

Air Travel

The closest major airport is Nashville International Airport, located 130 miles southeast from Benton and eight miles east of downtown Nashville. The airport code is BNA and provides nonstop service to 75 markets with 14 airlines, transporting 17 million passages annually through 540 daily flights.

The Barkley Regional Airport is in Paducah and also offers commercial travel. There are two flights each day with United Air to and from Chicago O'Hare International Airport (ORD).

The Fixed Base Operator (FBO) is Midwest Aviation, a full-service general aviation company capable of meeting the needs of private aircraft of all types including large corporate jets. In addition to providing fuel service, they are an FAA certified repair station, complete with full-service avionics repair. They handle maintenance, repair, engine installation and detailing.

Barkley Regional Airport undertook a new terminal project in the fall of 2020 and is scheduled to be completed in Spring 2023. The goal of this project is to be a catalyst for economic development for the region, “putting the region back in Barkley Regional Airport.”

There are three additional small airports located within 35 miles of Benton located in Calvert City, Murray, and Mayfield. They are used mostly for general aviation use. General aviation is defined as “all civilian flying except scheduled passenger airline service.”

Some examples are overnight package delivery, a weekend visit back home, emergency medical evacuation and inspection trips to remote construction sites.

Table 7.1: Regional Air Travel¹

	Average Daily Flight	Transient General Aviation	Local General Aviation	Military	Air Taxi	Commercial
Kentucky Dam State Park Airport	44	69%	9%	19%	3%	
Barkley Regional Airport	64	54%	25%	6%	8%	6%
Kyle-Oakley Field Airport	44	47%	46%		6%	
Mayfield Graves County Airport	42	62%	29%	3%	5%	

Public Transportation

Public transportation is available to residents in Benton through the Paducah Area Transportation System (PATs). PATs offers scheduled service in the four-county Jackson Purchase Area of Western Kentucky (Ballard, McCracken, Calloway and Marshall (Benton) counties. They also offer intercity bus service between Paducah, Mayfield, Benton, and Murray and points in between. The shuttle service operates during the hours of 7:00 a.m. – 7:00 p.m. For non-emergency medical transportation Medicaid members can use PATs or the Green River Intra-County Transit System (GRITS) at no cost to a Medicaid covered service.

Rideshare Travel

More and more Americans are relying on rideshare services as constant sources for transportation as well as employment. Uber and Lyft are the two largest companies in America. Lyft currently operates and offers ride shares in Benton, but Uber does not. Below are the estimated rates for the companies:

Table 7.2 Rideshare Cost Estimates²

Lyft Rate Table (https://uphail.com/us/ky/benton/)	
Safe Ride Fee	\$2.15
Minimum Fare	\$4.00
Base Fare	\$2.00
Cancellation Fee	\$5.00
Cost Per Mile	\$1.56
Cost Per Minute	\$0.20

Uber Rate Table (https://uphail.com/us/ky/benton/)	
Safe Ride Fee	\$2.15
Minimum Fare	\$6.15
Base Fare	\$2.00
Cancellation Fee	\$5.00
Cost Per Mile	\$1.56
Cost Per Minute	\$0.20

Roads

There have been recent efforts to repave and improve the main thoroughfares in Benton that are considered state maintained. West 5th Street was completed and now one-way streets, Main and Poplar, are underway. Another project relevant to Benton is the repaving of US-641 between mile points 7.981 and 8.824.

The Kentucky Transportation Cabinet has planned for two other improvements in Marshall County between the fiscal years of 2020-2026.

The first project is a widening project at Lone Valley Road that will improve access and reduce congestion on US-62 from KY-95 to the existing four-lane highway near the I-24 interchange and the I-69 connection. The design phase is expected to begin in 2021 with construction starting in 2024. I-69 has replaced the Purchase Parkway from Exit 21 at Mayfield to the I-24 Exit 25 Interchange at Calvert City. It then extends to U.S. 41 and the KY 425 Henderson Bypass at the south edge of Henderson.

The most expensive project is the repaving of I-24 in both directions from mile point 17.32 to 29.14. The design phase is scheduled to begin 2024 and the construction phase is scheduled to begin in 2025. The total projected cost is nearly \$10.5 million.

The 2020 Kentucky Department of Transportation road plan for Marshall County is included in the Transportation section attachments.

In 2019 the Delta Regional Authority allocated a grant to Marshall County to make safety improvements along US Highway 641 South near the area of the Southwest One Industrial Park, which is about two miles from I-69 on US Highway 641 and three miles south of Benton. The grant was for \$415,456 to help fund the \$3,515,456 commercial freight safety project.

Currently, the Transportation Cabinet has authorized the design funds for 1-398 and are in the process of selecting a consultant engineer to do the design work. They have also bid a project to construct an R-Cut at the U.S. 641/KY 402 intersection at Hardin. Work will start in the spring of 2021 and is a Highway Safety Improvement Project (HSiP).

Regional Planning

The improvements mentioned above came from the Purchase Area Development District Transportation Program, whose purpose is to support the Kentucky Transportation Cabinet's planning process. The program is responsible for the coordination of public input, analysis of data, identifying evaluation problems, and ranking the needs of the region. This effort is led by the PADD Regional Planning Committee, which is made up of elected officials, highway/public works employees, representatives from major trucking firms (and other

transportation firms relevant to the region), citizens and other qualified representatives. The committee meets as often as necessary to complete their assigned task.

In 2018 the PADD Regional Planning Committee updated their mission, goals and objectives. Their updated mission is “the Purchase Area Regional Transportation Committee focuses on goals that will provide for a safer, more efficient, and environmentally sound transportation system for the movement of people, goods and services, thereby enhancing the quality of life and economic development in the Purchase Region.” They laid out six goals to help them with this mission:

1. Access: “Promote a balanced, multi-modal transportation system that serves the local and regional movement of people, freight and services and provides choices in mobility.”
2. Economic stewardship: “Support and promote the development of a transportation system that strengthens the economic vitality and competitiveness of the region.”
3. Safety and security: “Promote transportation safety to achieve a significant reduction in fatalities, injuries, and economic loss in the region.”
4. Mobility (freight movement): “Promote and support projects that improve the national freight network, strengthen the ability of rural communities to access national and international trade markets and support regional economic development.”

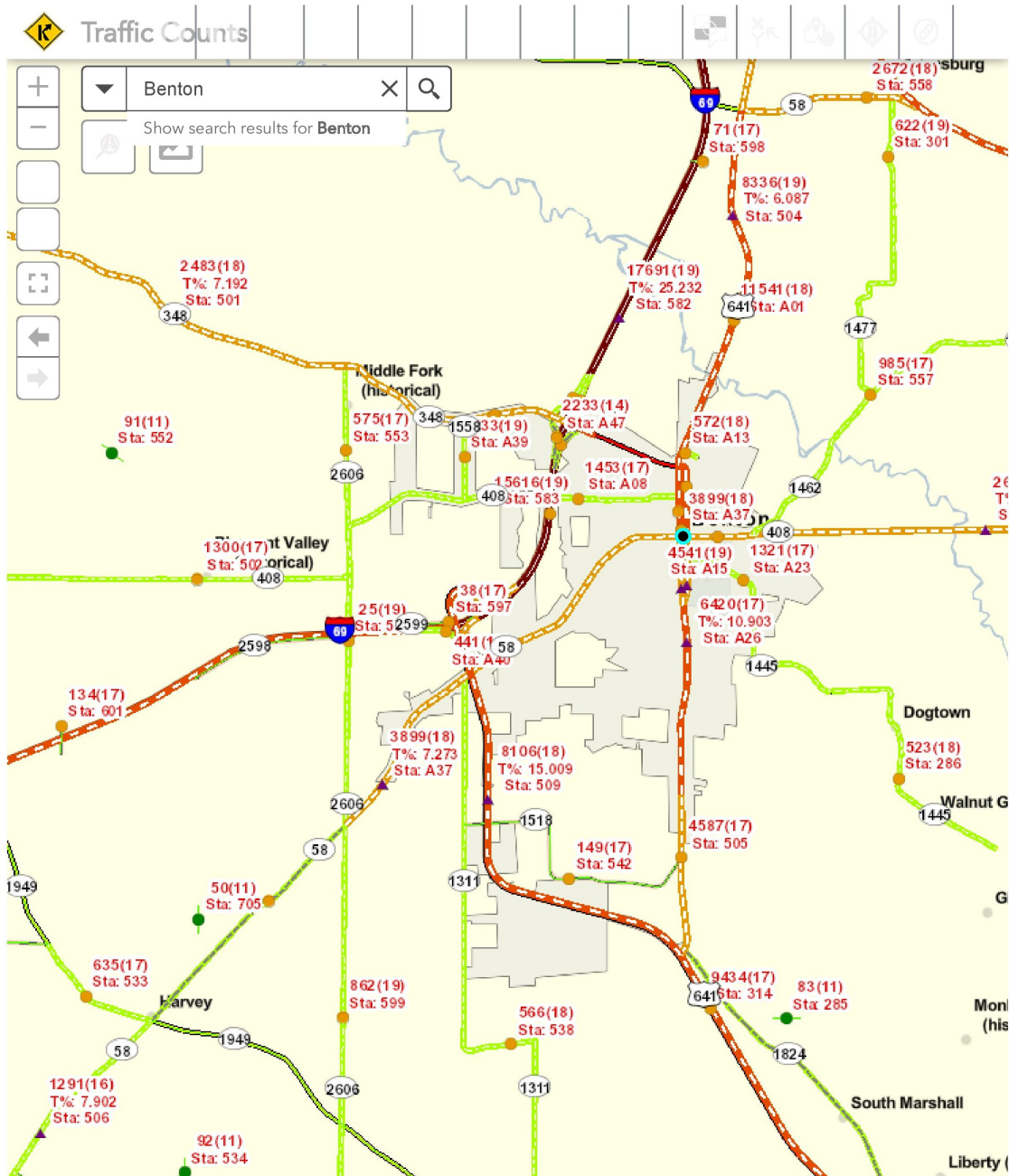
5. Environmental stewardship (human and natural): “Promote a transportation system that will strive to make our communities and the region healthier and more attractive, and to minimize any negative impact on the natural, social and cultural environment.”
6. Public involvement: “Support community involvement in the transportation planning process.”

Delta Regional Authority

Another regional resource for the City of Benton is the Delta Regional Authority (DRA). They work to improve regional economic opportunity by helping to create jobs, build communities, and improve the quality of life for the region. The Delta Regional Authority makes strategic investments of federal appropriations into the physical and human infrastructure of delta communities. Through the Kentucky Economic Development Assistance Program, these investments help to improve transportation and basic public infrastructure and to strengthen workforce development and local business environments.

Traffic Counts

Figure 7.1: Traffic Counts³



These counts are average daily traffic count over a 24-hour day period for an average day over the year. US Highway 641 sees over 8,000 travelers (vehicles) a day on the southwest

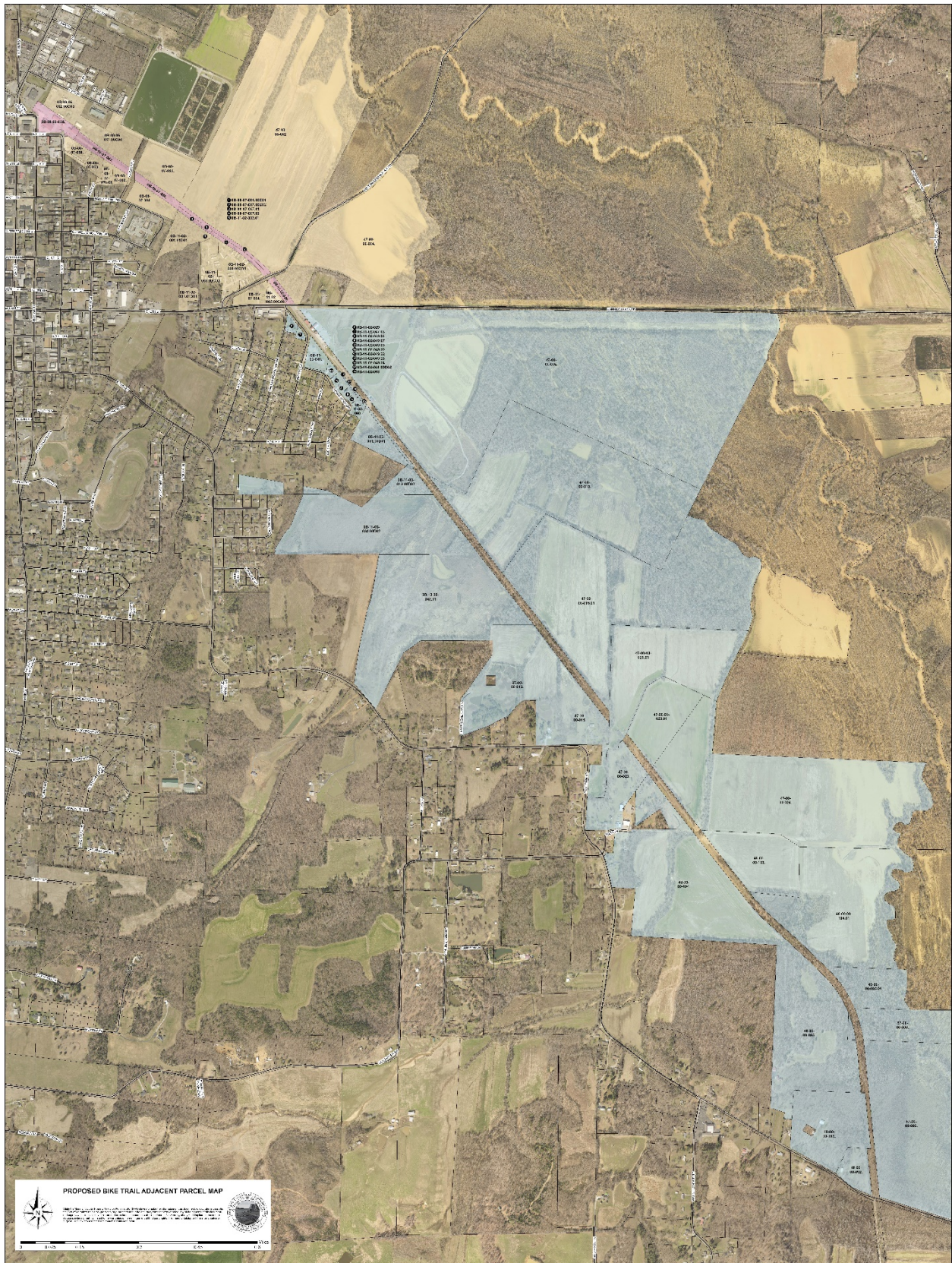
edge of town, and over 17,000 vehicles a day travel on 641 above the northwest edge of town. The busiest street in Benton is Mayfield Road/East 12th Street, which averages over 4,000 travelers through town. The only other road that experiences high traffic is Main Street, which also handles over 4,000 travelers a day.

Rails, Trails and Sidewalks

Marshall County is served by the Paducah and Louisville (P&L) Railway. There are interchanges with the BNSF, CN, CSX and NS Railroads. Although there are no active railroads in Benton, a section of an abandoned rail line in Benton has been turned into a trail and wildlife refuge, within the Clarks River National Wildlife Refuge. The trail runs 1.5 miles along Clarks River, east of downtown and off Eggner's Ferry Road.⁴ The trail was funded by a recreational trail grant as a rails-to-trails program. It is one of several trails at the refuge, the others being Blizzard Pond Trail, Turtle Run Trail, and Teal Trail. These additional trails are smaller loops connecting back to the rail trail as the primary recreational pathway.⁵

Aside from this, there are a variety of hiking, biking, and multi-use trails nearby at the Land Between the Lakes (LBL). Most notably of these nearby trails is the Eggner's Ferry Bridge Hike and Bike Trail, which goes 1.5 miles across into LBL.⁶ A bike trail map is provided in the Transportation section attachments. For more information on parks and other facilities, reference the Community Facilities section.

Figure 7.2: Bike Trail Map



Sidewalks

The City of Benton has worked to improve the existing sidewalk infrastructure in recent years. With help from Precision Concrete, an overall repair and replacement plan has been created and as funds become available are being implemented. Sidewalk plans are shown in the appendices in the Transportation section.

Riverports

While Benton itself does not have access to a riverport, it is important to note those operating nearby. The nearest riverport is located in Paducah, falling under the purview of the Paducah-McCracken Riverport Authority. The port was established in 1964 and is located along the Tennessee River near its confluence with the Ohio River.⁷

The Paducah-McCracken Riverport owns 286 acres of land and has developed 45 in total. It has ample equipment, including two cranes, 10 forklifts, and four loaders among a variety of other items. Regarding services, they offer various types of storage, rail, and barge. The primary materials flowing through the port include grain, fertilizer, rock, and steel.⁸

Marshall County and Calvert City began working to establish a riverport in the early 2000s. However, to date, planning for the creation of an operational port has ceased, with the most recent sources indicating that the Marshall County-Calvert City Riverport Authority is nearing dissolution.⁹ While dissolution does not appear to be finalized, awaiting the liquidation of funds from the riverport authority, it does not seem likely that the county will have such a facility in the near future.

8. Community Facilities Analysis

2020 Benton Comprehensive Plan Section Eight: Community Facilities

The following information provides an overview of the existing public facilities within the City of Benton. The current condition and anticipated needs as defined by projected growth and functional obsolescence are reflected in the narrative herein.

Governmental Offices

City Hall

The City of Benton is the county seat of Marshall County and the city operates out of city hall located at 1009 Main Street. The building provides office space for city administrative services where payments are made for water, sewer, property tax, payroll tax, business licenses and zoning permits. The police department is also located inside city hall. The staff includes the mayor, city clerk/treasurer, planning and zoning administrator, an administrative assistant, the water/sewer utility billing manager, a part-time collection clerk, and eight city police officers.

The city hall is handicap accessible and was upgraded in mid-year 2020 to accommodate for safe distancing requirements initiated during the coronavirus pandemic.

The city council, made up of six council members and the mayor, meets the third Monday of each month in city hall. The council chambers are also made available for community meetings upon request.

To provide ease of access to city residents, monthly bills for Benton gas and electric may be paid at city hall. Those respective offices reciprocate to receive payments within their offices as well.

Marshall County Courthouse

The Marshall County Courthouse is located across the street from city hall at 1101 Main Street, in the center of the court square. Offices for the county's judge/executive, court clerk, treasurer, economic development, emergency management, IT, building inspector, and the property valuation administrator, are located within this facility.

Other county offices are located along 5th Street in the northern section of town. These properties include the Judicial Center, the sheriff's office and the detention center.

The fiscal court is made up of three elected county commissioners and the county judge/executive. The court meets regularly on the first and third Tuesdays of each month at the courthouse.

Public Safety

Police Department

The city police department is housed within city hall with the same street address. In addition to the chief, there are seven sworn officers. The police department maintains up-to-date equipment for their operations as well as police cars which are replaced one per year for two years and two on the third year so that all cars are replaced every six years. Additionally, bicycles are provided during the summer months for more personal contact with residents during special events.

The City of Benton Police Department has initiated a Vacation House Watch Program as a public service and crime prevention measure, in order to prevent and detect crime on affected residential properties while residents are away. The city uses REACH Alert along with

the police department and City of Benton Facebook pages to quickly convey emergency and/or other information to residents and businesses.

Equipment is continually upgraded. In the last few years, the department replaced all vests, tasers, pistols, rifles, body/car cams, and computers. They also expanded and updated the evidence room. Within the next five years they would like to obtain a UTV to help with community events such as Tater Day, fairs, and derbies.

Long-term needs include a storage building for all the larger equipment to include a wash bay.

A three-month overview of activity for the department is reflected in the chart below and details from these numbers are reflected in the attachments.

Table 8.1: Police Activity

2020	Cases Opened	Collisions	Citation Violations	Calls for Service
September	20	24	62	722
October	13	18	42	781
November	19	21	55	895

Fire Department

The Benton Fire Department is an all-volunteer department with 24 members including the chief and two assistant chiefs. The fire station is located at 412 West 14th Street in Benton. They are paid per call based on a points system. There are no other substations within the community. Currently, the Benton Fire Department has a 4 ISO rating.

The department's equipment includes three pumper trucks, one 75-foot ladder truck that also has pumping capability, one command Jeep, one car and a brush truck. The department works to update the equipment as needed.

In addition to monthly training sessions, each fireman obtains another 20 hours of training sponsored by the state. The department offers fire prevention and safety programs to local schools, churches and day care centers. They also provide specialized training to the local health department, nursing and assisted living facilities as well as prevention inspections for local businesses and homes upon their request.

The fire department works with the water department to regularly inspect fire hydrants to replace those with problems. Since 2008 the department has upgraded the entire system which includes approximately 325 hydrants.

Benton Fire Department has mutual aid agreements with Marshall County, Murray, Mayfield and all other fire departments within Marshall County. Within the county, the city has automatic aid. The department assists with water rescue and all other search and rescue situations that may arise.

Current equipment includes:

- 3 Pumper trucks
- 1 Aerial ladder truck
- 1 Command Jeep
- 1 Car
- 1 Brush truck

The city budgets to replace one vehicle each year. Every four years, the city replaces two trucks to speed up the rotation. Future needs include a substation near the industrial park on Highway 641 Spur which is a growth area. The department may have need of a laptop or iPad for each vehicle to remain current with technological advancements.

The 911 Call Center is currently located in Benton but will move to Draffenville in early 2021. The 911 Call Center serves all of Marshall County. This move consolidates the 911 Call Center, the county road department, sheriff's office and coroner's office into one facility. The city can expect a drop in payroll tax revenue when the 12 employees move to the new call center.

Emergency Services/911

The Marshall County E-911 Center is the hub of emergency response in the county. Marshall County E-911 dispatches for all nine fire departments, three police agencies, Emergency Management, Rescue, EMS, Animal Control, Marshall County First Responders, Red Cross and Calvert Industrial Mutual Aid Program (CIMAP).

The E-911 office dispatch is located in the sheriff's office at 202 West 5th Street. Dispatch works with mutual-aid agreements for agencies such as the Kentucky State Police, Park Rangers, Fish and Wildlife, etc., when they are assisting in-county, and numerous other agencies, including requests for the Road Department, State Highway Department, multiple utility companies, Air Medical and Refuse Department.

The Marshall County Emergency Management Agency is a countywide program responsible for the coordination, response and recovery efforts pertaining to major

emergencies or disasters arising from natural or man-made causes. The administrative office of the emergency management director is located at the courthouse. It is operated by a seven-member board of directors.

In the past three years, Marshall County E-911 has dispatched over 90,000 calls for service to local agencies and has also served as the activation point for emergency sirens in the county. There are 12 full-time employees. All have CPR certification and are required to complete an academy training program at the Department of Criminal Justice in Richmond, Kentucky.

Major emergencies or disasters from natural causes include snow or ice storms, floods, tornadoes, as well as the serious threat of a major earthquake along the New Madrid or Wabash Valley Seismic zones. Man-made causes include hazardous materials at fixed facilities or along our major highways, railroads, pipelines and rivers.

The county is currently building a new 911 center with updated technologies. The 911 center receives funding from a local landline tax and cell phone taxes distributed by the state, but most of its funding is subsidized solely by the Marshall County Fiscal Court.

COVID-19 has highlighted the necessity and critical role of the 911 dispatchers and the 911 center to the community.

Marshall County Ambulance Service

The Marshall County Ambulance Service is owned by the Marshall County Fiscal Court and managed by the Marshall County Hospital. The main office is located at 505 George McClain Drive in Benton, with a satellite office located in Calvert City. They provide Advanced

Life Support (ALS) and Basic Life Support (BLS) ambulance services to the citizens of Marshall County.

Call volumes average 12 calls per day, or 4,500 per year countywide, up from 3,700 in 2008. These calls are a mixture of 911 emergency calls, interfacility transfers, critical care transfers, and non-emergency transfers with the majority being 911 emergency calls. Medicare calls account for approximately 60% of the calls. They also provide extrication services when needed for motor vehicle accidents.

The Marshall County Ambulance Service is staffed with trained emergency medical technicians, advanced EMTs, and paramedics. There are 20 full time employees, three emergency medical technicians (EMTs), nine Advanced EMTs, five paramedics and three administrative staff. In addition to the 20 full-time staff, the part-time staff includes four EMT's, one advanced EMT, and five paramedics.

Staff are required to maintain certifications such as CPR, Advanced Cardiac Life Support (ACLS), and Pediatric Advanced Life Support (PALS). Each day there are three units operating 24-hours a day, seven days a week, 365 days a year. The staff also participates in training with other county emergency personnel in disaster drills. Ambulance personnel are required to complete four hours of driver training each year.

Currently there are nine vehicles in the fleet, six ambulances, (five advanced life support and one basic life support), one extraction vehicle, one ¾ ton truck, one SUV, one MCI Trailer and one UTV.

This service is funded by the fiscal court (capital funding) and the hospital (operating budget). The ambulance services coordinates through the Marshall County E-911 Dispatch Center. The ambulance service does not anticipate any new facilities or staffing needs within the next five years.

Marshall County First Responder Information

The Marshall County Emergency Responders Alliance, Inc. is an organization comprised of county emergency service organizations committed to improving the overall response to incidents in Marshall County. The alliance created an Emergency Operations Plan in 2013.

Health Facilities and Services

Marshall County Hospital

The hospital opened in a new facility in 2009 at 615 Old Symsonia Road in Benton and has been recognized as one of the nation's Most Wired Hospitals – Small and Rural.¹ The hospital is licensed for 25 beds including a four-bed well-equipped critical care unit. It is accredited by an independent not-for-profit organization known as the Joint Commission. The Joint Commission accredits nearly 21,000 health care organizations and programs in the United States.

There are 25 physicians with a support staff of more than 250 employees including the ambulance service. The hospital provides a variety of inpatient and outpatient services including home health, wound care clinic, ultrasound, 3D digital mammography, x-rays, CT, MRI

¹ Reported in 2013 Most Wired Survey in the July issue of Hospitals & Health Networks magazine.

suite, lab, physical, speech, cardiac, and occupational therapy, surgery, orthopedics, rheumatology, dermatology, ENT and other services as well.

Marshall County Hospital operates 24 hours a day, seven days a week, 365 days a year and provides approximately 250 jobs in the community. Adjacent to the hospital there are three medical office buildings.

Administrative teams at Marshall County Health Department and Marshall County Hospital worked together to update the health care needs of the county. With assistance from other area partners they developed a comprehensive Community Health Needs Assessment (CHNA). The 2019 Marshall County Hospital Community Health Needs Assessment and Implementation Strategy is made available to the community and a copy may be found in the attachments. Health rankings are also available at:

<http://www.marshallcohealthdepartment.com/about-us/health-rankings-2020.php>.

The hospital reported in 2018:

- Cared for 762 inpatients
- Treated 7,271 patients in the ER
- Had more than 20,000 outpatient visits
- Spent \$3.2 million on capital projects, which created additional local construction jobs
- 74% of the patients are covered by government programs

The hospital is supported by an ad valorem tax paid by county residents. The main funding is through Medicare, Medicaid and commercial insurance. In the next five years the facilities expect to expand to include a clinic and new equipment such as a CT scanner.

With the expansion of Medicaid, bad debt has decreased to below 5% but contractual debt has increased due to the lack of adequate funding.

COVID-19 caused significant impact on the hospitals revenues because of the state mandates of no operational procedures for three months. They are not yet back to pre-COVID figures.

Marshall County Health Coalition

The Marshall County Health Coalition is a group of community partners who work together for the betterment of Marshall County. Currently their focus is on the areas of obesity, substance abuse, and mental health.

Marshall County Health Department

The Marshall County Health Department is located at 267 Slickback Road in Benton. The office is open weekdays, five days a week. It is the state agency operating the public health, Medicaid, certificate of need and licensure, and mental health and intellectual disability programs for the community.

The health department is funded through the Marshall County Public Health Taxing District. Additional funding comes from federal sources such as Title V Maternal Child Health and Title X Family Planning. The department is also funded through state sources for certain programs such as environmental services and grants such as ASAP, SRAE and Occupational Safety. The department also charges for clinical services.

Currently there are 22 full-time and five part-time employees. The department hired six new employees for contact tracing during the pandemic and these positions are not included in the staff count.

Due to COVID-19, the in-person clinic services are provided by appointment only, and staff utilizes telehealth for WIC and Health Access Nurturing Development Services (HANDS). Post pandemic, the health department plans to revert to the former procedures of in-person services across the board and accepting walk-ins.

The Marshall County Health Department's Environmental Department is located in the main health department building, at 267 Slickback Road. The Environmental Department focuses on the enforcement of legal and regulatory standards compliance through surveillance of environmental factors and inspection programs. Specific programs include food, facilities management, wastewater treatment and disposal systems, and radon.

Other environmental programs regulated by the Environmental Department include on-site wastewater treatment and disposal systems with subsurface discharges (septic systems), septic tank cleaners, certified installers of wastewater systems, private water supplies, vectors and bird roosts and nuisance control, radon, and more.

The Western Kentucky Regional Laboratory (WKRL) is a department of the Marshall County Health Department and is located in Benton. In addition to testing private water sources, WKRL also performs dairy product testing for the Milk Safety Branch of the Kentucky

Department for Public Health. WKRL is unique in that it is the only regional laboratory of its kind in the Commonwealth.

The health department offers WIC and Non-WIC MNT Services, health education services in the local schools and community, HANDS, and several clinic services. There are no free clinics nor any privately owned clinics at this time.

Juvenile and Drug Treatment Centers

There are outpatient and some inpatient addiction treatment services available in Benton and Marshall County. There are also AA/NA meetings available in the county.

- Mountain Comprehensive Care [270-252-9432](tel:270-252-9432)
- Celebrate Recovery Riverwoods (Benton) [270-293-7340](tel:270-293-7340)

Other rehab options available to residents are available outside of the county:

- [Lifeline](tel:270-443-4743) (Men) 270-443-4743
- [Ladies Living Free](tel:270-448-0961) (Women) 270-448-0961
- [Teen Challenge West Kentucky](tel:270-639-7366) (Adult Men) 270-639-7366
- [Teen Challenge West Kentucky](tel:270-639-0001) (Adult Women) 270-639-0001
- [Wayside Christian Mission](tel:502-345-7080) (Louisville) 502-345-7080
- Centerpoint Recovery Center for Men 270-444-3640
- 24-hour help line 800-422-1060
- Recovery Works Mayfield 270-623-8500
- Substance Abuse Crisis Line 800-592-3980
- Celebrate Recovery Riverwoods (Benton)

- Father's House (Paducah) 270-534-1400
- Mayfield UMC 270-705-2769
- Hope Harbor (Murray) 270-753-6695
- Community Fellowship Baptist (Hickory) 270-318-0246
- Dexter Baptist Church (Dexter) 270-625-0176
- SelfRefind 866-755-4258
- Millstone Counseling Center 270-554-9216
- JourneyPure 615-907-5928
- Ensite 270-443-1201

Purchase Youth Villages is a psychiatric residential level II facility located in Benton, close to the Marshall County Hospital. They are a 24-bed facility and an eight-bed crisis stabilization unit. They can accept both males and females, ranging from age 8-17. They are a three to six-month program, except for the stabilization program which is typically 3-14 days, depending on severity and insurance approval. They treat youth with the following issues: mood disorders, including depression and bipolar disorder, anxiety disorders, PTSD, disruptive behavior disorders, dual diagnosis psychiatric and substance abuse, and residents on Autism Spectrum that are verbal, communicative, and can reasonably benefit from-and participate in-the treatment process.

Four Rivers Behavioral Health also has a partial program in Paducah, where youth if they meet criteria attend five days a week for intense group and individual therapy, medication

management, and school. Parents are responsible for transportation to and from FRBH in downtown Paducah each day that their child attends.

A copy of the 2018 Marshall County Resource guide is available in the attachments.

City Utilities

Benton Water Plant and Sewer System

The City of Benton water and sewer offices are located at city hall, 1009 Main Street. There are three full time employees at the Water Treatment Plant. There is 1 full time employee at city hall in billing and 1 part time for collections. The Benton Water System produces water and is classified as a groundwater system. Raw water is obtained from three wells located in the north section of the city along Poplar Street between East Seventh and Harold King Drive. The wells are at a depth of 100 feet. The water treatment facility is located nearby. Potable water is distributed throughout the city with lines ranging from 2 to 12 inches.

Water is stored in two elevated tanks with a capacity of 500,000 gallons. One is located along the Purchase Parkway and the other is located along Highway 641 Bypass. There is a third tank on Wadesboro Road that is not in use.

While some lines have been tied since the 2008 plan, there are some dead-end lines throughout the system that need to be connected to nearby lines. The city is working with USDA on a Symsonia Highway water line replacement project (approximately 7 miles).

The city water system has had the following improvements since the 2008 Comprehensive Plan update:

- Made a water extension to Emerald Hills from Tara Court in 2008.
- New 8" water line from Ivey Road to water tank on Wadesboro Road, approximately 6-7 miles (this was noted in the 2008 Comp Plan for Water Vision 20/20 and was completed shortly after in 2009).
- Upgraded water line on portion of Breezeel School Road from 4" to 6" line in 2018 (approximately 1.25 miles).
- Upgraded Murphy Street water line from 2" to 6" line in 2016.
- Partial water line replacement on Ivey Road in 2016.
- Extended 4" water line on Mayfield Highway approximately 1200' for Benton Wood Products to locate and be on city water in 2017.
- Southwest One Industrial Park is currently in the works. A 12" water line is being added from the water tank on Hwy 641 to the SW1 Industrial Park location, approximately 1 mile. This portion is funded through Marshall County Fiscal Court.
- Made improvements and upgrades to SCADA, controls and valves at Water Treatment Plant in 2019.
- Upgraded water line on Main Street from 9th Street to 15th Street going from 6" line to 10" line in 2019.
- The water line from 6th Street to 9th Street on Main Street is currently being replaced (2020) through a state project from 6" to 10."
- Currently in the process of getting quotes to rehab the water tanks. Hope to have completed in 2021.

The city does not anticipate any new facility upgrades or staff additions in the next five years. Equipment will likely need to be upgraded within that time frame.

The proposed Phase III Sanitary Sewer Evaluation Study and Rehab map is shown in the appendices under the Community Facilities tab.

Water Collection and Treatment

There are two full-time employees at the Waste Water Treatment Plant. Both employees carry their certifications. In 2008-09 the city began a \$1.1 million project to reduce inflow and infiltration and to replace the aerators in the lagoon to address an order from the Kentucky Division of Water. That project is still ongoing. Rather than replacing the aerators in the lagoon, the city added six 20HP brush aerators to the existing aerators.

The Waste Water Treatment Plant anticipates the installation of two one million gallon above-ground tanks to store over-flow caused by excessive rainfall events.

The 2008 Comprehensive Plan noted that improvements or replacement was needed in the Crestcote, Jackie Way, and Oak Grove Circle lift stations as they are over 40 years old. By eliminating the three stations (which are in poor condition) and installing a new lift station that is centrally located, the city can eliminate maintenance and operating costs. The two wetland cells at the treatment plant (filter beds) need upgrades. The city does not accept wastewater from any other system.

In discussion with water treatment staff, the following needed improvements were identified for future planning purposes:

- Wastewater lines to the industrial park in 2018 need to be annexed into city
- Stormwater needs to be upgraded
- Wastewater needs to increase its amount of discharge
- All three lift stations need to be upgraded or preferably consolidated into one station
- Main sewer lines need manholes for access
- Treatment plant needs upgrades to two wetland cells (filter beds)
- Sludge removal has been done in Cell #1 and still needs to be completed in Cell #2 and #3.

The city is working to address these concerns and is in the process of updating the Regional Facilities Plan for the Waste Water Treatment Plant.

The Division of Water requires that operators be certified through the state. Staff is required to attend continuing education classes each year.

Since the onset of COVID-19, there is a natural concern about the increased amount of anti-bacterial soaps, wipes, anti-bacterial cleaning solutions in constant use by residents, schools, nursing homes, and the hospital, then flushed through the sanitary sewer.

Natural Gas Services

Benton Gas System services is owned by the City of Benton, serving approximately 6,500 citizens of Marshall County. The administrative office is located at 201 Main Street in an office building that was built in 2011 with four employees including the office manager and three full-time staff members. The gas maintenance shop is located at the same address. The staff includes the manager and seven full-time employees.

Gas is usually purchased from Texas Gas and Benton Gas covers areas from Kenlake Marina to the McCracken County line in Sharpe, with over 300 miles of main gas lines located underground. The lines are predominately plastic though some are of steel. The system continues to grow, up from 2,800 in 1993 to around 5,400 in 2008 and in 2020, the total reaches nearly 6,500.

Gas lines were extended to two subdivisions on Kentucky Lake; Kentucky Lake Subdivision and Marvel Subdivision.

Operators must be certified and obtain required training hours annually. No new facilities, equipment or staff are anticipated in the next three to five years.

Electric Services

The Benton Electric System serves the community with an office located at 436 Mayfield Highway. The electricity is purchased from the Tennessee Valley Authority and is overseen by a board of directors. Incorporated in 1945, the system serves approximately 2,500 customers and manages about 50 miles of line. There is one substation and it is located on Bethel Drive. In 2020 there are:

- 11 Total employees
- 2,495 Total electric customers
 - 1,833 Residential
 - 611 Commercial
 - 51 Industrial

The electric board is appointed by the mayor and approved by the city council. The City of Benton collects an “Ad valorem property tax or tax equivalent” from Benton Electric System annually. Benton Electric System is funded by electric sales. The system uses GIS mapping in their service area.

The only anticipated growth for the next five years is to update the metering process to an advanced metering infrastructure. This new system allows two-way communication between the utility and customer. It will allow customers to track their consumption and provide more clarity. It will be a safer and more efficient option for the utility as all readings and disconnects can be performed in the office rather than going on-site.

Public Works and Sanitation

Street Maintenance

The maintenance department is located at 330 Poplar Street. The mechanic shop is located at 200 East 1st Street which was the former maintenance shop. The maintenance department staff does a little of everything: streets, utilities and helps in H. H. Lovett Park. In most years, (other than during the pandemic), their work is enhanced by use of manpower provided through the detention center inmate work-release program.

The maintenance department has five full-time employees, one full-time mechanic and one part-time seasonal worker. There are other employees that are housed at the maintenance shop, but they are paid through water or sewer. They all assist with tasks as assigned across multiple departments.

There are no anticipated new facilities in the next five years. There is a possibility that new staff may be needed within the next five years. Equipment will be purchased within the next five years, but at publication time, no priorities have been established.

Solid Waste Disposal

The City of Benton contracts with a private garbage service for residential trash pickup within the city limits. This service was begun in 2015 with a former contractor, and in 2020, a three-year contract with WCA Services began. The city now collects a franchise fee and a collection fee in order to help cover the city's cost of billing and answering the calls they receive.

Businesses in Benton must utilize the private sector for waste disposal. Solid waste is disposed of at Wastepath Inc., located in Calvert City.

Clarks River National Wildlife Refuge

The U.S. Fish and Wildlife Service operates the Clarks River National Wildlife Refuge located at 91 US Highway 641 North, within the city limits of Benton. There is a second entry located on Ky 408 across from WCBL Radio Station. The purpose of the Clarks River National Wildlife Refuge is to protect, enhance, and manage a valuable bottomland wetland ecosystem, along the east and west forks of the Clarks River. Their focus areas include waterfowl, neotropical migratory songbirds, forest wildlife, riverine species, and a wide array of other species associated with bottomland hardwood forest.

The refuge is open to the public during daylight hours. The Environmental Education and Recreation Area (EERA) is one of the most popular locations on the refuge for hiking, wildlife viewing, and fishing.

The Friends of Clarks River National Wildlife Refuge assist with various activities such as the establishment and restoration of habitat, grant writing, promotion of refuge events, environmental education programs, and increasing wildlife recreation opportunities.

Benton Housing Authority

The Housing Authority of Benton is a Public Housing Agency that participates in the Public Housing program. The authority operates as a separate board and is located on Walnut Court. Currently the Housing Authority of Benton offers:

- 50 units low-income housing at Walnut Court site in Benton which vary in size from 0-4 bedrooms
- 20 units low-income housing at Cedar Court site in Calvert City
- 24 units Section 8 handicapped/elderly housing at Walnut Court Apartments in Benton (all 1-bedroom units)

There are also multi-family housing complexes as well as a variety of other housing options in the city including:

- Morgan-Trevathan complex at 1003 Elm Street. This facility offers rental assistance for senior citizens, 62 and older. It is managed by the Purchase Area Housing Corporation.
- Allendale I and II are located on Golf Course Drive and consists of 24 one- and two-bedroom units for the elderly. These are managed by the Office of Rural Development.

- The Baker Facility at 745 Birch Street offers assisted living accommodations and is owned and operated by the Center for Exceptional Living. There is a total of 12 units.
- The Stilley House Assisted Living, LLC is another assisted living facility on Birch Street that provides Alzheimer services. The remainder of the same property is now called Arcadia of Benton, LLC.
- Brown Gable Apartments offers an assortment of apartments and townhomes in scattered sites in town.
- Crestview Apartments are located on South Main Street at 20th Street in Benton. They offer one-bedroom apartments with appliances furnished.
- Other apartments are owned by Jerry Sells on 1904 Main Street and 1305 Olive Street, known as Masters Investments, LLC.
- The Ashby Group provides handicap-accessible rentals on 147 and 149 Country Club Lane Drive.
- Willis Green complex is currently closed but, in the past, provided housing for special needs residents with eight units.

While not located within the city limits, the following are other facilities of note:

- Lakeland Wesley Retirement Community provides Low-Income-Affordable Housing to seniors. This senior care facility is located at 1127 Village Road # 66.
- Merryman House is a certified domestic violence program in the Purchase Area Development District. The campus includes a 36-bed emergency shelter, a central

administration/counseling and dining area, and an outreach and counseling services building.

Code Enforcement

The city's code enforcement program is in place to preserve the quality of housing and safety of all buildings within the city. The code enforcement officer is located at city hall. A three-person rotating board is appointed, and their duties will be to make recommendations to a hearing officer. The duties of the code enforcement officer are currently executed by the fire chief.

Planning and Zoning

For the past 40 years, the City of Benton has maintained an independent planning commission to oversee growth and development of the city as stated in KRS 100. The Planning Commission Board has nine members and the Board of Zoning Adjustment has three members who assume their responsibilities in accordance with Chapter 100. The planning and zoning administrator is a full-time position and also serves as the Flood Plain Manager. The administrator receives yearly training, and the two boards get training every two years.

The city's code enforcement officer and safety inspector is the Benton Fire Chief. The maintenance record for the past few years included:

2017: 31 citations

2018: 22 citations

2019: 83 citations

2020: 33 citations ending July 20, 2020.

Nearly all these citations were related to overgrown properties with issues of weeds and brush that needed to be mowed.

To comply with KRS: 147A.027, the planning and zoning administrator, the planning commissioners and members of the Board of Adjustments are required to receive specialized training every other year.

Building Permits

The Marshall County Building Office enforces the Kentucky Building Code and the Kentucky Residential Code, issues building permits and conducts inspections for all construction in Benton, Calvert City and Hardin as well as in the county. Building permits are required for all construction within Marshall County, both commercial and residential.

Table 8.2: New Construction in Benton

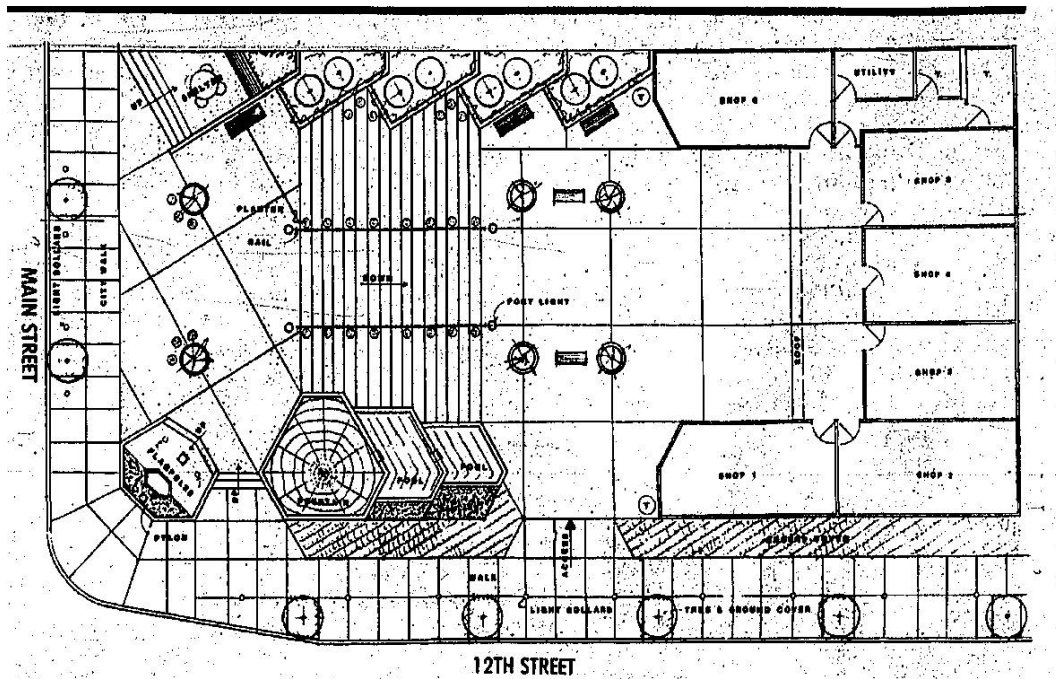
	2015	2016	2017	2018	2019	2020
New Single-Family Residential	10	6	7	6	4	3
New Two-Family Residential	-	-	1	-	-	-
New Multi-Family Residential	-	1	-	1	-	-

Assembly (Restaurant, Church, Gym)	1	3	1	1	-	-
Mercantile	1	1	2	2	-	-
Business	1	4	1	-	2	1
Storage	1	3	-	-	-	-
School	1	-	-	-	-	-
	15	18	12	10	6	4

Parks and Recreation

The Memorial Plaza was developed in 1986, when the vacant lot was donated by Dr. and Mrs. Wendell Gordon in memory of their son, David. Several nonprofit organizations worked with the city to raise funds for development of the corner lot.

Figure 8.1: 1986 Memorial Park Diagram



This floor plan shows the proposed design of the Memorial Plaza.

In 2020, an architectural firm provided conceptual designs to the city for an update to Memorial Park, but no action has been taken to date.

The City of Benton oversees the H. H. Lovett Park, located at Park Avenue at Poplar Street. There is a swimming pool, the fairgrounds, and several ballfields. The park and facilities are maintained by city employees with part-time help in the summer months. There are eight soccer fields located between 12th and 14th Streets.

The Joe Creason Community Building offers space for special events. There is a rental fee to offset the costs of operations.

The Kindness Park started in 2018 when the Kindness Club from Marshall County High School approached the Mural Committee about doing a “kindness” mural after the school shooting. Students from Marshall County High School painted the mural with the help of a local artist, Kijsa Housman. The idea of making that area where the mural stands into a Kindness Park was born.

Several donations made the park a reality. It contains a butterfly garden within walking distance of the Benton Elementary School and the hope is that students will walk up and use it for educational purposes. The park is not yet finished but plans are in place for completion. Picnic tables and bench canopies are to be delivered and a grand opening will be scheduled in 2021.

The Frank Nichols Memorial Park is located at the entrance of Country Trace Lane. Mr. Nichols’ estate donated money to the city to keep this area up as a memorial. It is a small area with a gazebo creating a nice entrance for the subdivision.

The city provides a full-time employee who works at H.H. Lovett Park and maintains that area and the soccer fields. The city uses the Class D felon program from the county jail for assistance as needed. City volunteers help keep weeds pulled at the Kindness Park and the city maintenance department keeps it mowed and trimmed.

Anticipated capital expenditures include the addition of pavilions, a half basketball court and additional playground equipment at H. H. Lovett Park. The pavilions and basketball court will be completed in 2021.

One area of potential growth for parks is anticipated in an updated plan and implementation of Memorial Plaza in the downtown.

Public Services

The Marshall County Arts Commission was chartered in 2003 by the Marshall County Fiscal Court and was formed by a small group of residents who saw the need to further promote and provide arts education experiences for the community. A 13-member board governs the Commission which is incorporated and recognized by the IRS as a 501(c)(3) nonprofit, charitable organization. Until the Children's Arts Center was built and opened in October 2014, programs and activities were conducted in various locations throughout the county.

The opening of the 6,500 square foot Children's Arts Center at 1202 Elm Street, allowed the organization to provide after school visual and performing arts classes, summer camps and numerous creative arts workshops throughout the year for citizens of all ages. The facility is designed to accommodate both visual and performing arts activities.

Community acceptance was immediate and over the past five years, the programs and activities have developed to the point that the Arts Commission is engaged in the discussion phase of planning for expansion of the facility. The facility has a desperate need for additional storage space, a backstage area, additional classrooms, office and workroom space. As the present facility is bound on three sides by streets and parking lots, west is the only direction available for expansion.

The City of Benton is owner of the property west of the Center and has provided enough space for expansion whenever funding becomes available. This facility expansion will allow for the addition of a full-time professional staff member that will coordinate and administer the additional programs and activities of the Center.

Senior Citizens Services

The Marshall County Senior Citizens, Inc. is located at 1713 Golf Course Road in Benton. It offers support and services for citizens for a range of ages and needs, including meals and special events. The facility is funded through the Marshall County Fiscal Court and is open from 8:00 a.m. until 3:00 p.m. daily.

Library Services

The Marshall County Public Library consists of three branches and a bookmobile service. The main branch of the library in Benton has recently relocated to 1150 Birch Street. The new location was completed in February 2020. The 30,505 square foot facility boasts a collection of over 95,000 items as well as a programming room, two public meeting rooms, a conference room, a study room, and a state-of-the-art Makerspace. The library system employs over 30 people, with nearly 20 employees working the majority of their hours in Benton.

Normal operation hours for the Benton location of the library are 9:00 a.m. – 8:00 p.m., Monday – Thursday, and 9:00 a.m. – 5:00 p.m., Friday – Saturday. However, due to the Covid-19 pandemic, hours are currently reduced to 9:30 a.m. – 4:30 p.m., Monday – Saturday.

Marshall County Public Library offers programming for all ages. Regular programming for the Benton branch includes weekly Mother Goose (toddler) Storytime, Story Hour (pre-K),

After-School (K-6), and Teen (6-12) programs. Special events are held year-round, and annual summer reading programs are held for elementary students and teens.

No in-person programs are being held at the library during the Covid-19 pandemic, however, library staff have worked throughout the pandemic to create virtual programming and take-home kits for all ages.

In addition to typical library services – such as the circulation of printed material, programs, and access to public computers – the Marshall County Public Library also offers printing, faxing, computer assistance, and display cases to showcase local artists and collections. The Makerspace offers a variety of equipment, including a laser cutter, vinyl cutter, vinyl press, and sewing/embroidery machine. Digital services include research materials, access to ancestry databases, eBooks, audiobooks, magazines, music, and movies. The library also offers a bookmobile service that makes stop throughout the county. At this time, the bookmobile is only providing porch drop services to homebound patrons.

The library's last strategic plan was updated in 2015. A new director was hired in February 2020, and plans are currently underway to begin the process of updating the library's strategic plan before the end of 2021.

Community Kitchen

Since 2011, Marcella's Community Kitchen continues to serve a hot meal five days a week. Their numbers of meals served increased more than double from 2019 to 2020, reaching over 4,000 people a month. Anyone who comes in is served at no cost. Local churches and individuals support the service financially and donations are accepted. The facility is also

available for the public to rent for special events and it is used as a warming station should weather conditions require it.

School System

Benton Elementary is located at 208 West 11th Street and is one of six elementary schools in the Marshall County School District. Benton Elementary has 541 students in 2020; 55.94% are considered economically disadvantaged. The school just recently completed an energy conservation project with all new energy-efficient lighting, a new secure vestibule was added along with roof repairs.

The new South Marshall Middle School opened in 2016-17 as a consolidation of the old South Marshall Middle School and Benton Middle School. The school has an enrollment of 470 with a free and reduced meal population of 51.98%.

The Marshall County High School had 1,288 students enrolled in 2019 with an 18:1 student to teacher ratio. The school just completed renovations with additional science lab, culinary lab, all new doors, lighting, HVAC improvements as well as new administrative office space, along with upgrades to the cafeteria, kitchen and commons areas. They also updated electrical and plumbing, added improvements with fire sprinklers, ADA compliance, floor covering, ceiling grid repairs and made connections with the municipal sewer system.

All renovations noted in the previous plan for the high school were made in recent years. The recently finalized 2020-2024 Marshall County Schools District Facilities Plan is provided in the appendices under the Community Facilities tab.

Broadband Services

The city has access to internet services through a variety of private service providers.

The Federal Communications Commission provides the following data on all providers reporting residential fixed broadband service regardless of the selected technology or speed in the Benton zip code.

Table 8.3: Benton Broadband Providers

Provider	Tech	Down(Mbps)	Up(Mbps)
Mediacom Communications Corp.	Cable	1000	50
Mediacom Communications Corp.	Cable	100	10
ViaSat, Inc.	Satellite	35	3
Hughes Network Systems, LLC	Satellite	25	3
AT&T Inc.	ADSL	6	0.512
VSAT Systems, LLC	Satellite	2	1.3

BroadbandNow reports that most Benton households have at least two provider options which means customers have at least two for price comparisons.

- Mediacom - 90.9% Availability in Benton - Speeds up to 1,000 Mbps
- AT&T Internet - 50.4% Availability in Benton - Speeds up to 100 Mbps
- WK&T - 28.2% Availability in Benton - Speeds up to 1,000 Mbps
- Spectrum - 27.3% Availability in Benton - Speeds up to 940 Mbps

- e-Tel - 1.6% Availability in Benton - Speeds up to 200 Mbps
- Xfinity - 1.3% Availability in Benton - Speeds up to 1,000 Mbps
- Viasat - 100.0% Availability in Benton - Speeds up to 35 Mbps
- HughesNet - 100.0% Availability in Benton - Speeds up to 25 Mbps

9. Historic Analysis

2021 Benton Comprehensive Plan Update Section Nine: Historic Analysis

History

The City of Benton, Kentucky is located in the Jackson Purchase Region of the state, named for the acquisition of the area by Tennessee General Andrew Jackson and Kentucky General Isaac Shelby from the Chickasaw Nation in 1818.

In 1820, the Kentucky legislature passed a law to sectionalize the Jackson Purchase of Kentucky by dividing it into townships of six miles square and running five parallel lines through each township. In 1821, the counties west of the Tennessee River were bounded and the territory including what is now known as Marshall County became Calloway County with the township of Wadesboro established as the county seat.

In 1825, the office of Receiver of Public Monies was created, and they were obligated to direct and sell land at public auction for no less than \$1. In 1827 the price was reduced to 50 cents per acre and in 1829 to 25 cents an acre in cases where the settler desired to settle with a family.

In January 1842, a vote was taken to create Marshall County out of Calloway County, taking affect in June of that year. By its designation, Marshall County became the 92nd county to be organized in Kentucky. That same law provided for the location of the county seat to be determined by an appointed group of commissioners. A day later, those commissioners... “reported a point upon the southeast quarter of Section 32, Township 5, Range 4 east, designated by a stake as the center of the public square as the site of the county seat and it was so ordained.”¹

The City of Benton was developed from land owned by John Beardon (50 acres furnished) and Francis Clayton (30 acres) and was incorporated in 1845. However, the name Benton comes from the Missouri senator Thomas Hart Benton, a major political figure in the battles regarding slavery and westward expansion throughout the early 19th century.²

The city's modest, small-town development was represented by the erection of its first courthouse in 1843-44, a simple log structure built by one of its founders, Francis Clayton.³ The second courthouse was built in 1847 on the same ground where the present courthouse stands. At a cost of \$6,000, the contractor was Thomas McElrath and the builder, Lewis Henderson. The third and current courthouse was built in 1915 to replace the former when it burned on December 14, 1914. The architect was Clifford Shopiel of Evansville, Indiana and the structure cost \$21,000.⁴

As the town began to grow, a plat was formally drawn up in 1874. With five streets running east and west and six streets lying north and south, the town square was the hub of local commerce.⁵ Benton had an acceptable base of industry in town, containing four stores, seven lawyers, a cotton gin, a church, and a small variety of other services for the largely agricultural community.

The fertile land in the area helped to sculpt Benton's agriculturally based economy, and produced similar crops to other communities throughout Kentucky, such as tobacco and corn.⁶

Benton was largely pro-Confederate at the beginning of the Civil War, despite Kentucky's overall neutrality. The whole of Marshall County sent two entire companies to the Confederate Army, mostly joining forces in Tennessee and farther south.⁷

In March of 1864, a Confederate detachment from Mississippi accidentally met with a group of Union troops while searching for supplies and horses. A skirmish broke out amongst the forces, leaving seven dead in total. The skirmish took place only two days before the Battle of Paducah, a conflict resulting from Confederate efforts to cut Union supply lines.⁸

The population of Benton was only 158 by 1870. The town began to prosper once the Paducah, Tennessee and Alabama Railroad was built in 1890, within a half-mile of the town square. The population rose to 664 by 1900 and by 1930 was over 1,000.

The infamous Flood of 1937 forever changed Benton and Marshall County as well the entire Jackson Purchase Area. Prior to the flood, local leaders were lobbying for a dam to be constructed in the county at nearby Aurora; as early as the 1920s. The tiny villages of Gilbertsville and Birmingham were selected because the geology of the area was better. The dam was started in 1938 and was completed in 1944.⁹

While the new development of Kentucky Dam was a tremendous boost to the area's economy, there was a downside. More than 2,500 families were removed from their homes, displaced by one of President Franklin D. Roosevelt's New Deal initiatives.

Jobs were created by the construction of Kentucky Dam and in turn, more jobs were made by the electric power generated by the Tennessee Value Authority. Many industries, most of which were chemical manufacturers, began locating in the region. The City of Benton's population went from 1,906 persons in 1940 to 3,074 by 1960.

Once nearby Kentucky Lake opened, travel and tourism became a new industry for the area. Benton's strategic location as the retail and governmental center, greatly benefited the

community and the population continued to grow. The next five decades brought steady population increases to the city with the 2010 Census of Population showing Benton's population to be 4,469 persons.¹⁰

Benton is the birthplace of two long-running traditions in the state. The first is known as Tater Day. This festival began in 1842 when sweet potato seedlings were given out to bolster local agriculture. Since then, the event has grown into one of the longest-running trade days in the United States of America. The event, held on the first Monday in April, now sees a full parade and fair with businesses and banks closing to make way for the festivities.¹¹

Second, Benton is home to another long-running tradition known as Big Singing Day. The event was founded by James Lemon in the mid-19th century.¹² It is celebrated on the fourth Sunday in May at the Marshall County Courthouse. The event draws a gathering of people joining to sing hymns.

Today, Benton remains proud of its small, southern lifestyle. The tight-knit community continues to honor their oldest traditions and enjoy the benefits of small-town living.

Preservation

The James Lemon House at 1309 Main Street, was listed on the National Register of Historic Properties; however, the house has been significantly changed beyond its original design in recent years. The roadside historic marker remains nearby. James Lemon (1848-1919) was one of the leaders who brought the Big Singing event to the community. This method of singing is performed acapella and is based on the "Sacred Harp," a form of shaped note singing, also known as the "fa – sol - la – me" method of music. Each of the four syllables, each

corresponding to a shaped note. Nearly extinct, southern harmony was a very popular form of religious singing in the 1800s. Southern harmony has origins in the early singing schools in New England in the late 1700s and quickly spread southward.

Another historic property in their record is the Stilley House at 925 Birch Street. Dr. Van Allen Stilley was a prominent Marshall County physician with a practice lasting approximately 50 years. This property has been demolished and the Stilley House Assisted Living Home was constructed on the adjacent lot from where the historic home once stood.

Much of the archival and preservation work done in Benton and Marshall County is done through the Marshall County Genealogical and Historical Society. Volunteer members meet regularly in the archives located in the basement of the Marshall County Courthouse. Their work entails preserving local government records as well as family histories of local families and those from the surrounding region.

There is also the Jackson Purchase Historical Society (JPHS), a 501(c)(3) organization based in Murray, Kentucky. The organization was initiated in 1958 and worked largely as a group of amateur historians alongside faculty from Murray State University. The purpose of the organization is to publish and preserve stories and items of historical significance while expanding them to a wider audience.¹³ Much of JPHS's work is based around areas concerning the Civil War. The organization hosts a variety of events, such as essay competitions and member meetings, as a part of their larger mission.

Aside from JPHS, some other independent work has been done for historic preservation. The Marshall County Public Library and the Marshall County Daily have worked with Justin

Lamb, a county commissioner and local historian working to preserve much of the region's oral history.¹⁴ There have also been a number of historical markers throughout Benton used to indicate artifacts and locations of historical importance.¹⁵

10. Housing Analysis

2021 Benton Comprehensive Plan Section Ten: Housing Analysis

Introduction

The vast majority of houses in Benton are owner-occupied, single-unit detached structures over 20 years old, according to the American Community Survey (hereinafter, ACS). They are not overcrowded because most houses have more rooms than people, and the median value is estimated to be \$133,600. Benton's increase in housing value is estimated to be 21% from 2015 to 2019. Relatively few new housing structures have been built as only six building permits were issued in 2019 according to the Marshall County Office of Property Valuation.

Vacancy

Most of the housing in Benton is occupied, with an estimated 10.8% vacancy rate. Benton's housing vacancy rate has gone down every year over the past five years. In 2014, at the end of the Great Recession the housing vacancy rate was 15.6% and with the lowest point being in 2018, at 8.9%.

The vacancy rate in Marshall County and the Jackson Purchase area are higher than the state average. Benton's vacancy rates are expected to increase due to the ongoing economic recession caused by the coronavirus.

Table 10.1: Housing Occupancy¹

HOUSING OCCUPANCY	Estimate	Percent Estimate
Total housing units	2,180	100%
Occupied housing units	1,945	89.20%
Vacant housing units	235	10.80%
Homeowner vacancy rate	0	(X)
Rental vacancy rate	0	(X)

Table 10.2: Housing Vacancy Rate

	Benton	Marshall County	Jackson Purchase	KY
Estimate	10.80%	18.90%	17.10%	12.60%

Table 10.3: Benton Housing Vacancy Rate 2015-2019

Benton	Vacancy Rate (Housing)
2018	10.80%
2018	8.90%
2017	9.00%
2016	10.00%
2015	11.00%

Housing Stock

The estimated makeup of Benton's housing stock is as follows:

Table 10.4: Benton Housing Characteristics

UNITS IN STRUCTURE	Estimate	Percent
Total housing units	2,180	100.00%
1-unit, detached	1,753	80.40%
1-unit, attached	22	1.00%
2 units	14	0.60%
3 or 4 units	43	2.00%
5 to 9 units	13	0.60%
10 to 19 units	127	5.80%
20 or more units	97	4.40%
Mobile home	111	5.10%
Boat, RV, van, etc.	0	0.00%

Around 80.4% of Benton’s housing structures are single unit detached structures, also known as single-family homes. In addition, there are five apartment complexes: Allandale II Apartments, Brown Gable Apartments, Crestview Apartments, and Olive Place Residencies. The Crestview Apartments and Olive Place Residencies are operated by Brown Gable Apartments.

There are two apartment complexes for the elderly population, Lakeland Wesley Retirement Community, located in the county, and Morgan-Trevathan Apartments. Benton has a housing authority that manages Walnut Court Apartments. Overall, the renters of these apartments and renters of houses in Benton make up 33.5% of the population who occupy housing in Benton. Mobile homes are not allowed in the City of Benton other than those that were grandfathered in at a mobile home park.

Table 10.5: Benton Housing Tenure

HOUSING TENURE	Estimate	Percent Estimate
Occupied housing units	1,945	100%
Owner-occupied	1,294	66.50%
Renter-occupied	651	33.50%

Over half of the current housing stock in Benton was built prior to 1980. There has been slow growth since then, matching the slow population growth that is seen in Benton's population.

Table 10.6: Benton Housing Age

YEAR STRUCTURE BUILT	Estimate	Percent	Percent Estimate (Marshall County)
Total housing units	2180	2180	16175
Built 2014 or later	66	3	4.00%
Built 2010 to 2013	115	5.3	3.30%
Built 2000 to 2009	129	5.9	11.40%
Built 1990 to 1999	319	14.6	21.30%
Built 1980 to 1989	282	12.9	14.50%
Built 1970 to 1979	400	18.3	18.30%
Built 1960 to 1969	376	17.2	11.40%
Built 1950 to 1959	393	18	9.50%
Built 1940 to 1949	50	2.3	2.90%
Built 1939 or earlier	50	2.3	3.30%

The majority of structures in Benton have three or more bedrooms. There is no overcrowding, as there are typically more rooms than residents in the housing stock.

Table 10.7: Housing Size

BEDROOMS	Estimate	Percent Estimate
Total housing units	2180	100%
No bedroom (Studio)	116	5.30%
1 bedroom	200	9.20%
2 bedrooms	626	28.70%
3 bedrooms	1005	46.10%
OCCUPANTS PER ROOM		
Occupied housing units	1945	100%
1.00 or less	1877	96.50%
1.01 to 1.50	68	3.50%

Property Values

The estimated median value of a house in Benton is \$133,600 according to the American Community Survey 2019 5-year estimate. Comparatively, the median value for Marshall County is estimated at \$131,100, the Jackson Purchase area is \$123,200 and the statewide median value is \$141,000.

Table 10.8: Benton Housing Value

VALUE	Estimate	Percent Estimate
Owner-occupied units	1294	100%
Less than \$50,000	63	4.9%
\$50,000 to \$99,999	314	24.3%
\$100,000 to \$149,999	426	32.9%
\$150,000 to \$199,999	235	18.2%
\$200,000 to \$299,999	161	12.4%
\$300,000 to \$499,999	51	3.9%
\$500,000 to \$999,999	32	2.5%
\$1,000,000 or more	12	0.9%
Median (dollars)	\$133,600	(X)
Median (Marshall CO)	\$131,100	(X)
Median (Jackson Purchase)	\$123,200	(X)
Median (KY)	\$141,000	(X)

Property values have appreciated by approximately 21% in Benton and 20% for Marshall County over the past five years. Both of these compare well to the 14% growth in Kentucky over the same time period.

Table 10.9: Median Housing Value- Benton

Median Housing Value-Benton	
2019	\$133,600.00
2018	\$125,300.00
2017	\$116,300.00
2016	\$111,200.00
2015	\$105,500.00

Table 10.10: Median Housing Value- Marshall County

Median Housing Value-Marshall County	
2019	\$131,100.00
2018	\$123,000.00
2017	\$115,300.00
2016	\$111,600.00
2015	\$105,200.00

Table 10.11: Median Housing Value- Kentucky

Median Housing Value-Kentucky	
2019	\$141,000.00
2018	\$130,000.00
2017	\$126,100.00
2016	\$123,200.00
2015	\$121,600.00

Low-Income Housing

There are a variety of housing resources for low-income individuals in Benton, including 195 apartments that offer Section 8 housing vouchers by the Housing and Urban Development.

The eligibility for these apartments is estimated to be:

Table 10.12: 2018 Average Median Income Requirements- Marshall County²

AMI Band	1 Person	2 Person	3 Person	4 Person	5 Person	6 Person	7 Person	8 Person
30%	\$13,900	\$17,240	\$21,720	\$26,200	\$30,680	\$35,160	\$39,640	\$43,650
50%	\$23,150	\$26,450	\$29,750	\$33,050	\$35,700	\$38,350	\$41,000	\$43,650
80%	\$37,050	\$42,350	\$47,650	\$52,900	\$57,150	\$61,400	\$65,600	\$69,850
Source: Affordable Housing Online, <i>Income Qualifications for HUD Rental Assistance in Benton</i> .								

The Average Median Income (AMI) band is used to determine eligibility, which is determined by the median income of Marshall County (\$67,100). Most HUD listings do not have published rates. They are based on 30% of the renter's adjustable gross income. These

apartments typically have long waiting lists that can cause needy renters to wait for years to move in. Eligible apartments include Walnut Court Apartments (70 units) managed by the Benton Housing Authority, Morgan-Trevathan Apartments (28), and Lakeland Arbor Village Apartments (97) which is located in the county.

The University of Kentucky Gatton College of Business and Economics conducted a study on the demand for low-income housing across the state¹. This study used several variables, including the percentage of renters with housing costs greater than 30% making less income than \$35,000 per year, percentage of households below the low-income limit, and the health of the population. According to the report, Marshall County has the 49th highest demand for low-income housing of the 120 counties in the Commonwealth. This is labeled as “moderate demand.”

Elderly Housing Options

Lakeland Arbor Village Apartments and Lakeland Wesley Retirement Community are the primary apartment complexes for housing for the elderly population in Marshall County.

Allendale 1 and II are located on Golf Course Drive and consists of 24 one- and two-bedroom units for the elderly. These are managed by the Office of Rural Development.

While there are options available for the local senior population, there are typically waiting lists for current facilities. Additional units are warranted given the growing aging population demographic.

¹ <http://www.kyhousing.org/Resources/Planning-Documents/Documents/06%20Demand%20Index.pdf>

Code Enforcement

The city's code enforcement program is in place to preserve the quality of housing and safety of all buildings within the city. The code enforcement officer is located at city hall. A three-person rotating board is appointed, and their duties will be to make recommendations to a hearing officer. The duties of the code enforcement officer are currently executed by the fire chief.

The City of Benton has zoning but around 2015, the county was mandated to implement business licenses for building permits. The cities of Benton and Calvert City are incorporated and have zoning. All construction is required to obtain a permit which is available at the Marshall County Building Office, a multi-jurisdictional office of inspection and building permits located at the county courthouse.

New Housing

From 2015-2019 only 61 new construction permits were issued for Benton. Over half of the permits (10) were for new single-family residences.

Table 10.13: New Construction in Benton

City of Benton	2015	2016	2017	2018	2019	2020
New Single-Family Residence	10	6	7	6	4	3
New Two-Family Residence	-	-	1	-	-	-
New Multi-Family Residence	-	1	-	1	-	-
Assembly (Restaurant, Church, Gym)	1	3	1	2	-	-
Mercantile	1	1	2	1	-	-
Business	1	4	1	-	2	1
Storage	1	3	-	-	-	-
School	1	-	-	-	-	-
	15	18	12	10	6	4

Conclusion

Given the consistent slow growth of the population in Benton since 2010 and the projected population growth that is forecast over the next five years, an expansive boom in the demand for housing of any category is not expected. The city has adequate land available within its current boundary for anticipated growth. However, during the community conversations, real estate professionals and others indicated that they anticipate the need for more single-family dwellings that are moderately priced for young couples as well as the need for additional elderly housing options.

The city should monitor building permit applications closely. It should also begin to plan for the direction that growth might occur and identify potential tracts of property to meet future growth needs in the event that the demand begins to put pressure on the available amount of land currently available. Significant growth would also impact other aspects of community development including transportation, community facilities and city services. This section (and others) of comprehensive plan can be updated as needed before the next five-year update. Housing growth would also impact land-use, transportation and community facilities.

11. Strategic Plan



BENTON

STRATEGIC PLAN 2021



Created by the residents of Benton, Kentucky, with assistance from the Kentucky League of Cities.





Benton's Historic Timeline

January 1842

Marshall County was sectioned out of Calloway County becoming the 92nd county to be organized in Kentucky. The town of Benton was named for Senator Thomas Hart Benton of Missouri.

1842

The Tater Day Festival began when sweet potato seedlings were given out to bolster local agriculture.

1845

Benton was incorporated in 1845.

1850s

The Big Singing Day was founded by James Lemon and continues to be celebrated on the fourth Sunday in May at the Marshall County Courthouse. The event draws a gathering of people joining in the singing of hymns in the Fa Sol La Me method.

1890

The town began to prosper once the Paducah, Tennessee and Alabama Railroad was built within a half-mile of the town square. The population rose to 664.

1915

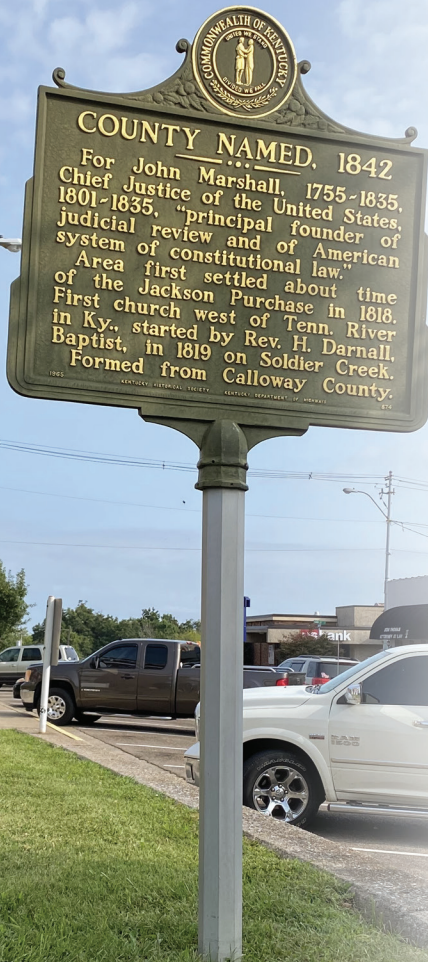
The third and current courthouse was built to replace the former when it burned on December 14, 1914.

1944

Kentucky Dam was completed bringing jobs from its construction as well as from the electric power generated by the Tennessee Valley Authority. The City of Benton's population went from 1,906 persons in 1940 to 3,074 by 1960.

2010

The U.S. Census reported Benton's population to be 4,469.





Overview

Mayor Rita Dotson and members of the Benton City Council wanted local people to weigh in on what they want for their community to make it an even better place to live. To assist them with this work, the Benton City Council contracted with the Kentucky League of Cities Community and Economic Development Services (KLC CEDS).

KLC CEDS facilitated a dozen small, in-person focus group meetings and online public forums during the late summer of 2020. Individual interviews were conducted with leaders in the community and a digital survey was emailed to numerous organizations and individuals within the city and posted on the city's web and Facebook pages, bringing in additional information. Over the course of three months, the council heard from citizens on numerous topics including housing options, sidewalks and utilities, police and fire safety, parks, trails and entertainment. Well over 100 individuals participated and expressed their opinions, ideas and suggestions.

The information gleaned from the public engagement was enhanced by a variety of

plans and activities already underway within the community. Once combined, KLC CEDS began laying out strategies and recommendations for the Benton City Council to implement over time. The following pages are to be a guide for the city as it moves towards economic prosperity and an improved quality of life for the residents of Benton and Marshall County.

“

It was important that we get ideas from our residents and to know what they're most concerned about. With their help, the city council can now establish a shared vision and layout our priorities for the future.

- Mayor Rita Dotson

”

Community Values



Small and Convenient

Those who make their home in Benton enjoy their proximity to schools, churches, businesses, recreational options and service providers. They also like the ability to jump on the nearby interstate and parkway for other services and recreational opportunities located only a short drive away. They feel the tax rates are affordable for the services they receive.

Friendly and Welcoming

Most residents find the community to be warm and caring and feels this carries over to those who travel through the area as visitors. This is an important characteristic as many noted the national unrest and incivility playing out in current news cycles.

Safe and Secure

Similar to the sentiment of a caring community, residents feel the city is a safe place to live, work and play. With a low crime rate, people are comfortable that their homes and work environments are protected.

What We Heard

Over the course of several months, residents were asked for their opinions about the current situation in Benton. From personal conversations, survey responses and focus group discussions, the following are a sampling of strengths, weaknesses, opportunities and threats that were identified. Responses have been reduced to the most frequently reported topics.

■ Strengths

- Renovated park facilities and swimming pool
- School system is top notch
- Economy is currently doing well
- New multi-unit housing options have been developed
- The Art Center and the public library
- The hospital

■ Weaknesses

- Code enforcement needs to be updated and enforced
- Utilities:
 - Water lines are outdated and there is not enough capacity
 - Sewers are not connected to every house
 - Internet is expensive and not consistent
- Lack of community pride
- Streets, sidewalks and properties
 - Blight and slum areas right in the middle of town
 - Streets and sidewalks are neglected
- Limited housing options
- Heavy, speeding traffic in town

■ Opportunities

- Expansion – need to get ahead of growth and development
- Businesses such as dine-in restaurants, a hotel, condos/housing
- Walking and biking trails – need to connect trails into a continuous loop
- Activities for young people
- Lovett Park needs to be reenvisioned
- Reorganize Tater Day
- Create a nicer entrance into the city with trees

■ Threats

- Water and sewer system preventing economic development
- Unplanned growth
- Tater Day is one headline away from being disastrous for the community
- Loss of volunteer involvement
- Aging population
- Workforce keeping up with job opportunities

High School Students Suggest

Students need gathering places – something like a Buffalo Wild Wings. They would far rather have local people organize and develop the business so the money is recirculated in the community. Their ideas included the place to:

- Have good food
- Be exciting – lots of TVs and pay-per-view – a high energy atmosphere
- Provide parking and be easy to get to
- Be open late so you have somewhere to gather after a ball game
- Be open regularly

They also mentioned that the community is not well-connected for alternative modes of transportation, for example, walking, biking and lack of continuous sidewalks that should connect

the neighborhoods to downtown. They would also like to see more access from the city to the lakes via trails and walking paths.

Students would like to see a reimagined Lovett Park that is geared toward young people. Most activities that are currently available are for young children, not junior high or high school age students.

Students appreciate the shift in educational priorities to include trades and certificate programs for students who may not be college-bound. Build on these educational opportunities to create and fill local jobs.

They are also willing to volunteer for specific events or projects. They are seldom included in community activities in terms of ideas, discussions, creating or implementing.

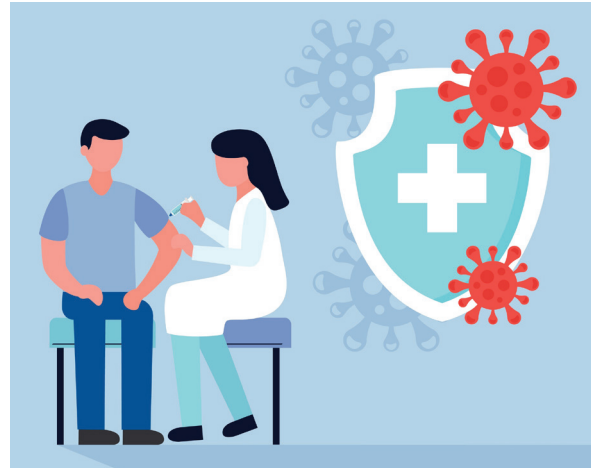


Economic Development Recommendations

Focus on the Economy

Citizens and elected officials are interested in turning their attention towards entrepreneurship and small business development. The desire is to diversify the economy and draw economic development into the city limits.

Recent improvements to the water and sewer system was done in tandem with highway repaving in the downtown. These much-needed enhancements provided upgrades that city leaders believe will be an enticement for entrepreneurs to consider the City of Benton for their business locations.



Economic Recovery Goal

The City of Benton will emerge from the health and economic crisis stronger than before.

Objectives

- Strive to find every efficiency possible in continued delivery of high-quality public services.
- Encourage the community to follow best practice health guidelines.
- Support community members facing job, food and/or housing insecurity.
- Encourage community support of local businesses.
- Develop a list of community priorities for possible pandemic-related stimulus proposals (i.e., ensure “job and investment readiness” of the community should recovery funds become available).
- Assess local basic needs for those impacted by the economic hardships created during the pandemic.
- Inventory supplies, vaccine delivery, food chain options and where gaps exist.
- Identify/solicit providers and vendors to fill any existing gaps in services.
- Develop a plan for communicating and sharing of resources.
- The city has expended initial CARES funds by awarding 27 businesses in Benton with Small Business Relief Grants of \$2,000 each.
- Benton needs to create a list of future infrastructure projects the city needs to complete so funds from the American Rescue Plan can be allocated in 2021.

Economic Recovery Recommendations

- Continue to work with the county health department to organize a community conversation among local service providers, faith-based and nonprofit organizations to jointly discuss how best to care for families and individuals in need.

Economic Development Recommendations

Economic Development Goal

The City of Benton offers a range of economic opportunities for residents, existing businesses and industry, and new businesses and industry.

Objectives

- Ensure alignment of community economic goals across government, for-profit and nonprofit sectors.
- Ensure adequate space and infrastructure to support existing businesses, expansions, and relocations.
- Work with community to develop “Local First” entrepreneurial business and service strategies, especially supporting local food initiatives.
- Support K-12 education initiatives to prepare youth to be higher education and/or workforce ready.
- Support childcare provision as an essential economic development infrastructure.
- Provide a range of housing opportunities and prices.
- Revisit business regulations on a regular basis to ensure efficiency and effectiveness.



Economic Development Recommendations

Educate the public and particularly developers and real estate professionals about the recent water and sewer upgrades.

- Prepare a one-pager of the current water/sewer situation in Benton. For example:
 - o Past mandates and outcomes from those measures
 - o Current situation
 - Master plan underway
 - List the streets where lines have been updated
 - Create a calendar or timeline of details of what has been done in the past three to five years to update the system
 - o Lay out the city’s plan to be proactive rather than reactive going forward

Review the report titled, *Marshall County First Impressions Program*, developed as part of the University of Kentucky’s Community and Economic Development Initiative of Kentucky.

- Collaborate with the Cooperative Extension Office, the Chamber of Commerce and the Benton Partnership to identify ways in which the city and each organization can integrate

Economic Development Recommendations

those recommendations as this plan is implemented over time.

To address dilapidated properties, create an awards program for properties, both commercial and residential.

- Continue the Home of the Month program to encourage property upkeep.
- Make it a big deal throughout town. Promote widely and encourage competition.
- Consider implementing a paint program to encourage property owners to refresh exterior surfaces.

Update any codes that are currently hindering cleanup of local properties.

- Determine if fees should be increased to cover the cost of the city doing the cleanup.
- Be consistent and follow through on enforcement of code violations.

Identify economic development and education partners and work together to address business needs. The Marshall County Public Schools has implemented career paths for non-college-bound students by providing certificate programs for trades and specialized skills. Develop a local business feeder program to fill gaps in local business needs.

- Create mentorship, internships, and apprenticeships to focus on creating opportunities for graduates so they are ready to enter the local workforce.

Identify business opportunities that provide services and events for tourists that are not readily available anywhere else. Benton should be a destination for tourists.

If there is enough local interest, a regional approach to a 1,500 - 3,000-acre solar farm could be a regional economic development possibility for Benton to demonstrate using individual renewable projects associated with homes and businesses.

Central Business District Goal



Downtown Benton is the thriving heart of the community, offering a variety of economic, cultural and social opportunities.

Objectives

- Envision the Central Business District as Kentucky Lake's Downtown and create a downtown business and recruitment package to support that vision.
 - Work to ensure that a visit to Kentucky Lake is not complete without a visit to downtown Benton.
- Work with downtown-oriented entrepreneurs to position downtown as a personal service, food, art, and entertainment destination.
- Explore options to reduce the barriers to entry to new businesses by allowing such things as temporary pop-up shops and eating establishments.
- Craft guidelines to allow more outdoor use of public space for eating and entertainment.
- Create strong linkages from downtown to local and regional trails.
- Identify and protect historic resources in the district.

Economic Development Recommendations

Central Business District Recommendations



Organize a town hall meeting for investors to discuss the downtown properties and businesses.

- Work in advance to ascertain what outcomes you want from such a discussion. With that determined, consider what questions to ask; for example:
 - What concerns do you have about the current situation?
 - What do you see as your role in helping the downtown improve?
 - What kind of businesses do they envision for their own property?

- What are the gaps in the local market?
- What incentives would be helpful?
- Using the information from the meeting, work with the Chamber of Commerce, Benton Partnership, Tourism Commission and perhaps the EDA to develop next steps.



Organize a visit to Paducah to check out the concept of The Zone which is supported and managed by Four Rivers Behavioral Health. For general information: <https://www.facebook.com/FourRiversZone/>

- This site is a popular hangout for young people which doubles as a safe zone for those who may need to talk with an adult about problems they're having either at home or elsewhere.
 - Sarah Andrus is a tremendous local resource for this concept.
 - Make an appointment with those in charge of The Zone, obtain a van, school or church bus and take local leaders to investigate.
 - Invite representatives from the health department, parks, chamber, hospital, banks, school administration and students as well as local developers to go with you to get a complete understanding of how the concept works.

Economic Development Recommendations

- Re-engage these same individuals to identify property in downtown Benton for a local hangout and develop details of what might work locally.
- Ask local developers to work with the city to develop concepts and begin identifying potential funders from the private sector. You may find that you need to establish a consortium of local investors. These may be individuals that negotiate and purchase property on behalf of the city. (Investigate the Christian County/Hopkinsville Community Development Corporation as one example.)



Revisit the original design plans for the Memorial Plaza. The reason that concept was not successful is because Phase 2 never materialized. The original idea of arts and crafts shops located at the rear of the lot to draw people to the location still has merit; the concept should be redeployed.

- Ask the Benton Partnership as well as schools and other organizations to use this area for staging special events. Creating activities generates buzz and brings life to the downtown.
- Consider using this lot for tourism and trail message boards.
- Use the Roger Brooks formula that says 250-255 event days in a downtown are required for a city to be successful. Not individual events, but things like promotions, sales, celebrations, concerts, street performers, street vendors, food trucks, pop-up businesses – provide a lot of variety. Consider a partnership among the city, county, chamber of commerce, economic development in order to have a person devoted to creating, coordinating, and managing downtown events.

Land Use Goal



The City of Benton is recognized as having a desirable land use pattern that promotes quality of life, efficient services, and economic development.

Objectives

- Direct growth into appropriate areas, those with an ability to efficiently provide infrastructure and services without reducing capacity within the city.
- Develop guidelines for compatibility between surrounding land uses and for suitable transitions between land uses.
- Prioritize contiguous new development, including infill and redevelopment, in the interest of providing community services and public facilities in the most cost-effective manner.
- Promote annexation and expansion of the city limits to eliminate unincorporated

islands and peninsulas and to provide definable natural and governmental boundaries of the city's service area.

- Connect land uses with alternative transportation options.

Land Use Recommendations

- Identify the pros and cons of living in or owning a business within the city limits. Market the advantages of being in the city.
- Update current ordinances as needed.
- Evaluate expansion options that may offer new areas within the community for new construction and to expand the customer base for water and sewer.

Transportation Goal

The City of Benton offers safe and convenient accessibility across the community.

Objectives

- Work to provide multiple means of accessibility in the community beyond the private automobile, including trails, bike lanes and sidewalks.
- Ensure that city streets retain acceptable levels of service.
- Ensure that new developments retain continuity and connectivity with the existing street pattern as well as allowing for future extension into appropriate areas.
- Work to ensure that parking is adequate

but not over required in development regulations.

- Ensure best engineering practices with streets within the city including traffic calming strategies on main thoroughfares.
- Develop guidelines for the “Complete Streets” program in appropriate locations.

Transportation Recommendations

- Review parking lots along Olive Street where there is a full block of open space behind businesses facing Main Street. Work to get agreement among owners to have the entire area striped, then promote widely as free parking.



Transportation Goal

Current:

Main Street looking north near downtown Benton. Street width is 31 feet wide. This width encourages high speeds.



Proposed:

Road diet to reduce lanes to 12' width and adding bike lane and additional landscape strip on east side.



Transportation Goal

Current:

Poplar Street looking north near downtown Benton. Street width is 35 feet wide. This width encourages high speeds.

**Proposed:**

Road diet to reduce lanes to 12' width and adding bike lane on east side and additional landscape strip on west side.



Transportation Goal

Current:

Highway 641 looking south entering Benton.

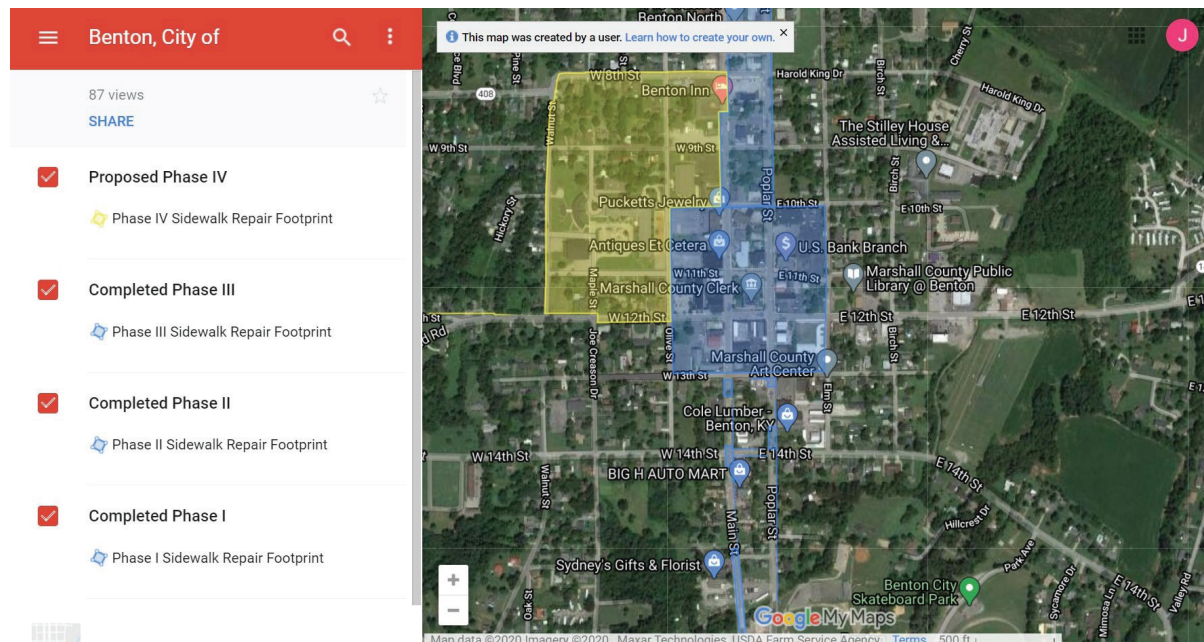


Proposed:

Road diet to reduce four lanes to three with landscaping. (Note: The KYTC supports such lane reductions to improve safety and flow.)



Transportation Goal



- Inform the public of the city's sidewalk replacement and expansion plan more effectively. Highlight recent repairs, replacements and expansions.
- Implement the proposal from Precision Concrete to repair, replace and build new sidewalks.
 - Establish a line item in the budget to make certain the expense is anticipated each year.
 - Establish a dedicated revenue stream for the replacement of sidewalks during each budget cycle. This can be a portion of a larger pot of money within the budget or a new revenue opportunity.

Housing Goal



The City of Benton offers a range of housing that is affordable, high quality, and appealing.

Objectives

- Ensure that adequate and affordable housing opportunities are available for both rental and purchase.
- Review development regulations to ensure that new neighborhoods are attractive, safe and compatible with the rest of the community.
- Develop guidelines to govern the redevelopment of existing areas in the community to ensure compatibility with surrounding land uses.
- Utilize appropriate building codes and inspection procedures to promote proper construction and maintenance.
- Promote the reconstruction, redevelopment, or demolition of blighted residential properties.

- Ensure multiple modes of transportation connection between neighborhoods and the city.

Housing Recommendations

- Inventory existing housing stock and determine conditions. This means taking photos of every building in the city limits along with the sidewalk and street conditions. These tasks can be accomplished by volunteers, seniors, and/or students. Use Google maps, work with the PVA and physically walk the streets and neighborhoods taking pictures. This process will help the city and its code enforcement officer to know the scope of the work at hand and the status of each property within the city's boundaries.
- Identify concerns among property owners as to how to best to comply with codes.
- Identify and implement incentives to

Housing Goal

encourage property owners to clean up and fix up existing properties through community partnerships.

- Create a cleanup, fix up and paint competition within neighborhoods.
- Showcase the winners along with everyone that participates. Identify sponsors for paint and materials. Create a pool of volunteers to help those who can't do the work themselves.
- Create a sense of pride within the neighborhoods and the town by rewarding and recognizing those who do good things within their neighborhoods and utilize code enforcement to reinforce the advantage of keeping properties clean and in compliance with the local ordinances. The City of Elsmere has been very successful with this approach. We recommend the City of Benton reach out to the mayor or city administrator from Elsmere to discuss their successful strategies and tactics.
- Review existing ordinances regulating multi-tenant housing, apartments, and alternative types of housing (e.g., granny flats, patio homes) to ensure options are available to developers for current market expectations.
- Work with city staff to modernize internal procedures and expedite permitting processes.
- Determine how codes will be enforced. See Economic Development section.
 - Identify which properties continue to be derelict in appearance.
 - Set a date of when enforcement will begin.
 - State publicly at council meetings and in the media that the city will begin enforcing codes, reiterating the point that this was a priority mentioned by many during the planning process and the date of when enforcement will begin.
 - Mail in advance of enforcement the code guidelines in writing to all property owners along with the notification of when enforcement will begin.
 - Make personal phone calls before enforcement begins to see if you can get derelict properties cleaned up while reminding the owner what enforcement will mean to them.
- Anticipate the need for more single-family dwellings that are moderately priced for young couples as well as the need for additional elderly housing options.

Public Services Goal



The City of Benton provides first class community services and facilities at a reasonable cost.

Objectives

- Maintain water and sewer treatment and transmission systems in proper working order and expand and upgrade facilities as needed to meet demand.
- Require all new development to comply with city laws by connecting to the public wastewater treatment system.
- Promote interconnection and coordination of utility planning to minimize development and maintenance costs and to maximize efficiency.
- Ensure that the city has adequate fire and police protection for existing and future growth.
- Protect the city's water supply by continuing the designated well-head protection area

and ensure compatibility with all related development proposals.

- The community should continue to support, through appropriate policies and financing, the provision of community facilities, such as schools, the library and the hospital.

Public Services Recommendations

- Publicize all of the progress the city has made over the past several years to improve the water, wastewater, sewer facilities, streets and sidewalks.
- Share the city's sidewalk plan and priorities through the media, at council meetings and to civic organizations. Change the perception by presenting the facts.
- To build support for financing the remainder of upgrades to the water and sewer system, invite federal and state leaders, (DRA, DLG, PADD and Kentucky Division of Water)

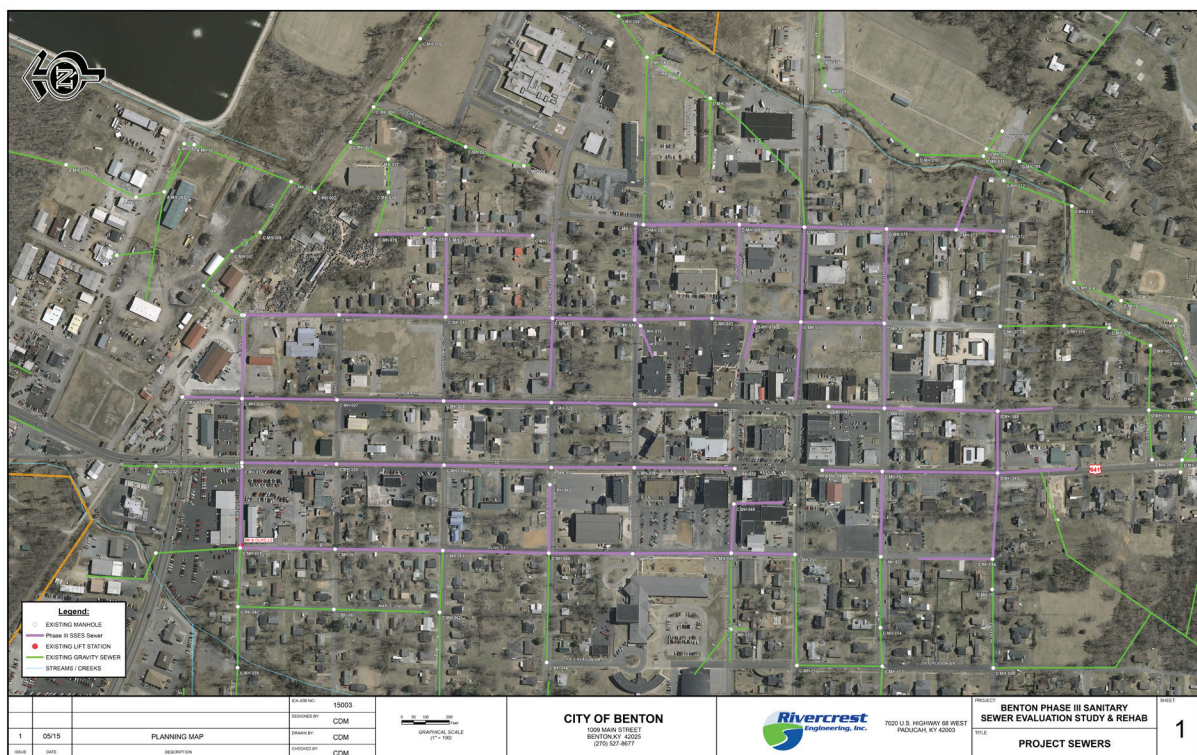
Public Services Goal

for a candid discussion about the current water and sewer situation in Benton. Learn what they can and will do to help the city complete the needed updates over the next few years.

- Using the information from that meeting, get Benton's legislative representatives on

board to advocate for funding. Use DRA, USDA, and PADD for grants and grant writing assistance.

- As development continues to occur, determine that wherever water and sewer lines go, the city expands as well.



Recreation Goal

The City of Benton offers citizens a variety of high-quality recreational opportunities.

Objectives

- Support adequate recreation funding as an economic and quality of life investment.
- Plan and develop adequate public greenspace for passive recreation in downtown and across all neighborhoods to enhance the quality of life for all residents.
- Plan for maintenance and improvement of existing active recreation facilities as well as developing new venues as the community grows.
- Support trail development in the community and the region, including the study of a trails system from Benton to the Ohio River along the Clarks River, from Benton to Jonathan Creek at Kentucky Lake, and to Kentucky Dam State Park. For a concept on such a proposed trail route, see page 22.

Recreation Recommendations

Reenvision Lovett Park

Lovett Park has been a landmark within the City of Benton for decades. Over the years, the town has reinvented itself many times to address the needs of the community during different eras.



Recreation Goal

It is a wonderful greenspace for residents and visitors alike. Throughout the public engagement meetings as well as the meeting with the high school students, the topic of reimagining the usage of the park arose many times. We have included a conceptual map and renderings to illustrate what some of those new activities could be and what they might look like. Changing a landmark like Lovett Park will not be easy. However, without some updates, Lovett Park will never reach its full potential.

Lovett Park can be a premiere art and music outdoor destination in the Lakes region. This plan

proposes an outdoor music venue and public sculpture art walk, with associated temporary food spots.

A three-quarter-mile trail loop is proposed, a portion of which runs along the restored stream. The existing swimming pool and playgrounds will remain. A dog park is being created on one of the former baseball fields.

Trees should be planted to give shade to owners and pets alike. A diverse and arboretum-like park forest can be planted for beauty and shade.

Example of Outdoor Amphitheatre



Example of "Food Court"

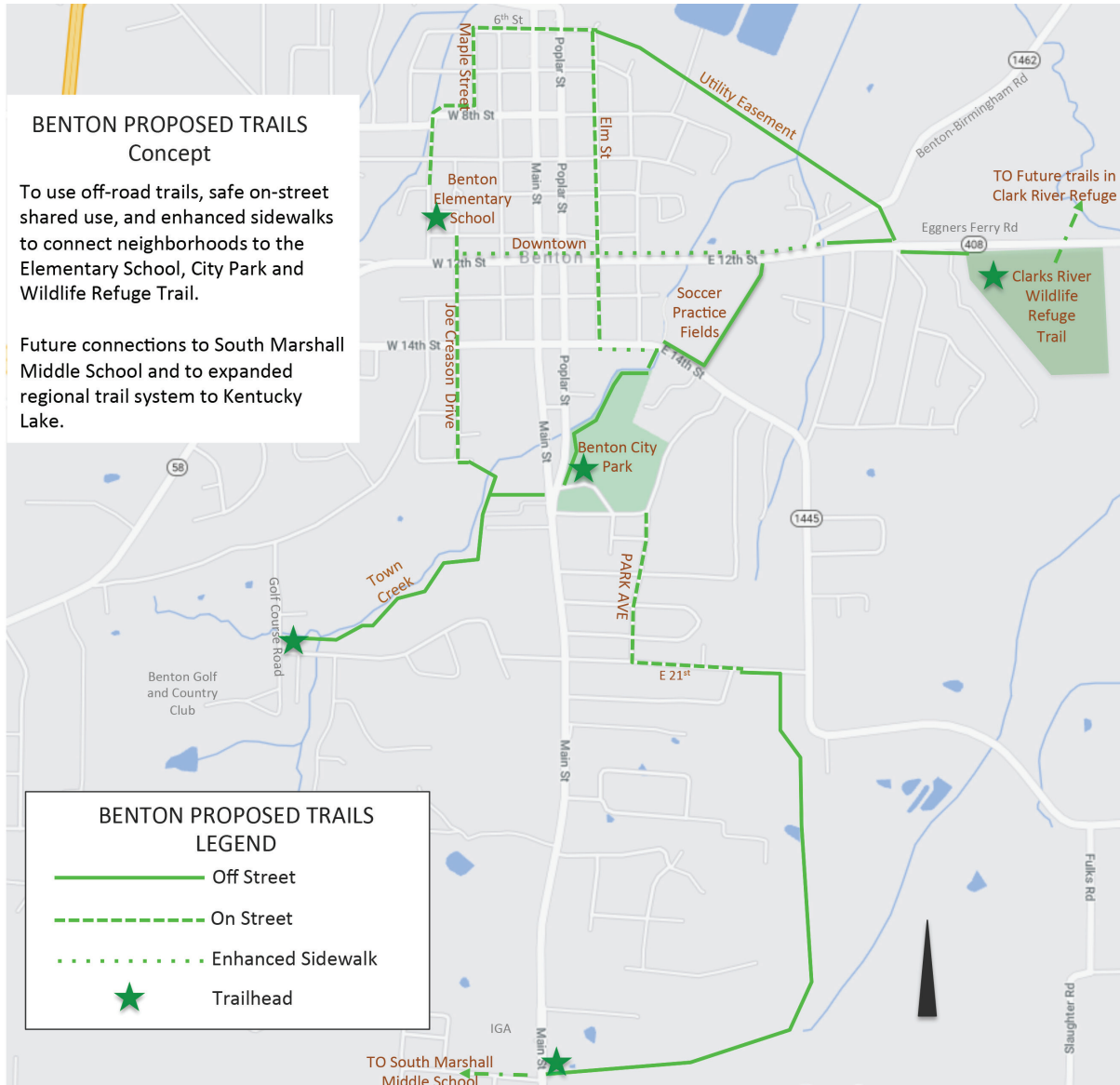


LOVETT PARK RE-IMAGINING

Example of Public Art Walk Trail



Recreation Goal



Landscape Conservation Goal



Become a Kentucky Trail Town

Business ventures can be spawned from trail development especially as you link activity centers such as the public library and the Arts Center to the Kindness Park and the trail head which should be located in the downtown.

- Connect trails from downtown (Memorial Park, Arts Center, Kindness Park, Marshall County Public Library and Benton Elementary School) to local neighborhoods, schools and Clark's River Wildlife Refuge.
- Work with young people from the schools, residents who enjoy walking, bicycle and kayak enthusiasts to help in identifying new trail opportunities on land and in the water.
- Engage local businesses to think creatively on how to connect their businesses to traffic on the trails.
- Organize guided tours around points of local history and churches and teach skills such as how to use a GPS, compass, kayak or canoe.
- Encourage school groups and local organizations to organize festivals and special events around locations on the trails.

- Engage local organizations and regional and state partners to identify funding resources. Divide and conquer can be a useful strategy for fundraising and expansion of existing trails. Consider setting up "adopt a trail" or "sponsor a landmark" to solicit local contributions for various sections and amenities throughout the trail system. Be prepared to apply quickly whenever grant funds become available. Have matching funds and in-kind contributions identified beforehand so that the city can leverage funding opportunities.

Landscape Conservation Goal

The City of Benton is recognized for conservation of sensitive landscapes.

Objectives

- Develop a plan to identify appropriate areas for conservation and how such lands should be managed and used.
- Encourage cooperation between public and private sectors for conservation planning.

Landscape Conservation Goal

Landscape Conservation Recommendations

- Through the trail development activities mentioned elsewhere in this publication, build relations with the Clark's River Wildlife Refuge and find ways to partner.
- Identify potential erosion areas and mitigate the effects before they become a problem.
- Partner with various conservation groups to create a long-term strategy to address potential problem areas over time.
- Continuously monitor threats to natural habitats and grassland areas within the city and take steps to address any issues.



Historic Preservation Goal



The City of Benton values historically meaningful sites and activities.

Objectives

- Develop an inventory of historic sites and activities.
- Promote appropriate use of sites and activities and develop incentive plans to accomplish this objective.
- New development should respect and be compatible with existing historic sites and activities.
- with similar interests to identify local sites and activities. For example, historic churches, houses, or business buildings; create a walking or driving tour; and provide identification markers.
- Determine if there are ways in which to connect these locations and activities into ongoing events. For example, during the Big Sing weekend, offer guided tours of historic churches and share tidbits of interesting facts about each property.
- Add this information to existing promotional materials to assist in marketing the community.

Historic Preservation Recommendations

- Collaborate with the Marshall County Genealogical and Historical Society, the Benton Partnership and other organizations

Environment Goal

The City of Benton is recognized for its healthy environment.

Objectives

- Surface and subsurface water sources should be protected from adverse impacts associated with urbanization.
- New development planning should identify and protect streams, wetlands, unsuitable soils, significant trees, and other significant natural features.
- Ensure that no new development is located in 100-year floodplains, with floodplain maps updated as needed.
- New developments should incorporate appropriate stormwater management to ensure that runoff rate does not increase from pre-development conditions.
- Ensure that new industrial or business development does not degrade air or water quality.

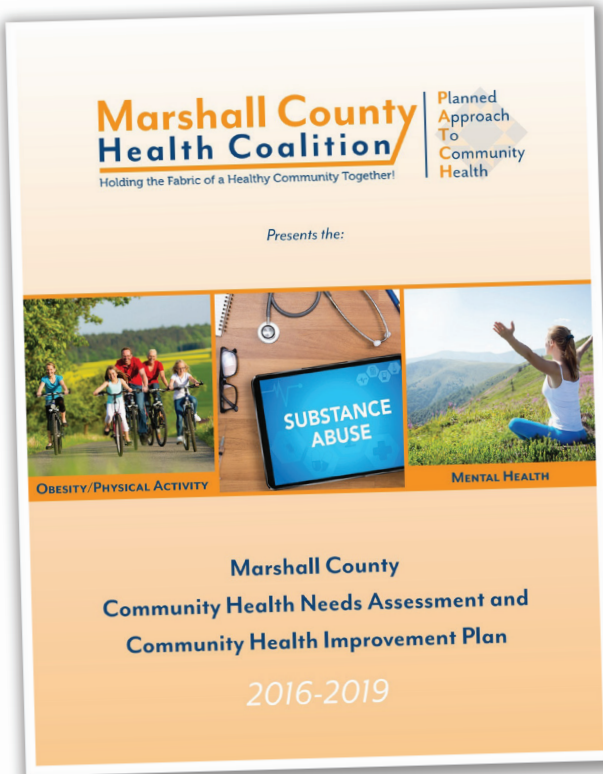
Environmental Recommendations

As Benton prepares for growth, it is important for the city to plan ahead for potential environmental issues. We recommend:

- Establish clear guidelines and enforce strict compliance with local, state and federal regulations related to water and air quality standards.
- Continue and expand cleanup days for streets, streams and properties to reduce trash and pollutants.
- Continue to upgrade water and waste infrastructure.
- Minimize stormwater runoff for new development and mitigate excess runoff in existing areas of the city through methodical planning and implementation.
- Continue to be good stewards of the city's drinking water supply.



Community Health Goal



Community Health Recommendations

We refer the city to the “Marshall County Community Health Assessment and Community Improvement Plan,” created in 2016-2019 and subsequent addendums and updates. The Community Improvement Plan contains an excellent set of standards and improvement strategies for the city to follow. We incorporate the findings and strategies of the plan by reference.

Further strategies may be found in previous recommendations herein related to recovering from the health crisis, transportation concepts, parks, recreation and trail developments.

The citizens of Benton lead healthy, active lives.

Objectives

- Develop plans for active lifestyle opportunities in the community.
- Support healthy food initiatives and access for all citizens.
- Discourage residential land uses in areas with high noise activity from industrial, business, or transportation uses.
- Encourage safe alternative mobility options.
- Continually monitor air and water quality to ensure safe levels for citizens.

Growth Management Goal

The City of Benton is recognized for its high-quality growth.

Objectives

- Review and revise when needed for innovation, fairness, consistency, and efficiency growth management tools such as zoning, subdivision and development regulations.
- Where transition of land-use types and intensities occur, appropriate screening and buffering should be used.
- Develop infill and infill redevelopment plans to encourage market action.
- Ensure highest engineering standards for streets, stormwater, infrastructure, and other related areas in new developments.
- Revise residential zoning ordinances to allow for more appropriate home occupations such as childcare and home offices.
- New construction or development occurring along arterial roadways should incorporate access control measures in order to promote efficient traffic movement.
- Development or redevelopment occurring in areas served by inadequate roadways should be required to make provisions for upgrading those roadways.
- Appropriate landscaping and other site amenities are encouraged for all development.
- Ensure that review of new development plans include review by water and sewer officials, police and fire departments, street departments, other utility providers, and health department officials.
- Revise subdivision and development regulations to require more engineering detail on subdivision plats and development plans and to clarify submission and approval procedures.

Growth Management Recommendations

- Carefully monitor potential growth areas along Highway 641 North toward Draffenville, Business Highway 641 South around SW1, and be prepared for additional growth.
- Incorporate alternative modes of transportation into the city's downtown core utilizing bike trails and sidewalks.
- Connect the trail systems that surround the edges of the city to the downtown. Ease of access will encourage and strengthen connectivity for local residents and visitors.
- Consider development of pocket parks and other small greenspace areas that residents can use as gathering places and enhance the green environment.
- Explore growing the city's boundary to include the Clarks River National Wildlife Refuge to expand the city's greenspace.
- Cure zoning islands wherever and whenever possible.

Acknowledgements



■ City Officials

Mayor Rita Dotson
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Councilmember Kevin Farley
Councilmember Stanley Holland
Councilmember Rita Murray
Councilmember Ann Riley
Councilmember Sherra Riley
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Gage Lynch	Chandler Maddox
Chris Sailer	Jett Sealock
Quinn Smith	Tia Thorpe
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Kentucky League of Cities

Created by the residents of Benton, Kentucky,
with assistance from the Kentucky League of Cities

2021

Appendices

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B. Environmental Attachments

Indoor Air Quality in Marshall County, Kentucky Public Venues, 2012

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August 22, 2012

Funding for the study was provided by the Marshall County Health Department.

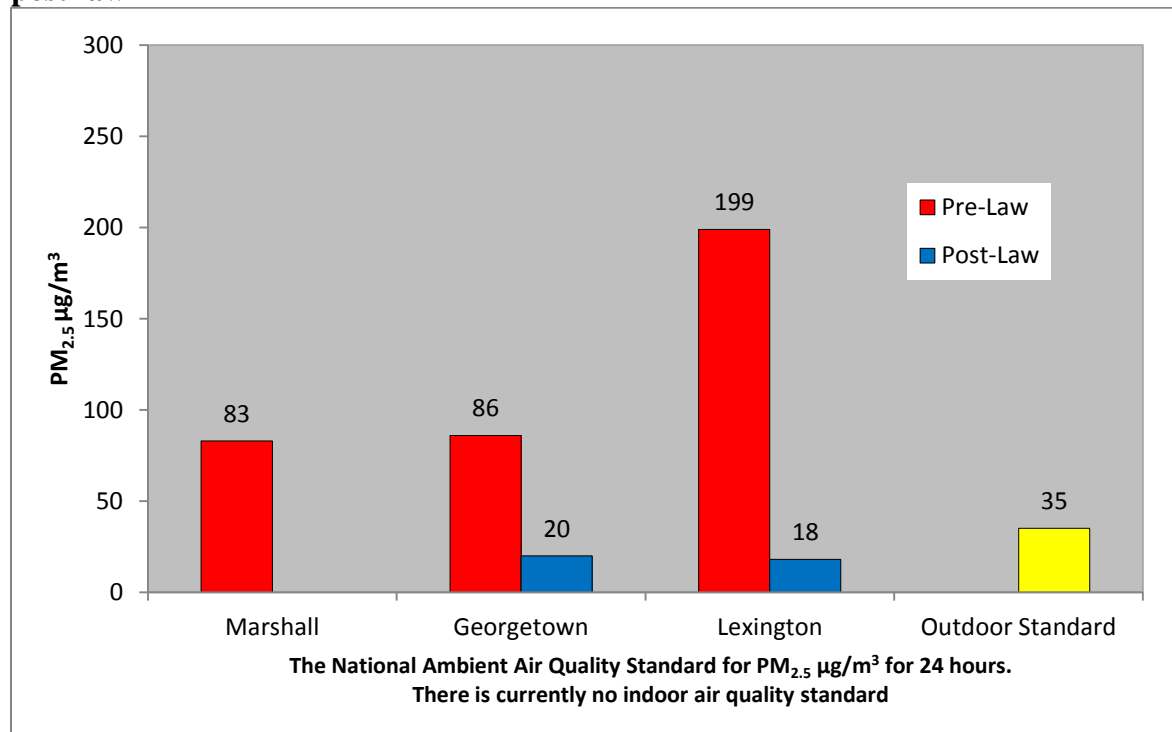
Executive Summary

Indoor air quality was assessed in 12 public venues in Marshall County, Kentucky. Fine particulates were measured from May 14 to June 13, 2012, using the TSI SidePak AM510 Personal Aerosol Monitor. The average $PM_{2.5}$ level from the 12 locations was compared to the average $PM_{2.5}$ levels in Georgetown and Lexington, Kentucky before and after implementation of their smoke-free laws, as well as the outdoor National Ambient Air Quality Standard (NAAQS; $35\mu g/m^3$) for 24 hours.

Key findings of the study are:

- The level of indoor air pollution in public venues measured in Marshall County (average $PM_{2.5} = 83\mu g/m^3$) was approximately 4.1 times higher than Georgetown and 4.6 times higher than Lexington after implementation of their smoke-free laws (see Figure 1). Further, the level of indoor air pollution in Marshall County's public venues was 2.4 times higher than the National Ambient Air Quality Standard for *outdoor* air.
- The 12 public venues had average $PM_{2.5}$ levels ranging from 6 to $271\mu g/m^3$ (see Figure 2). Air pollution in 7 of the 12 venues equaled or exceeded the National Ambient Air Quality Standard for *outdoor* air.

Figure 1. Average fine particle air pollution in three Kentucky communities, pre- and post-law



Introduction

Secondhand smoke (SHS) contains at least 250 chemicals that are known to be toxic.¹ There is no safe level of exposure to SHS.^{2,3} SHS damages the DNA, blood vessels, and lung tissue, causing cancer, heart, and lung disease.³ SHS exposure is the third leading cause of preventable death in the United States.² SHS is a mixture of the smoke from the burning end of tobacco products (sidestream smoke) and the smoke exhaled by smokers (mainstream smoke). An estimated 3,000 nonsmokers die from lung cancer and over 46,000 nonsmokers die from heart disease² every year in the U.S due to SHS exposure. It is estimated that 40.1% of nonsmokers in the United States have biological evidence of SHS exposure.⁴

Currently in the U.S., 22,434 local municipalities are covered by either local or state 100% smoke-free laws in workplaces and/or restaurants and/or bars.⁵ It is estimated that approximately 48.6% of the U.S. population is protected by clean indoor air regulations that cover virtually all indoor worksites including bars and restaurants. There are 3,501 local ordinances or regulations that restrict smoking to some extent in workplaces across the United States and Washington D.C.⁵ The extent of protection provided by these laws varies widely from community to community.

As of August 1, 2012, 34 Kentucky communities had implemented smoke-free laws or adopted smoke-free regulations. The most comprehensive ordinances/regulations, 100% smoke-free workplace and 100% smoke-free enclosed public place laws, have been implemented in 21 Kentucky communities: Ashland, Bardstown, Bowling Green, Campbellsville, Clark County (Board of Health regulation), Corbin, Danville, Elizabethtown, Georgetown, Glasgow, Hardin County (unincorporated areas), Lexington-Fayette County, London, Louisville, Madison County (Board of Health regulation), Manchester, Morehead, Prestonsburg, Radcliff, Somerset, and Woodford County (Board of Health regulation). Bullitt County's Board of Health has adopted a comprehensive regulation but it is delayed pending court action. The next most comprehensive ordinances, 100% smoke-free enclosed public place laws, have been implemented in three communities: Frankfort, Letcher County, and Paducah. Ten communities have enacted partial smoke-free laws, protecting workers and patrons in some public venues: Beattyville, Daviess County, Franklin County, Henderson, Hopkins County, Kenton County, Oak Grove, Oldham County, Paintsville, and Pikeville.

The purpose of the study was to (a) assess air quality in Marshall County, Kentucky public venues; and (b) compare the results to Georgetown and Lexington, Kentucky air quality data before and after their smoke-free laws took effect.

Methods

Between May 14 and June 13 2012, indoor air quality was assessed in 12 indoor public venues located in Marshall County. Sites were of various sizes; some sites were individually owned establishments and some were part of local or national chains.

A TSI SidePak AM510 Personal Aerosol Monitor (TSI, Inc., St. Paul, MN) was used to sample and record the levels of respirable suspended particles in the air. The SidePak uses a built-in sampling pump to draw air through the device and the particulate matter in the air scatters the light from a laser to assess the real-time concentration of particles smaller than $2.5\mu\text{m}$ in micrograms per cubic meter, or $\text{PM}_{2.5}$. The SidePak was calibrated against a light scattering instrument, which had been previously calibrated and used in similar studies. In addition, the SidePak was zero-calibrated prior to each use by attaching a HEPA filter according to the manufacturer's specifications.

TSI SidePak AM510 Personal Aerosol Monitor



The equipment was set to a one-minute log interval, which averages the previous 60 one-second measurements. For each venue, the first and last minute of logged data were removed because they are averaged with outdoor and entryway air. The remaining data points were summarized to provide an average $\text{PM}_{2.5}$ concentration within each venue. The Kentucky Center for Smoke-free Policy (KCSP) staff trained researchers from the Marshall County Health Department who did the sampling and sent the data to KCSP for analysis. Sampling was discreet in order not to disturb the occupants' normal behavior.

Statistical Analyses

Descriptive statistics including the venue volume, number of patrons, number of burning cigarettes, and smoker density (i.e., average number of burning cigarettes per 100 m^3) were reported for each venue and averaged for all venues.

Results

The public venues were visited Monday through Thursday for an average of 51 minutes (range 47-58 minutes). Visits occurred at various times of the day from 7:30 AM to 5:05 PM. The average size of the Marshall County venues was 453 m^3 (range $194\text{--}927\text{ m}^3$) and the average smoker density was $0.36/100\text{ m}^3$. On average, 22 patrons were present per venue and 1.0 burning cigarettes per venue were observed. Descriptive statistics for each venue are summarized in the Table.

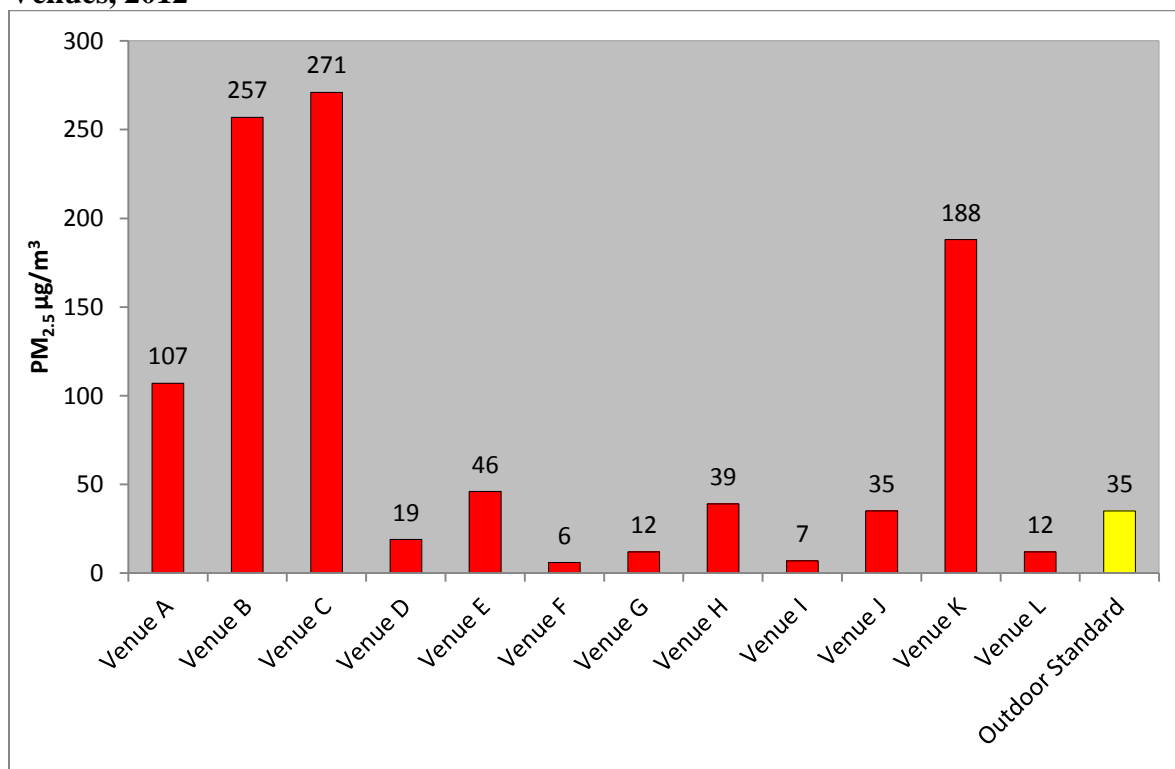
As depicted in Figure 1, the average level of indoor air pollution in the Marshall County venues ($83\mu\text{g}/\text{m}^3$) was approximately 4.1 times higher than Georgetown and 4.6 times higher than Lexington after implementing their smoke-free laws. Further, the level of indoor air pollution in Marshall County public venues was 2.4 times higher than the National Ambient Air Quality Standard ($35\mu\text{g}/\text{m}^3$) for *outdoor* air for 24 hours.

Figure 2 shows the average level of indoor air pollution in each of the 12 tested venues in Marshall County. The average $\text{PM}_{2.5}$ levels ranged from 6 to $271\mu\text{g}/\text{m}^3$. Air pollution in 7 venues equaled or exceeded the National Ambient Air Quality Standard for *outdoor* air (NAAQS; $35\mu\text{g}/\text{m}^3$).

Table. Air Quality Data for 12 Venues in Marshall County Kentucky, May – June, 2012

Venue	Date Sampled	Size (m ³)	Average # people	Average # burning cigs	Smoker density (#bc/100m ³)	Average PM _{2.5} levels (µg/m ³)
Venue A	5/14/2012	194	42	1.8	0.94	107
Venue B	5/15/2012	223	28	3.8	1.70	257
Venue C	5/16/2012	377	18	3.8	1.02	271
Venue D	5/16/2012	652	11	0.5	0.08	19
Venue E	5/21/2012	458	25	0.6	0.13	46
Venue F	5/23/2012	927	21	0.0	0.00	6
Venue G	5/29/2012	271	19	0.0	0.00	12
Venue H	5/31/2012	651	31	0.5	0.08	39
Venue I	6/4/2012	663	26	0.0	0.00	7
Venue J	6/5/2012	457	13	0.5	0.11	35
Venue K	6/6/2012	305	17	0.6	0.20	188
Venue L	6/13/2012	254	19	0.2	0.06	12
Average		453	22	1.0	0.36	83

Figure 2. Average Indoor Fine Particle Concentration in 12 Marshall County, Kentucky Venues, 2012



Discussion

The average PM_{2.5} level in 12 Marshall County, Kentucky venues was 83 µg/m³, which is 2.4 times higher than the National Ambient Air Quality Standard for *outdoor* air set by the EPA. There were over 80 EPA cited epidemiologic studies in creating a particulate air pollution standard in 1997.⁶ To protect the public's health, the EPA set a new limit of 35 µg/m³ on December 17, 2006 as the average level of exposure over 24-hours in *outdoor* environments. There is no EPA standard for indoor air quality.

At least two Kentucky air quality studies have demonstrated significant improvements in air quality as a result of implementing a comprehensive smoke-free law. Hahn et al. showed a 91% decrease in indoor air pollution after Lexington, Kentucky implemented a smoke-free law on April 27, 2004.⁷ The average level of indoor air pollution was 199 µg/m³ pre-law and dropped to 18 µg/m³ post-law. Average levels of indoor air pollution dropped from 86 µg/m³ to 20 µg/m³ after Georgetown, Kentucky implemented a comprehensive smoke-free law on October 1, 2005.⁸ Similarly, other studies show significant improvements in air quality after implementing a smoke-free law. One California study showed an 82% average decline in air pollution after smoking was prohibited.⁹ When indoor air quality was measured in 20 hospitality venues in western New York, average levels of respirable suspended particle (RSP) dropped by 84% after a smoke-free law took effect.¹⁰

Other studies have assessed the effects of SHS on human health. Hahn et al. found a 56% drop in hair nicotine levels in a sample of workers after Lexington implemented a smoke-free law, regardless of whether workers were smokers or nonsmokers.¹¹ Workers were also less likely to report colds and sinus infections after the law went into effect. Similarly, Farrelly et al. also showed a significant decrease in both salivary cotinine concentrations and sensory symptoms in hospitality workers after New York State implemented a smoke-free law in their worksites.¹² Smoke-free legislation in Scotland was associated with significant improvements in symptoms, spirometry measurements, and systemic inflammation of bar workers. The significant improvement of respiratory health was reported in only one month after smoke-free law.¹³

There is no longer any doubt in the medical or scientific communities that SHS is a significant public health problem. In 2006, U.S. Surgeon General Carmona, said "The scientific evidence is now indisputable: secondhand smoke is not a mere annoyance. It is a serious health hazard that can lead to disease and premature death in children and nonsmoking adults."² In 2010, U.S. Surgeon General Benjamin reported that tobacco smoke causes immediate blood vessel, lung tissue, and DNA damage causing heart disease, lung disease, and cancer.³

Many millions of Americans, both children and adults, are still exposed to secondhand smoke in their homes and workplaces. Approximately 40.1% nonsmokers in the United States have biological evidence of SHS exposure.⁴ U.S. Surgeon General Carmona said, "Eliminating smoking in indoor spaces fully protects nonsmokers from exposure to secondhand smoke. Separating smokers from nonsmokers, cleaning the air, and ventilating buildings cannot eliminate exposure of nonsmokers to secondhand smoke."²

Conclusions

This study demonstrated that workers and patrons in Marshall County public venues are exposed to harmful levels of SHS. On average, workers and patrons in Marshall County were exposed to indoor air pollution levels approximately 2.4 times the National Ambient Air Quality Standard, and the level of indoor air pollution in these venues was 4.1 times higher than Georgetown and 4.6 times higher than Lexington's average PM_{2.5} levels after implementation of their smoke-free laws. When smoking is completely prohibited, air quality significantly improves.

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C. Transportation Attachments

KENTUCKY TRANSPORTATION CABINET
SIX YEAR HIGHWAY PLAN
FY - 2020 THRU FY - 2026

PAGE: 157
1/27/2020

Item#: 4-10003.00 **Parent#:** 4-10003.00 **Length** **Description:** ADDRESS DEFICIENCIES OF WHITE OAK CRK RD BRIDGE OVER WHITE OAK CREEK.
Plan Year: 2018 **Parent Year:** 2018 0.01 (078C00035N)
Type of Work: AM-BRIDGE (P)
Bridge ID: 078C00152N

Marion CR-1127 From MP 0.149 To 0.155

FUND	PHASE	2020	2021	2022	2023	2024	2025	2026	Phase Total
BR	D	\$60,000	\$0	\$0	\$0	\$0	\$0	\$0	\$60,000
BR	C	\$410,000	\$0	\$0	\$0	\$0	\$0	\$0	\$410,000
FY TOTAL:		\$470,000	\$0	\$0	\$0	\$0	\$0	\$0	\$470,000

Item#: 1-398.00 **Parent#:** 1-398.00 **Length** **Description:** IMPROVE ACCESS AND REDUCE CONGESTION ON US-62 FROM KY-95 TO THE EXISTING
Plan Year: 2018 **Parent Year:** 2018 1.30 FOUR-LANE HIGHWAY AT LONE VALLEY RD NEAR I-24 INTERCHANGE AND FUTURE I-69
CONNECTION.

Type of Work: MAJOR WIDENING

Bridge ID:

Marshall US-62 From MP 7.200 To 8.497

FUND	PHASE	2020	2021	2022	2023	2024	2025	2026	Phase Total
FED	D	\$0	\$750,000	\$0	\$0	\$0	\$0	\$0	\$750,000
FED	R	\$0	\$0	\$0	\$250,000	\$0	\$0	\$0	\$250,000
FED	U	\$0	\$0	\$0	\$500,000	\$0	\$0	\$0	\$500,000
FED	C	\$0	\$0	\$0	\$0	\$3,940,000	\$0	\$0	\$3,940,000
FY TOTAL:		\$0	\$750,000	\$0	\$750,000	\$3,940,000	\$0	\$0	\$5,440,000

Item#: 1-20013.00 **Parent#:** 1-20013.00 **Length** **Description:** ADDRESS PAVEMENT CONDITION OF I-024 BOTH DIRECTION(S) FROM MILEPOINT 17.32
Plan Year: 2018 **Parent Year:** 2018 11.82 TO MILEPOINT 29.14

Type of Work: AM-PAVEMENT (INT)(P)

Bridge ID:

Marshall I -24 From MP 17.320 To 29.140

FUND	PHASE	2020	2021	2022	2023	2024	2025	2026	Phase Total
PM	D	\$0	\$0	\$0	\$0	\$950,000	\$0	\$0	\$950,000
PM	C	\$0	\$0	\$0	\$0	\$0	\$9,500,000	\$0	\$9,500,000
FY TOTAL:		\$0	\$0	\$0	\$0	\$950,000	\$9,500,000	\$0	\$10,450,000

Item#: 1-20016.00 **Parent#:** 1-20016.00 **Length** **Description:** ADDRESS PAVEMENT CONDITION OF AC PAVEMENT
Plan Year: 2018 **Parent Year:** 2018 0.87 **Type of Work:** AM-PAVEMENT (PRI)(P)

Bridge ID:

Marshall US-641 From MP 7.981 To 8.824

FUND	PHASE	2020	2021	2022	2023	2024	2025	2026	Phase Total
PM	D	\$75,000	\$0	\$0	\$0	\$0	\$0	\$0	\$75,000
PM	C	\$750,000	\$0	\$0	\$0	\$0	\$0	\$0	\$750,000
FY TOTAL:		\$825,000	\$0	\$0	\$0	\$0	\$0	\$0	\$825,000

PROPOSED BIKE TRAIL ADJACENT PARCEL MAP

This map displays the proposed bike trail network and the adjacent parcels. The parcels are highlighted in blue, and the bike trail is shown in pink. The map includes a legend, a scale bar, and a north arrow.

Legend:

- Proposed Bike Trail
- Adjacent Parcel
- Parcel Number
- Parcel Area (Acres)

Parcel Data:

Parcel Number	Parcel Area (Acres)
00-00-00-0000	0.00
00-00-00-0001	0.00
00-00-00-0002	0.00
00-00-00-0003	0.00
00-00-00-0004	0.00
00-00-00-0005	0.00
00-00-00-0006	0.00
00-00-00-0007	0.00
00-00-00-0008	0.00
00-00-00-0009	0.00
00-00-00-0010	0.00
00-00-00-0011	0.00
00-00-00-0012	0.00
00-00-00-0013	0.00
00-00-00-0014	0.00
00-00-00-0015	0.00
00-00-00-0016	0.00
00-00-00-0017	0.00
00-00-00-0018	0.00
00-00-00-0019	0.00
00-00-00-0020	0.00
00-00-00-0021	0.00
00-00-00-0022	0.00
00-00-00-0023	0.00
00-00-00-0024	0.00
00-00-00-0025	0.00
00-00-00-0026	0.00
00-00-00-0027	0.00
00-00-00-0028	0.00
00-00-00-0029	0.00
00-00-00-0030	0.00
00-00-00-0031	0.00
00-00-00-0032	0.00
00-00-00-0033	0.00
00-00-00-0034	0.00
00-00-00-0035	0.00
00-00-00-0036	0.00
00-00-00-0037	0.00
00-00-00-0038	0.00
00-00-00-0039	0.00
00-00-00-0040	0.00
00-00-00-0041	0.00
00-00-00-0042	0.00
00-00-00-0043	0.00
00-00-00-0044	0.00
00-00-00-0045	0.00
00-00-00-0046	0.00
00-00-00-0047	0.00
00-00-00-0048	0.00
00-00-00-0049	0.00
00-00-00-0050	0.00
00-00-00-0051	0.00
00-00-00-0052	0.00
00-00-00-0053	0.00
00-00-00-0054	0.00
00-00-00-0055	0.00
00-00-00-0056	0.00
00-00-00-0057	0.00
00-00-00-0058	0.00
00-00-00-0059	0.00
00-00-00-0060	0.00
00-00-00-0061	0.00
00-00-00-0062	0.00
00-00-00-0063	0.00
00-00-00-0064	0.00
00-00-00-0065	0.00
00-00-00-0066	0.00
00-00-00-0067	0.00
00-00-00-0068	0.00
00-00-00-0069	0.00
00-00-00-0070	0.00
00-00-00-0071	0.00
00-00-00-0072	0.00
00-00-00-0073	0.00
00-00-00-0074	0.00
00-00-00-0075	0.00
00-00-00-0076	0.00
00-00-00-0077	0.00
00-00-00-0078	0.00
00-00-00-0079	0.00
00-00-00-0080	0.00
00-00-00-0081	0.00
00-00-00-0082	0.00
00-00-00-0083	0.00
00-00-00-0084	0.00
00-00-00-0085	0.00
00-00-00-0086	0.00
00-00-00-0087	0.00
00-00-00-0088	0.00
00-00-00-0089	0.00
00-00-00-0090	0.00
00-00-00-0091	0.00
00-00-00-0092	0.00
00-00-00-0093	0.00
00-00-00-0094	0.00
00-00-00-0095	0.00
00-00-00-0096	0.00
00-00-00-0097	0.00
00-00-00-0098	0.00
00-00-00-0099	0.00
00-00-00-0100	0.00



Contact: Shayne Lingg
Office: 844.668.7477
Mobile: 931.237.8604

SIDEWALK TRIP HAZARD REPAIR SUMMARY:

City of Benton (Pilot Project)



Presented to: Mayor Rita Dodson
November 2015

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COMMITMENT SUMMARY

COST SAVINGS

We'll repair your sidewalks for on average 50-90% less than sidewalk replacement, which means you can do more for your city for less.

A.D.A. COMPLIANCE

Patented technology that brings sidewalks into ADA compliance.

CLEAN

Our patented containment system captures dust and debris to bring you the cleanest process available.

SAFE

Decrease liability on your pedestrian walkways.

DETAILED REPORTING

We track our jobs with honesty and integrity. Invoices show measurements, locations and cost for each hazard.

LOW IMPACT

Efficient systems with an average removal time of 20 minutes, no sidewalk closures.

FULL SERVICE CONTRACTOR

Complete GIS integration, mapping, etc.

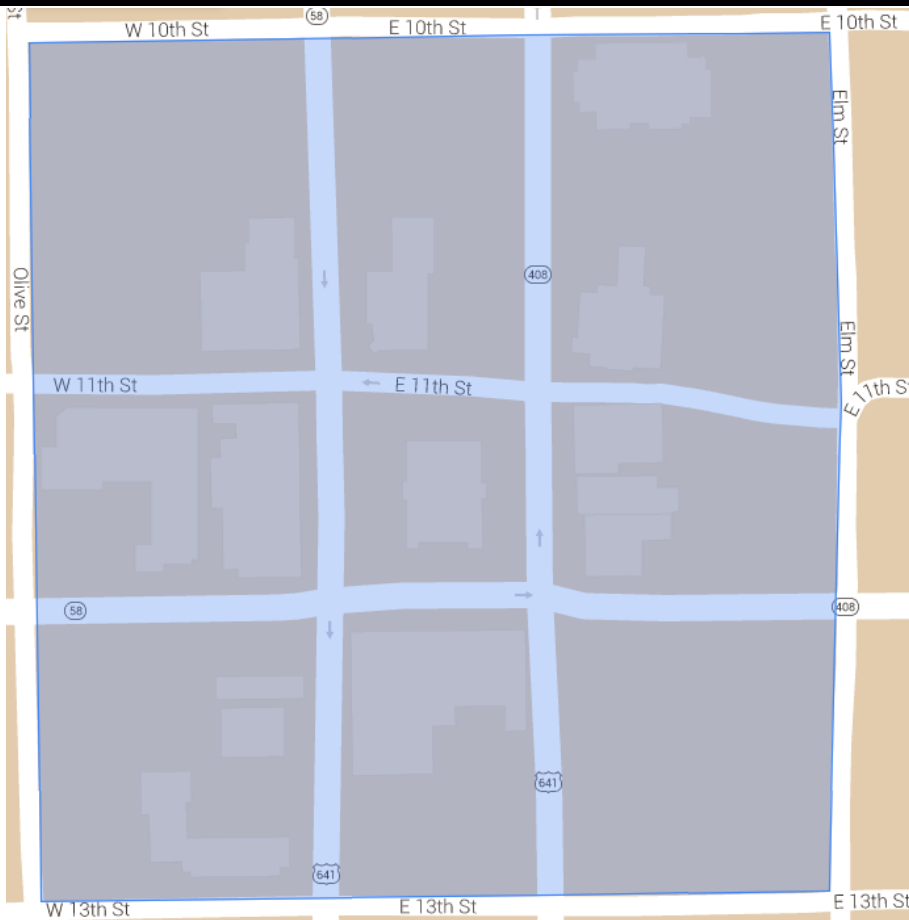


ENVIRONMENTAL IMPACT EXAMPLE: As a member of the U.S. Green Building Council (USGBC) we are proud of the fact that we reduce the impact to landfills and the environment as a result of our service.

Removing and replacing 100 panels would result in approximately 118,500 pounds or 59 tons of concrete being removed (average panel weight of 1185 pounds).

Using Precision Concrete Cutting for 100 trip hazards results in 0.3 tons of concrete removed and recycled, approximately 141 gallons of gasoline saved, and a reduction of 1.3 metric tons of Co2.

OVERALL PROJECT FOOTPRINT



This project summary depicts the repairing of uneven sidewalks for the City of Benton. Our focus was in the designated footprint illustrated by the map.

Project Goals:

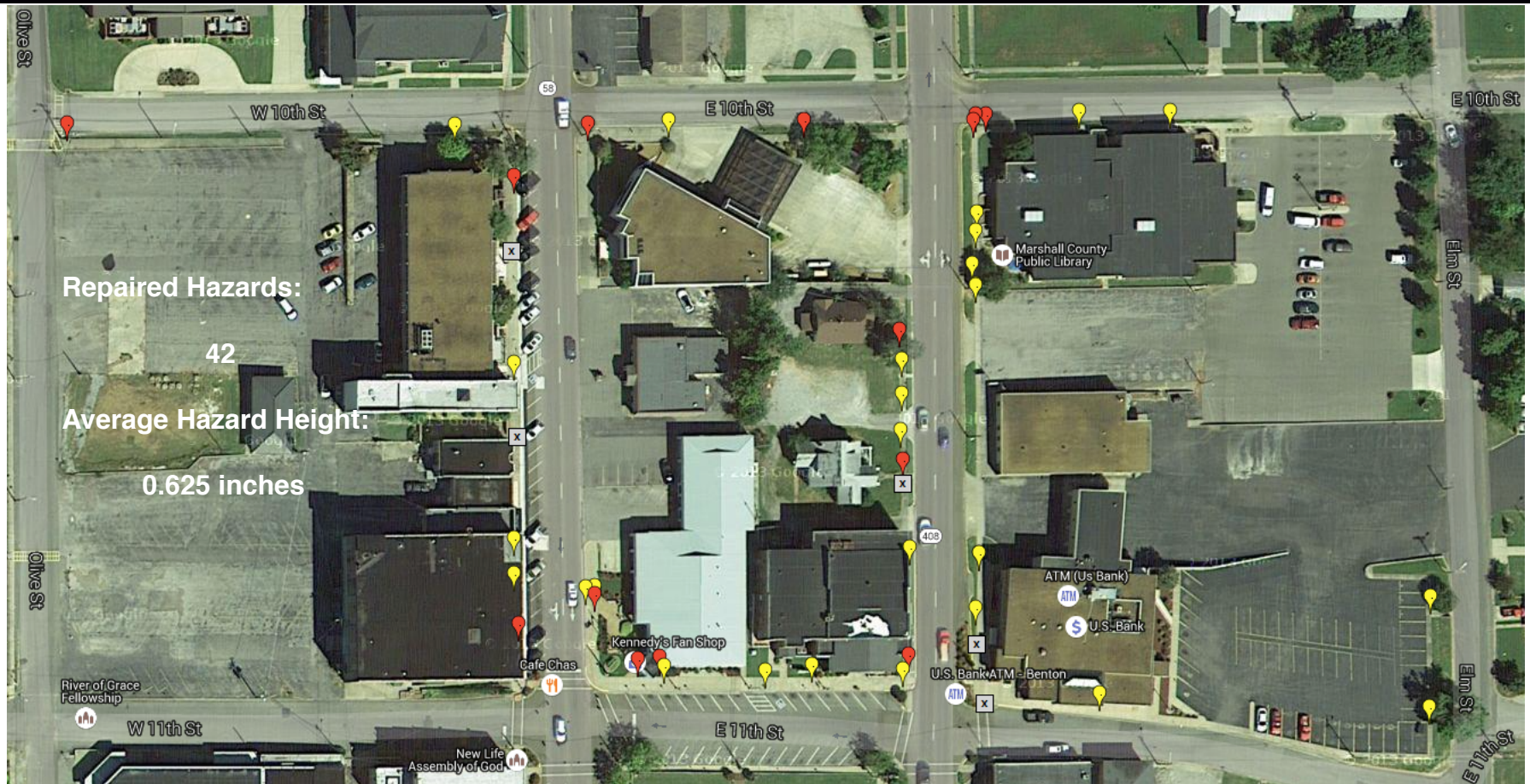
- Identified and repaired trip hazards while expanding the city's ADA sidewalk transition plan database.
- Eliminated trip hazards within high foot-traffic and high profile areas (residential/merchant)
- Extend the useable life of sidewalk assets

Link to Footprint Map: [Click Here](#)

<https://www.google.com/maps/d/edit?drivefolder=0AP8EsdvAkL5Uk9PVA&mid=z2hVislyGGlc.k1ZX9f4aS6C>

The map in this summary shows the project footprint for pilot project for trip hazard repair in this area of the city. The area has been surveyed for trip hazards for audit and trends. The accuracy of these maps is dependent on smart phone technology available, and should be relied upon as approximations.

SURVEY AREA 10TH ST TO 11TH ST (SAT VIEW)



Yellow: 1/4" to X < 5/8"
 Red: 5/8" to 2"
 X Boxes: Suggest Remove & Replace

The map in this project summary shows the resolution area for trip hazards in this area of the city. The area has been surveyed for trip hazards for audit and trends. The accuracy of these maps is dependent on smart phone technology available, and should be relied upon as approximations.

SURVEY AREA 11TH ST TO 12TH ST (SAT VIEW)



Yellow: 1/4" to X < 5/8"
 Red: 5/8" to 2"
 X Boxes: Suggest Remove & Replace

The map in this project summary shows the resolution area for trip hazards in this area of the city. The area has been surveyed for trip hazards for audit and trends. The accuracy of these maps is dependent on smart phone technology available, and should be relied upon as approximations.

SURVEY AREA 12th ST TO 13TH ST (SAT VIEW)



Yellow: 1/4" to X < 5/8"

Red: 5/8" to 2"

X Boxes: Suggest Remove & Replace

The map in this project summary shows the resolution area for trip hazards in this area of the city. The area has been surveyed for trip hazards for audit and trends. The accuracy of these maps is dependent on smart phone technology available, and should be relied upon as approximations.



REPAIR / REMOVE & REPLACE LIST

No.	Size	Size	Lineal Feet	Location	Inch Feet
1	0.000	0.000		Crrnr of 11th & Poplar	*SUGGEST REMOVE/REPLACE
2	0.500	0.250	5.00	By Crrnr of 11th & Poplar	1.88
3	0.250	0.000	3.00	Crrnr Bank Parking Lot	0.38
4	0.375	0.250	3.50	Crrnr Bank Parking Lot	1.09
5	0.375	0.375	4.00	Public Library	1.50
6	0.375	0.000	5.00	Public Library	0.94
7	1.125	0.375	4.00	Crrnr of 10th & Poplar	3.00
8	2.125	0.000	4.25	Crrnr of 10th & Poplar	4.52
9	2.000	0.000	4.25	Crrnr of 10th & Poplar	4.25
10	0.250	0.000	4.25	Library main entr	0.53
11	0.250	0.250	4.25	Library main entr	1.06
12	0.250	0.000	3.00	Library main entr	0.38
13	0.500	0.500	4.25	Library Main entr Parking Lot	2.13
14	0.375	0.250	4.25	Library main entr Parking Lot	1.33
15	0.375	0.000	3.00	US Bank	0.56
16	0.500	0.000	3.00	US Bank	0.75
17	0.375	0.000	6.00	US Bank	1.13
18	0.000	0.000		US Bank	*SUGGEST REMOVE/REPLACE
19	0.500	0.000	8.00	W crrnr of 11th & Poplar	2.00
20	0.750	0.000	10.00	W crrnr of 11th & Poplar	3.75
21	0.375	0.000	7.00	New Life Worship Center	1.31
22	0.375	0.000	5.00	New Life Worship Center	0.94
23	0.250	0.000	3.00	City Hall main entr	0.38
24	0.625	0.000	11.00	City Hall main entr	3.44
25	0.625	0.000	11.00	City Hall main entr	3.44
26	1.500	0.000	10.00	City Hall main entr	7.50
27	0.500	0.000	4.50	City Hall main entr	1.13

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REPAIR / REMOVE & REPLACE LIST

28	0.375	0.000	4.00	City Hall main entr	0.75
29	0.625	0.000	9.00	Cnr of 10th & Main	2.81
30	0.500	0.500	10.00	Community Financial	5.00
31	0.875	0.750	5.00	Community Financial	4.06
32	0.750	0.000	5.00	1004 Poplar	1.88
33	0.500	0.000	5.00	1004 Poplar	1.25
34	0.375	0.000	5.00	1004 Poplar	0.94
35	0.375	0.000	3.00	1008 Poplar	0.56
36	1.000	0.000	5.00	1008 Poplar	2.50
37	0.000	0.000		1008 Poplar	*SUGGEST REMOVE/REPLACE
38	0.375	0.000	2.00	Worship Center	0.38
39	0.625	0.000	7.50	Cnr of 10th & Olive	2.34
40	0.250	0.000	3.00	Curves	0.38
41	0.750	0.000	8.00	1012 Main	3.00
42	0.000	0.000		1012 Main	*SUGGEST REMOVE/REPLACE
43	0.500	0.000	5.00	1016 Main	1.25
44	0.000	0.000		1018 Main	*SUGGEST REMOVE/REPLACE
45	0.500	0.250	8.00	Antique Shop	3.00
46	0.500	0.250	8.00	Antique Shop	3.00
47	0.750	0.250	8.00	Antique Shop	4.00
48	0.250	0.000	4.00	1112 Main	0.50
49	0.000	0.000		1116 Main	*SUGGEST REMOVE/REPLACE
50	0.875	0.000	6.50	E of Peel & Holland	2.84
51	0.000	0.000		E of Peel & Holland	*SUGGEST REMOVE/REPLACE
52	0.625	0.250	6.50	Peel & Holland	2.84
53	0.500	0.000	8.00	Peel & Holland	2.00
54	0.625	0.000	6.50	Peel & Holland Parking Lot	2.03
55	1.000	0.000	10.00	Cnr of 11th & Olive	5.00

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REPAIR / REMOVE & REPLACE LIST

56	0.750	0.000	5.00	Cnr of 11th & Olive	1.88
57	0.250	0.000	5.00	By Cnr of 11th & Olive	0.63
58	0.000	0.000		By Cnr of 11th & Olive (mult pnls)	*SUGGEST REMOVE/REPLACE
59	1.000	0.000	8.75	By Cnr of 11th & Olive	4.38
60	1.125	0.000	36.00	Near rear entr of church	20.25
61	0.500	0.000	3.75	103 11th	0.94
62	0.750	0.000	9.00	Cnr of 11th & Poplar	3.38
63	0.375	0.250	4.50	By Cnr of 11th & Poplar	1.41
64	0.375	0.000	4.50	By Cabinet For Families	0.84
65	0.625	0.625	2.00	By Cabinet For Families	1.25
66	0.500	0.500	4.50	205 12th	2.25
67	0.500	0.500	4.50	Cnr of 12th and Poplar	2.25
68	0.375	0.000	4.50	Cnr of 12th and Poplar	0.84
69	0.500	0.500	9.00	Cnr of 12th and Poplar	4.50
70	0.750	0.375	8.75	111 Poplar	4.92
71	0.500	0.500	10.00	Cnr of 12th & Main	5.00
72	0.500	0.000	12.00	Cnr of 12th & Main	3.00
73	0.625	0.000	4.00	By Cnr of 12th & Main	1.25
74	0.500	0.000	4.00	By Cnr of 12th & Main	1.00
75	0.375	0.250	4.00	By Cnr of 12th & Main	1.25
76	0.500	0.000	4.00	By Cnr of 12th & Main	1.00
77	0.875	0.000	4.00	Parking Lot entr	1.75
78	0.000	0.000		Parking Lot entr	*SUGGEST REMOVE/REPLACE
79	0.750	0.000	3.50	Parking Lot entr	1.31
80	0.375	0.250	4.00	Parking Lot entr	1.25
81	0.375	0.000	4.00	Cnr of 12th & Olive	0.75
82	0.500	0.000	6.00	Cnr of 13th & Main	1.50
83	0.625	0.000	8.00	The Summit	2.50

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REPAIR / REMOVE & REPLACE LIST

84	1.500	1.000	12.00	The Summit	15.00
85	0.375	0.000	3.00	1202 Main	0.56
86	1.500	0.000	10.00	1202 Main	7.50
87	0.375	0.375	4.50	1202 Main	1.69
88	0.500	0.250	16.00	1202 Main	6.00
89	0.000	0.000		1202 Main	*SUGGEST REMOVE/REPLACE
90	0.625	0.000	4.50	Crrr of Main and 12th	1.41
91	0.500	0.000	12.00	Crrr of Main and 12th	3.00
92	0.375	0.000	6.00	104 12th	1.13
93	0.375	0.000	4.00	110 12th	0.75
94	0.375	0.000	5.00	118 12th	0.94
95	0.875	0.000	12.00	Crrr of 12th & Poplar	5.25
96	0.375	0.000	5.00	1200 Poplar	0.94
97	0.000	0.000		1200 Poplar	*SUGGEST REMOVE/REPLACE
98	0.500	0.000	6.00	Parking Lot	1.50
99	0.500	0.000	5.00	Parking Lot	1.25
100	0.000	0.000		Crrr of Poplar and 13th	*SUGGEST REMOVE/REPLACE
101	0.500	0.000	4.00	13th St Parking Lot	1.00
102	0.000	0.000		13th St Parking Lot	*SUGGEST REMOVE/REPLACE
103	0.500	0.000	4.00	13th St Parking Lot	1.00
104	0.375	0.000	6.00	Main St across from Baptist Church	1.13
105	1.000	0.000	4.00	Main St across from baptist church	2.00
106	0.625	0.000	4.00	Main St across from baptist church	1.25
107	0.000	0.000		Main St across from The Summit	*SUGGEST REMOVE/REPLACE
108	0.625	0.000	5.00	12th across from Funeral Home	1.56
109	0.375	0.250	8.00	Storys	2.50
110	0.375	0.000	8.00	House of Essentials	1.50
111	0.500	0.000	2.00	Hidden Treasures	0.50
112	0.500	0.000	8.00	Crrr of Poplar and 13th	2.00

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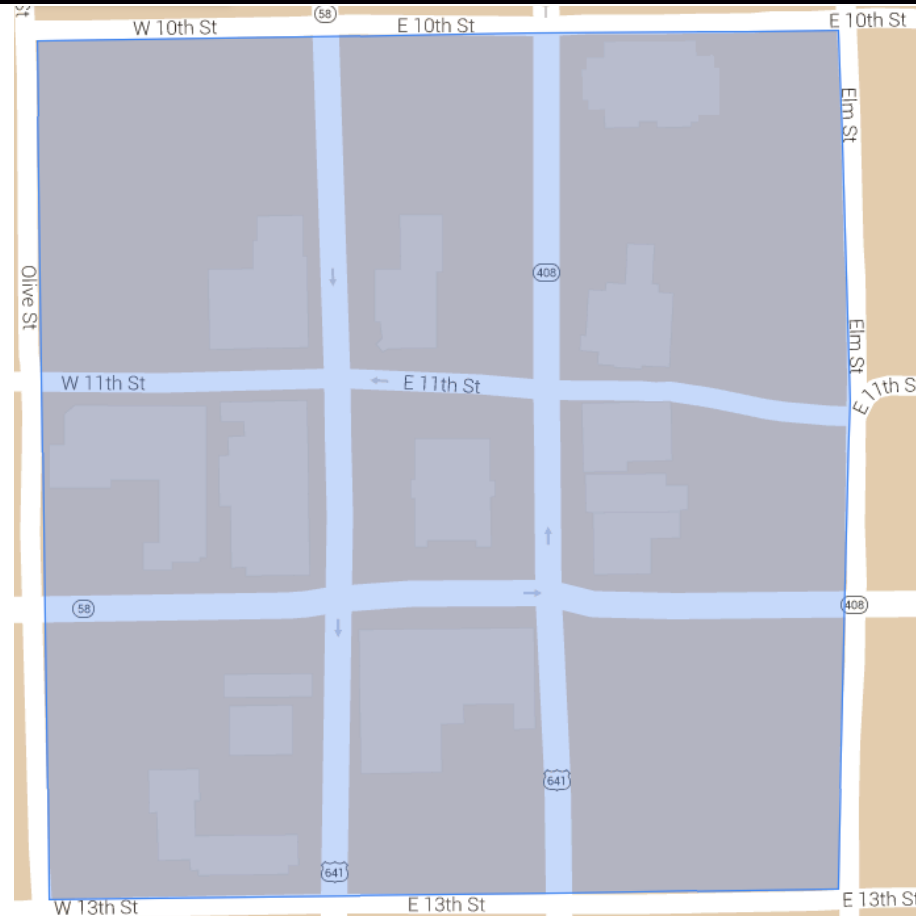


PROJECT SUMMARY DETAILS

Option Elected

- 1:12 Ratio Slope
- Complete Clean Up & Recycle
- Dust Abatement System
- Detailed Audit-able Invoice
- All Hazards **1/4"** to **2"** Repairable by PCC methods
- **\$15** / Linear Foot
- 1 price per hazard no matter severity
- Project Completed Time: 1 day
- **ALL** pins

\$ 9,176.25



Project Statistics:

- Total Hazards Identified: 112
- Total Repairs Made Through PCC Methods: 98
- Total Linear Feet: 611.75'
- Average Max Hazard Height: 5/8 of an inch (rounded off)
- Total Project Time: 1 day

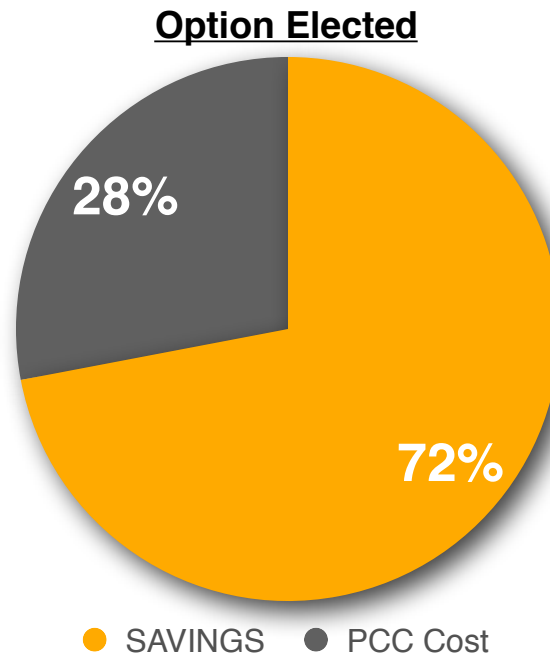
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COST SAVINGS ANALYSIS

Based off **\$6.50** cost per square foot to remove and replace a sidewalk panel, we estimate the following:

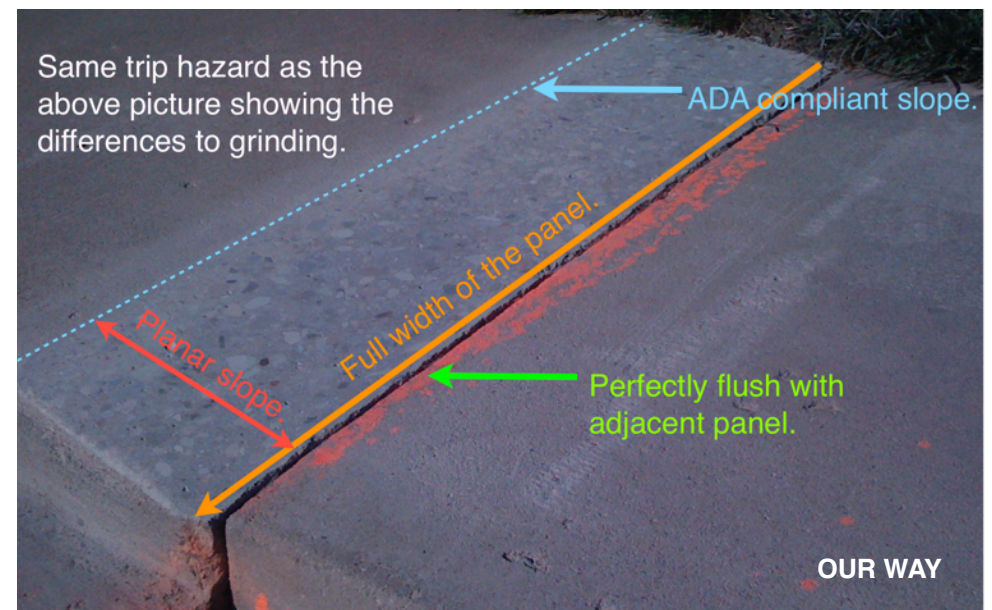
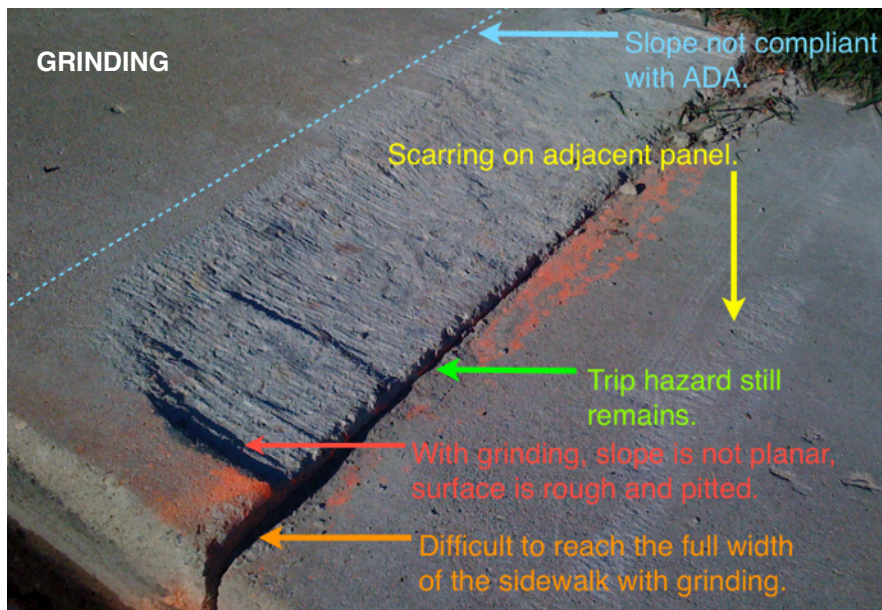
Total cost using Precision Concrete Cutting with **Option Elected** is **\$9,176.25**, an estimated savings of **\$23,814.62**.



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THE PRECISION CONCRETE CUTTING DIFFERENCE

Our patented technology and innovative sidewalk repairs process leaves you with a beautiful, smooth surface that is ADA compliant - a result you can't get with grinding. Plus, our method saves you money!



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Contact: Shayne Lingg
Office: 844.668.7477
Mobile: 931.237.8604

SIDEWALK TRIP HAZARD REPAIR SUMMARY:

City of Benton (Phase II)



Presented to: Mayor Rita Dotson
August 2016

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COMMITMENT SUMMARY

COST SAVINGS

We'll repair your sidewalks for 50-90% less than sidewalk replacement, meaning you can do more for your city for less.

A.D.A. COMPLIANCE

Patented technology that brings sidewalks into ADA compliance.

CLEAN

Our patented containment system captures dust and debris to bring you the cleanest process available.

SAFE

Decrease liability on your pedestrian walkways.

DETAILED REPORTING

We track our jobs with honesty and integrity. Invoices show measurements, locations and cost for each hazard.

LOW IMPACT

Efficient systems with an average removal time of 20 minutes, no sidewalk closures.

FULL SERVICE CONTRACTOR

Complete GIS integration, mapping, etc.

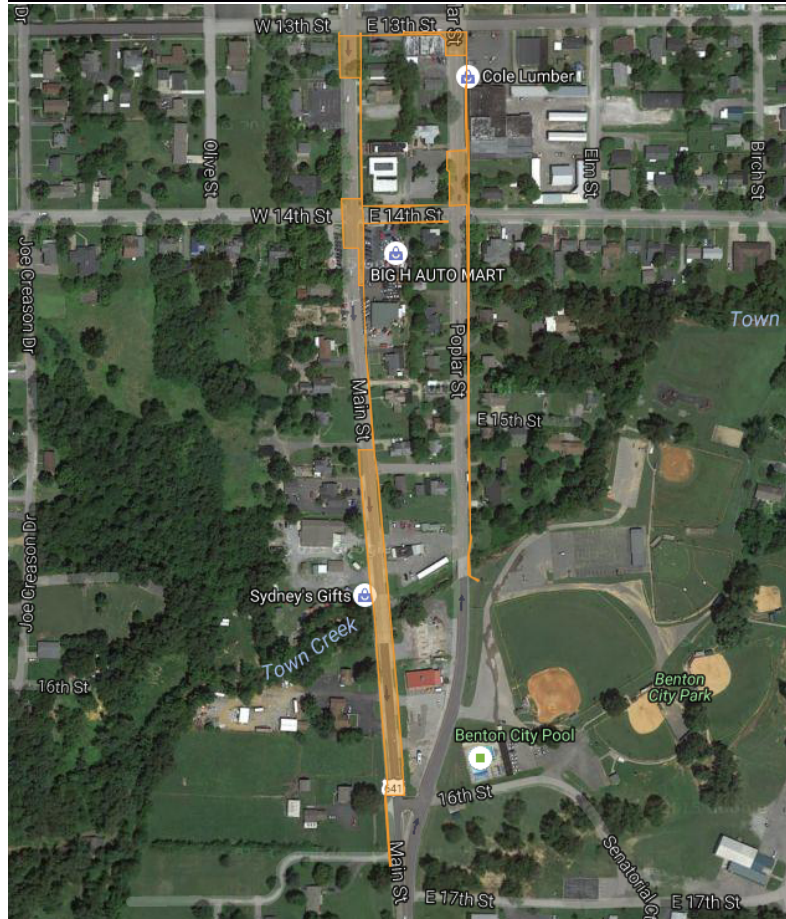


ENVIRONMENTAL IMPACT EXAMPLE: As a member of the U.S. Green Building Council (USGBC) we are proud of the fact that we reduce the impact to landfills and the environment as a result of our service.

Removing and replacing 100 panels would result in approximately 118,500 pounds or 59 tons of concrete being removed (average panel weight of 1185 pounds).

Using Precision Concrete Cutting for 100 trip hazards results in 0.3 tons of concrete removed and recycled, approximately 141 gallons of gasoline saved, and a reduction of 1.3 metric tons of Co2.

OVERALL PHASE II PROJECT FOOTPRINT



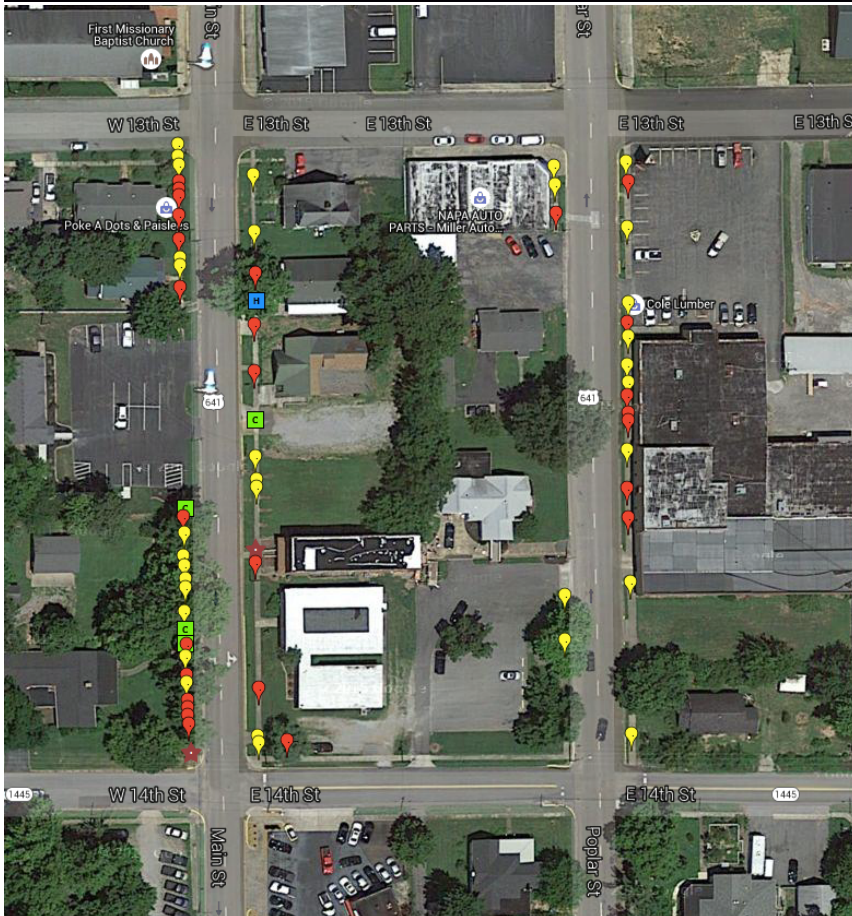
This summary depicts the repairing of uneven sidewalks for this part of the City of Benton. The project footprint area is highlighted in **ORANGE**.

ACHIEVED GOALS & STATISTICS

- Extended the usable life of the city's concrete assets & walkways.
- Constructed a complete sidewalk inventory of hazards within designated footprint.
- Eliminated trip hazards within high foot-traffic and right-of-way areas.
- Identified and classified all panels in need of demolish and replace within designated footprint.
- 121 hazards total identified (112 hazards repaired through PCC methods).
- 491.75 linear feet of trip hazards identified and repaired through PCC methods.
- Overall Average Max Hazard Height: 0.584"

The map in this summary shows the project footprint for the Phase II project for trip hazard repair in this area of the city. The area has been surveyed for trip hazards for audit and trends. The accuracy of these maps is dependent on smart phone technology available, and should be relied upon as approximations.

MAIN ST AND POPLAR ST (FROM E 13TH ST TO E 15TH ST)



-Current and subsequent
page statistics combined-




SOUTH SECTION STATISTICS

Total Area Haz Surveyed: **118**

Total Repaired Haz: **109**

Avg Max Haz Height: **0.584"**



C : Cracking	M : Missing	H : Heaving	 : 1/4" to 1/2"
S : Spalling	I : Integral Curb	 : Multiple	 : 5/8" to 2"
U : Utility	T : Tree Damage		

The map in this project summary shows the resolution area for trip hazards in this area of the city. The area has been surveyed for trip hazards for audit and trends. The accuracy of these maps is dependent on smart phone technology available, and should be relied upon as approximations.

MAIN ST AND POPLAR ST (FROM E 15TH ST TO E 16TH ST)

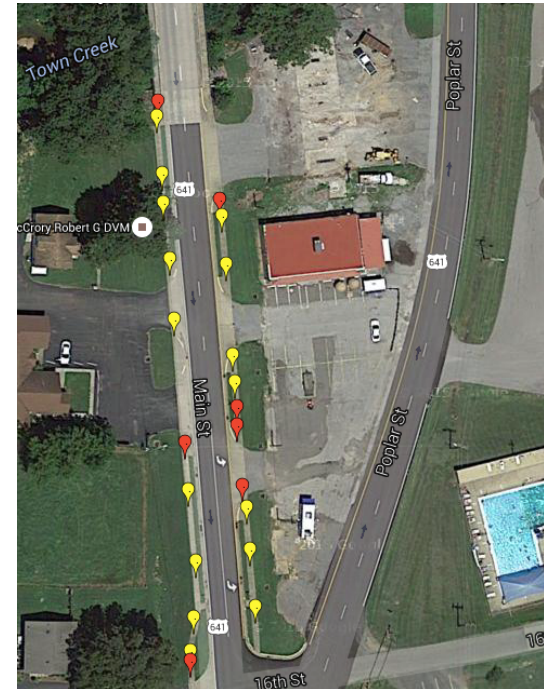


SOUTH SECTION STATISTICS




Total Area Haz Surveyed: **118**

Total Repaired Haz: **109**

Avg Max Haz Height: **0.584"**



-Current and **previous** page statistics combined-

C : Cracking	M : Missing	H : Heaving	 : 1/4" to 1/2"
S : Spalling	I : Integral Curb	 : Multiple	 : 5/8" to 2"
U : Utility	T : Tree Damage		

The map in this project summary shows the resolution area for trip hazards in this area of the city. The area has been surveyed for trip hazards for audit and trends. The accuracy of these maps is dependent on smart phone technology available, and should be relied upon as approximations.



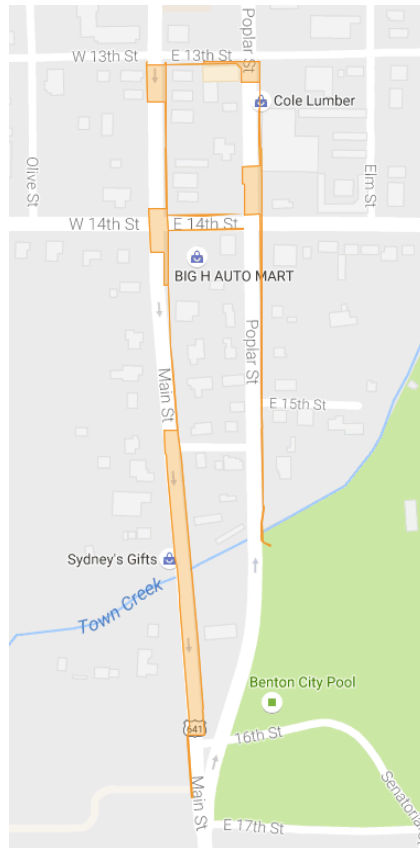
PROPOSAL SUMMARY FOR PHASE II PROJECT

Based off \$6.50 cost per square foot to remove and replace a sidewalk panel, we estimate the following

Option Elected

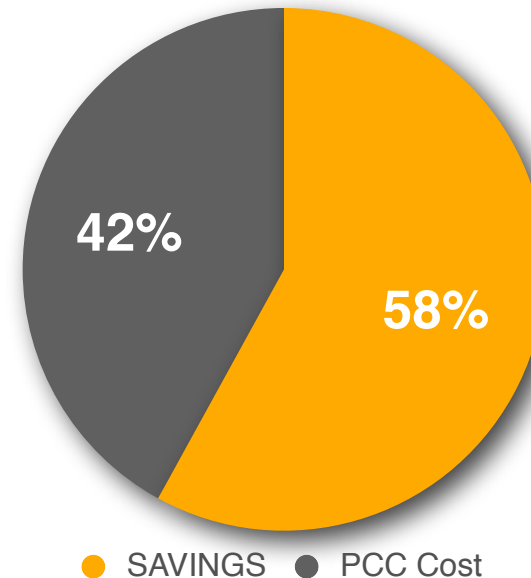
- 1:12 Ratio Slope
- Complete Clean Up & Recycle
- Dust Abatement System
- Detailed Audit-able Invoice
- All Hazards 1/4" to 2" Repairable by PCC Methods
- \$15 / Linear Foot
- 1 Price per Hazard Regardless Severity
- Total Time: 2 Days
- ALL Teardrop Pins

\$7,376.25



- Total cost using PCC with Option Elected was **\$7,376.25**, an estimated savings of **\$10,336.25**.

Option Elected



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REPAIR / REMOVE AND REPLACE LIST

No.	Size	Size	Lineal Feet	Location	Observation / Inch Feet
1	0.250	0.250	4.00	1300 Main St	1.00
2	0.500	0.000	2.75	1300 Main St	0.69
3	0.500	0.500	4.00	1300 Main St	2.00
4	0.625	0.000	3.25	1300 Main St	1.02
5	0.500	0.375	4.00	1301 Main St	1.75
6	0.875	0.000	3.25	1300 Main St	1.42
7	1.000	0.000	3.25	1300 Main St	1.63
8	0.625	0.375	4.00	1300 Main St	2.00
9	0.875	0.500	4.00	1302 Main St	2.75
10	0.250	0.000	3.75	1305 Main St	0.47
11	0.250	0.250	4.00	1302 Main St	1.00
12	0.250	0.000	4.00	1302 Main St	0.50
13	2.000	0.250	4.00	1305 Main St	4.50
14	0.000	0.000		1305 Main St	Heaving
15	0.875	0.375	4.00	1302 Main St	2.50
16	0.625	0.250	4.00	1309 Main St	1.75
17	0.625	0.000	4.00	1309 Main St	1.25
18	0.000	0.000		1309 Main St	Cracking
19	0.250	0.125	4.00	1309 Main St	0.75
20	0.375	0.250	4.00	1309 Main St	1.25
21	0.000	0.000		1312 Main St	Cracking
22	0.500	0.000	3.00	1315 Main St	0.75
23	0.750	0.375	4.00	1312 Main St	2.25
24	0.500	0.250	4.00	1312 Main St	1.50
25	0.000	0.000		1315 Main St	Spalling, Missing

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REPAIR / REMOVE AND REPLACE LIST

No.	Size	Size	Lineal Feet	Location	Observation / Inch Feet
26	0.375	0.000	4.00	1312 Main St	0.75
27	0.375	0.250	4.00	1312 Main St	1.25
28	0.625	0.250	4.00	1315 Main St	1.75
29	0.250	0.250	4.00	1312 Main St	1.00
30	0.375	0.000	4.00	1312 Main St	0.75
31	0.250	0.250	4.00	1312 Main St	1.00
32	0.000	0.000		1312 Main St	Cracking
33	0.750	0.250	4.00	1312 Main St	2.00
34	0.000	0.000		1312 Main St	Cracking
35	0.500	0.000	4.00	1312 Main St	1.00
36	0.750	0.000	4.00	1312 Main St	1.50
37	0.250	0.000	2.75	1312 Main St	0.34
38	0.625	0.000	4.00	1312 Main St	1.25
39	0.750	0.250	4.00	1317 Main St	2.00
40	0.625	0.000	4.00	1312 Main St	1.25
41	1.125	0.500	4.00	1312 Main St	3.25
42	0.625	0.000	2.75	1312 Main St	0.86
43	0.375	0.250	4.00	1317 Main St	1.25
44	0.500	0.375	4.00	1317 Main St	1.75
45	0.000	0.000		1312 Main St	Heaving, Cracking, Spalling, Missing
46	0.625	0.375	4.00	1317 Main St	2.00
47	0.250	0.250	5.00	1321 Poplar St	1.25
48	0.500	0.500	4.25	1310 Poplar St	2.13
49	0.500	0.250	4.25	1310 Poplar St	1.59
50	0.375	0.000	6.25	1301 Poplar St	1.17

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REPAIR / REMOVE AND REPLACE LIST

No.	Size	Size	Lineal Feet	Location	Observation / Inch Feet
51	0.625	0.000	6.25	1301 Poplar St	1.95
52	1.125	0.000	6.25	1301 Poplar St	3.52
53	0.250	0.000	3.50	1301 Poplar St	0.44
54	0.875	0.625	6.25	1301 Poplar St	4.69
55	1.000	1.000	6.25	1301 Poplar St	6.25
56	0.750	0.000	6.25	1301 Poplar St	2.34
57	0.500	0.000	2.50	1301 Poplar St	0.63
58	0.500	0.000	3.00	1301 Poplar St	0.75
59	0.375	0.250	6.25	1301 Poplar St	1.95
60	0.750	0.375	4.50	1301 Poplar St	2.53
61	0.375	0.250	4.50	1301 Poplar St	1.41
62	0.250	0.000	4.00	1301 Poplar St	0.50
63	0.750	0.500	4.00	1302 Poplar St	2.50
64	0.375	0.375	4.00	1302 Poplar St	1.50
65	1.000	0.000	5.00	1301 Poplar St	2.50
66	0.250	0.250	4.00	1302 Poplar St	1.00
67	0.375	0.000	5.00	1301 Poplar St	0.94
68	0.625	0.000	5.00	1514 Main St	1.56
69	0.375	0.250	5.00	1514 Main St	1.56
70	0.375	0.250	5.00	1514 Main St	1.56
71	0.250	0.000	3.00	1514 Main St	0.38
72	0.375	0.000	5.00	1514 Main St	0.94
73	0.375	0.000	5.00	1513 Main St	0.94
74	0.500	0.000	4.75	1513 Main St	1.19
75	0.625	0.000	8.25	1513 Main St	2.58

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REPAIR / REMOVE AND REPLACE LIST

No.	Size	Size	Lineal Feet	Location	Observation / Inch Feet
76	0.375	0.375	5.00	1514 Main St	1.88
77	1.000	0.500	5.00	1514 Main St	3.75
78	0.625	0.000	8.50	1513 Main St	2.66
79	0.750	0.625	5.00	1513 Main St	3.44
80	0.250	0.000	5.00	1513 Main St	0.63
81	0.375	0.000	5.00	1513 Main St	0.94
82	0.250	0.000	6.00	1512 Main St	0.75
83	0.500	0.500	5.00	1513 Main St	2.50
84	0.500	0.375	5.00	1512 Main St	2.19
85	0.500	0.000	5.00	1513 Main St	1.25
86	0.750	0.250	5.00	1513 Main St	2.50
87	0.500	0.250	5.00	1512 Main St	1.88
88	0.375	0.000	3.25	1512 Main St	0.61
89	0.375	0.000	3.50	1508 Main St	0.66
90	1.000	0.000	4.50	1508 Main St	2.25
91	1.250	1.000	4.50	1505 Main St	5.06
92	0.500	0.000	7.00	1508 Main St	1.75
93	0.750	0.000	9.25	1501 Main St	3.47
94	0.500	0.000	6.00	1501 Main St	1.50
95	1.250	0.250	5.00	1501 Main St	3.75
96	1.000	0.750	5.00	1502 Main St	4.38
97	0.375	0.000	5.00	1401 Poplar St	0.94
98	0.750	0.000	5.00	1401 Poplar St	1.88
99	0.500	0.000	5.00	1401 Poplar St	1.25
100	0.250	0.250	5.00	1407 Poplar St	1.25

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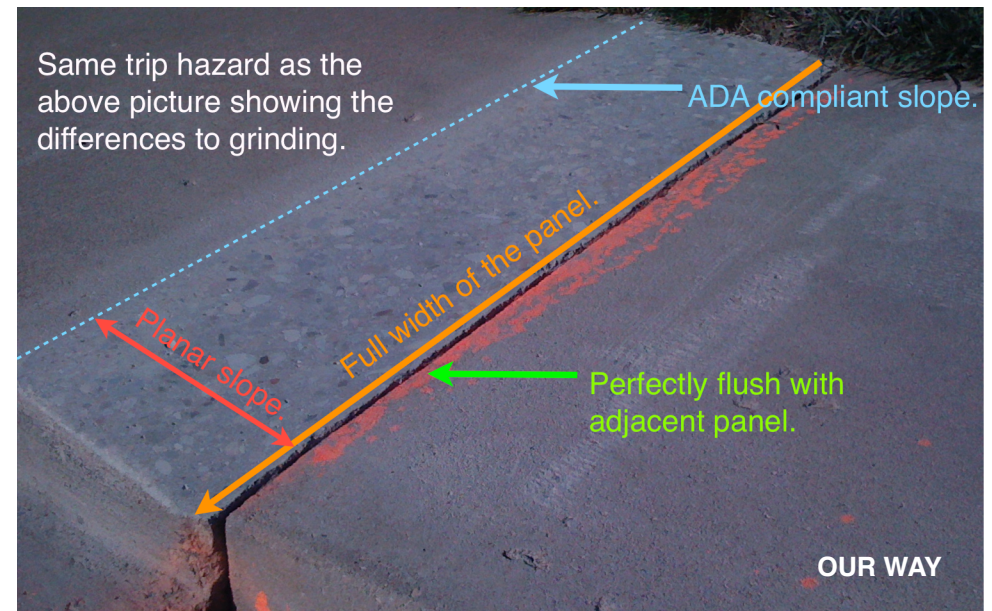
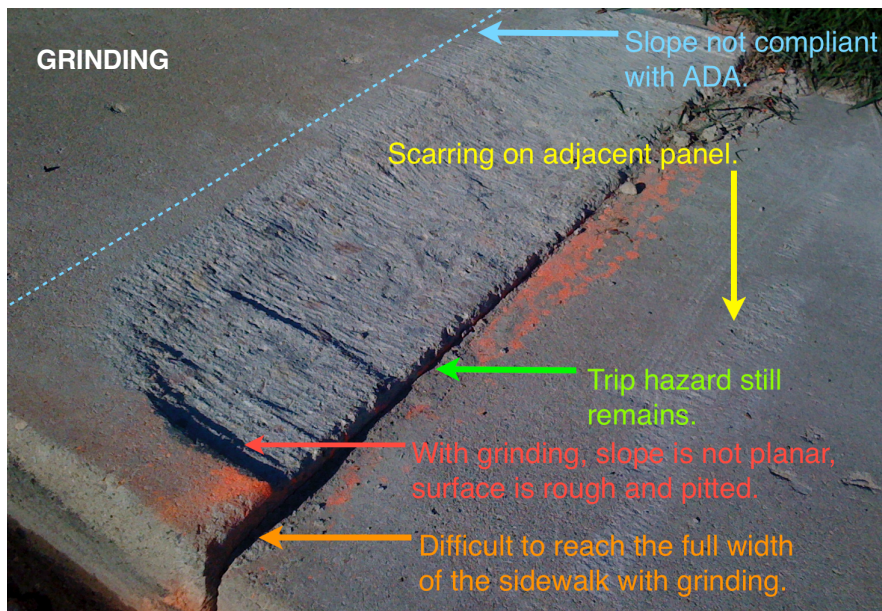
REPAIR / REMOVE AND REPLACE LIST

No.	Size	Size	Lineal Feet	Location	Observation / Inch Feet
101	0.500	0.000	2.00	1407 Poplar St	0.50
102	1.000	0.000	5.00	1411 Poplar St	2.50
103	0.750	0.250	5.00	1411 Poplar St	2.50
104	0.000	0.000		1413 Poplar St	Cracking
105	0.750	0.000	4.25	1413 Poplar St	1.59
106	0.000	0.000		1413 Poplar St	Cracking
107	1.000	0.000	6.00	1413 Poplar St	3.00
108	0.750	0.625	4.25	1413 Poplar St	2.92
109	0.375	0.000	4.25	1413 Poplar St	0.80
110	0.625	0.000	4.25	1415 Poplar St	1.33
111	1.000	0.000	4.25	1415 Poplar St	2.13
112	0.375	0.250	4.25	1415 Poplar St	1.33
113	0.375	0.250	4.25	1415 Poplar St	1.33
114	0.250	0.250	4.25	1415 Poplar St	1.06
115	0.250	0.000	4.25	1415 Poplar St	0.53
116	0.500	0.000	3.75	1421 Poplar St	0.94
117	0.750	0.000	4.00	1421 Poplar St	1.50
118	1.125	1.000	4.25	1421 Poplar St	4.52

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Contact: Shayne Lingg
Office: 844.668.7477 ext. 3
Mobile: 931.237.8604

SIDEWALK TRIP HAZARD REPAIR SUMMARY (PHASE III):

City of
Benton, KY



Presented to: Rita Dotson, Mayor
July 2017

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COMMITMENT SUMMARY

COST SAVINGS

We'll repair your sidewalks for 50-90% less than sidewalk replacement, meaning you can do more for your city for less.

A.D.A. COMPLIANCE

Patented technology that helps bring sidewalks into ADA compliance.

CLEAN

Our patented containment system captures dust and debris to bring you the cleanest process available.

SAFE

Decrease liability on your pedestrian walkways.

DETAILED REPORTING

We track our jobs with honesty and integrity. Invoices show measurements, locations and cost for each hazard.

LOW IMPACT

Efficient systems with an average removal time of 20 minutes, no sidewalk closures.

FULL SERVICE CONTRACTOR

Complete GIS integration, mapping, etc.

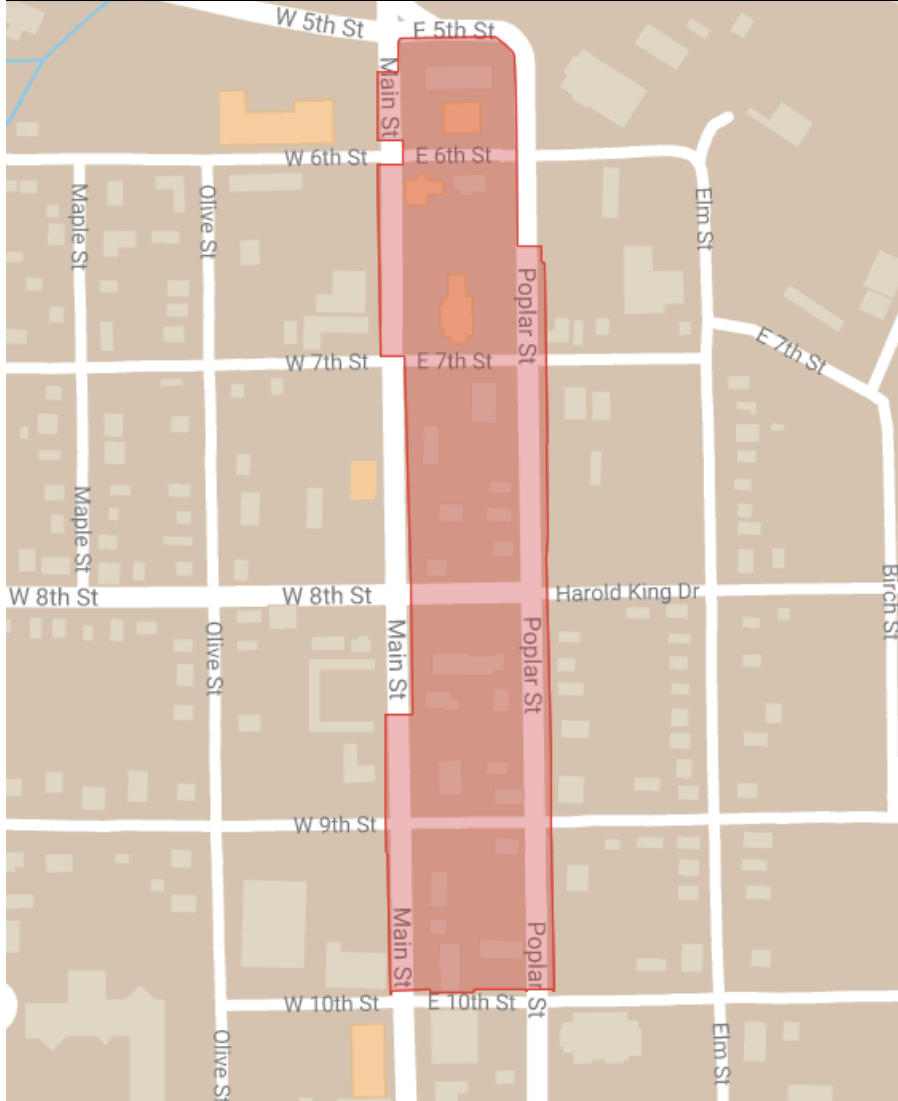


ENVIRONMENTAL IMPACT EXAMPLE: As a member of the U.S. Green Building Council (USGBC) we are proud of the fact that we reduce the impact to landfills and the environment as a result of our service.

Removing and replacing 100 panels would result in approximately 118,500 pounds or 59 tons of concrete being removed (average panel weight of 1185 pounds).

Using Precision Concrete Cutting for 100 trip hazards results in 0.3 tons of concrete removed and recycled, approximately 141 gallons of gasoline saved, and a reduction of 1.3 metric tons of Co2.

COMPLETED PHASE III PROJECT FOOTPRINT



This summary depicts the repairing of uneven sidewalks through PCC methods, for this part of the City of Benton. The footprint area is highlighted in RED.

ACHIEVED PROJECT GOALS

- Extended the usable life of the City of Benton's concrete assets & walkways.
- Constructed a complete sidewalk inventory of hazards within designated footprint.
- Eliminated trip hazards within high foot-traffic areas and sidewalks.
- Identified and classified all panels in need of demolish and replace within designated footprint.

PROJECT STATISTICS

- 108 hazards total identified (97 hazards identified that were repaired through PCC methods).
- 392.00 linear feet of trip hazards identified that were repaired through PCC methods.
- Overall footprint average max hazard height: 0.664 inches.
- Total concrete removed amounts to 0.29 tons, which saved an estimated 57.23 tons of concrete from needless demolition.

The map in this summary shows the project footprint for trip hazard repair in this part of the City of Benton. The area has been surveyed for trip hazards for audit and trends. The accuracy of these maps is dependent on smart phone technology available, and should be relied upon as approximations.



MAIN ST AND POPLAR ST (BETWEEN W/E 5TH ST AND W 8TH ST / HAROLD KING DR)



AREA HAZARD STATISTICS

Area Haz Surveyed:

23

Area Repaired Haz:

20

Avg Max Haz Height:

0.538"

- | | | | |
|---------------------|------------------------|----------------------|---------------------|
| C : Cracking | M : Missing | O : Overgrown | 1/4" to 1/2" |
| S : Spalling | H : Heaving | ★ : Multiple | 5/8" to 2" |
| U : Utility | T : Tree Damage | | |

The map in this project summary shows the resolution area for trip hazards in this part of city. The area has been surveyed for trip hazards for audit and trends. The accuracy of these maps is dependent on smart phone technology available, and should be relied upon as approximations.



MAIN ST AND POPLAR ST (BETWEEN W 8TH ST / HAROLD KING DR AND W/E 10TH ST)



AREA HAZARD STATISTICS

Area Haz Surveyed:

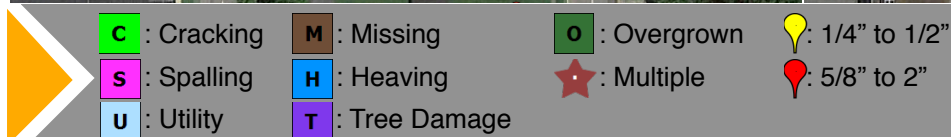
85

Area Repaired Haz:

77

Avg Max Haz Height:

0.696"



The map in this project summary shows the resolution area for trip hazards in this part of city. The area has been surveyed for trip hazards for audit and trends. The accuracy of these maps is dependent on smart phone technology available, and should be relied upon as approximations.



REPAIR / SUGGEST DEMOLISH AND REPLACE LIST

No.	Size	Size	Linear Feet	Location	Observation / Inch Feet
1	0.625	0.000	4.25	608 Poplar St	1.33
2	0.000	0.000		608 Poplar St	Cracking
3	0.500	0.250	4.25	608 Poplar St	1.59
4	0.250	0.250	4.25	608 Poplar St	1.06
5	0.625	0.250	4.25	608 Poplar St	1.86
6	1.000	0.375	4.00	507 Poplar St	2.75
7	0.500	0.375	4.25	507 Poplar St	1.86
8	1.125	0.000	5.25	507 Poplar St	2.95
9	0.250	0.000	4.00	507 Poplar St	0.50
10	0.250	0.000	4.25	507 Main St	0.53
11	1.125	0.000	8.00	507 Main St	4.50
12	0.625	0.000	4.00	603 Main St	1.25
13	0.375	0.000	4.00	714 Poplar St	0.75
14	0.000	0.000		710 Poplar St	Cracking
15	0.250	0.250	4.00	708 Poplar St	1.00
16	0.750	0.625	4.00	708 Poplar St	2.75
17	0.500	0.000	5.00	701 Poplar St	1.25
18	0.250	0.000	5.00	701 Poplar St	0.63
19	0.375	0.000	4.00	705 Main St	0.75
20	0.625	0.000	4.00	705 Main St	1.25
21	0.250	0.000	4.00	709 Main St	0.50
22	0.000	0.000		709 Main St	Cracking
23	0.500	0.500	4.00	713 Main St	2.00
24	0.625	0.625	4.00	Cnr of Poplar St & E 10th St	Cracking heaving
25	1.000	0.000	4.00	Cnr of Poplar St & E 10th St	Cracking heaving

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REPAIR / SUGGEST DEMOLISH AND REPLACE LIST

No.	Size	Size	Linear Feet	Location	Observation / Inch Feet
26	1.000	0.625	4.00	Cnr of Poplar St & E 10th St	Cracking heaving
27	0.750	0.250	4.00	Cnr of Poplar St & E 10th St	2.00
28	0.500	0.250	4.00	908 Poplar St	1.50
29	1.500	0.000	4.00	908 Poplar St	3.00
30	1.000	0.000	4.00	908 Poplar St	2.00
31	0.250	0.000	2.50	909 Poplar St	0.31
32	0.250	0.000	3.75	908 Poplar St	0.47
33	0.250	0.000	4.00	909 Poplar St	0.50
34	2.000	1.000	4.00	908 Poplar St	6.00
35	0.375	0.000	4.00	905 Poplar St	0.75
36	0.375	0.000	4.00	905 Poplar St	0.75
37	0.500	0.125	3.00	908 Poplar St	0.94
38	0.625	0.000	4.00	908 Poplar St	1.25
39	0.250	0.250	4.00	905 Poplar St	1.00
40	0.375	0.375	4.00	903 Poplar St	1.50
41	0.250	0.250	4.00	903 Poplar St	1.00
42	0.250	0.000	3.75	903 Poplar St	0.47
43	0.750	0.000	4.00	900 Poplar St	1.50
44	1.000	0.000	3.75	903 Poplar St	1.88
45	0.375	0.000	4.00	903 Poplar St	0.75
46	1.125	0.000	4.00	900 Poplar St	2.25
47	0.750	0.000	2.50	900 Poplar St	0.94
48	0.625	0.000	3.00	900 Poplar St	0.94
49	0.375	0.000	2.00	900 Poplar St	0.38
50	0.375	0.000	2.00	900 Poplar St	0.38

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REPAIR / SUGGEST DEMOLISH AND REPLACE LIST

No.	Size	Size	Linear Feet	Location	Observation / Inch Feet
51	0.750	0.000	4.00	900 Poplar St	1.50
52	0.375	0.000	4.00	813 Poplar St	0.75
53	1.125	0.000	3.75	813 Poplar St	2.11
54	1.000	0.375	4.00	814 Poplar St	2.75
55	1.000	0.000	4.25	814 Poplar St	2.13
56	0.375	0.000	4.00	814 Poplar St	0.75
57	0.000	0.000		813 Poplar St	Cracking
58	0.500	0.000	4.00	812 Poplar St	1.00
59	0.000	0.000		813 Poplar St	Cracking
60	0.750	0.000	3.75	813 Poplar St	1.41
61	0.000	0.000		813 Poplar St	Cracking
62	0.500	0.000	5.00	809 Poplar St	1.25
63	0.625	0.000	4.00	809 Poplar St	1.25
64	0.750	0.000	3.25	809 Poplar St	1.22
65	0.875	0.000	4.50	809 Poplar St	1.97
66	0.625	0.250	4.25	806 Poplar St	1.86
67	0.500	0.000	4.25	807 Poplar St	1.06
68	0.750	0.000	4.25	807 Poplar St	1.59
69	1.000	0.000	4.25	807 Poplar St	2.13
70	1.125	0.000	4.25	807 Poplar St	2.39
71	0.875	0.000	4.25	807 Poplar St	1.86
72	0.250	0.000	4.25	807 Poplar St	0.53
73	0.250	0.000	2.50	806 Poplar St	0.31
74	0.250	0.000	4.00	806 Poplar St	0.50
75	0.500	0.375	4.25	805 Poplar St	1.86

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REPAIR / SUGGEST DEMOLISH AND REPLACE LIST

No.	Size	Size	Linear Feet	Location	Observation / Inch Feet
76	0.000	0.000		803 Poplar St	Cracking
77	0.375	0.000	4.00	800 Poplar St	0.75
78	0.875	0.000	4.25	803 Poplar St	1.86
79	0.000	0.000		800 Poplar St	Cracking
80	1.875	0.250	4.25	801 Poplar St	4.52
81	2.000	0.250	4.25	801 Poplar St	4.78
82	1.625	0.000	4.00	801 Poplar St	3.25
83	0.625	0.000	4.25	801 Poplar St	1.33
84	0.875	0.000	4.00	801 Poplar St	1.75
85	0.250	0.000	4.25	801 Poplar St	0.53
86	0.875	0.000	4.00	809 Main St	1.75
87	0.625	0.375	4.00	814 Main St	2.00
88	0.250	0.250	4.00	814 Main St	1.00
89	0.500	0.500	4.00	817 Main St	2.00
90	0.500	0.000	5.00	814 Main St	1.25
91	0.750	0.250	4.00	903 Main St	2.00
92	0.000	0.000		903 Main St	Cracking
93	1.000	0.000	4.00	903 Main St	2.00
94	0.875	0.000	4.00	903 Main St	1.75
95	0.250	0.250	4.00	903 Main St	1.00
96	1.000	0.000	4.00	903 Main St	2.00
97	0.500	0.500	4.00	903 Main St	2.00
98	0.500	0.250	4.00	903 Main St	1.50
99	0.750	0.250	4.00	903 Main St	2.00
100	0.250	0.000	3.75	903 Main St	0.47

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REPAIR / SUGGEST DEMOLISH AND REPLACE LIST

No.	Size	Size	Linear Feet	Location	Observation / Inch Feet
101	0.250	0.000	4.00	903 Main St	0.50
102	1.750	0.000	4.00	903 Main St	3.50
103	0.750	0.000	4.00	903 Main St	1.50
104	1.000	0.000	4.00	903 Main St	2.00
105	0.250	0.250	4.00	908 Main St	1.00
106	0.000	0.000		907 Main St	Missing
107	0.250	0.250	6.00	909 Main St	1.50
108	0.000	0.000		908 Poplar St	Cracking

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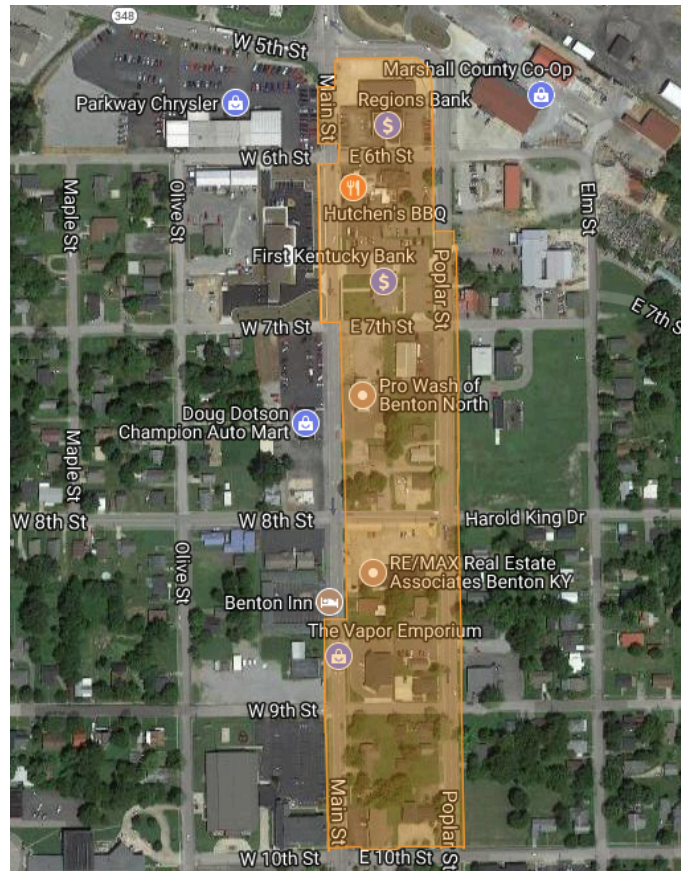
PROJECT PARAMETERS / SAVINGS ANALYSIS FOR PROJECT

Based off **\$6.50** cost per square foot to remove and replace a sidewalk panel, we estimate the following:

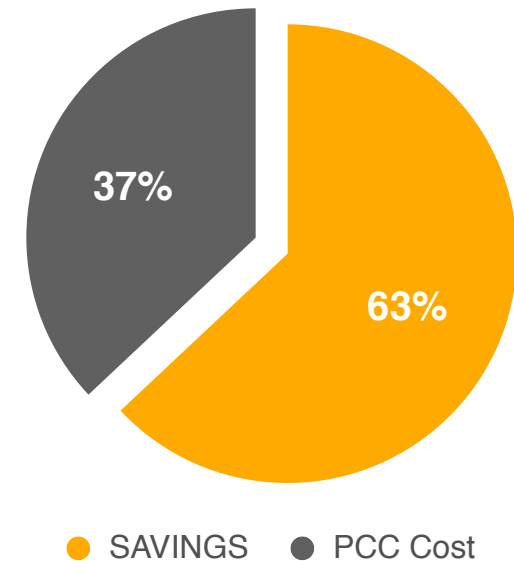
Option Elected

- 1:12 Ratio Slope
- Complete Clean Up & Recycle
- Dust Abatement System
- Detailed Audit-able Invoice
- All Hazards **1/4"** to **2"** Repairable by PCC Methods
- **\$15** / Linear Foot
- 1 Price per Hazard Regardless Severity
- Total Time: 2 days
- **ALL** Teardrop Pins

\$5,880.00



Total cost using Precision Concrete Cutting with **Option Elected** is **\$5,880.00**, an estimated savings of **\$9,882.50**.



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D. Community Facilities Attachments

**Stephen Sanderson, Chief
Benton Police Department**

1009 Main Street
Benton, Kentucky 42025
(270) 527-3126

**Activity of the Benton Police Department for
September 2020**

20 Cases Opened- 27 Criminal Charges

5	Assault
3	Burglary
3	Criminal Mischief
1	Disorderly Conduct
1	Leaving Scene Collision
2	Possession Marijuana / Paraphernalia
1	Rape / Sodomy
10	Theft by Unlawful Taking
1	Violation EPO / DVO

24 Collisions

62 Citation Violations

43	Traffic Citation Violations
19	Criminal Citation Violations
0	Non-Traffic and Non-Criminal
1	Juvenile Involved

722 Calls for service

**Stephen Sanderson, Chief
Benton Police Department**

1009 Main Street
Benton, Kentucky 42025
(270) 527-3126

**Activity of the Benton Police Department for
October 2020**

13 Cases Opened

- 1 Leaving the scene of an accident
- 1 Criminal mischief
- 4 Possession of marijuana
- 1 Violation of DVO
- 2 Shoplifting
- 1 Harassment with physical contact
- 1 Harboring a vicious animal
- 1 Rape 1st
- 1 Sexual abuse
- 1 Resisting arrest & promoting contraband

18 Collisions

42 Citation Violations

- 24 Traffic Citation Violations
- 18 Criminal Citation Violations
- 0 Non-Traffic and Non-Criminal
- 0 Juvenile Involved

781 Calls for service

**Stephen Sanderson, Chief
Benton Police Department**

1009 Main Street
Benton, Kentucky 42025
(270) 527-3126

**Activity of the Benton Police Department for
November 2020**

19 Cases Opened

- 1 Leaving the scene of an accident
- 1 Criminal trespass
- 1 Possession of marijuana
- 1 Burglary 3rd
- 1 Shoplifting
- 6 Theft by unlawful taking
- 1 Missing person
- 1 Possession of meth
- 2 Fraudulent use of credit card
- 1 Violation of condition of release
- 2 Assault 4th DV
- 1 Possession of controlled substance/DUI

21 Collisions

55 Citation Violations

- 34 Traffic Citation Violations
- 21 Criminal Citation Violations
- 0 Non-Traffic and Non-Criminal
- 3 Juvenile Involved

895 Calls for service



**Marshall County Hospital of Benton, Kentucky
Community Health Needs Assessment
and Implementation Strategy**

*Approved by the Marshall County Hospital Board of Trustees
on October 15, 2019
as a component of the Community Health Needs Assessment*

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SECTION I

Community

OVERVIEW OF MARSHALL COUNTY HOSPITAL

Marshall County Hospital, a critical access hospital, is located at 615 Old Symsonia Road in Benton, Kentucky. The hospital is licensed for 25 beds including a 4- bed, well equipped critical care unit.

Marshall County Hospital is accredited by the Joint Commission (JC). The hospital provides a variety of inpatient and outpatient services such as; physical, speech and occupational therapy, home health care, an advanced technology radiology department, a 24-hour physician staffed emergency room, and many additional outpatient medical services available to the community.

Adjacent to the hospital there are three medical office buildings; Haltom Medical Office Building I, Medical Office Building II, and Medical Office Building III. Haltom Medical Office Building I is home to Marshall County Surgical and Medical Group, our Rural Healthcare Clinic, which consists of two internal medicine and one family medicine physicians and two family practice nurse practitioners. Medical Office Building II consists of a general surgeon, an internal medicine physician (specializing in endocrinology), a chiropractor, and a physician services clinic. The physician services clinic provides the following specialists: Gastroenterology, Pulmonology, ENT, and Oncology. Medical Office Building III consists of one orthopedic surgeon, one gynecologist, one rheumatologist, and one dermatologist.

Marshall County Hospital operates 24 hours a day, 7 days a week, 365 days a year and provides approximately 250 jobs in the community, generating \$8.6 million in annual local payroll. When you consider the “ripple” effect the hospital has in the community, Marshall County Hospital spends nearly \$11.9 million on employee wages, salaries, and purchases of supplies and services. Our service area predominately Marshall County.

Kentucky’s hospitals are the safety net for their communities. All patients presenting at a hospital are treated, regardless of whether they have insurance or they can afford to pay. In 2016, the net unreimbursed cost to Marshall County Hospital, just for treating uninsured persons whose income was below the federal poverty level, topped \$200, 000. These patients are not billed. This amount does not include additional charity care provided by the hospital to uninsured people with higher incomes, uncollectible debt, or the full cost of caring for Medicare and Medicaid patients that these two government programs do not cover.

In 2016, Marshall County Hospital:

- There were 691 people admitted as inpatient
- Had a total of 2,226 total inpatient days
- Spent \$3.2 million on capital projects, which created additional local construction jobs
- Paid approximately \$215,180 in provider taxes to the state to help support the Kentucky Medicaid Program
- Contributed \$723,414 in Kentucky income and sales tax from its employee's wages and salaries

OVERVIEW OF MARSHALL COUNTY

Marshall County is a county located in the U.S. State of Kentucky. As of the 2010 census, the population was 31,448. Its county seat is Benton. On July 28, 2015, residents voted and the county became "wet", the new laws took effect in 2016. It is the only Purchase Area county to not border another state. The county has a total of 340 square miles, of which 301 square miles is land and 39 square miles is water. The county's northeastern border is formed by the Tennessee River and Kentucky Lake.

Marshall County was created by the Kentucky legislature in 1842 from the northern half of Calloway County. The first settlers arrived in about 1818, shortly after the area was bought from the Chickasaw Indians as part of the Jackson Purchase by General Andrew Jackson and Kentucky Governor Isaac Shelby. The Indians then were forced to move to new lands west of the Mississippi River. Marshall County was named in honor of Chief Justice John Marshall, who died in 1835.

From its settlement until the 1930s Marshall County was mostly agricultural. In the 1940s the Tennessee Valley Authority created Kentucky Lake, which brought tourism to the county with lakeshore resorts. Kentucky Dam's cheap and plentiful electricity also attracted chemical and manufacturing plants, mainly in the Calvert City area. The lake's impoundment destroyed two historic Marshall County towns, Birmingham and Gilbertsville. Gilbertsville was relocated west of its original location, but Birmingham residents had to find new homes elsewhere. Kentucky Lake (created on the Tennessee River) and Lake Barkley (created on the Cumberland River) were connected by a canal and thus form one of the largest man-made bodies of water in the world.

Marshall County is home to the Calvert City Drive-In Theater, the only one in the Purchase area and one of three with an 85-mile radius in far western Kentucky.

On the first Monday of April, Benton holds its Tater Day. Originating in 1842 as a day for farmers to gather at the county seat to trade their agricultural goods, today Tater Day is a celebration that includes a festival and parade. Tater Day derives its name from the main item traded—sweet potatoes for seed, i.e., for bedding in prepared "seedbeds" to produce slips for growers to transplant to gardens or fields.

SECTION II

Community Health Assessment Process

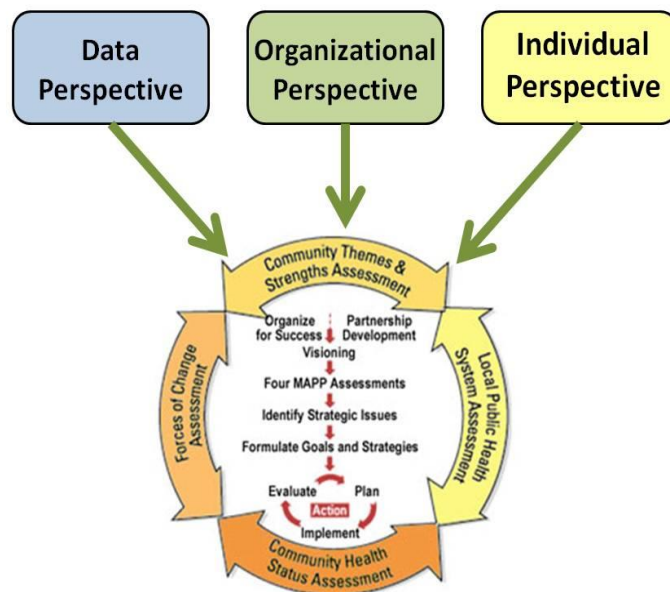
METHODOLOGY

The Marshall County Hospital and the Marshall County Health Department joint-ventured and utilized a Community Health Assessment process based on Mobilizing for Action through Planning and Partnerships (MAPP). MAPP is a Community-driven Strategic Planning process which helps communities apply strategic thinking to prioritize public health issues and identify resources to address them. MAPP is not an agency-focused assessment process; rather, it is an interactive process that can improve the efficiency, effectiveness, and ultimately the performance of local public health systems. The assessments used in the MAPP process include Community Health Status Assessment, Community Strengths and Risks Assessment, Forces of Change Assessment, and the Local Public Health System Assessment.

The Marshall County Health Department augmented the MAPP process with a Three Perspective approach to gathering information. Data gathered in conjunction with the Community Health Status Assessment provided a Data Perspective on the health of each community. Information gathered during Community Forums, primarily attended by representatives of community partner organizations, provided the Organizational Perspective.

In an effort to add the perspective of individual citizens of each county, both paper and electronic surveys were distributed.

Information from these surveys provided the Individual Perspective. In addition, the Local Public Health System Assessment was completed utilizing an asset mapping approach.



Community Forum Objective

On July 24, 2019, the Marshall County Health Coalition held a community forum for the purpose of vision statement discussion, coalition accomplishment celebration and Community Health Assessment data updates. These discussions provided the foundation for the 2019-2022 Community Health Improvement Plan.

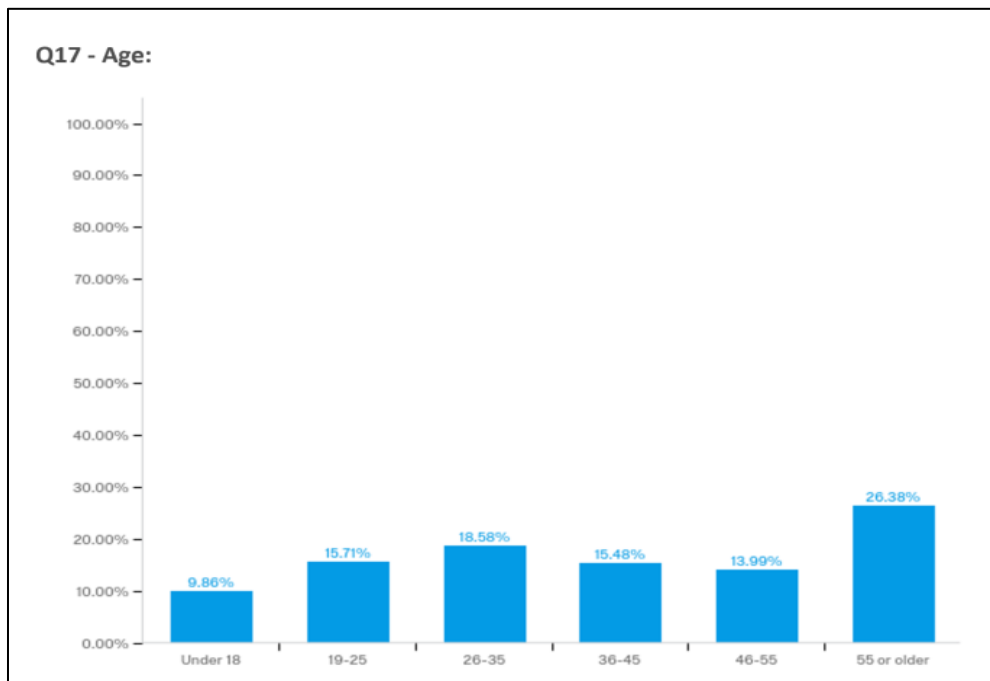
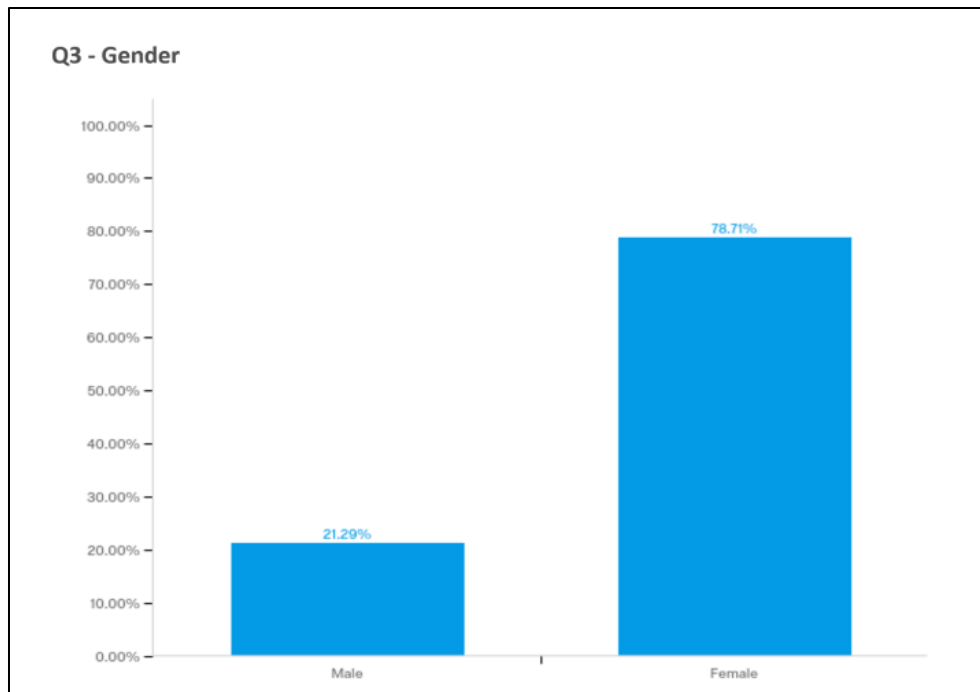
Area business leaders, county and city officials, law enforcement, interested citizens, faith-based organizations, healthcare providers and the general public were invited to participate. It was arranged for a facilitator from the University of Kentucky, Dr. Angie Carman to lead the group in discussing health concerns for Marshall County citizens.

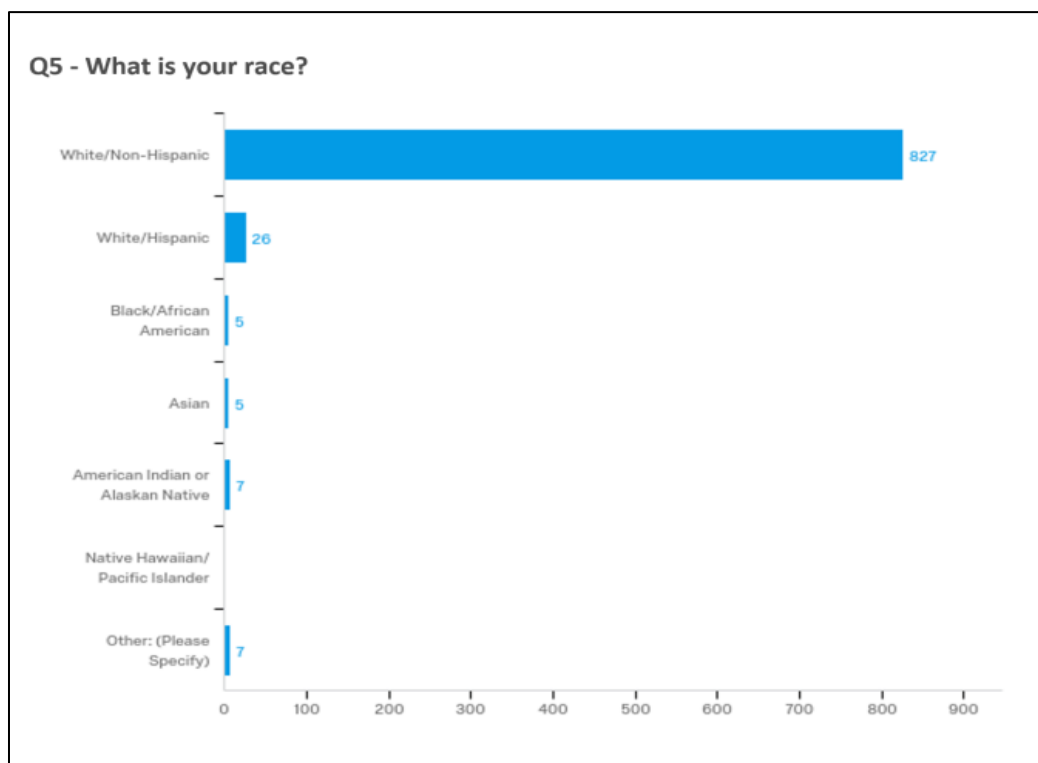
Vision Statement Discussion – In a facilitated group discussion format, the community forum participants evaluated the Marshall County Health Coalition Vision Statement. The Vision Statement – “A healthy Marshall County, where all communities are thriving and all people have what they need for optimal health and well-being” was adopted by the coalition. Group consensus from the forum participants stated that this vision statement accurately reflected the future direction of healthy improvement activities in Marshall County.

To assess the community, surveys were distributed before the forum. Following are the questions included and the results. The surveys were sent out by mail, electronically, and paper copies at various locations. The school system and employers throughout the county were very supportive in sending out the survey electronically to students’ families and employees.

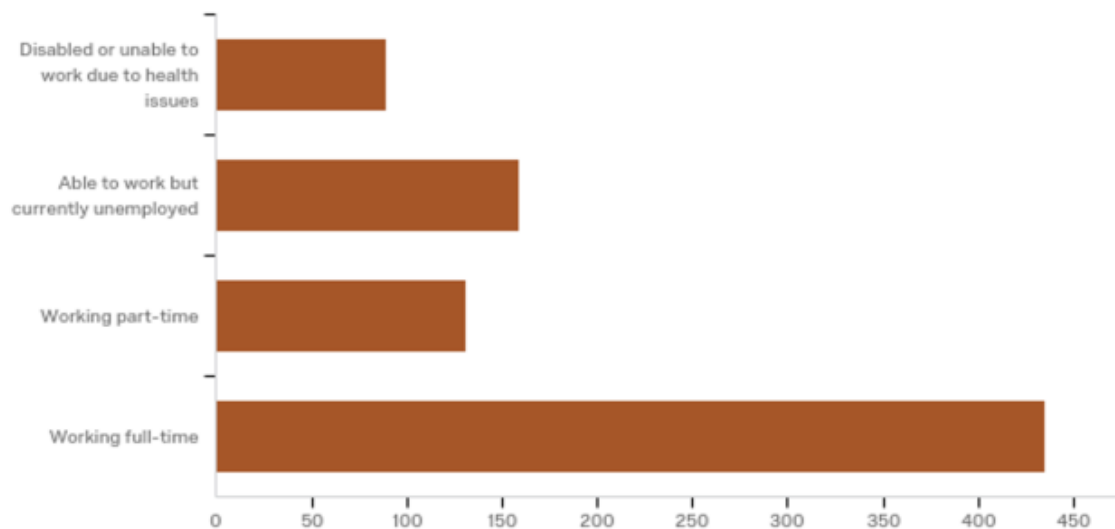
After receiving 800+ completed surveys, the results were tabulated. Dr. Carman came back to report the findings. The following graphs show the results of those survey questions. The community felt that the top health concerns for our citizens are substance abuse and mental health.

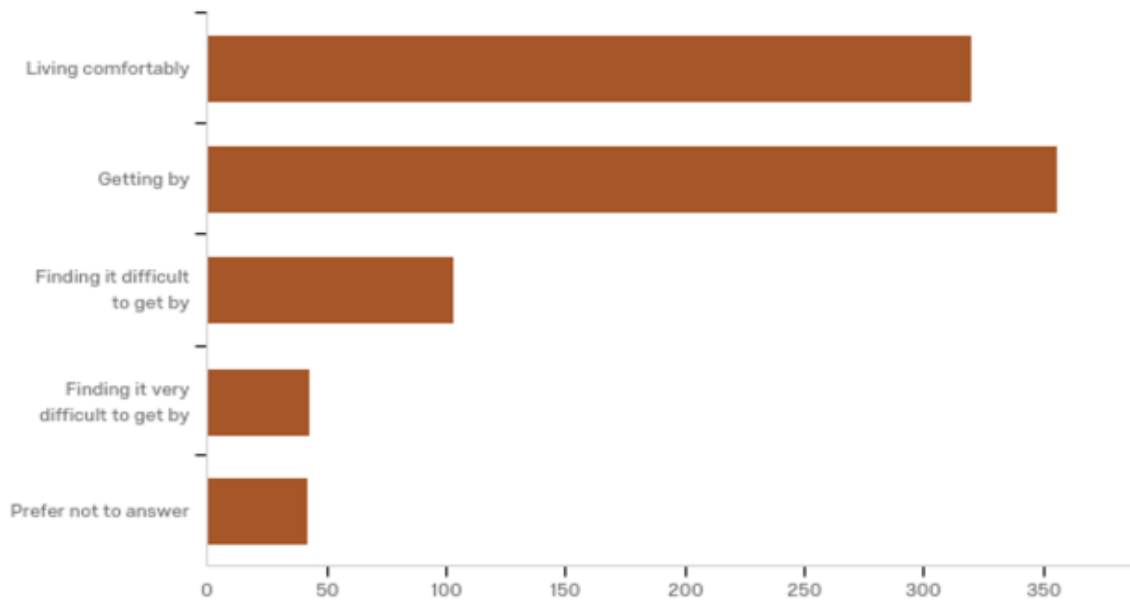
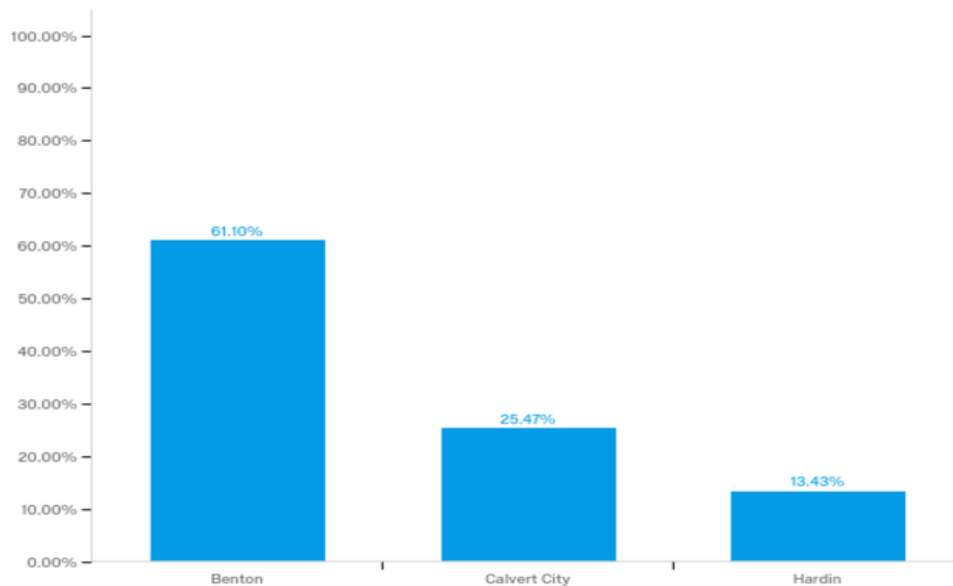
Community Survey Demographics



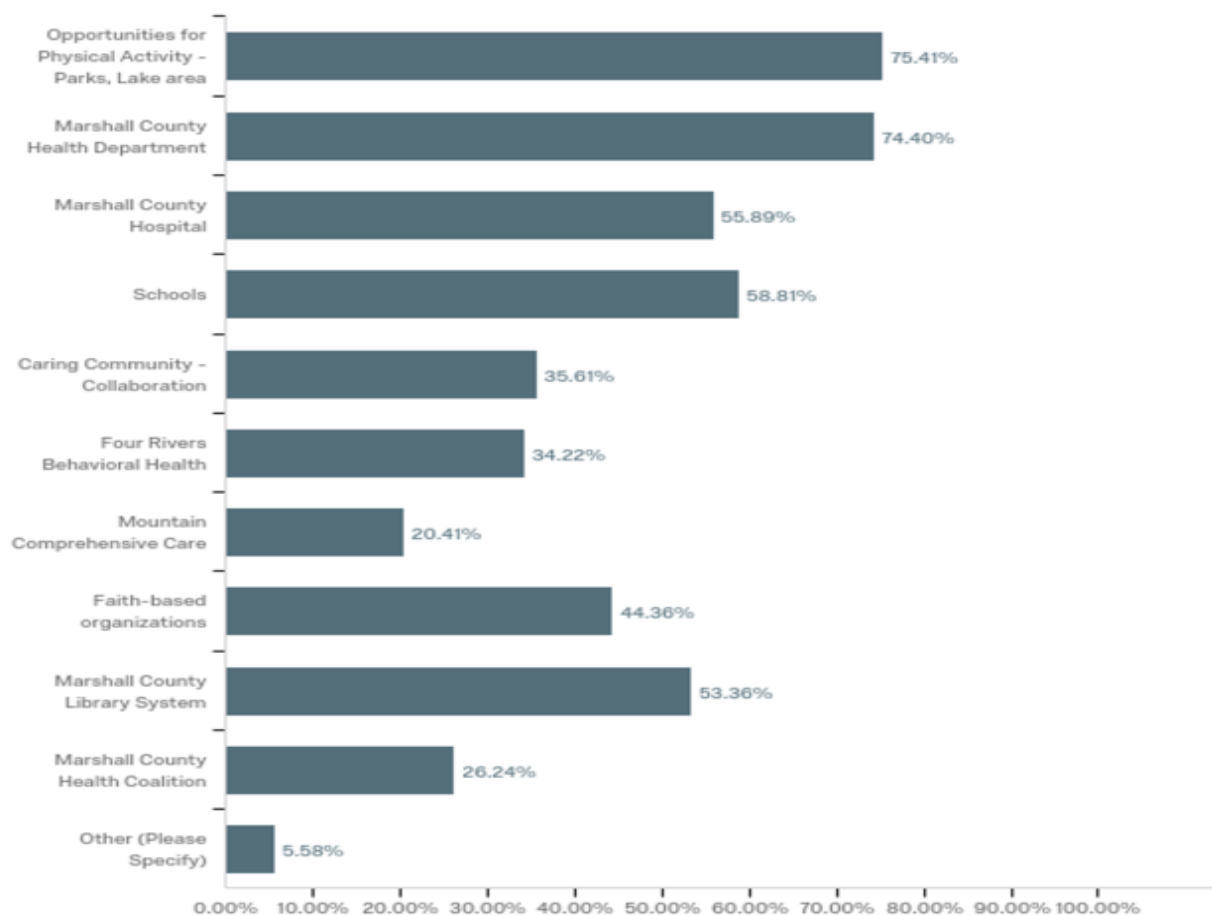


Q26 - Please select your employment status from the list below

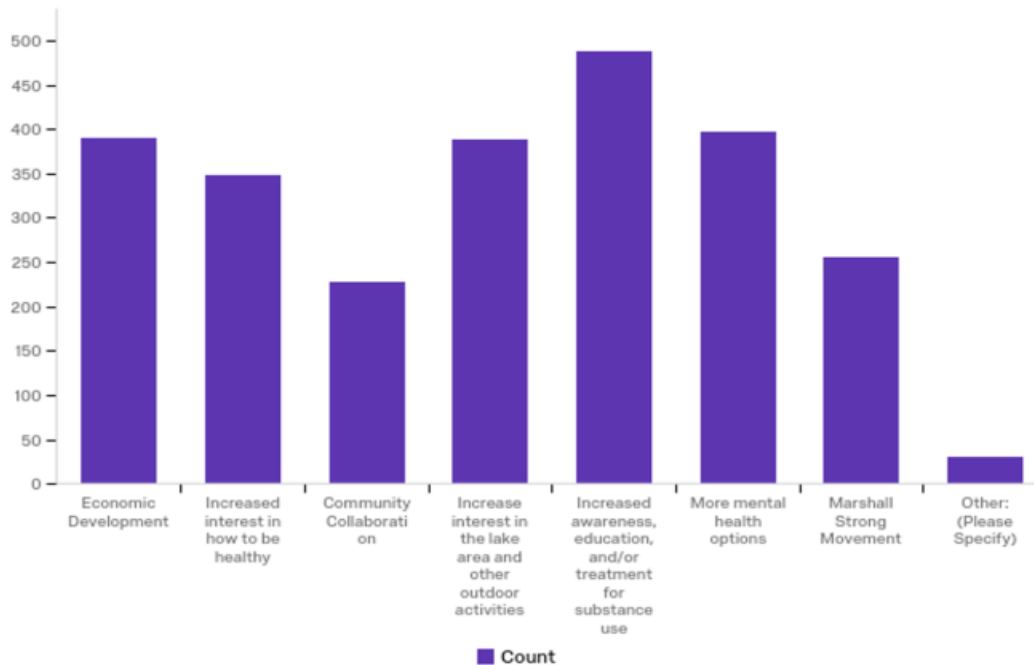


Q25 - How would you describe your financial well-being?**Q4 - From the list below, please select the area in Marshall County closest to where you live:**

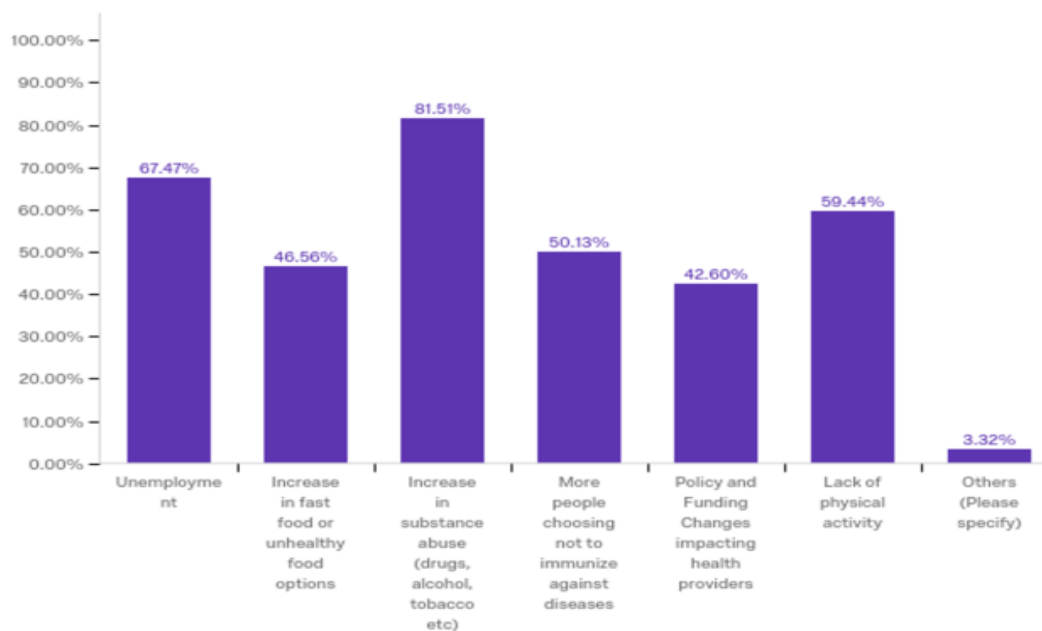
Q9 - What are the strengths of our community that can help our citizens be healthier (Select all that apply)?

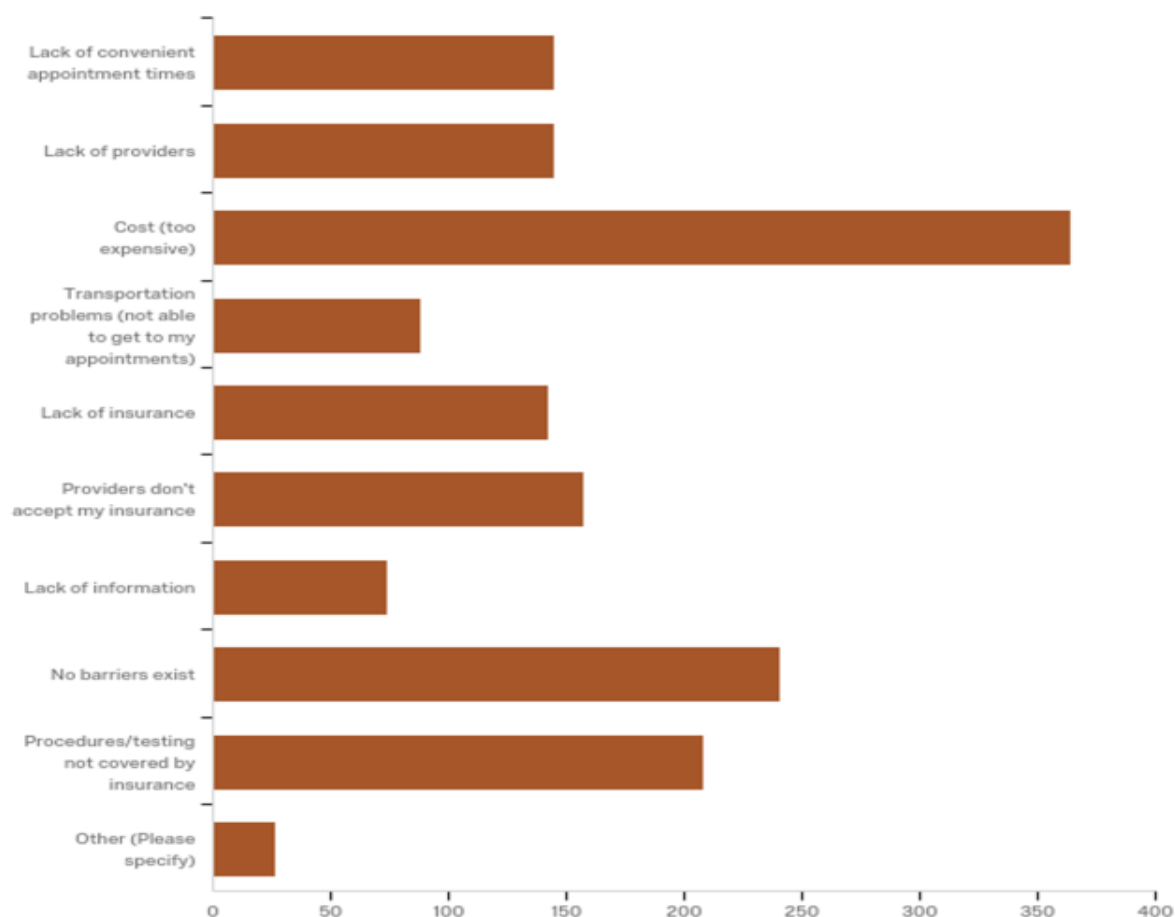


Q11 - What events that are occurring, or might occur, in our community, could have a positive impact on health (Select all that apply)?

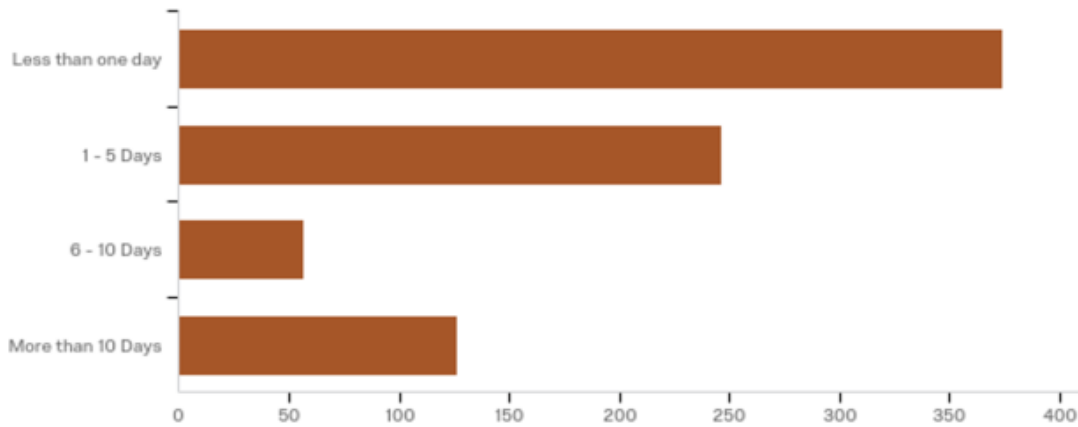


Q12 - What events that are occurring, or might occur, in our community, could have a negative impact on health (Select all that apply)?

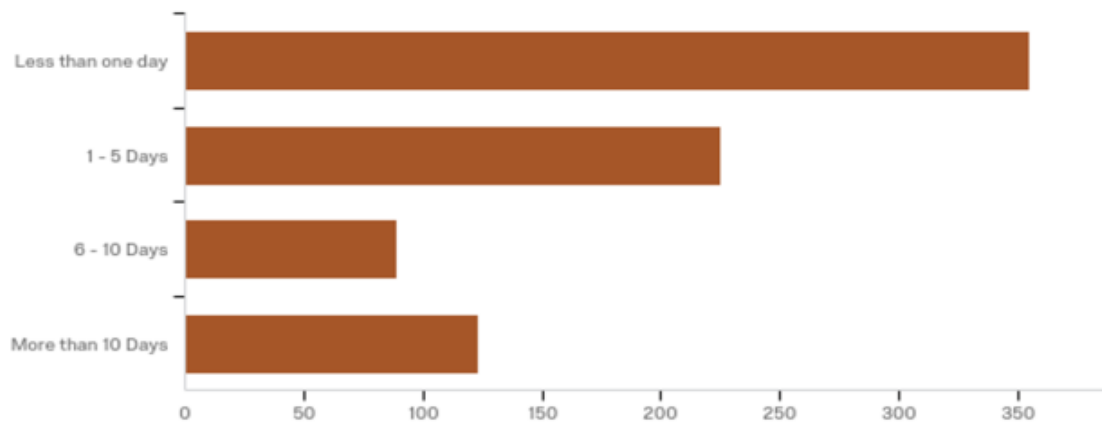


Q27 - What barriers exist that prevent you from receiving health services (Select all that apply)

Q28 - What was the average number of days, in the past 30 days, when physical health, including physical illness and injury, was not good?



Q29 - What was the average number of days, in the past 30 days, when mental health, including stress, depression and problems with emotions was not good?



Community Health Status Assessment

The community forum participants reviewed the following health statistics compiled via a collaborative arrangement with the University of Kentucky, College of Public Health.

County Health Data				
Indicators	Marshall	Kentucky	US	Data Source
Social Factors				
Population	31,365	4,436,974	321,418,820	US Census Bureau (2015)
Race Stats White (%)	98.0%	88.1%	77.1%	US Census Bureau (2015)
African American (%)	0.4%	8.3%	13.3%	US Census Bureau (2015)
Hispanic (%)	1.4%	3.4%	17.6%	US Census Bureau (2015)
High School Graduation Rate (% of persons age 25+)	86.1%	84.2%	86.7%	US Census Bureau (2011—2015)
Bachelor's Degree or higher (% of persons age 25+)	15.8%	22.3%	29.8%	US Census Bureau (2011—2015)
Unemployed: Persons 16+ (%)	7.4%	4.8%	4.8%	Local Area Unemployment Statistics (2016)
Persons in Poverty (%)	12.1%	18.5%	13.5%	US Census Bureau (2011—2015)
Children Living Below Poverty Level Under the age of 18 (%)	19.5%	25.3%	20.7%	Small Area Income and Poverty Estimates (2016)
Self-Rated Health Status (% of Adults who report fair or poor health)	17.1%	24.0%	16.0%	County Health Rankings (2016)
Children in Single Parent Households (%)	30.9%	34.0%	32.0%	County Health Rankings (2016)

Median Household Income	\$49,771	\$45,178	\$55,775	Small Area Income and Poverty Estimates (2016)
Behavioral Factors				
Prevalence of Adult Smoking (%; Age-adjusted)	22.2%	25.9%	15.1%	BRFSS (2006—2012)
Prevalence of Youth Smoking (% of High School Students)	24.8%	25.0%	23.0%	Kentucky Health Facts (2007)
Adult Prevalence of Obesity (%; Age-adjusted)	35.7%	33.0%	36.5%	BRFSS (2013-2015)
Sexually Transmitted Infection (Chlamydia rate per 100,000)	195	394.2	479	CDC (2012)
Binge drinking: adults (%; Age-adjusted)	6.8%	13.8%	17.0%	BRFSS (2013-2015)
No exercise: adults (% ; Age-Adjusted)	34.5%	30.2%	25.4%	BRFSS (2013-2015)
Recommended Fruit and Vegetable Intake (% adults)	15.3%	10.9%	-	Kentucky Health Facts (2013—2015)
Flu Vaccination in the Past Year (% adults)	48.9%	43.3%	43.6%	Kentucky Health Facts (2013—2015)
Tooth Loss (% of adults missing 6 or more teeth)	24.1%	23.6%	-	Kentucky Health Facts (2012—2014)
Access to Care				
Primary Care Providers (per 100,000)	41.8	80	120.9	Area Health Resources Files (2013)
Uninsured Adults (% under 65 years)	6.7%	9.9%	16.8%	Small Area Health Insurance Estimates (2014)
Uninsured Children (% under 19 years)	4.7%	4.5%	7.5%	Small Area Health Insurance Estimates (2014)
Mentally unhealthy days: adults (per person; Age-adjusted)	3.3	4.4	3.4	Kentucky Health Facts (2013—2015)
Physical Factors				
# of Recreational Facilities (per 100,000)	3	328	30,393	County Business Partners (2013)

Air Pollution - particulate matter days	14.24	14.1	11.18	CDC Wonder (2011)
Respiratory Illness				
Adults with Asthma (%)	13.1%	16.3%	14.0%	Kentucky Health Facts (2013-2015)
Number of Inpatient Hospitalizations due to Asthma (0-17 yr olds)	17	6,837	-	2009-2011 KY Cabinet for Health and Family Services

Indicators	Marshall	Kentucky	US	Data Source
Maternal & Child Health				
Teen Birth Rate (ages 15-19; rate per 1,000)	44.0	40.4	24.2	National Vital Statistics System- (2010—2014)
Pregnant Women Receiving Adequate Prenatal Care (%)	84.4%	66.9%	-	Kentucky Health Facts (2010—2014)
Number of Child Victims Of Substantiated Abuse	206	17,917	-	KIDS Count Data Center (2013)
Low birth weight deliveries (%)	7.0%	8.9%	8.0%	National Vital Statistics System- (2010—2014)
Moms Who Smoked During Pregnancy (%)	21.8%	21.5%	-	Kids Count Data Center (2012-2014)
Early Childhood Obesity (age 2-4 yrs; %)	7.9%	15.6%	-	Kids Count Data Center (2010)
Diabetes Indicators				
Diabetes Screenings (% of Medicare enrollees that receive screening)	85.4%	85.2%	84.6%	Dartmouth Atlas of Health Care (2012)
% of adult population with diabetes (Age-adjusted)	11.1%	11.3%	9.1%	CDC (2014)
Cancers				

Cancer Deaths (rate per 100,000; Age-adjusted)	175.2	200.5	166.2	National Vital Statistics System-Mortality (2011—2013)
Lung, trachea, and bronchus cancer deaths (rate per 100,000; Age-adjusted)	49.4	69.1	44.7	National Vital Statistics System-Mortality (2011—2013)
Colorectal Cancer Deaths (rate per 100,000; Age-adjusted)	17.0	17.9	15.3	National Vital Statistics System-Mortality (2009—2013)
Breast Cancer Deaths (rate per 100,000; Age-adjusted)	20.7	22.5	21.6	National Vital Statistics System-Mortality (2009—2013)
Lung, trachea, and bronchus cancer Incidence (rate per 100,000; Age-adjusted)	82.9	80.2	53.4	SEER (2009—2013)
Colorectal Cancer Incidence (rate per 100,000; Age-adjusted)	51.5	43.7	35.5	SEER (2009—2013)
Breast Cancer Incidence (rate per 100,000; Age-adjusted)	110.5	122	123.3	SEER (2009—2013)
Total Number of Collisions Involving Drunk Drivers				
Fatal Collision	0	162	-	Kentucky State Police (2015)
Injury Collision	13	1,418	-	Kentucky State Police (2015)
Property Damage Collision	16	2,689	-	Kentucky State Police (2015)
Total	29	4,269	-	Kentucky State Police (2015)
Total Number of Drivers Under Influence of Drugs				
Fatal Collision	4	233	-	Kentucky State Police (2015)
Injury Collision	3	678	-	Kentucky State Police (2015)
Property Damage Collision	3	927	-	Kentucky State Police (2014)
Total	11	1,838	-	Kentucky State Police (2015)

Total Number of Arrests by Drug Type				
Opium or Cocaine and Their Derivatives	5	2,923	-	Kentucky State Police (2015)
Marijuana	123	15,567	-	Kentucky State Police (2015)
Meth	122	6,692	-	Kentucky State Police (2015)
Heroin	7	3,029	-	Kentucky State Police (2015)
Other Drugs and Synthetic Narcotics	245	37,119	-	Kentucky State Police (2015)
Total	502	65,330	-	Kentucky State Police (2015)

Indicators	Marshall	Kentucky	US	Data Source
Total # of DUI Arrests				
Adult	158	22,881	-	Kentucky State Police (2015)
Juvenile	0	126	-	Kentucky State Police (2015)
Male	120	17,459	-	Kentucky State Police (2015)
Female	38	5,565	-	Kentucky State Police (2015)
White	156	20,792	-	Kentucky State Police (2015)
African American	2	2,116	-	Kentucky State Police (2015)
Total	158	23,024	-	Kentucky State Police (2015)
Total # of Drug Overdose Hospitalizations				
All Drugs	334	29,683	-	KSPAN (2009—2013)
Heroin	-	610	-	KSPAN (2009—2013)
Pharmaceutical Opioids	85	6,720	-	KSPAN (2009—2013)
Benzodiazepine	82	8,239	-	KSPAN (2009—2013)
Total # of Drug Overdose Deaths	37	4,931	-	KSPAN (2009—2013)

Data Collected: June 2019

Forces of Change Assessment

In a facilitated group discussion, the community forum participants discussed those changes in Marshall County, both positive and negative, based on their impact on the health of Marshall County residents:

Positive Changes	Negative Changes
Bike trails	Senior Citizen Center Funding
Calvert City is a Trail Town	Construction at the schools – impact on programs; disruptive
South West One Development	Legal Issues
More discussion and prevention – mental health	Financial concerns impacting health programs
Miracle League	Added stress on Law Enforcement
People supporting the Senior Citizen center	Changes in surrounding community laws
High School has a nurse practitioner and mental health counselors	Accessibility to substance use
School construction	Restricted funding
Legal Issues	
Primary Care Clinic – Benton	
New, larger Library Branch – Benton	
Syringe Exchange Program	
Marcella's Kitchen – Benton	
WKCTC – Work Ready Program	
Free Breakfast & Lunch School Programs	

Data Synthesis

The Marshall County Health Coalition provided the community forum participants with the list of focus areas developed from the Community Health Assessment/Community Health Improvement Planning process and augmented with emergent community issues.

- Obesity
- Substance Use
- Mental Health
- Access to Care
- Highway Safety
- Community Recovery
- Communication

Using a facilitated discussion process, the community forum participants evaluated the progress made by Marshall County Health Coalition workgroups and additional community efforts on each of these focus areas.

In addition, using a nominal group technique, participants worked to match the needs identified via the Community Health Status Assessment, the needs identified via the Community Themes and Strengths survey of community members and the assessment of changes occurring in Marshall County which have the potential to impact health. This data synthesis produced the following list of community issues:

- Access to Care
- Mental Health
- Physical Activity
- Obesity
- Substance Use
- Infrastructure – Transportation
- Community Education
- Adverse Childhood Experiences

Local Public Health System Assessment

Having identified a number of health issues and concerns in Marshall County, the community forum participants were led through a Local Public Health System Assessment using an asset mapping approach. Public Health System Asset Mapping refers to a community-based approach of assessing the resources and programs of the public health system within a specific community. The structure of the asset mapping exercise allowed community partners to list programs, activities and other resources currently available within the Marshall County public health system to address each of the concerns identified in the through Data Synthesis.



SECTION III

Community Health Improvement Plan Process

METHODOLOGY

Continuing the methodology described under the Community Health Assessment Process, the Marshall County Health Coalition utilized the list of health issues and concerns identified through the community health assessment process to synthesize the information into sustainable strategic initiatives, goals and objectives.

The group began this work, utilizing a facilitated discussion technique through which forum participants evaluated the asset mapping exercise from several perspectives:

- Which community concerns have the most community assets available to address them thus allowing the community and the coalition “quick wins”?
- Which concerns have the fewest assets designated to address them thus creating a need to pursue assets as a first step?
- Could any of the concerns identified be added to efforts already underway by the coalition?

The discussion resulted in a consensus for the community/coalition to move forward to address the following concerns:

- Obesity
- Substance Use
- Mental Health
- Access to Care
- Community Recovery

The group identified community education as a means of addressing each of these concerns.

Strategic Issue Identification/Goals and Objectives

Strategic Issue #1: Obesity

Strategic Issue #2: Substance Use

Strategic Issue #3: Mental Health

Strategic Issue #4: Access to Care

Strategic Issue #5: Community Recovery

Communication and Distribution Plan

#1 OBESITY

- Host two health fairs for the community
- Provide blood pressure checks and glucose screenings at health fairs and other local events
- Discount gym membership rates offered to employees and families
- Educational materials focus on heart health, diet, exercise, and nutrition
- Wellness program for employees and families to encourage healthy habits in exchange for lower insurance costs
- Marshall County Hospital will host speakers to speak about obesity and wellness

#2 SUSTANCE ABUSE

- Provide funds to Marshall County Schools to carry out Red Ribbon Week Activities
- Assist with “Truth or Consequences” for middle school students
- Marshall County Hospital uses state KASPER system to screen and track patient prescriptions and will continue to use this system.
- Marshall County Hospital will continue to have active members of the Kentucky Agency for Substance Abuse Policy, they conducted a “Not my Kid” drug forum at Marshall County High School and will conduct future educational forums at the local schools.
- Our active members of KY ASAP (Agency for Substance Abuse Policy) attend seminars to further their education on topics such as; understanding addiction, national & local youth drug trends, working together for suicide prevention, marijuana & adolescents, suicide in elementary school, and alcohol & cancer. The information received at seminars allows them to return and utilize their knowledge on how to help our community with substance abuse on the up rise.
- Marshall County Hospital staff members participate and will continue to participate in Kentucky Statewide Opioid Stewardship Regional Training.

#3 MENTAL HEALTH

- Marshall County Hospital has a partnership and will continue the partnership with Four River Behavioral Health. The patient will be monitored and secured for Four River Behavioral Health; they will then transport the patient to receive the proper level of care for behavioral health counseling.
- Marshall County Hospital raised funds and participated in Walk to Fight Suicide and plans to continue to participate in future walks.
- Marshall County Hospital staff members attend and search for educational seminars/webinars to attend such as; a webinar on Patient Self-harm and Violence & a seminar at Marshall County Health Department on Applied Suicide Intervention Skills Training that focus on mental health since this issue is becoming more of a concern in our community.

#4 ACCESS TO CARE

- Based on responses from an Access to Care Survey, more electronic education will be provided to our community via website and social media
- Worked with and will continue to work with Marshall County High School to produce educational videos for our community
- Created GIS maps of services available in the community and will continue to keep updated for the community
- Distributed current CHA Survey and will continue to distribute future surveys to disenfranchised populations within the community for more comprehensive assessment of community needs
- Marshall County Hospital brings in specialized physicians to help meet the community needs. Over the past few years the facility has added a Wound Care Clinic, Rheumatologist, & Gynecologist, in addition to the existing specialized physicians which include; Orthopedic Surgeon, General Surgeon, Gastroenterologist, Pulmonologist, Oncologist, Otolaryngologists (ENT), & Dermatologist. Marshall County Hospital will continue to assess the needs of the community and bring in specialized physicians to our area to meet the needs of the community. Marshall County Hospital plans to add a Cardiologist that sees patients at the clinic on each Wednesday of every month.
- Marshall County Hospital plans to work out an agreement with Gary Smethers. He is the coordinator for Marshall County Veterans Support Group. He is also affiliated with a transportation program that provides rides for patients that have follow up appointments at the Marion or Paducah outpatient VA clinics. This would be helpful for any veteran who has trouble getting transportation to appointments at our facility.

#5 COMMUNITY RECOVERY

- Facilitated a Community Table process to obtain data following the school shooting.
- Assisted in securing grant funds to print the Marshall County Quick Reference Directory twice as well as funds to place this information digitally on the Marshall County Health Department Website

Marshall County Resource Guide

Local:

Cabinet of Health & Family Services- Department of Community Based Services
Protection and Permanency Family Support (Food Stamps, Medical & Welfare)
211 E. 7th St. (855)306-8959
Benton, KY 42025
(270)527-1354
www.chfs.ky.gov/dcbs/default.htm

Housing Authority of Benton
101 Walnut Crt.
Benton, KY 42025
(270)527-3626

Marshall County Adult Education
1186-1412 KY 58
Benton, KY 42025
(270)527-7712

West Kentucky Allied Services
1107 Popular St.
Benton, KY 42025
(270)527-9766

Marshall County Health Department
267 Slickback rd.
Benton, KY 42025
(270)527-1496

Marshall County Courthouse
80 Judicial Dr.
Benton, KY 42025
(270)527-1721

Mashall County Judge Executive
1101 Main St.
Benton, KY 42025
(270)527-4750

Marshall County Library

Benton Location

1003 Popular St.

Benton, KY 42025

(270)527-9969

www.marshallcolibrary.org

Calvert City

23 Park Rd

Calvert City, KY 42029

Hardin

4640 Murray Highway

Hardin, KY 42048

Marshall County Sheriff's Office

52 Judicial Dr.

Benton, KY 42025

(270)527-3112

Marshall County Caring Need Line

307 Main St.

Benton, KY 42025

(270)527-0024

Marshall County Hospital

615 Old Symsonia Rd.

Benton, KY 42025

(270)527-4800

Marcella's Kitchen

Lion Club Building

Benton, KY 42025

(270)705-3402

Alcohol Anonymous

The Library Group- Sunday 4:30pm

Marshall County Library

1003 Popular St.

Benton, KY 42025

Alcohol Anonymous

Gratitude Hour Group

6804 US HWY 641 N

Gilbertsville, KY

(270)362-3711

Narcotics Anonymous

Calvert City Library- Monday & Wednesday 6:30pm

23 Park Rd.

Calvert City, KY 42029

Alcoholics/Narcotics Anonymous

Hardin Public Library- 12 Step group Tuesday, Thursday & Saturday 7pm
4640 Murray Highway
Hardin, KY 42048

Celebrate Recovery

Riverwood's Baptist Church- 12 Step group Friday 6:30pm
1001 Main St.
Benton, KY 42025
www.riverwoodchurch.com

West Kentucky Drug & Alcohol Intervention Inc.

1107 Popular St.
Benton, KY 42025
(270)247-4212
(800)273-1282

State:

Western Kentucky Reentry Council

Contact: Andria Barkett- Department of Correction-Program Administration

Phone#: 270-559-5871

www.kentuckyreentry.org

Kentucky Office of Employment & Training /Vocational Rehabilitation/Office of the Blind

416 S. 6th St.

Paducah, KY

Phone #: (270) 575-7304 (270)575-7315

www.oet.ky.gov www.ovr.ky.gov

Kentucky Protection and Advocacy (They assist people with Disability)

5 Mill Creek Park

Frankfort, KY 40601

Phone#: 800-372-2988

www.kypa.net

Department of Public Advocacy

Office Paducah (Covers: Ballard, Carlisle, Hickman, Fulton, Livingston and McCracken County)

400 Park Ave Suite B

Paducah, KY 42001

(270) 575-7285

(270) 575-7055

Department of Public Advocacy

Murray Office (Covers: Calloway, Graves & Marshall County)

607 S. 6th St.

Murray, KY 42071

(270)753-4633

Department Of Public Advocacy

Princeton Office (Covers: Lyon, Trigg and Caldwell)

105 S. Jefferson St.

Princeton, KY 42445

(270)365-9363

West Kentucky Allied (Assessors for Medicaid)

(Covers: Ballard, Calloway, Carlisle, Graves, Hickman, Fulton, Marshall and McCracken)

(270) 247-4046

Goodwill

Paducah Location

2560 Lone Oak Rd.

Paducah, KY 42001

(270)554-9298

Mayfield location

1235 Paris Rd.

Mayfield, KY 42066

(270) 251-5400

Heartland CARES, Inc. (They assist individuals living with HIV/AIDS)

619 N. 30th St.

Paducah, KY 42001

(270) 444-8183 or (877) 444-8183

www.hcares.org

HEART USA (They help disabled/elderly to receive medications they cannot afford/ 55+)

1530 Lone Oak Rd.

Paducah, KY 42001

(270) 538-5828

Mission Behind Bars & Beyond-Mentoring Program

3050 W. Broadway

Louisville, KY

Contact: Dean Bucalos (502)396-3543

Disabled American Veterans

Mayfield Chapter

902 N. 15 St.

Mayfield, KY

(270) 382-2997

www.DAV.org

Paducah Chapter

1133 Murray Ave

Paducah, KY

(270)444-9808

Purchase Area Development District (Covers: Ballard, Calloway, Carlisle, Fulton, Graves, Hickman, Marshall and McCracken)

1002 Medical Drive

Mayfield, KY 42066

(270)247-7171

www.purchaseadd.org

Pennyryle Area Development District (Covers: Caldwell, Crittenden, Christian, Livingston, Lyon, Muhlenberg, Hopkins, Todd, and Trigg)

300 Hammond Dr.

Hopkinsville, KY 42240

(270)866-9484

www.peadd.org

Kevil J U Memorial Foundation

1900 S. 10th St.

Mayfield, KY 42066

(270)804-7329

www.jukevil.com

Social Security Office- National Toll Free- (800)772-1213

Paducah Location	Mayfield Location	Hopkinsville Location	Main Office
125 Brett Cir.	1526 Cuba Rd.	1650 Marie Dr.	601 W. Broadway
Paducah, KY 42003	Mayfield, KY 42066	Hopkinsville, KY 42440	Louisville, KY
(866)614-7905	(866)931-8366	(800)772-1213	(866)716-9671

WWW.SSA.GOV

Office of Vital Statistics (Birth Certificates)

275 E. Main St. 1E-B

Frankfort, KY 40621

(502)564-4212

www.chfs.ky.gov/dph/vital/birthcert.htm

Kentucky Legal Aid

Paducah Location	Hopkinsville- Satellite Office
1122 Jefferson St.	709 S. Main St.
Paducah, KY 42001	Hopkinsville, KY 42440
(270)442-5518	(270)825-3801
www.klaid.org	

Four Rivers Behavioral Health (Serves: Ballard, Carlisle, Hickman, Fulton, McCracken, & Calloway)

Paducah Location	Mayfield Location
425 Broadway	1525 Cuba Rd.
Paducah, KY 42001	Mayfield, KY 42066
(270)442-7121	(270)247-2588
(800)592-3980	(866)369-2588
WWW.4RBH.org	

Pennyroyal Center

3999 Fort Campbell Blvd.
Hopkinsville, KY 42240
(270)881-9551
(877)473-7766
www.pennyroyalcenter.org

Sanctuary Inc. (Serves: Caldwell, Christian, Crittenden, Hopkins, Livingston, Lyon, Muhlenberg, Todd & Trigg)

210 E. 9th St.
Hopkinsville, KY 42240
(270)885-4572
(800)766-0000
www.thesanctuaryinc.com

Western State-Mental Hospital

2400 Russellville rd.

(270)889-6025

<http://westernstatehospital.ky.gov>

National Alliance for the Mentally Ill

*They have multiple locations throughout the state

(800)950-6264

www.nami.org

Purchase Area Sexual Assault Center (Free & Confidential aid of victims of sexual crimes)

Paducah, KY 42001

(270)534-4422

www.pasacky.org

CenterPoint Recovery Center

530 County Park Rd.

Paducah, KY 42001

(270)444-3640

www.4rbh.org

Center for Accessible Living

1051 N 16th St. Suite C

Murray, KY 42071

(270)753-7676

www.calky.org

Merryman House- Assist with Domestic Violence Victims

Counties: Ballard, Calloway, Carlisle, Fulton, Graves, Hickman, Marshall and McCracken

400 Berger Rd.

Paducah, KY 42001

(270)804-7471

www.merrymanhouse.org

Kentucky Department of Veteran's Affairs

321 W. Main St. Suite 11

Louisville, KY

(502)595-4447

www.veternas.ky.gov

Readjustment Counseling Services (RCS)

US Department of Veteran's Affairs

810 Vermont Ave, NW

Washington, DC 20420

www.va.gov

Temps Plus- Employment Agency

4720 Village Sq. Suite A

Paducah, KY 42001

(270)444-0300

www.tempsplusinc.com

Kentucky Farm Workers Program- Can assist people who has done farm work in past (2) years
(the criteria is very broad so contact the number below to find if your eligible)

Contact: Miranda Norworthy
(270)705-7647

Alcohol Anonymous

www.area26.net

www.aacincinnati.org

Narcotics Anonymous

(800)662-4357

www.NA.org

Mental Health American of Kentucky

216 E. Reynolds Rd

Lexington, KY

(859)684-7778

mhaky@mhaky.org

www.mhaky.org

Sites to Help with Prescription

www.pparx.org

www.rxassist.org

www.rxhope.com

HOTLINES:

Toll Free Numbers

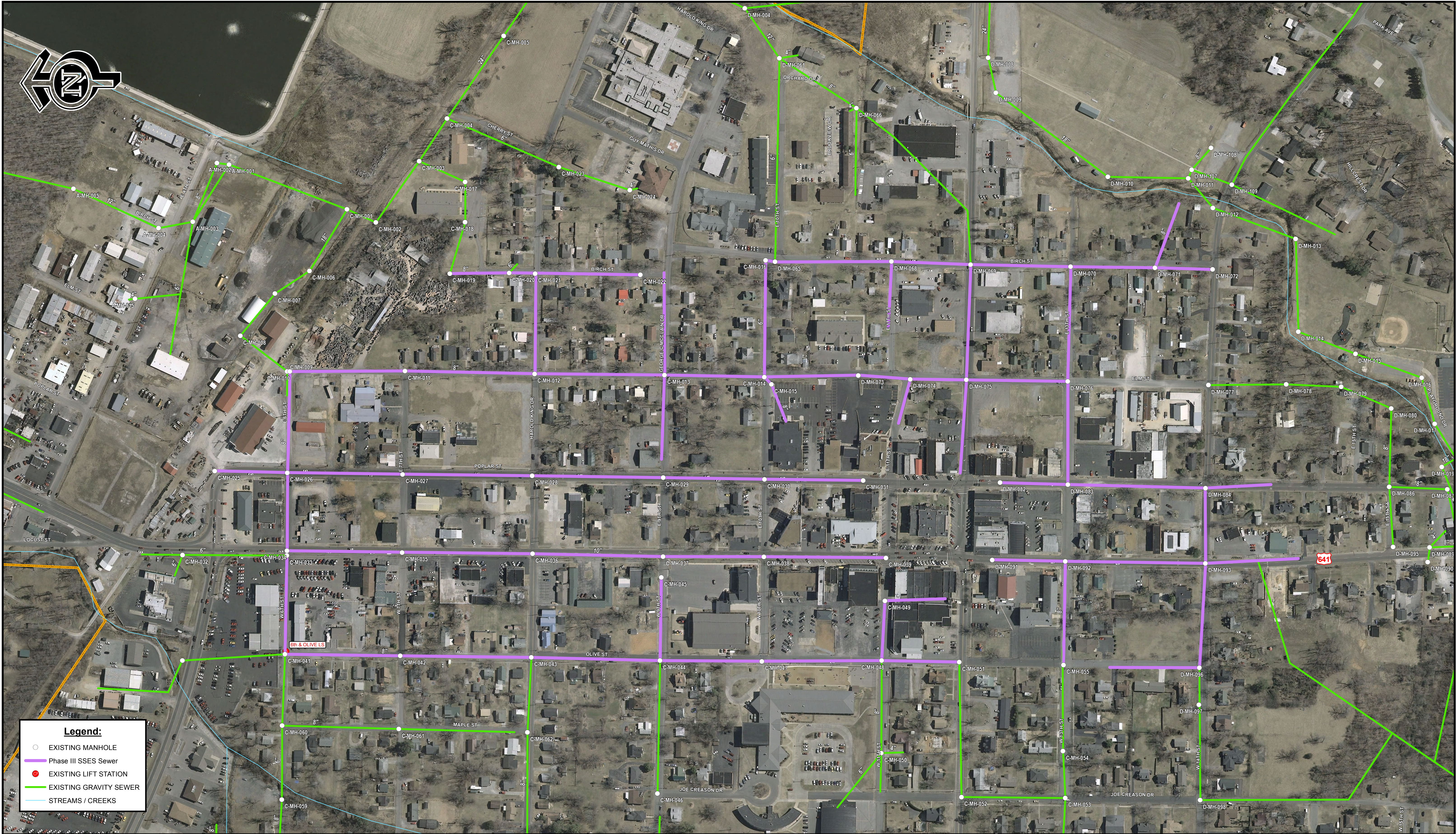
Abuse Hotline.....800-752-6200

Adoption Hotline.....800-432-9346

Department of Public Health (Adult & Children).....800-462-6122

Department Of Public Health (KY HIV-AIDS Program).....	800-420-7431
Bluegrass First Steps.....	800-454-2764
Cancer Information Service.....	800-422-6237
Cabinet for Health & Family Services Ombudsman.....	800-372-2973
Child Support Infor/Enforcement Hotline.....	800-248-1163
Child support Voice Response System.....	800-443-1576
Kentucky Department of Medicaid Services.....	800-635-2570
Consumer Product Safety Commission.....	800-638-2772
US Department for Housing Discrimination.....	800-669-9777
Food & Drug Administration Center.....	800-332-4010
Kentucky Department of Community Based Services.....	855-306-8959
Foster Care Information.....	800-592-5437
Four Rivers Behavioral Health Counseling line.....	800-592-3980
Home Health Agency Hotline.....	800-635-6290
Long Term Ombudsman.....	800-372-2991
Medicaid Managed Care.....	877-807-4027
National Lead Info Center.....	800-424-5323
Poison Emergency & Information.....	800-222-1222
Crisis Hotline.....	800-422-1060
State Health Insurance Assistance Program.....	877-293-7447
Welfare & Medicaid Fraud Hotline.....	800-372-2970
Lexington-Fayette Urban Co. Gov. Domestic Violence Prevention Board	859-258-3803
Kentucky Coalition Against Domestic Violence.....	502-209-5382
National Sexual Assault Hotline.....	800-656-4673
Department of Public Advocate- General Attorney Office.....	800-372-2551
National Domestic violence Hotline.....	800-799-7233
Battered Women Justice Project.....	800-903-0111
National Network to End Domestic Violence.....	202-543-5566

1/1/2018



			ICA JOB NO.: 15003		CITY OF BENTON 1009 MAIN STREET BENTON, KY 42025 (270) 527-8677	 7020 U.S. HIGHWAY 68 WEST PADUCAH, KY 42003	PROJECT: BENTON PHASE III SANITARY SEWER EVALUATION STUDY & REHAB	SHEET: 1
			DESIGNED BY: CDM				TITLE: PROJECT SEWERS	
1	05/15	PLANNING MAP	DRAWN BY: CDM					
ISSUE	DATE	DESCRIPTION	CHECKED BY: CDM					

KBE APPROVAL DATE: DECEMBER 2020

MARSHALL COUNTY SCHOOLS DISTRICT FACILITY PLAN

NEXT DFP DUE: DECEMBER 2024

PLAN OF SCHOOL ORGANIZATION

1. Current Plan PS-5, 6-8, 9-12
2. Long Range Plan PS-5, 6-8, 9-12

SCHOOL CENTERS

	Status	Organization	Student Enrollment/ Capacity
1. Secondary			
a. Marshall County High School/Tech Center	Permanent	9-12 Center	1288/1236
2. Middle			
a. North Marshall Middle School	Permanent	6-8 Center	543/667
b. South Marshall Middle School	Permanent	6-8 Center	496/667
3. Elementary			
a. Benton Elementary School	Permanent	PS-5 Center	489/673
b. Calvert City Elementary School	Permanent	PS-5 Center	275/405
c. Central Elementary School	Permanent	PS-5 Center	482/550
d. Jonathan Elementary School	Permanent	PS-5 Center	209/325
e. Sharpe Elementary School	Permanent	PS-5 Center	288/358
f. South Marshall Elementary School	Permanent	PS-5 Center	285/400

CAPITAL CONSTRUCTION PRIORITIES (Schedule within the 2022-2024 Biennium)

1a. New construction to meet student capacity; further implementation of established programs; or complete approved projects constructed in phases. NONE	Eff. %	Cost Est.
1b. New construction to replace inadequate spaces; expand existing or new buildings for educational purposes; consolidate schools; or replace deteriorated facilities. NONE	Eff. %	Cost Est.
1c. Major renovation/additions of educational facilities; including expansions, kitchens, cafeterias, libraries, administrative areas, auditoriums, and gymnasiums.	Eff. %	Cost Est.
1. Benton Elementary Major renovation to include; single ply Roofing over gymnasium, cafeteria, library, administrative suite.	69,716 Sq. Ft.	\$165,000
2. Central Elementary Major renovation to include; single ply Roofing over gymnasium	64,573 Sq. Ft.	\$85,000
3. Marshall County High School - Technical Center Major renovations include; Replace existing roof	31,112 Sq. Ft.	\$245,000
4. Marshall County High School 1974, 1980, 1985, 1989, 1994, 1997, 2019 Renovation to include; Redesign FMD unit. The two FMD classrooms are in different buildings this creates a security and ADA compliant issue. The plan calls for them to be located in the main building to meet KDE requirements.	271,660 Sq. Ft.	\$160,000
1d. KERA Strands New Additions: Preschool, SBDM Office & Conf., Fam. Res. NONE	Eff. %	Cost Est.

CAPITAL CONSTRUCTION PRIORITIES (Schedule after the 2022-2024 Biennium)

2a. New construction to meet student capacity; further implementation of established programs; or complete approved projects constructed in phases. NONE	Eff. %	Cost Est.
2b. New construction to replace inadequate spaces; expand existing or new buildings for educational purposes; consolidate schools; or replace deteriorated facilities. NONE	Eff. %	Cost Est.
2c. Major renovation/additions of educational facilities; including expansions, kitchens, cafeterias, libraries, administrative areas, auditoriums, and gymnasiums.	Eff. %	Cost Est.

1. Benton Elementary	1993	69,716 Sq. Ft.	
Major renovation to include; Flooring and acoustic ceiling. HVAC chiller replacement, supplemental AC, replace kitchen hood.			\$540,400
2. Calvert City Elementary	1960, 1963, 1968, 1995, 2008	57,974 Sq. Ft.	
Major renovation for 60; 63; 68 to include; Roofing over gymnasium and original building, pave parking lot, add parking striping, add wheel stops, replace asphalt shingles (mansard roof-soffit), repair sidewalks, replace existing louvered doors in cafeteria/kitchen, repair existing brick, renovate existing flooring in original building, replace existing windows with insulated units that have thermally broken frames, replace all existing ceiling tile and grid in original building. Replace outdated plumbing fixtures, replace outdated water coolers, , replace electrical service and distribution, replace intercommunication system, renovate electric service and switchgear, renovate public address system, install clock system.			\$2,320,300
3. Central Elementary	1993, 1999	64,573 Sq. Ft.	
Major renovation to include; Replace individual HVAC units dedicated for dry food storage and MDF, replace chiller, replace kitchen hood, add site lighting.			\$409,600
4. Jonathan Elementary	1969, 2001	41,240 Sq. Ft.	
Major renovation (1969) to include; Repair paving, resurface parking lot, replace asphalt shingles(mansard roof -soffit), repair existing brick, replace windows(1969), repair/repaint walls in gymnasium, replace ceiling tiles and grid in original building, and replace flooring. Replace plumbing fixtures, replace kitchen hood and make-up air unit, add dishwasher hood, add HVAC for network room, replace original electrical service and distribution,			\$1,799,450
5. North Marshall Middle School	2006	95,300 Sq. Ft.	
Renovation to include; Repair select portions of existing Membrane roofing and associated flashing.			
6. Sharpe Elementary	1958, 1959, 1961, 1962, 1964, 1965, 1971, 1987, 1999,	56,395 Sq. Ft.	
Major renovations (all sections except 1999 & 2019) include; flooring, ceilings, windows, exterior doors, door hardware, renovate plumbing, renovate/replace HVAC system, renovate kitchen hood, MUAU, dishwasher hood, improve power distribution, renovate technology.			\$4,154,150
7. South Marshall Elementary	1974, 1977, 1986, 1988, 1993, 1996	42,477 Sq. Ft.	
Major renovations include; Pave parking lot, repair/add sidewalks, repair brick, toilet partitions, ceilings., renovate WWTP, replace boiler with two high efficient boilers, replace AGU and terminal units, replace kitchen AHU, install DOAS ventilation, install dedicated HVAC for dry food storage, two computer labs, and MDF. Replace kitchen hood, MUAU, and dishwasher hood, improve electrical distribution service, improve public address system, renovate clock system.			\$2,561,450
8. Marshall County High School - Technical Center	1972	31,112 Sq. Ft.	
Major renovations include; relocate auto body and auto tech classrooms to first level, renovate FMD classroom to include roll-in shower and accessible toilet, replace toilet partitions, repair exterior brick, flooring, asphalt paving. install DOAS ventilation, install dedicated HVAC for comm. closet, improve all shop exhaust systems, improve public address system.			\$1,266,100
9. Marshall County High School - Ag Building	1974	6,961 Sq. Ft.	
Major renovations include; Doors, flooring, windows, install sink, provide improved access to fenced courtyard at greenhouse, provide resource storage accessible from classroom, replace roof, replace overhead door, provide toilet partitions, replace lockers.			\$285,000

2d. KERA Strands New Additions: Preschool, SBDM Office & Conf., Fam. Res.
NONE

2e. Renovation to upgrade all existing facilities to meet the most current life safety requirements of the Kentucky Building Code.

1. Benton Elementary	1993	69,716 Sq. Ft.	
Emergency lighting, exit signs, renovate fire alarm system, install CCTV			\$240,200.00
2. Calvert City Elementary	1960, 1963, 1968, 1995, 2008	57,974 Sq. Ft.	
Add CCTV security system, replace emergency lighting and exit signage, add sprinklers to the building, replace fire alarm system			\$592,500.00
3. Central Elementary	1993, 1999	64,573 Sq. Ft.	
Add CCTV security system, renovate fire alarm system			\$130,800.00
4. Jonathan Elementary	1969, 2001	41,240 Sq. Ft.	
Add CCTV security system, replace emergency lighting and exit signage in original, improve fire alarm system.			\$86,500.00
5. Marshall County High School			\$36,500.00
install stage smoke evacuation system			
6. Sharpe Elementary	1958, 1959, 1961, 1962, 1964, 1965, 1971, 1987, 1999,	271,660 Sq. Ft.	
Add CCTV security system, Add Sprinkler System			\$65,400.00

7. South Marshall Elementary	1974, 1977, 1986, 1988, 1993, 1996	42,477 Sq. Ft.	\$390,100.00
Install CCTV, handrails and guardrails at stairs, Add automatic sprinklers, renovate emergency lighting, renovate egress signage and lighting, improve fire alarm system			
8. Marshall County High School - Technical Center	1972	31,112 Sq. Ft.	\$269,200.00
Install CCTV, Install automatic sprinkler system, renovate emergency lighting, improve fire alarm system			
2f. Renovation to upgrade all existing facilities to meet the current handicapped accessibility requirements of the Kentucky Building Code.			
1. Calvert City Elementary	1960, 1963, 1968, 1995, 2008	57,974 Sq. Ft.	\$135,000.00
Update current hardware with ADA compliant hardware			
2. Central Elementary	1993, 1999	64,573 Sq. Ft.	\$4,100.00
Replace plumbing guards that are not ADA approved			
3. Jonathan Elementary	1969, 2001	41,240 Sq. Ft.	\$58,000.00
Replace existing hardware with ADA compliant hardware, install ADA toilet hardware			
4. South Marshall Elementary	1974, 1977, 1986, 1988, 1993, 1996	42,477 Sq. Ft.	\$78,750.00
Update hardware with ADA compliant hardware			
5. Star Academy High School	1990	3,072 Sq. Ft.	\$10,000.00
Door hardware to comply with ADA			
6. Marshall County High School - Technical Center	1972	31,112 Sq. Ft.	\$50,000.00
Door hardware to be compliant with ADA			
7. Marshall County High School - Ag. Building	1974	6,961 Sq. Ft.	\$12,000.00
Door hardware to be ADA compliant			

CAPITAL CONSTRUCTION PRIORITIES (Regardless of Schedule)

3. Construction of non-educational additions or expansions including; kitchen, cafeterias, administrative areas, auditoriums and gymnasiums.	Eff. %	Cost Est.
NONE		
4. Management support areas; Construct, acquisition, or renovation of central offices, bus garages, or central stores	Eff. %	Cost Est.
1 Marshall County Board of Education		
Renovation includes; Roofing		\$72,000

DISTRICT NEED

5. Discretionary Construction Projects; Functional Centers; Improvements by new construction or renovation.

Estimated Costs of these projects will not be included in the FACILITY NEEDS ASSESSMENT TOTAL.

1. North Marshall Middle	2006	95,300 sf.		
Construct:	1 Concession/Restroom Facility	1,500 sf.	71%	\$519,507
Renovate:	1 Science Lab	1,000 sf.	71%	\$346,606
Renovate:	3 Resource rooms	375 sf.	71%	\$389,931
Renovate	1 Track & Field renovations & Improv			\$380,000
Renovate	1 replace select ceiling in PE locker rooms, science lab casework needs repair/replacement.			\$65,000
2. Marshall County High School	1990	271,660 sf.		
Construct:	1 Health Classroom/Wellness Center	3,000 sf.	68%	\$1,185,882
3. Star Academy High School	1990	3,072 sf.		
Major renovations include; Flooring, windows, toilet partitions.				\$40,000
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Renovation includes; paving parking lot				\$51,000