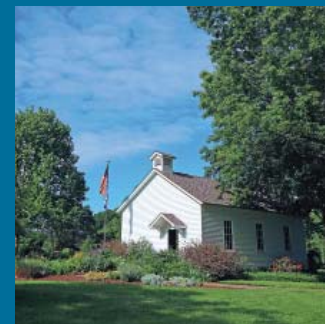
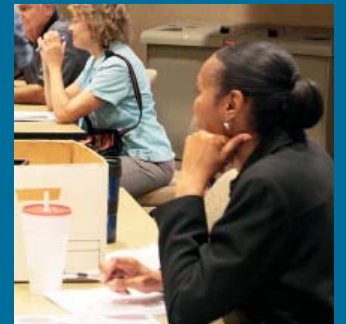


# Columbia Imagined

The Plan for How We Live & Grow



Introduced by McDavid

First Reading 6-17-13

Second Reading 7-1-13

Third Reading 8-19-13

Fourth Reading 10-7-13

Ordinance No. 021830

Council Bill No. B 161-13 A

**AN ORDINANCE**

adopting "Columbia Imagined - The Plan for How We Live & Grow"; describing the nature of that document; and fixing the time when this ordinance shall become effective.

BE IT ORDAINED BY THE COUNCIL OF THE CITY OF COLUMBIA, MISSOURI, AS FOLLOWS:

SECTION 1. The City Council approves and adopts "Columbia Imagined - The Plan for How We Live & Grow," dated June 17, 2013, as amended, a copy of which, marked "Exhibit A," is attached to this ordinance, as the comprehensive plan for the physical development of the City.

SECTION 2. "Columbia Imagined - The Plan for How We Live & Grow" shall replace all components of "Metro 2020: A Planning Guide for Columbia's Future," adopted on February 5, 2001 by Ordinance No. 016774.

SECTION 3. "Columbia Imagined - The Plan for How We Live & Grow" shall serve as a policy guide to public and private actions in the development of the City. The Plan is advisory only and not regulatory. The Plan does not control the use of private property and does not limit the City Council's discretion in approving and enacting land use regulations and development plans.

SECTION 4. This ordinance shall be in full force and effect from and after its passage.


PASSED this 7th day of October, 2013.

ATTEST:

  
City Clerk

  
Mayor and Presiding Officer

APPROVED AS TO FORM:

  
City Counselor

## Acknowledgements

This Plan is the result of extensive work by the Comprehensive Plan Task Force and City of Columbia staff under the oversight of the Planning and Zoning Commission, input from consultants, and direction from the City Council and the public. The City of Columbia would like to thank all of the citizens who completed the public opinion surveys, attended meetings, and provided invaluable input into the development of the Plan. Special thanks are extended to the following individuals:

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## **Executive Summary**

Goals of Columbia Imagined  
Guiding Principles  
Chapter Summaries

The seven categories are:

1. Land Use and Growth Management
2. Environmental Management
3. Infrastructure
4. Mobility, Connectivity and Accessibility
5. Economic Development
6. Inter-Governmental Cooperation
7. Livable and Sustainable Communities

**Form-based zoning** is a planning tool which addresses urban sprawl, the need for safe streets, and the preservation of historic neighborhoods. It encourages compact, vibrant, walkable cities.

Instead of zoning by land use, form-based zoning looks at a development's height, placement, appearance, and relationship to surrounding buildings, neighborhoods, and districts.

"Columbia Imagined – The Plan for How We Live & Grow" is the City of Columbia's new comprehensive land use plan. This plan is intended to provide residents, appointed boards and commissions, and elected officials with a document that will help guide and direct the City's growth until 2030.

The plan builds upon a foundation of public engagement begun with the efforts of Imagine Columbia's Future (2006-2008) and is in direct response to one of the recommendations of the Development Citizens' Topic Group that suggested, as a strategy, to "implement a growth management plan that incorporates **form-based zoning**."

The planning process involved many different individuals. At the local level and in accordance with state statutes, the Planning and Zoning Commission is charged with the responsibility of preparing the plan and recommending it to the City Council. The City Council appointed a 15-member Task Force to assist in the public outreach and research efforts to compile the materials that follow. These groups were further assisted by consultants from the University of Missouri and the City's Community Development Department staff.

While the efforts of the above groups have yielded the plan that follows, the ideas upon which this plan has been built would not have been realized without the involvement of the citizens of Columbia. A goal of achieving the participation of three percent of the City's population (roughly 3,000 people) was set during the kick-off meeting held in April, 2011. While the exact number of participants is difficult to measure, completion of this plan

included direct outreach to over 80,000 citizens, asking them to participate in the development of Columbia Imagined via a variety of methods addressed in Chapter Two. This participation has been critical in shaping and influencing the contents of the chapters that follow, especially the "Big Ideas" and "Growth Patterns and Policies" chapters.

## Preparing to Plan

Embarking on the task of developing a comprehensive plan such as Columbia Imagined requires an understanding of what one has to work with and what has proven to be successful in similar communities. To this end, the Task Force spent the first 10 months of this planning process learning what planning efforts existed within Columbia and how these efforts have impacted the development that now exists.

During this same period, the Task Force organized into subcommittees to evaluate other cities' comprehensive plans and to review the goals and objectives from the Imagine Columbia's Future visioning efforts. The results of this "planning to plan" phase of the Columbia Imagined process have influenced the plan framework and the outreach efforts used by the Task Force and Planning Commission in the development of this plan.

The first, and most notable, influence of the plan preparation phase was the establishment of this document's framework. The Task Force's Purposeful Planning Subcommittee identified seven categories around which this plan has been developed.



The categories are the result of a reorganization of the 12 topic areas listed in City Council resolution #113-09A that authorized the comprehensive plan and were seen by the subcommittee as superior to the traditional listing of topics like land use, transportation, housing, etc.

#### The seven categories are:



#### Land Use and Growth Management



#### Environmental Management



#### Infrastructure



#### Mobility, Connectivity, and Accessibility



#### Economic Development



#### Inter-Governmental Cooperation



#### Livable and Sustainable Communities

A second notable outcome of the preparation phase dealt with designing the public engagement process. A conscious effort was made to ensure that residents would be engaged and that many input opportunities would sustain resident involvement throughout the plan development process.

To this end, ColumbiaImagined.com, a website devoted to the plan, was created in addition to Facebook and Twitter social media sites. Public engagement meetings were held throughout the community and meeting kits were developed to allow residents a convenient way to share the plan's objectives with neighbors or other interested parties. Online surveying and strategically placed survey drop boxes were also implemented as part of the public outreach efforts to ensure a sustained stream of public engagement.

These combined efforts have influenced the contents of the document that follows. The comments, ideas, goals, and objectives obtained through these outreach efforts are seen throughout the plan. This plan, while prepared by professional staff, is a publicly influenced document that incorporates the ideas representative of the diversity found within our community. This plan is what Columbians have imagined our future to be.

### The Goals of *Columbia Imagined*

*Columbia Imagined* will replace the City's existing comprehensive plan, *Metro 2020*, which was adopted in February 2001. While *Columbia Imagined* contains several similar elements to *Metro 2020*, such as a land use plan policy and recommendations, it also examines the social and environmental implications that land use changes have on the community. These added areas of focus are important elements to encourage more holistic planning for the City's future and its citizens' quality of life.

#### Columbia Imagined:

1. Provides a framework for shaping and managing growth and allowing for more detailed plans.
2. Is built upon current and accurate data that is a product of community conversation and outreach.

*Citizens' Quotes:*  
*Quotes gathered from citizens during the public input part of the planning process are included in the margins of this document. This illustrates the origins of the ideas expressed in the main text.*



The Plan for How We Live & Grow

3. Incorporates best management practices of planning and sustainability.
4. Provides an opportunity to address key issues facing Columbia.
5. Provides an opportunity for reviews, updates, and amendments.
6. Incorporates Columbia's physical and economic aspects as well as social issues.
7. "Connects the dots" to other City plans.
8. Provides reliable guidance for rezoning, subdivision, and planned district approvals.
9. Includes implementation measures and strategies.
10. Incorporates and identifies opportunities for more regional planning collaboration and builds upon existing relationships.

Each of these goals are found within the chapters that follow or identified as opportunities for future policy development as part of the plan implementation strategies.

## Guiding Principles

The success of a plan is based, in part, on how successful it is in providing meaningful guidance to its end users. To ensure that this plan is utilized as a resource in future decision making, its contents focus on a set of common objectives or principles. Conformity with these objectives or principles should become the benchmark for future policy and land use decisions. Careful consideration should be given to the ramifications of policies and proposals that deviate from these objectives and principles prior to the final approval of other documents by elected officials.

This check-and-balance approach is necessary to ensure that the process of public engagement utilized throughout the development of Columbia Imagined is upheld. Unnecessary deviation from these generally expressed objectives and principles may compromise public trust in the overall planning process and diminish future public involvement in updating this plan as well as

other planning efforts necessary to facilitate implementation of its goals and objectives.

The guiding principles listed below emerged from what the public expressed as the type of community they want to live in (see Phase III, community input). These principles are expanded upon in the pages that follow. In some instances they are readily apparent, while in others a new policy or regulation may be needed to become part of the decision-making process.

### The guiding principles:

1. Preservation and enhancement of the existing network of **recreation** facilities, programs, and opportunities shall influence future growth and development within and surrounding Columbia.
2. Identify, promote, and enhance **cultural opportunities and the arts** throughout Columbia as it continues to grow in population and as a regional destination.
3. Balance the **quality of life** enjoyed by residents with the needs of providing new employment and diverse housing and home ownership opportunities for an increasing population.
4. Identify and enhance opportunities for continued investment in **downtown** so that it becomes the preferred hub of activity for cultural, dining, and recreational activities.
5. Leverage Columbia's location, quality of life, access to high-quality education/research facilities, and medical services in its pursuit of sustainable **economic opportunities** viewed as essential to compete in a global economy.
6. Balance the needs of growth so that the **small town feel** of Columbia is retained through sustainable programs, policies, and innovative regulations.
7. Acknowledge, respect, and preserve the **natural environment** in and around Columbia so that its aesthetic and ecological value is retained for future generations.
8. Preserve the **historic integrity** of Columbia's landmarks, neighborhoods, and downtown through methods such as

#### Guiding Principles:

1. Recreation
2. Cultural opportunities and the arts
3. Quality of life
4. Downtown
5. Economic opportunities
6. Small town feel
7. Natural environment
8. Historic integrity
9. Educational opportunities



education, incentives, and regulations so that these resources and the history they represent are not lost as the community develops.

9. Support and encourage **educational opportunities** with Columbia's institutions of higher education as well as its public and private schools so that partnerships may be forged, permitting enhanced economic stature within the region, state, and nation.

## Chapter Summaries

The following are brief descriptions of each chapter of Columbia Imagined. Highlighted is information critical in understanding the broader plan and its goals and objectives.

### Chapter One – Existing Conditions

Chapter One provides background information about what makes Columbia the place that it is. In this chapter, the seven categories are used as the organizing structure in presenting the existing conditions of the City. The chapter starts by describing the history of planning in Columbia and wraps up with what elements make our community livable and sustainable. The chapter includes information about our efforts related to environmental management, the state of our infrastructure, how we move about and connect neighborhoods, what drives the economy, and what cooperation exists with other local and quasi-governmental agencies. This chapter is intended to give the reader a basic understanding of who we are and where we have been.

### Chapter Two – The Planning Process

Chapter Two explains the process, techniques, and tools used in the development of Columbia Imagined to engage the public in the preparation of the plan. This chapter also explains the role of the planning partners and the design of each phase of the plan. The tools used to obtain public input and examples of engagement materials and results are included.

### Chapter Three – The “Big Ideas”

Chapter Three explores the “Big Ideas” that emerged from

asking the community “What do we care about?” and “Where are we headed?” during the third and fourth phases of the plan. Big ideas are the guiding principles and priorities the plan must consider when looking at growth scenarios and policy recommendations. These principles and priorities are reflective of the community's favorite things about Columbia (those aspects that must be preserved and promoted) and describe what the community should become over the next twenty years. The issues, goals, and objectives described in Chapter Three align the plan with the pulse of the community.

### Chapter Four – Growth Patterns & Policies

Chapter Four provides an in-depth look at where and how future growth is most likely to occur based on current land use patterns and policies. Population and employment projections are matched with recent development patterns and an inventory of developable land area to predict future land use needs through 2030.

The results of this analysis are compared to the core values and beliefs as expressed by Columbia citizens in Phase III and IV public input forums. This comparative exercise highlights both consistencies and discrepancies between current development practice and core community principles.

Land use policies and strategies are recommended in the latter half of the chapter by which the pattern of future growth may be influenced to more closely align land use and development practices with the citizens' community vision and values.

### Chapter Five – Implementation

Chapter Five introduces the reader to the Columbia Imagined implementation table, implementation tracking process, and table modification procedures. Within the table are the Plan's goals, objectives, and strategies as well as the key stakeholders for each identified task or policy objective. The policy objectives also describe a general priority for completion—low, medium or high—as identified by the public in Phase V. The implementation table was structured around broader policy objectives developed as part of the preceding chapter, and is intended to guide the staff, Planning and Zoning Commission, and City Council in mak-

#### Columbia Imagined Chapters:

- Chapter One – Existing Conditions
- Chapter Two – The Planning Process
- Chapter Three – The “Big Ideas”
- Chapter Four – Growth Patterns & Policies
- Chapter Five – Implementation



The Plan for How We Live & Grow

ing any necessary changes to the City's regulations such that the Plan's broad objectives are fulfilled.

Chapter 5 also describes how the plan, table, and future land use map will be updated and amended as needed. Evaluation of policy outcomes will be compared with the policies, goals, and objectives identified by the public at appropriate intervals. Additionally, population growth and demographics, housing, employment, and other trends will be evaluated so that the models used in the plan may be updated to best represent the land use needs of the community throughout the 20-year planning horizon.

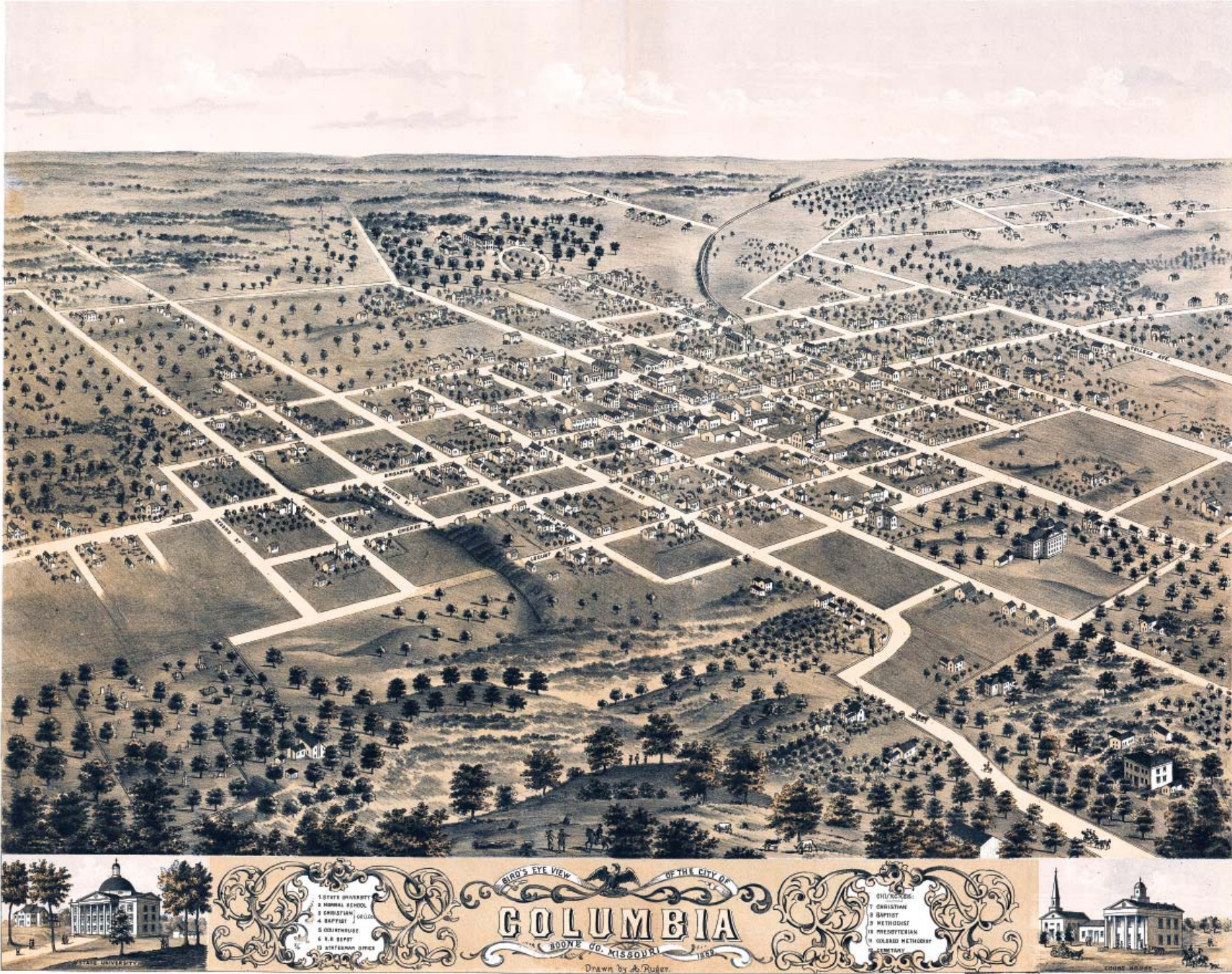
The chapter concludes with the future land use map for the study area. The future land use map may be realized by the adoption of the policies presented in the implementation table and is intended to present a picture of how and where growth is likely to occur in the future if guided by the expectations and desires of the community.











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## **Chapter One – Existing Conditions**

Land Use and Growth Management

Environmental Management

Infrastructure

Mobility, Connectivity, and Accessibility

Economic Development

Inter-Governmental Cooperation

Livable and Sustainable Communities

#### Core responsibilities of the Comprehensive Plan Task Force:

- Strategies for maximum citizen participation
- Public education and outreach on planning concepts, including growth management and smart growth
- Recruitment of volunteers to share talents and interests in public forums
- Review and comment on interim products such as data collection reports; a policy and plan audit report; an issues and opportunities summary; draft goals, objectives and strategies; plan, map and graphic exhibits; and draft implementation program

The basis for making informed decisions regarding a community's future growth and development first requires an understanding of what elements define the community—in other words, the existing conditions. The following pages provide an explanation of what makes Columbia the city that it is.

This chapter is organized into seven categories identified by the **Comprehensive Plan Task Force** after review of other comparable community comprehensive plans. The seven categories are:



#### Land Use and Growth Management



#### Environmental Management



#### Infrastructure



#### Mobility, Connectivity, and Accessibility



#### Economic Development



#### Inter-Governmental Cooperation



#### Livable and Sustainable Communities

These categories represent the twelve topic areas listed in the City Council resolution (Resolution # 113-09A) that authorized the comprehensive plan and the creation of the Comprehensive Plan Task Force. During its work on the plan, a task-force subcommittee found that broad categories were superior to the traditional listing of topics like land use, transportation, housing, etc. The twelve topic areas are not disappearing from the plan, however; they are represented within the seven categories.

The seven categories overlap; this is intentional. The plan avoids limiting the discussion topics by balancing relationships between, among, and within the topics themselves. Transportation, traditionally a mainstay of comprehensive plans, is described primarily in the theme area of Mobility, Connectivity, and Accessibility, yet it is also viewed as a building block in the other six categories (see Figure 1-1).

This chapter lays the foundation upon which subsequent chapters concerning goals and objectives, projections and policies, and implementation strategies are built. The existing conditions analysis captures those elements that are most representative of Columbia and makes every effort to incorporate the comments received during public input forums relating to the categories.

The data presented in this chapter was compiled between June 2010 and September 2012. The 2010 US Census Bureau data has been incorporated into this chapter as well as the 2010 City of Columbia Natural Resource Inventory. Additional data sources are referenced as needed.

Within this chapter and the remainder of this plan, the word “development” refers not only to real estate development, but also to the development of a complete setting for community, including open spaces, historic preservation and sustainable development initiatives.

## Each category overlaps with the others:



Figure 1-1: Seven overlapping categories

Each of the seven categories could be the center of the diagram.  
This example displays how *Mobility, Connectivity, and Accessibility* connects to all of the different categories.





## 1.1 Land Use and Growth Management

### A City Established

#### From Settlement to City

The City of Columbia was **incorporated in 1821** on gently rolling upland in central Missouri. This area was defined by the Flat Branch Creek valley and a gentle depression north of the current business district. The City was originally platted in a grid pattern creating predictable rectilinear lots, blocks, and streets not uncommon for cities of the time. This pattern allowed for efficient use of land and movement of residents and goods.

As growth progressed beyond the confines of the early city limits, this pattern of development has changed. The pattern has often been **influenced by the topography** of the adjacent valleys of the Hinkson, Grindstone, and Bear Creeks, but has also been driven by changes in the housing industry, introduction of the automobile, and preferences to live in less dense environments.

The roadway pattern that exists outside the original city is **curvilinear**, often following ridge tops and valleys. These newer streets tend to be **more disconnected**, since overcoming environmental impediments is generally more expensive. This pattern of development places **greater reliance on the automobile** and often results in less efficient land use than compared to that of the original city.

#### Defining Attributes

Columbia is unique in several respects. It is a **single-city metropolitan area**. No other metro area above 50,000 people in Missouri or in the surrounding region has fewer than two contiguous, incorporated municipalities.

The City also takes on **more functions** than is typical of municipalities. It offers the usual menu of street maintenance, police

and fire protection, code enforcement, and parks and recreation services. However, Columbia also maintains a municipal electric and water utility, an airport, a railroad short line, and an Office of Cultural Affairs that includes a public art program. Additionally, the City is engaged in cooperative efforts with Boone County relating to the provision of several key services such as economic development and public health.

Columbia relies on water districts to provide water to some areas, and the Boone County Regional Sewer District to provide wastewater collection to places City sewers cannot reach. A separate electric utility provides some of the power distribution in the City, and governmental units called transportation development districts (TDDs) have also been used to provide needed transportation infrastructure.

The City has **steadily grown in population** since its establishment (see Table 1-1). Persistent and moderate growth, combined with the relative stability of education, government, and other service-based (health care, insurance) employment, has contributed to Columbia's unique character.



Figure 1-2: 1920s Columbia map  
For roughly a century, Columbia grew according to a grid pattern.

Population of Columbia		
Census Year	Population	% Change
1960	36,560	
1970	58,814	60.8%
1980	62,061	5.5%
1990	69,101	11.3%
2000	84,531	22.3%
2010	108,500	28.3%

Source: US Census

Table 1-1: Population of Columbia

Large population growth in the 1960s and 1970s may be largely attributed to annexation. Map 1-2 on page 18 displays annexation patterns by decade. Findings reported in the most recent citizen survey (2011), however, indicated that only 37 percent of Columbians surveyed said they were satisfied with “planning for growth” and 34 percent of the total surveyed indicated they were dissatisfied—the highest dissatisfaction rate among six categories measuring perceptions

citizens have of the City.<sup>1</sup> With these ratings of satisfaction one may ask, “What is Columbia’s land use and growth management strategy today?” The remainder of this section explains how we have gotten to where we are.

## Land Use Regulation & Comprehensive Plans

### An Established History

Land use regulation and comprehensive planning in Columbia began in 1935. On May 6, 1935, the City Council adopted the City’s first zoning ordinance. This historic event was followed by the adoption of the City’s first comprehensive plan entitled “**A City Plan for Columbia, Missouri**” on July 1, 1935. This plan was prepared by city planners Hare & Hare of Kansas City.

In the years that have followed, revisions to the 1935 City Plan and original zoning ordinance have been made. New land use plans were adopted in 1957, 1967, 1983, 1991, and 2001. The City’s zoning ordinance was completely revised and readopted in 1964. The City also adopted subdivision regulations in 1964. Numerous other plans have been produced in the intervening years to address an array of issues.

The legacies of these plans are seen in the recommendations which have, for better or worse, been implemented or ignored. For instance, the 1935 Comprehensive Plan recommended a scenic highway from Highway 40 to Highway 63 (ultimately built as Stadium Blvd.), and 4 feet wide sidewalks (which remained the standard in residential areas until 2004, when it was revised to 5 feet wide). Later plans, most specifically the 1956-1966 Urban Renewal Plan for the Douglass School Area, greatly impacted not just the urban fabric of the central City, but also the social landscape, an impact discussed in “Factors Shaping the Land Use Pattern” later in this chapter.

#### The revisions to the original comprehensive plan and zoning

1 The other five “perception” categories: quality of services provided by the City (80% satisfied); overall quality of life in the City (78%); overall feeling of safety in the City (64%); overall value received for City tax dollars (57%); and the direction the City is heading (51%). “Satisfied” means the respondent answered “very satisfied” or “satisfied” in her or his response.

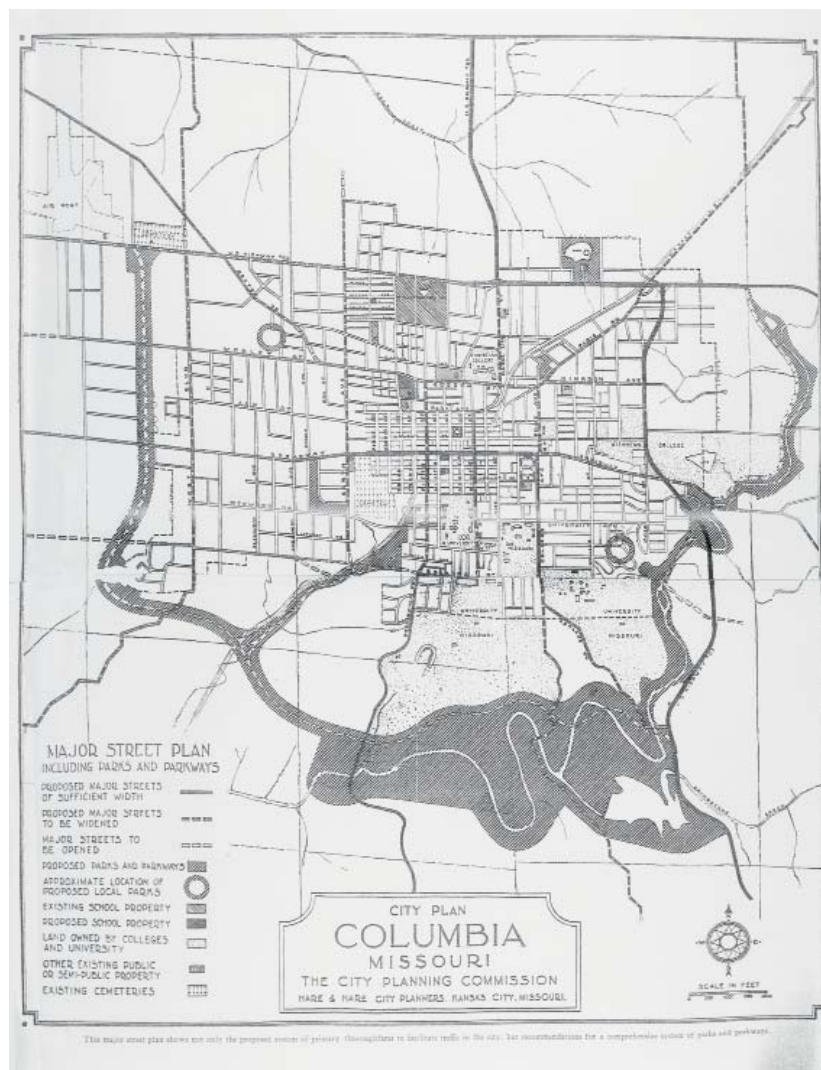


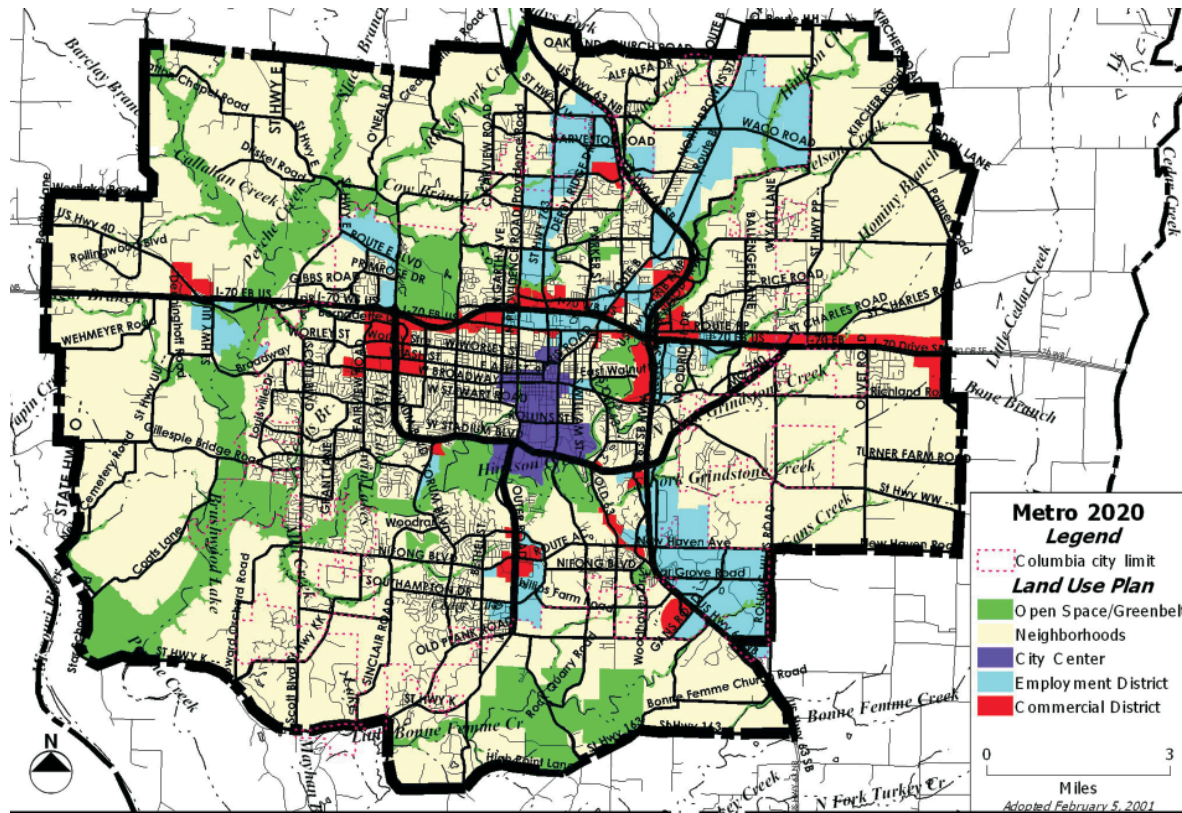
Figure 1-3: Columbia’s first comprehensive plan, c. 1935

The first comprehensive plan was adopted in 1935 and included a zoning district map, a major street map, and policy recommendations to guide future growth and development.

ordinance and the adoption of new plans were often produced to meet neighborhood or community needs and covered a wide range of topics. In addition to the urban revitalization plans of the 1960s, special area/corridor plans emerged in the 1980s, and comprehensive area plans were prepared in the 2000s for north-east and east Columbia.

### Columbia Metro 2020: A Planning Guide for Colum-





Map 1-1: *Metro 2020* Land Use Map  
Source: Community Development,  
City of Columbia, February 2001

## Columbia's Future

In February, 2001, the City adopted its most current comprehensive plan, *Metro 2020*. This plan has provided general guidance for development decisions over the last decade.

Unlike conventional land use plans, which offer detailed, geographic guidance for future growth and land use areas, *Metro 2020* provides policies and principles intended to ensure land use compatibility while encouraging integration of complementary uses within its various land use districts.<sup>2</sup> The principal element of the *Metro 2020* plan is its land use map (see Map 1- 1).

## Columbia Imagined – The Plan for How We Live and

<sup>2</sup> "Columbia Metro 2020: A Planning Guide for Columbia's Future" Department of Planning and Development, City of Columbia, January 16, 2001

## Grow

In January, 2010, the process of developing the City's new comprehensive plan began. *Columbia Imagined* provides development guidance for a period of approximately 20 years, to the year 2030. The plan looks holistically at the impacts that land use change has on the city and blends traditional land use planning elements such as transportation, economic development, and infrastructure with evolving social/community issues such as environmental protection/preservation and livability.

*Columbia Imagined*, like its predecessor plans, is a "living document" and will need amendment over time to remain relevant and offer decision-making guidance to elected and appointed officials. The process of amending and revisiting the ideas, goals, and objectives expressed in *Columbia Imagined*, and how the public will be engaged in that process, is discussed briefly in Chapter Two and more specifically in Chapter Five.

## Factors Shaping the Land Use Pattern

### From Mixed-Use to Zoning Classifications

The land use patterns of Columbia have been significantly influenced by the implementation of land use regulations (i.e., zoning). Until 1935, zoning regulations had not been implemented for the city; therefore, it was common to have a variety of land use activities intermingled with each other. Model zoning regulations were introduced in the United States in 1924 and became more prevalent at the local level in 1928 with the passage of the Standard City Planning Enabling Act. Land use regulations are generally established to protect the health, safety, and welfare of a community's residents.

With the introduction of zoning, the once heterogeneous mixture of land uses that defined the City's development pattern became increasingly based on a system of use classifications. This transition resulted in the establishment of different zoning classifications specific to each type of land use found within the city (i.e., commercial, industrial, office, and residential). In 1935, the City's first zoning ordinance and land use map included only seven



zoning classifications. By contrast, the 2012 zoning ordinance includes 23 different zoning classifications, each with its own specific set of permitted land uses and other development requirements. Table 1-2 provides the acreage each of these 23 zoning classifications occupies within the City.

## Social and Urban Changes

While often seen as a way of protecting the public's health, safety and property values, the separation of land uses by zoning classification sometimes produced unintended consequences. As Columbia has evolved from a small settlement to a full-service city and added land to its municipal limits, the zoning applied to the newly acquired acreage has often resulted in areas defined by social and racial class.

As Columbia moved into the post-World War II era, a shift from central city living to suburban destinations began. These new suburban developments were primarily constructed to meet the demands of returning military personnel and for those of greater wealth. The shift was fueled by an increase in automobile ownership, an increase in personal wealth, and the desire to avoid perceived over-crowded conditions, crime, and other undesirable elements within the central City.

At the same time, following passage of the federal 1949 Housing Act, Columbians voted to establish the Land Clearance for Redevelopment Authority of Columbia in 1956. The 1949 Housing Act provided two-thirds funding subsidies for urban renewal activities, including the clearance of areas designated as blighted, the construction of public housing, as well as other infrastructure improvements.

The legacy of urban renewal in Columbia can be seen in the 126 acre Douglass School Urban Renewal Area plan (1956-1966). Within the plan area, a total of \$3.7 million of federal and local funds were spent with both positive and negative results. Ultimately, ten miles of curbs and gutters, four miles of sidewalks, 210 public housing units, Douglass Park, the Post Office, and the "Blind" Boone Community Center were built. Sewers were enclosed, and flooding of the Flat Branch Creek was controlled. A total of 386 families and 61 businesses were either displaced or

Zoning District	Acres
A-1 (Agricultural)	8,277.41
R-1 (One-family Dwelling)	14,530.29
R-2 (Two-family Dwelling)	1,437.60
R-3 (Medium Density Multiple-family)	2,175.32
R-4 (High Density Multiple-family)	85.07
PUD (Planned Unit Development - all types)	2,113.36
RMH (Residential Manufactured Home Park)	238.22
C-1 (Intermediate Business)	428.20
C-2 (Central Business)	144.97
C-3 (General Business)	1,361.59
C-P (Planned Business)	1,408.30
O-1 (Office)	569.68
O-2 (Special Office)	3.57
O-P (Planned Office)	410.52
M-1 (General Industrial)	1,577.99
M-C (Controlled Industrial)	1,110.74
M-P (Planned General Industrial)	71.34
M-R (Research, Development, & Office Park)	73.89
F-1 (Floodplain overlay)	4,219.82
H-P (Historic Preservation overlay)	7.02
M-U (Underground Space)	169.37
S-R (Scenic Roadway Area overlay)	142.72
U-C (Urban Conservation overlay)	384.99
<b>Total</b>	<b>40,942.00*</b>

Table 1-2: Acreage by Zoning Districts

Source: City of Columbia

\*This acreage does not add up to the area of the City, because it includes overlay districts.



Work on *Columbia Imagined* began in early 2010. A living document, it will be revised and updated to reflect community needs as well as growth and development trends over the next 20 years.



The Plan for How We Live & Grow

relocated as a result of the area's redevelopment.

The legacy of these two forces—changing economic conditions and housing preferences and public policies to clear slums—altered the racial and economic composition of the central city. Areas within the central city that once provided housing for a variety of incomes have become increasingly poorer with lower rates of home ownership. Additionally, minorities were displaced from neighborhoods with well-established social, economic, and community networks.

Issues of greatest concern:

*“Haphazard and seemingly unrestricted annexation policy that is not to the City's benefit from a financial perspective nor from an energy efficiency viewpoint.”*

Currently, the central city continues to have low home ownership rates when compared to other areas of the city. This trend is partially the result of the continued conversion or redevelopment of urban neighborhoods for student housing to support the demands of three institutions of higher education. The siting of public housing also plays a role. However, there is an increasing desire to re-invest in these original central residential city neighborhoods. The affordability of central city properties, their proximity to major employers (e.g., higher education and downtown businesses), and transportation options are once again making these areas attractive.

Even though central city neighborhoods are seeing a resurgence of desirability, many of the services that once supported the vibrant neighborhoods of the late 1940s and 1950s have been relocated to auto-centric suburban areas. Neighborhood commercial areas, due to zoning regulations, are often difficult to establish in what now have become predominantly residentially zoned neighborhoods.

The segmentation of Columbia into various zoning classes has resulted in most residential neighborhoods becoming homogeneous in density and use type. This similarity has done little to preserve the integration of neighborhood services within easy reach of many Columbians. Addressing this situation will be essential to supporting the rebirth of the central city and for it to continue to succeed as a destination for those seeking an urban lifestyle.

## The Annexation Effect

Land use regulation is the most common way of affecting the city's development pattern, but expansion of the City's corporate limits can have an equally significant impact. Expansion of the city's boundary has occurred since 1926. As of January 1, 2012, Columbia consisted of 63.125 square miles. This is approximately the same size as the City of St. Louis proper.

Map 1-2, on the following page, shows the progression of annexation since 1826. From 2000-2010, the City has increased its territory through voluntary annexation by almost ten square miles. The largest City expansion was in 1969, when over 12,000 acres (18.75 square miles) of land was brought into the City.

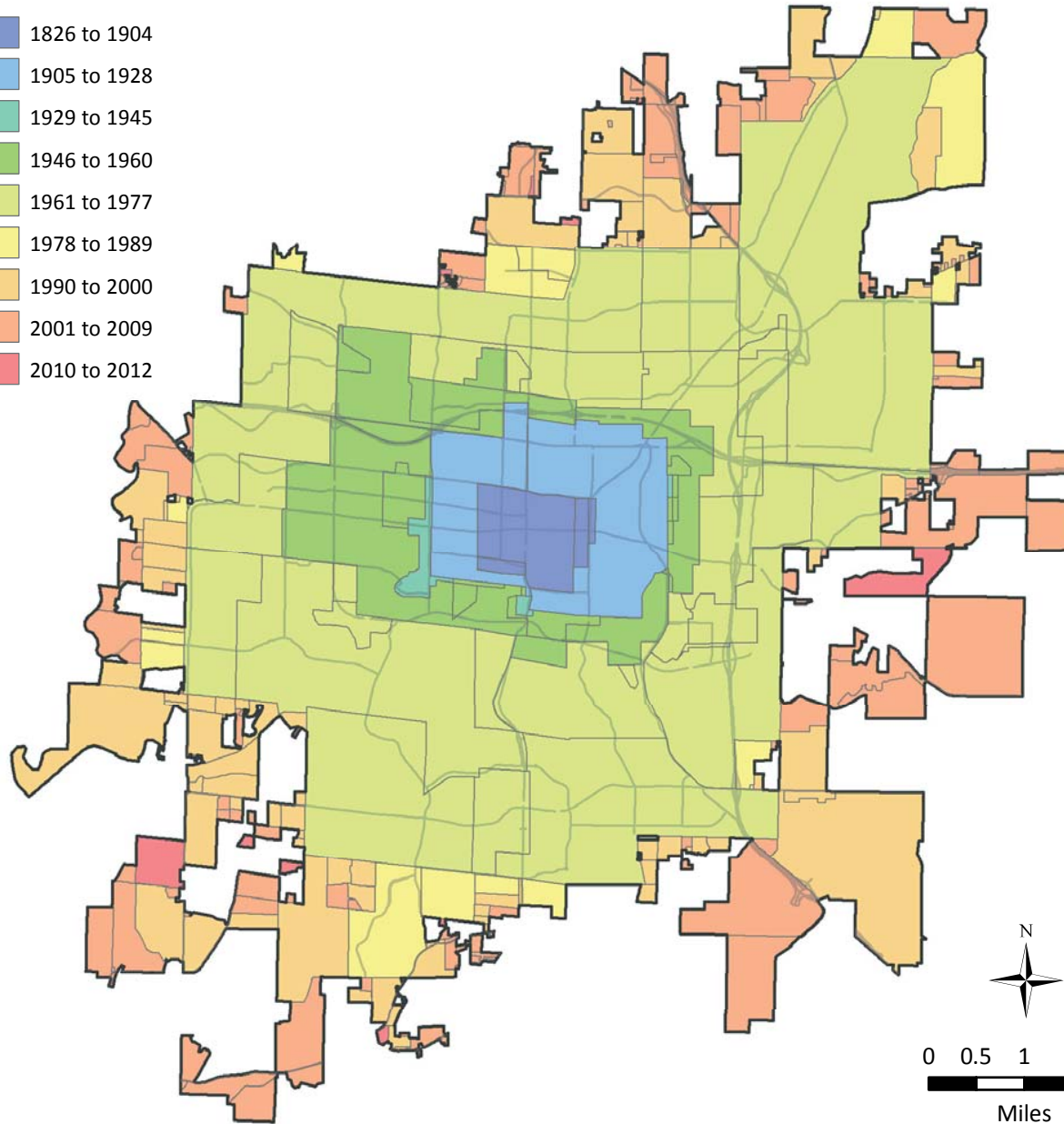
Current City policy requires land to become part of the city (annexed) or be subject to an annexation agreement prior to receiving City sewer service connection. This has led to a jagged City boundary in many locations. Questions arise on whether this policy actually hinders the ability to have a “contiguous and compact” boundary as was intended by the Missouri State enabling statute, or if it is proper expansion. A copy of the City's existing annexation policy (PR 115 -97A) can be found in the appendix.

Comments received during public input forums revealed that many felt Columbia was growing too rapidly and sprawl was a concern. A desire was expressed that development be more concentrated and focused to those areas of the city that were vacant or underdeveloped. Additionally, issues surrounding adequate cost recovery for utility infrastructure expansion were raised. The public's general sentiment was that expansion of infrastructure ahead of a true need was a cost that should be borne by those demanding the services.

In 2010, the City Manager created a task force to review and make recommendations on infrastructure cost allocation. The Infrastructure Task Force (ITF) completed its initial review of possible options for cost allocation in 2011. The results of this review are described in Chapter Four as a land use and growth management strategy.

**Annexation History**

- 1826 to 1904
- 1905 to 1928
- 1929 to 1945
- 1946 to 1960
- 1961 to 1977
- 1978 to 1989
- 1990 to 2000
- 2001 to 2009
- 2010 to 2012



Map 1-2: Annexation History  
Source: City of Columbia



The extension of sewer to the east side of Columbia has allowed for new development. Increasing population in the area created a need for a new elementary and high school on the northeast side of Columbia. Battle High School opens in the fall of 2013 with an adjacent elementary school planned to open thereafter.



Figure 1-4: Artist's rendering of Battle High School.

Below: Aerial photograph of Battle High School construction.



## Infrastructure Availability

The City's land use pattern is not only influenced by zoning and annexation policy, but also by roadway and utility corridors, utility service areas, and other environmental factors. The construction, availability, and placement of these features all influence the pattern of development within and around Columbia. The presence of infrastructure and City policies related to infrastructure maintenance, siting, and construction are discussed in detail in sections 1.2 and 1.3 of this chapter.

An example of how transportation infrastructure has influenced land use is found along the Old Nifong Boulevard corridor. Following the construction of Grindstone Parkway, commercial development replaced the existing agricultural and low density residential uses. The installation of this four-lane divided roadway enhanced accessibility to an area previously deficient in roadway infrastructure and provided opportunities for business growth.

An example of how utility placement has influenced land use can be seen in east Columbia. The extension of sanitary sewer service east of the Highway 63 corridor north of Route WW to eliminate on-site waste disposal lagoons and their related potential public health issues has also allowed for the development of several new residential subdivisions. This installation enabled

development in areas previously not considered available for such uses. An extension of this line will serve the new Battle High School to the north of Interstate 70 near St. Charles Road.

An example of how service areas influence land use can be seen near Rock Bridge High School. When the school was constructed in the mid-1960s, the area was agricultural pastureland and served as the extreme southern boundary of the city. In the decades following the school's construction, significant growth in southwest Columbia occurred in the surrounding area. This same type of development is anticipated around Battle High School in northeast Columbia.

## Areas of Development Opportunity

As noted above, infrastructure placement drives development activity and has a significant impact on the land use pattern. New infrastructure investments have been made in areas to the east of Highway 63 to support future growth. Sanitary sewer lines have been extended to reach developing industrial sites in the Gans, Grindstone, and Hinkson Creek watersheds.

Sites on Brown Station Road (northeast), Discovery Ridge Parkway (southeast), and Route Z (east) are designated as "shovel ready" for future industrial development. Two new public schools were commissioned for construction (Alpha Hart Lewis Elementary on Waco Road, and Battle High School on St. Charles Road) in the northeast part of the City, with an additional elementary school pending approval. These projects are anticipated to stimulate growth primarily to the east of Highway 63.<sup>3</sup>

<sup>3</sup> "Northeast Columbia Area Plan" Community Development Department, City of Columbia, October, 2009; "East Area Plan" Community Development Department, Boone County and City of Columbia, September 24, 2010

Reinvestment opportunities exist also in previously developed areas which maximizes use of existing or upgraded infrastructure and decreases reliance on cars. Evidence of this can be seen throughout Columbia where once dormant developments are now being brought back online and new buildings are being constructed on vacant commercial- and office-zoned property. This type of activity is seen most prominently in downtown with the construction and redevelopment of property for new housing and businesses.

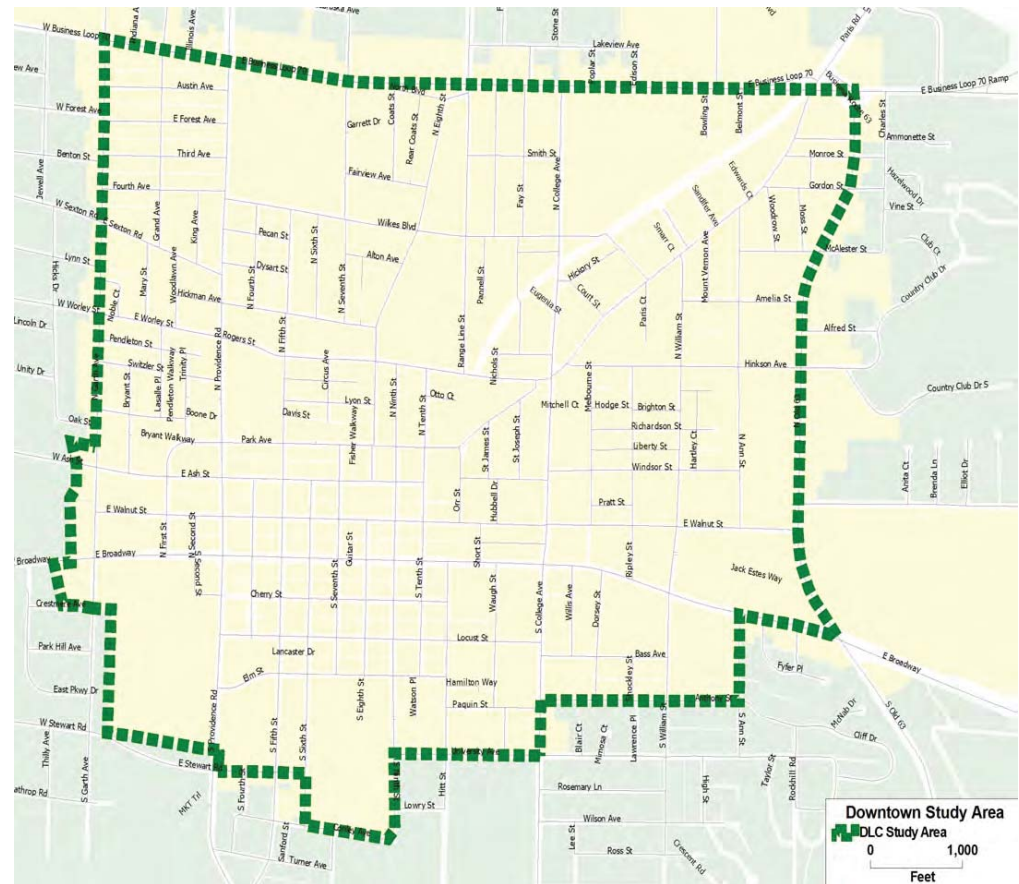
The focus on downtown as a hub of development activity has been supported in the past by the Sasaki Plan (2007) and more recently by the H3 Downtown Columbia Planning Charrette (2010). Both plans made recommendations supporting pockets of high density in the downtown area. The Downtown Leadership Council (DLC) has been charged by the City Council to look at development issues in and surrounding downtown Columbia.

Other opportunities exist for reinvestment outside downtown and can be seen at locations of higher traffic generators such as the Columbia Mall (Stadium/I-70/Worley Street), Broadway Marketplace (Highway 63/Conley Road/E. Broadway), Crosscreek Center (Highway 63/Stadium Boulevard), and the University of Missouri Women's and Children's Hospital (Keene Street corridor). These areas have capacity for accommodating new development that will ultimately influence land use patterns.

Commercial, housing, and office developments are not the only influential factors affecting land use patterns. The location of key public improvements such as parks and schools will also drive the land use pattern in and around Columbia. This is likely to be seen with the opening of Battle High School in northeast Columbia (St. Charles Road) and the continued improvement of the city's new regional park in southeast Columbia, west of the Highway 63/Discovery Ridge Parkway interchange (A. Perry Philips Park and Gans Creek Recreation Area).

## B-1

## EXPANDED DOWNTOWN STUDY AREA DEFINED BY DLC



- The properties shown in yellow have been included as part of the expanded downtown study area by the Downtown Leadership Council.

Map 1-3: DLC Area Map  
Source: City of Columbia

The Downtown Leadership Council (DLC) has been charged by the City Council to look at development issues within and surrounding downtown. More information about the DLC and its planning efforts may be found on the City's website.



The Plan for How We Live & Grow

## Managing Land Use Patterns

### Growth Management

**Growth management** – the application of a variety of planning tools and techniques to deliberately guide the pattern of growth, including the location, type, and character of development.

Columbia's land use pattern has been shaped and influenced by existing regulations, plans, infrastructure, and development trends of the recent past. These effects have not always been desirable for the community or its residents. During public forums, concerns were expressed about the limited availability of affordable housing, access to public transit options, neighborhoods lacking character and connectivity, development sprawl, and the lack of transparency in government decision making. While not a complete list of all the concerns, each one impacts how the future land use pattern of Columbia and its surroundings will emerge as new development occurs.

These concerns are not new to the planning process in Columbia. The discussion of managing and guiding growth occurred as part of the Imagine Columbia's Future visioning efforts (2006-2008) in which the Development Citizen Topic Group proposed a strategy to *"educate the public about growth management"* and *"implement a growth management plan that incorporates form-based zoning."*

In 2004, the Planning and Zoning Commission and staff defined the term **"growth management"** as *"the application of a variety of planning tools and techniques to deliberately guide the pattern of growth, including the location, type, and character of development."*

Typically, growth management plans delineate three categories of planning areas:

- Existing urbanized – urban services and infrastructure available
- Future urban growth area – areas that may be served efficiently by services and infrastructure in the event growth occurs. Future urban areas may also be tiered to schedule extension of services by periods
- Rural area – growth limited to rural in nature and unincorporated by city

In Chapters Four and Five of this plan, these broad categories are used as a backdrop for determining the breadth and reach of potential solutions to the concerns raised during the public forums. Solutions proposed for those issues affecting the urbanized or future growth areas will likely be more significant due to the immediate impact they will bring, whereas solutions developed for the rural area will likely be less significant and tailored to a longer implementation timeline.

### Existing Tools

The City of Columbia has already adopted many of the conventional tools for growth management. These tools include zoning and subdivision codes as well as special area plans and corridor plans.

While these essential building blocks exist, an anticipated outgrowth of Columbia Imagined will be the review and potential adoption of new and more modern methods for managing growth. The Implementation Table in Chapter Five identifies and proposes several such opportunities and development patterns. Other elements that affect Columbia include roadway design and construction and location of parkland.

The design and construction of new roadways is governed by the standard street classification system in the City's subdivision code. Proposed roadway types and their locations are mapped on the City's Major Roadway Plan (MRP) and within the Columbia Area Transportation Study Organization's (CATSO) 2030 Plan. These two documents are used to assist decision makers in understanding where new or upgraded roads will be needed as previously undeveloped land is developed or improved property is further built out.

These plans act as a growth management tool in that improvements they depict must generally be constructed to support new growth. This is especially true if none of the proposed roadway segments surrounding or traversing a property exist. In those instances where roads are existing but substandard, these plans provide the ability to obtain necessary right-of-way for a future roadway upgrade. At times, such acquisition of new right-of-way



is concurrent with other roadway construction already taking place or planned, which then permits a more comprehensive improvement to serve a greater number of residents.

The City's park system and parkland acquisition strategies may also facilitate growth management principles. The location of parks may act as a transition from more intensely developed land uses to lesser ones, or provide a formal separation between areas deemed developable or not. Strategic placement of parks and open space throughout the city has resulted in a better quality of life for area residents, as was routinely expressed during the public forums, and is generally an economic and quality-of-life asset for those living adjacent to such facilities.

Continued local support of park and open space acquisition and development was shown by the passage of the quarter of one cent park sales tax in 2010. This sales tax will permit the Parks and Recreation Department to acquire more properties for further preservation or improvement. Five percent (5%) of the sales tax monies will be used for the acquisition of lands to remain in permanent preservation. The location of such acquisitions will ultimately have a growth management impact, as these lands will not be available for development conversion.

## Potential Tool

A primary growth management tool receiving significant local discussion is form-based zoning. The City has begun reviewing **form-based codes** as an alternative to its current conventional zoning model. Form-based code focuses on form (building scale, arrangement, relationship to the street) rather than land use management (code enforcement; conditions on operations) and use classification (the thought being that uses adjust to form) whereas traditional zoning reverses the importance of these elements. It is one planning tool to help existing neighborhoods transition to higher-density development.

The Downtown Columbia Leadership Council recently co-organized (with the Central Missouri Development Council and Mid-Missouri chapter of the American Institute of Architects) an educational forum on form-based codes to provide more educa-

tion and gauge community support.<sup>4</sup>

## Future Land Use Patterns

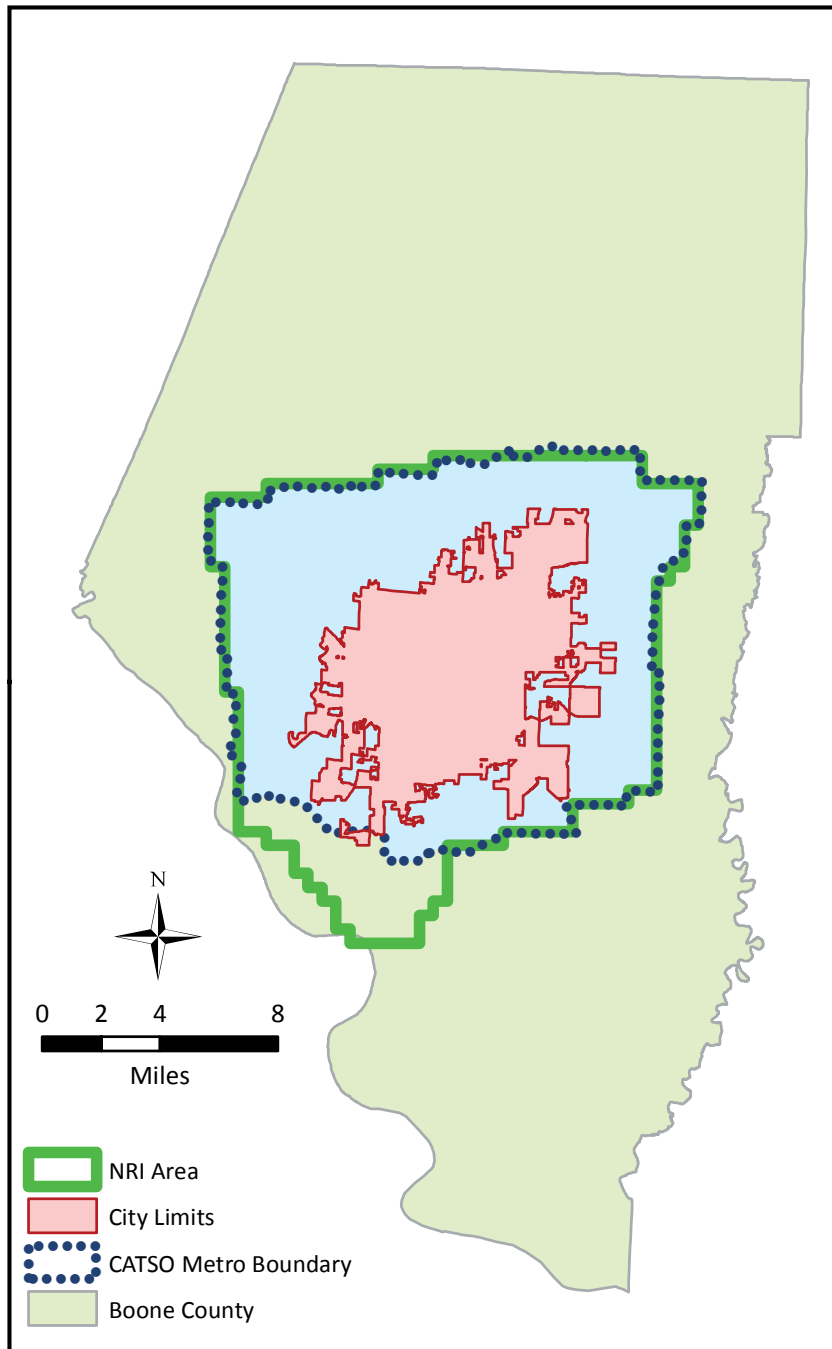
Many factors influence the city's land use pattern. Land use regulations (i.e. zoning), infrastructure placement, areas of development opportunity, and growth management strategies are keys to managing the compatibility or incompatibility of new development within and around Columbia. A greater discussion of how the future land use pattern for Columbia and its surroundings will appear is presented in Chapter Four. This chapter projects and allocates the city's future population and land use needs and offers policies, principles, goals, and objectives to address Columbia's anticipated growth. This chapter provides the basis by which the community's desired future land use pattern can be realized and offers strategies intended to further land use compatibility and responsiveness to community preferences.

The remainder of this chapter will discuss the existing conditions for other community aspects that contribute, not only to land use and growth management but the quality of life enjoyed by residents. Environmental management is next, followed by infrastructure; mobility, connectivity, and accessibility; economic development; intergovernmental cooperation; and livable and sustainable communities.



<sup>4</sup> "What Is Form-Based Zoning?: A Public Forum in Columbia, Missouri" AIA Mid-Missouri, the Central Missouri Development Council, and the City of Columbia

Map 1-4: NRI Study Area  
Source: City of Columbia NRI



## 1.2 Environmental Management

### Appreciating Our Natural Resources

The protection and preservation of natural and environmental resources within and around Columbia is necessary to ensure a sustainable future. The locations of these assets influence the development patterns within the Columbia Imagined study area. Besides adding beauty and character to the landscape, natural resources perform a number of ecological services. For example, mature trees moderate extremes of temperature, transpire oxygen into the atmosphere, and stabilize soil. Wetlands filter waterborne pollutants, provide groundwater recharge, and reduce flooding.

A basic understanding of what and where these resources are is essential to prepare recommendations for future community growth. The following sections provide an overview of how these resources were inventoried, how they impact development, and what plans, programs, policies, and regulations exist to protect them for future generations' enjoyment.

A goal of Columbia Imagined is to incorporate best management practices of planning and sustainability into its future land use planning and policy recommendations. Understanding where the City is currently in relationship to its environmental resources will help in formulating better strategies for where the City wants and should be in the future.

### Natural Resource Inventory

The following maps and figures provide an overview of the physical characteristics of the land and waterways contained within the Columbia Imagined study area. These maps and figures draw upon the inventory of environmental resources identified within the City's Natural Resources Inventory (NRI) report, completed in 2010. The findings of the NRI rely on 2007 land coverage imagery

## Land Cover Classification Distribution

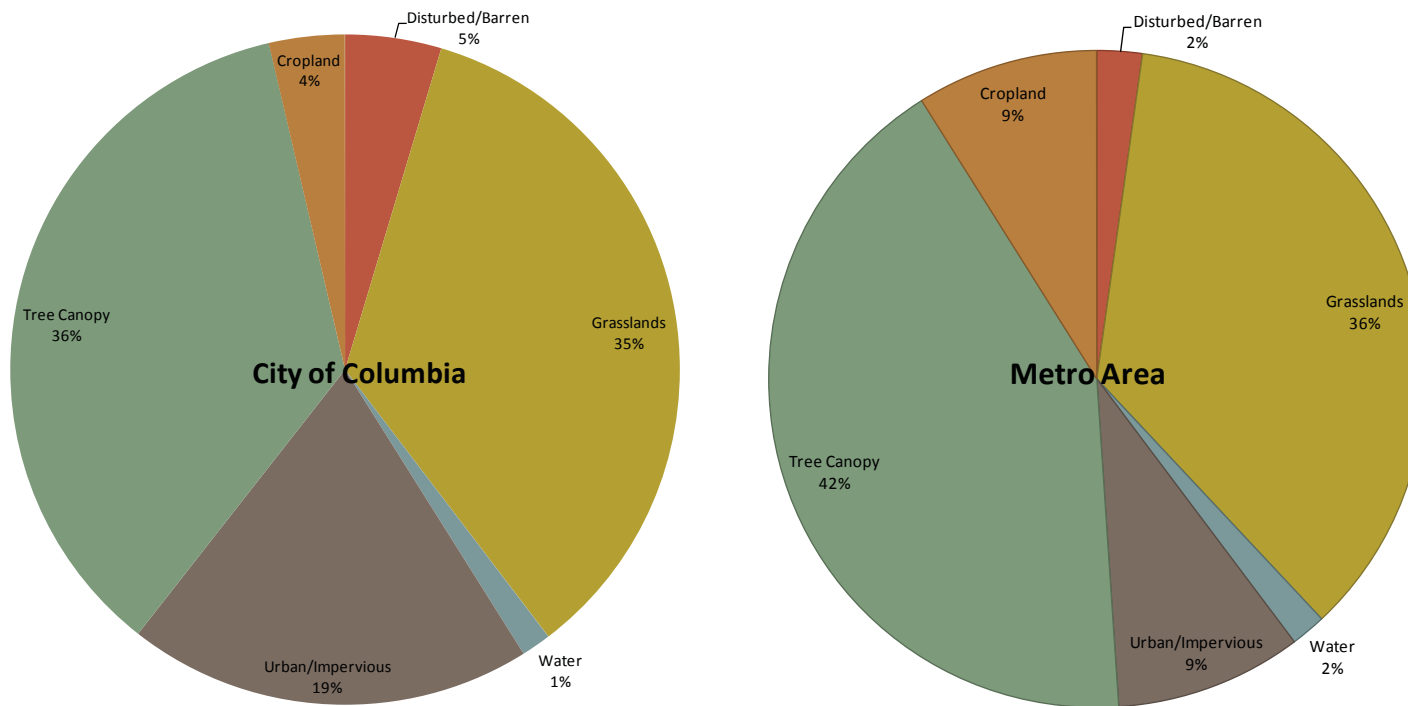


Figure 1-5: NRI Land Cover Distribution Charts  
Source: University of Missouri Geographic Resource Center and City of Columbia NRI

which categorized land coverage within the study area and identified existing natural resources. The NRI's findings are utilized as a baseline for monitoring future changes to the landscape.<sup>1</sup>

Map 1-4 illustrates the NRI study area, which covers approximately 198 square miles in and around Columbia. Of this total, 180 square miles are located within the Columbia Imagined study area, which is also defined as the Metropolitan Planning Area by the Columbia Area Transportation Study Organization (CATSO), the federally designated Metropolitan Planning Organization (MPO) for Columbia and Boone County. The remaining 18 square miles are located southwest of the MPO boundary where the City has recently annexed property. The NRI study area includes all or

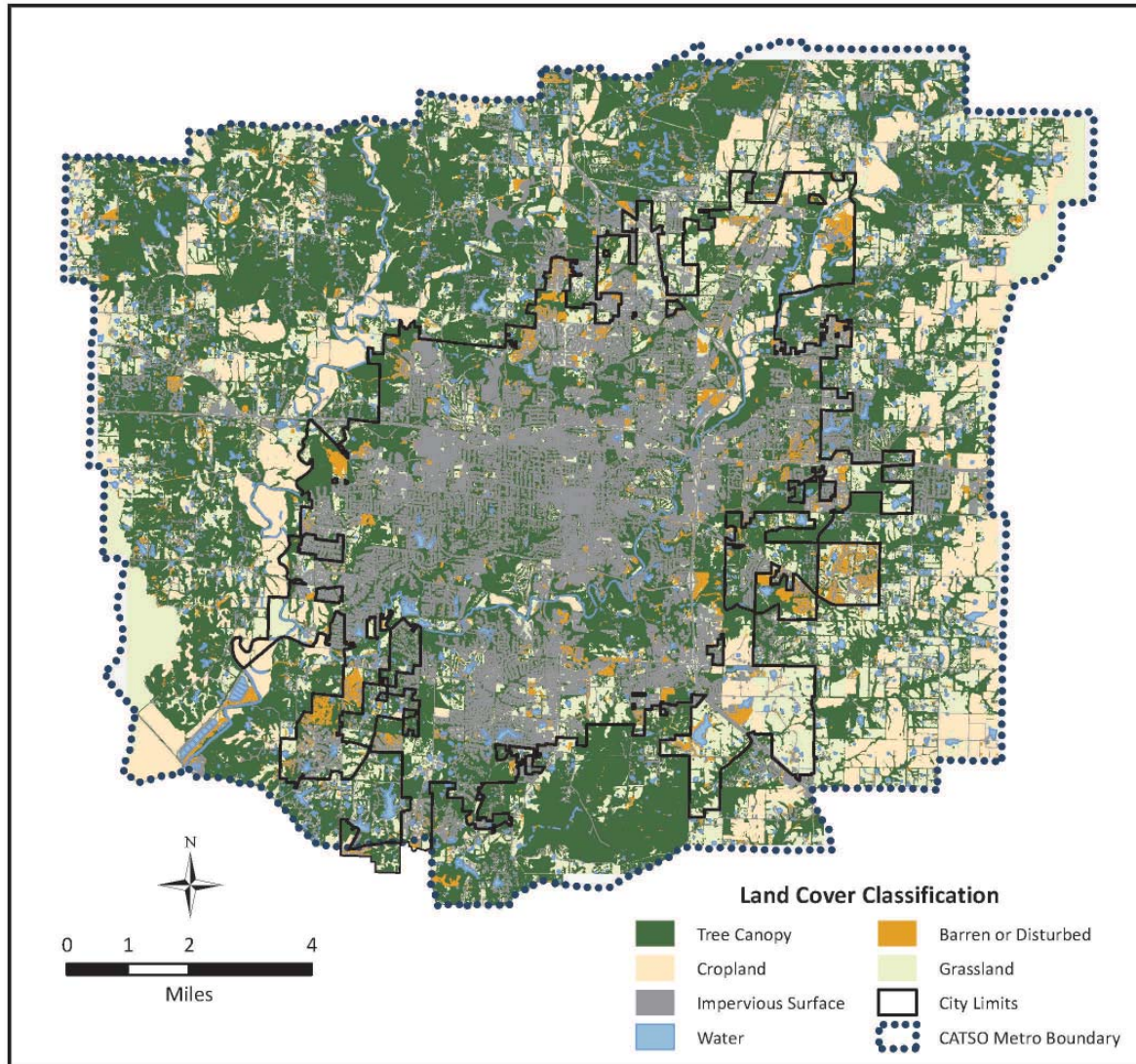
part of 46 separate waterways.

The land cover for the NRI was produced from analysis of high resolution multi-spectral photography collected by the University of Missouri's Geographic Resource Center. This imagery was then verified by field surveys and resulted in the NRI study area's land cover to be grouped into six different classes. These classes include tree canopy, cropland, urban/impervious, water, disturbed/barren, and grassland. More detailed definitions of these classifications can be found in the NRI report, which is available by searching for "Natural Resources Inventory" on the City's website.

Based upon these classifications, land coverage within the NRI study area is distributed as shown above in Figure 1-5. The largest percentage, roughly 1/3 of the City, is classified as "tree

<sup>1</sup> Natural Resources Inventory – Internal Summary Report, City of Columbia, Missouri, October 13, 2009.





Map 1-5: NRI Land Cover  
Source: City of Columbia NRI

canopy.” This classification indicates that at least 60% of the area is covered by trees. As of this writing, a full forest analysis is being completed to determine the types of trees that are found within this acreage.

## Environmental Limitations to Development

The NRI report is a significant resource for understanding existing conditions in and around Columbia. While previous illustrations have focused primarily on how land has been consumed, the NRI offers other valuable data and insights. The following sections explore what development limitations exist in the study area. These limitations influence how future land use patterns can or should be established.

Development limitations resulting from unique environmental resources within the study area can be summarized in three general categories:

1. Physical: Steep slopes, karst topology, sinkholes, soil conditions
2. Regulatory: Zoning and subdivision, floodplain, stormwater, land disturbance, tree preservation
3. Utilities : Centralized sewer service, potable water available at sufficient rates of flow, electric service

Map 1-6 illustrates the interrelationship of these three types of limitations on the potential for development within the study area. Table 1-3 indicates the types of limitations to development in terms of affected land area.

Understanding the impacts these limitations have on future development is important because poorly managing these limited environmental features will result in a degraded natural environment for future generations. Developing, enhancing, and implementing environmental management policies and procedures will ensure that the value these features add to the study area is preserved. This is a key goal in creating a new land use plan for Columbia’s future growth and development.

Development Constraint Acreage by Type	Acreage	% by Type	% of NRI Area
No City of Columbia Sewer Service	20,260.3	42.5%	16.0%
100 Year Floodplain	14,737.0	30.9%	11.6%
Landscape: Slope greater than 10 percent	11,309.8	23.7%	8.9%
Stormwater Buffer	1,419.7	3.0%	1.1%

Table 1-3: Limitations to Development by Type and Acreage

Source: City of Columbia Public Works and NRI data

## Watersheds

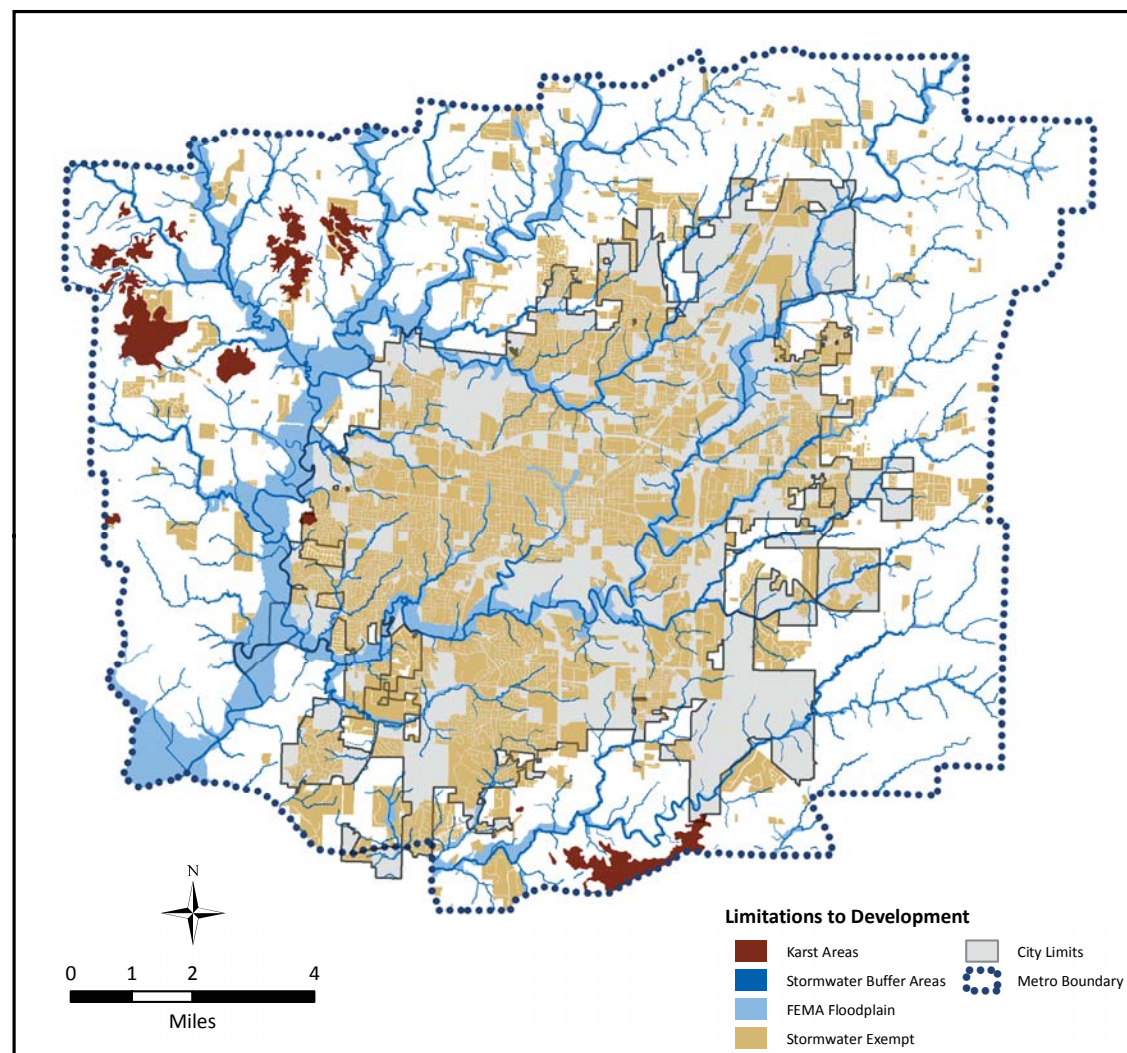
Watersheds are defined in the City Code as “all the land area which drains to a given body of water.” Watershed boundaries are defined by high points and ridges where in gravity moves water from surface runoff to common collection points via drainages, catchments, and sub-watersheds. Each watershed is named after the stream, creek, or river to which it flows. Map 1-7 shows the six watersheds to which the study area is drained. These watersheds are Bonne Femme Creek, Little Bonne Femme Creek, Hinkson Creek, Rocky Fork Creek, and Callahan Creek. All watersheds except Bonne Femme Creek flow into Perche Creek and ultimately drain to the Missouri River. Bonne Femme Creek flows directly into the Missouri River.

## Streams

As noted above, each watershed is named after the stream, creek, or river that it flows into. Streams are bodies of moving water confined by banks, which may include small rivers or large creeks. Streams and stream corridors act as natural filtration systems for groundwater and support a wide variety of wildlife by providing habitat for both aquatic and land animals.

There are three types of streams defined within the City’s regulations:

1. Perennial (Type 1): Perennial streams have well-defined channels that contain water year round.



**Karst topography** results from acidified rainwater infiltrating cracks and fissures in limestone bedrock and slowly dissolving the rock to create large voids. Sinkholes result when these underground caverns collapse and create surface depressions. A prime example of a karst feature in Boone County is Devil’s Icebox Cave in Rock Bridge State Park.

Map 1-6: Limitations to Development  
Source: City of Columbia Public Works  
and NRI data

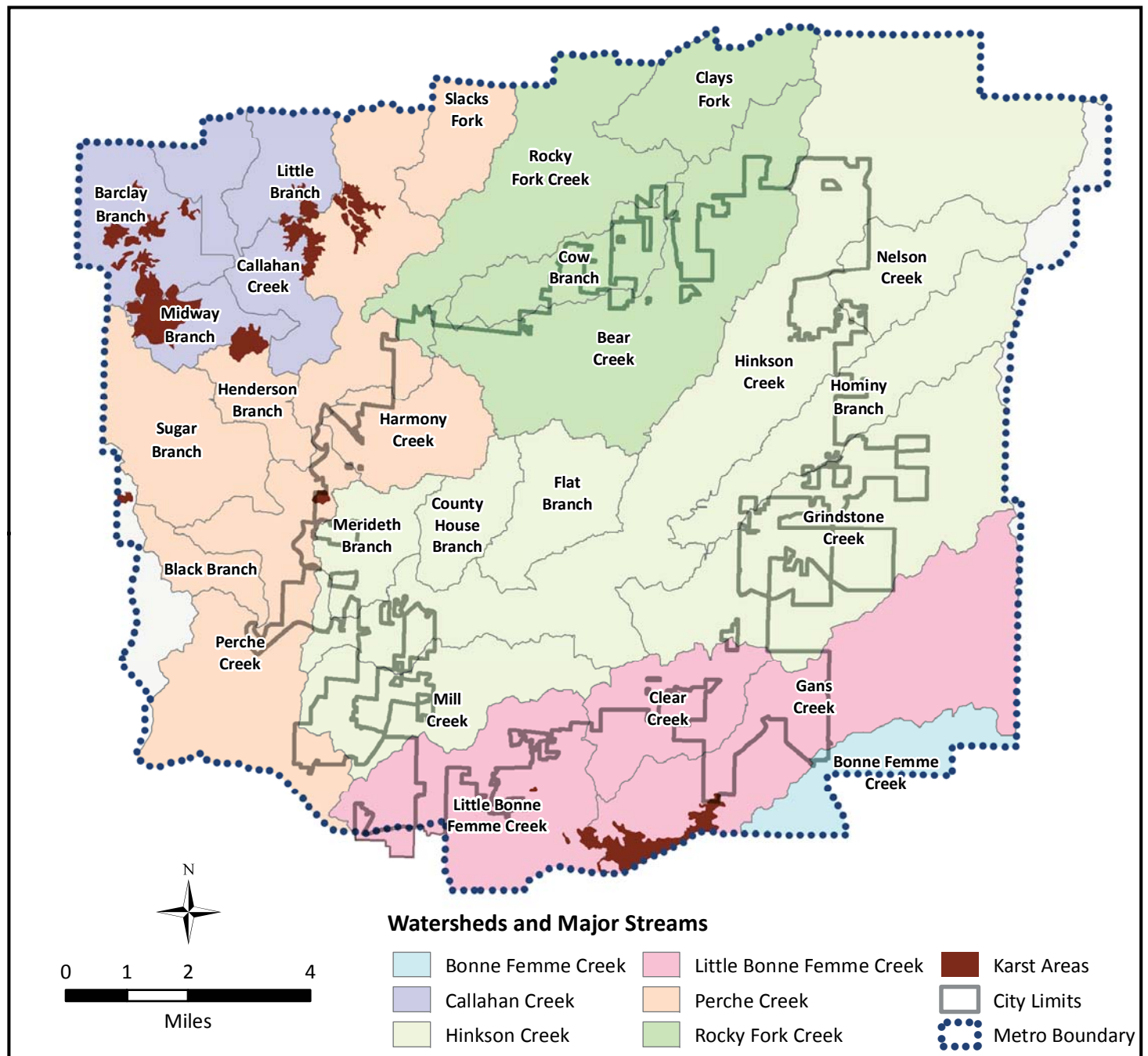


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Map 1-7: Watersheds and Major Streams  
Source: City of Columbia NRI

Watersheds are all the land area that drains into a given body of water. There are six main watersheds in the study area: Bonne Femme, Callahan, Hinkson, Little Bonne Femme, Perche, and Rocky Fork Creeks.





2. Intermittent (Type 2): Intermittent streams have well-defined channels that contain water for only part of the year.
3. Ephemeral (Type 3): Ephemeral streams may or may not have a well-defined channel, and carry only water resulting directly from precipitation events.

The study area is traversed by 20 named perennial streams. The major streams within the study area are shown in Map 1-7.

## Agricultural Land

Nearly half of the Columbia Imagined study area is categorized as grassland or cropland according to the NRI. This is further supported by Map 1-8 from the U.S. Department of Agriculture (USDA). This map shows crop production throughout Boone County. As can be seen, most of the county's crop production occurs outside of the study area. Figure 1-6 (pie chart) shows a breakdown of cropland acreage within Boone County as reported to the USDA in 2012.

Cropland within the study area is primarily concentrated along the east, west, and northeast edges of the City, and constitutes approximately nine percent of the total study area (see Map 1-9). Much of the cropland located on the east side of Highway 63 is considered prime farmland, assuming appropriate drainage, which is defined as "land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses."<sup>2</sup>

Of the remaining land in the study area—excluding developed areas, stream corridors, and steep slopes—a substantial portion is considered "farmland of statewide importance." These lands are not as well-suited for crop production as prime farmland, but could potentially be treated to economically produce high yields of crops.<sup>3</sup> Within the study area, farmland of statewide importance appears to be used primarily for hay production.

<sup>2</sup> Prime and other Important Farmlands (IA) – Boone County, Missouri. Web Soil Survey – National Cooperative Soil Survey. USDA – Natural Resources Conservation Service. P. 1, February 25, 2010.















<sup>3</sup> Prime and other Important Farmlands (IA) – Boone County, Missouri. Web Soil Survey – National Cooperative Soil Survey. USDA – Natural Resources Conservation Service. P. 2, February 25, 2010.

Map 1-8: Agricultural Land Cover  
Source: USDA NASS Cropland Data Layer, 2010







This data was only available at the county-wide scale because of federal privacy policies. The city and metro boundaries are laid over the map without georeferencing, thus they should be used for general reference only.

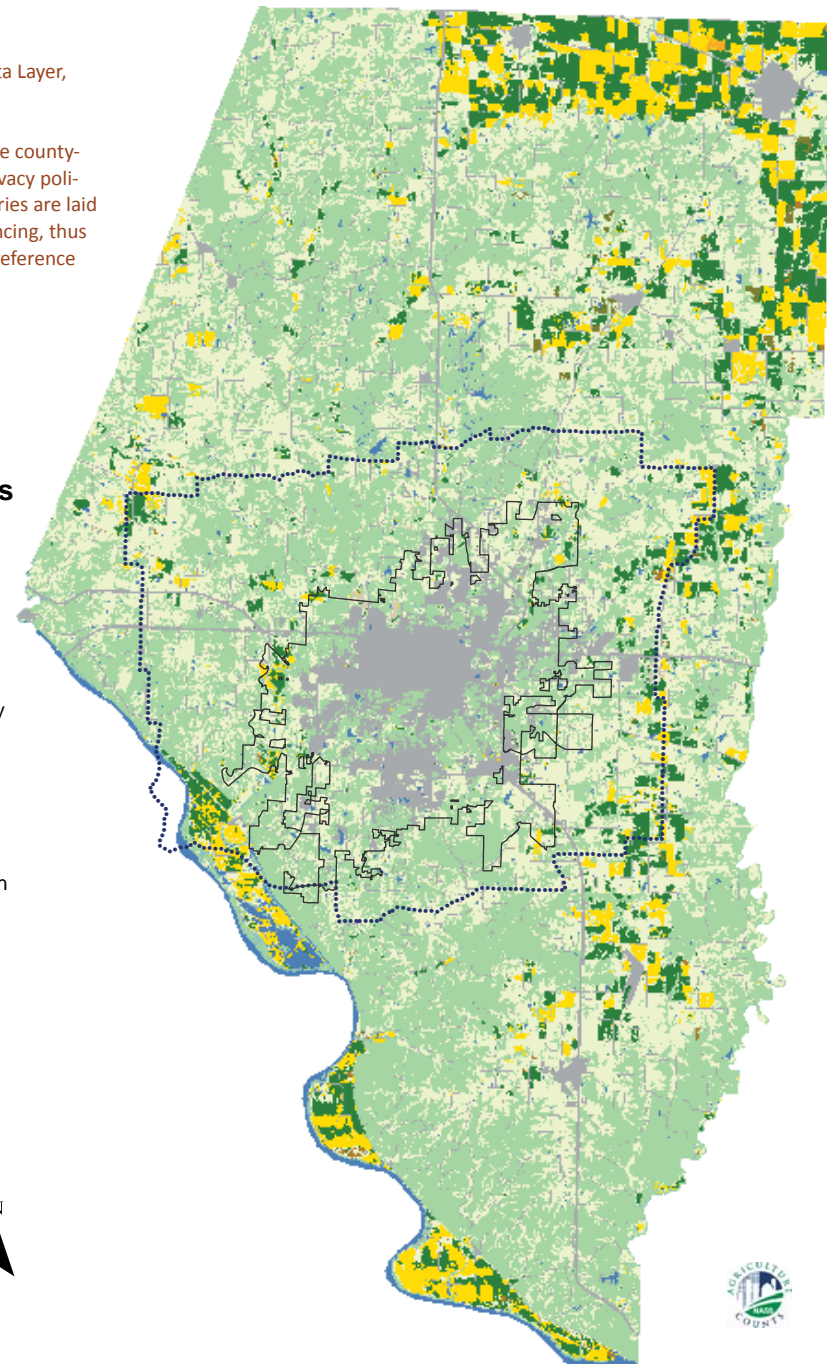
## Land Cover Categories

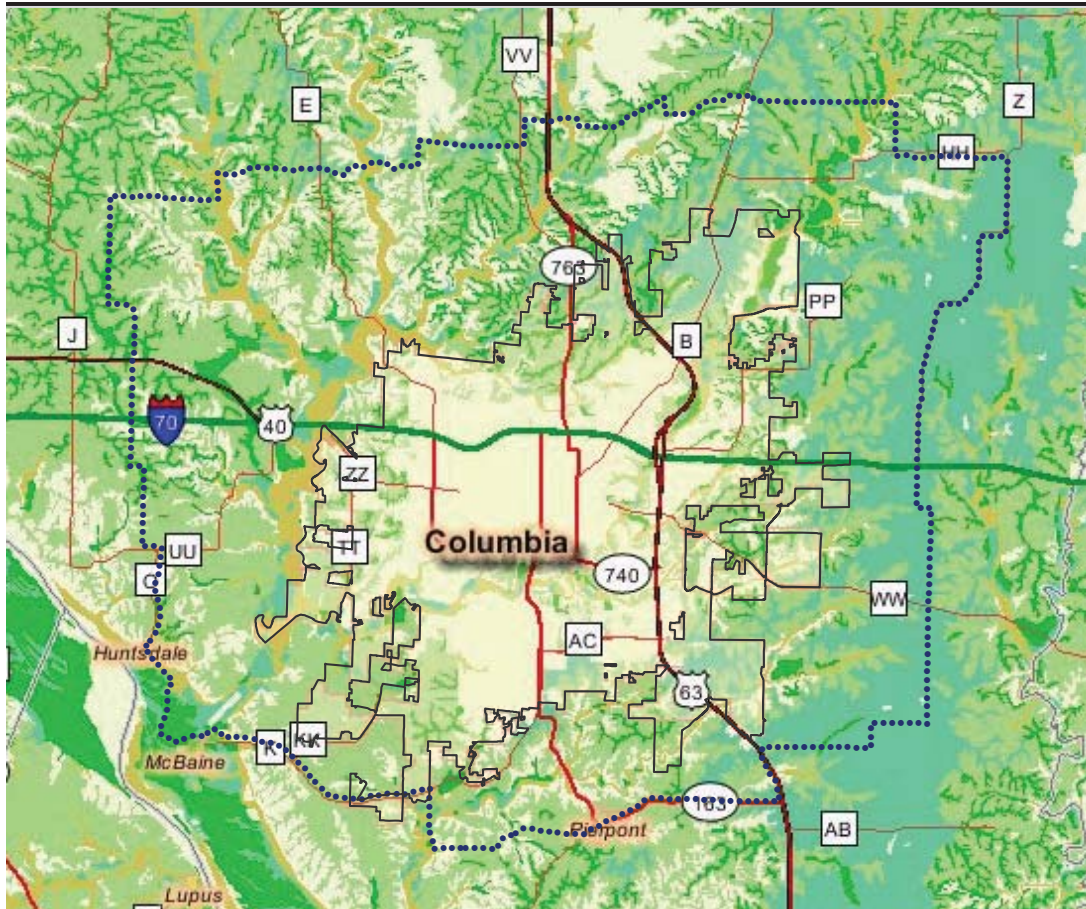
### AGRICULTURE

	Pasture/Grass
	Soybeans
	Corn
	Cotton
	Double Crop Wheat/Soy
	Rice
	Winter Wheat
	Fallow/Idle Cropland
	Sorghum
	Pop or Ornamental Corn
	Other Crops
	Vegetables & Fruits
	Potatoes
	Herbs

### NON-AGRICULTURE

	Woodland
	Urban/Developed
	Water
	Wetlands
	Barren
	Shrubland





Map 1-9: Prime Farmland

Source: University of Missouri CARES

This data was only available as a graphic. The city and metro boundaries are laid over the map without georeferencing, thus they should be used for general reference only.

### Tree Cover

Approximately 43% percent of the study area is covered by trees. A 2011 cicada infestation followed by severe drought in 2012 resulted in the loss of many trees throughout the study area, but not at such a rate that the existing tree canopy is in jeopardy of significant depletion.

Most of the tree cover found within the study area is situated on moderate to steep slopes (i.e., greater than six percent), which are primarily along creek banks. On tracts of one acre or more,

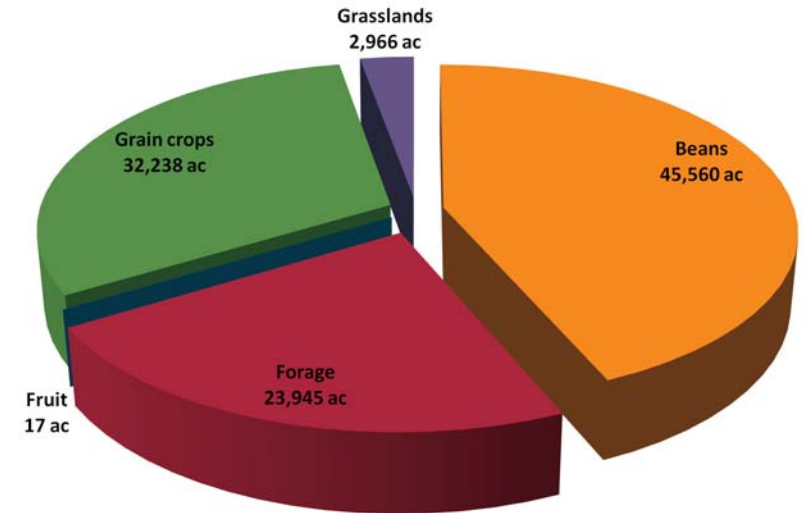


Figure 1-6: Boone County Crop Production Acreages  
Source: USDA Columbia Field Office, 2012

the City requires 25% of a site's climax forest to be preserved. Areas lying outside the city limits have no specific tree preservation requirements. A climax forest occurs when a forest has progressed through early succession of "pioneer" species to a point where it is dominated by tree species primarily consisting of oak, hickory, and other shade-tolerant hardwoods, and this mixture of species remains relatively constant for an extended period of time—often hundreds of years.<sup>4</sup>

<sup>4</sup> "What Is a Climax Forest?" Michael Snyder, *Northern Woodlands Magazine*, September 1, 2006








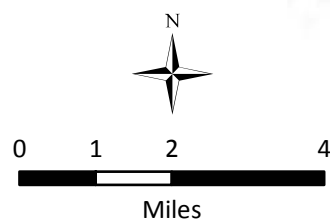
Map 1-10: Climax Forest Regulatory Status  
Source: City of Columbia NRI

**Climax forest:** Undisturbed, natural, wooded areas that have reached a point of equilibrium within the local ecosystem

On tracts of land containing one acre or more, the City requires new development to preserve 25 percent of the site's climax forest. This protection does not extend to the study area outside the City limits.

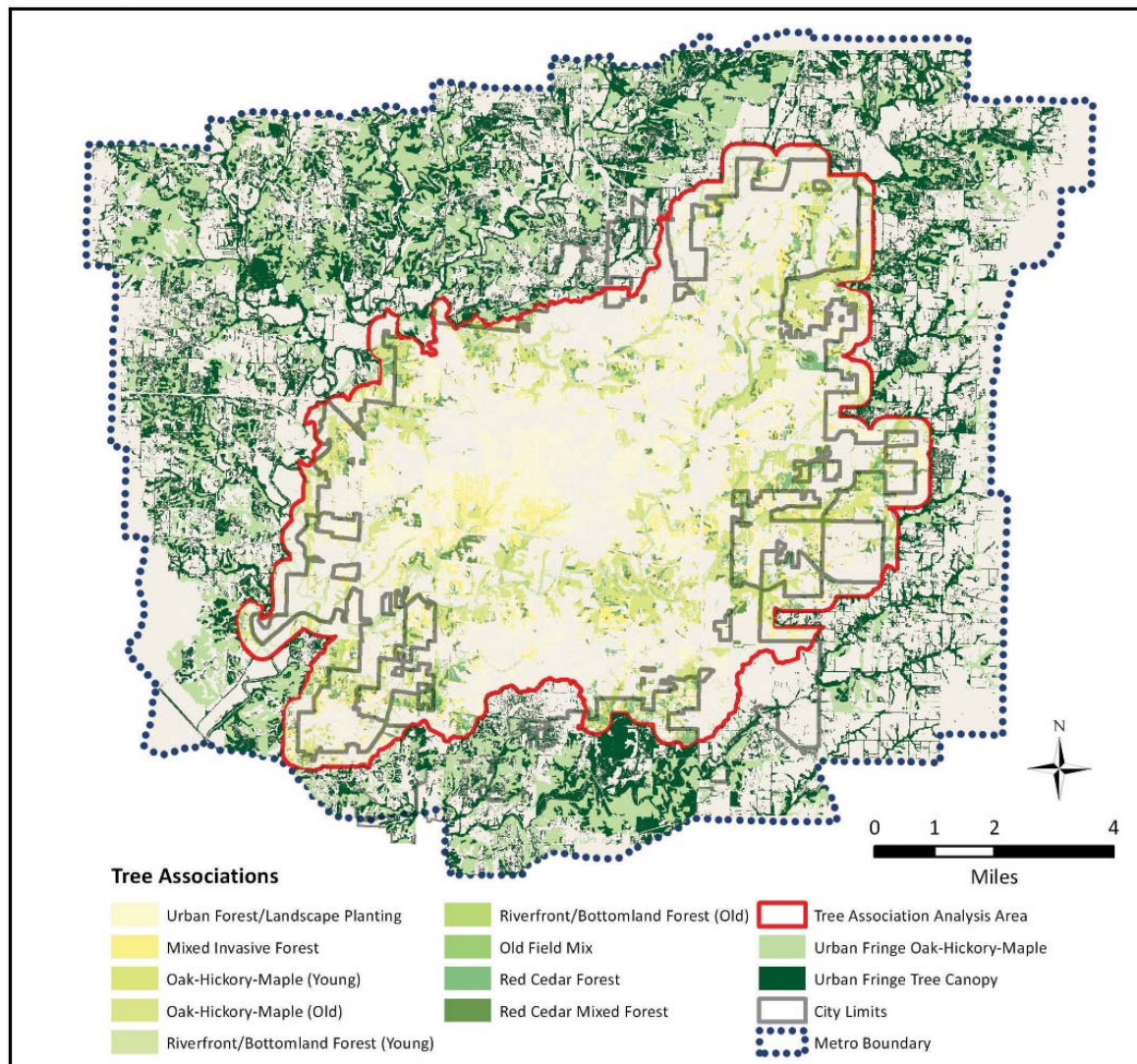
#### Climax Forest Regulatory Status

-  Parcels Less Than One Acre
-  Climax Forest
-  Tree Canopy
-  City Limits
-  Metro Boundary



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Map 1-11: Tree Associations  
Source: City of Columbia NRI

Trees contribute numerous and significant environmental services:

- Creating habitat for wildlife
- Absorbing airborne toxins
- Providing fuel, pulp, and wood
- Producing oxygen through photosynthesis
- Stabilizing slopes and stream banks
- Facilitating soil formation and nutrient cycling
- Providing recreational opportunities
- Filtering storm water and sequestering carbon

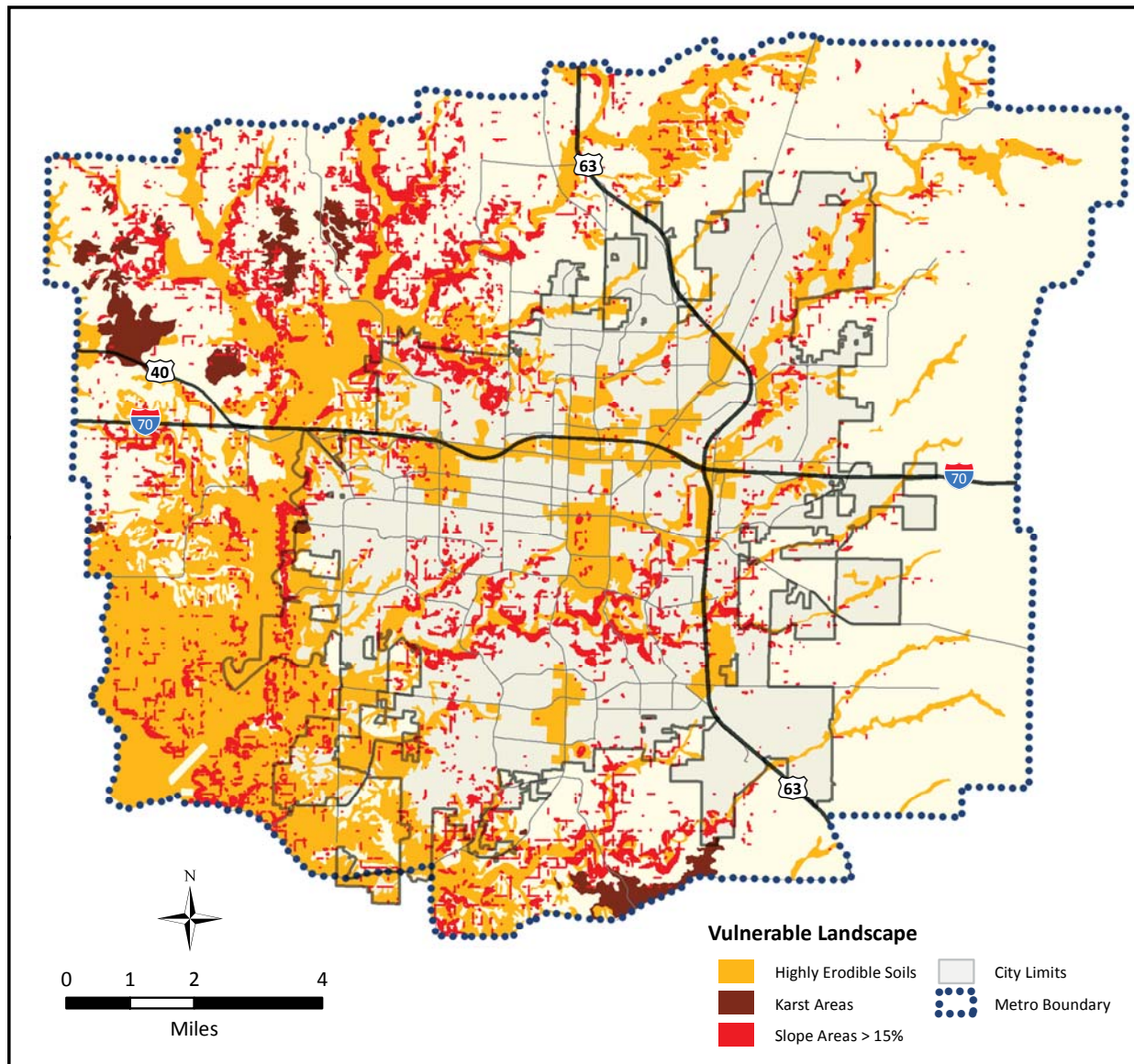
The NRI provides an overview of the geographic distribution of tree cover within the Columbia Imagined study area, which has been classified into 11 tree associations. The pattern that emerges is one of roughly concentric belts. “Urban forest/landscape planting” and “mixed invasive forests” are predominant within the inner ring of I-70/Stadium Blvd/Highway 63; young and old oak-hickory forest and young and old bottomland forests exist in large stands in the remaining areas within the city limits.<sup>5</sup>

Maps 1-10 and 1-11 show the various trend areas subject to preservation and the association of tree-covered areas to land cover, respectively.

## Sensitive Features and Conditions

While the landscape of the study area is primarily composed of flat to gently sloping farms and grasslands, it also contains a variety of features that are particularly sensitive to development activities and impacts. Sensitive landscape features and characteristics are those that, when disturbed, might lead to hazardous conditions (i.e., safety issues) or environmental degradation problems (e.g., erosion and pollution). Three typical features and conditions that are classified as sensitive areas include karst topography, erodible soils, and steep slopes.

<sup>5</sup> “Columbia Natural Resource Inventory” City of Columbia, October 1, 2010



Map 1-12: Vulnerable Landscape Areas  
Source: Boone County Soil Survey and NRI data

### Karst Topography

Karst topography results from acidified rainwater infiltrating cracks and fissures in limestone bedrock and slowly dissolving the rock to create large voids. Sinkholes result when these underground caverns collapse and create surface depressions. A prime

example of a karst feature in Boone County is Devil's Icebox Cave in Rock Bridge State Park. Apart from a small area on the west side of town, there is no other known karst topography in the city limits. Maps 1-7 and 1-12 display the karst topography within the Metro Area.

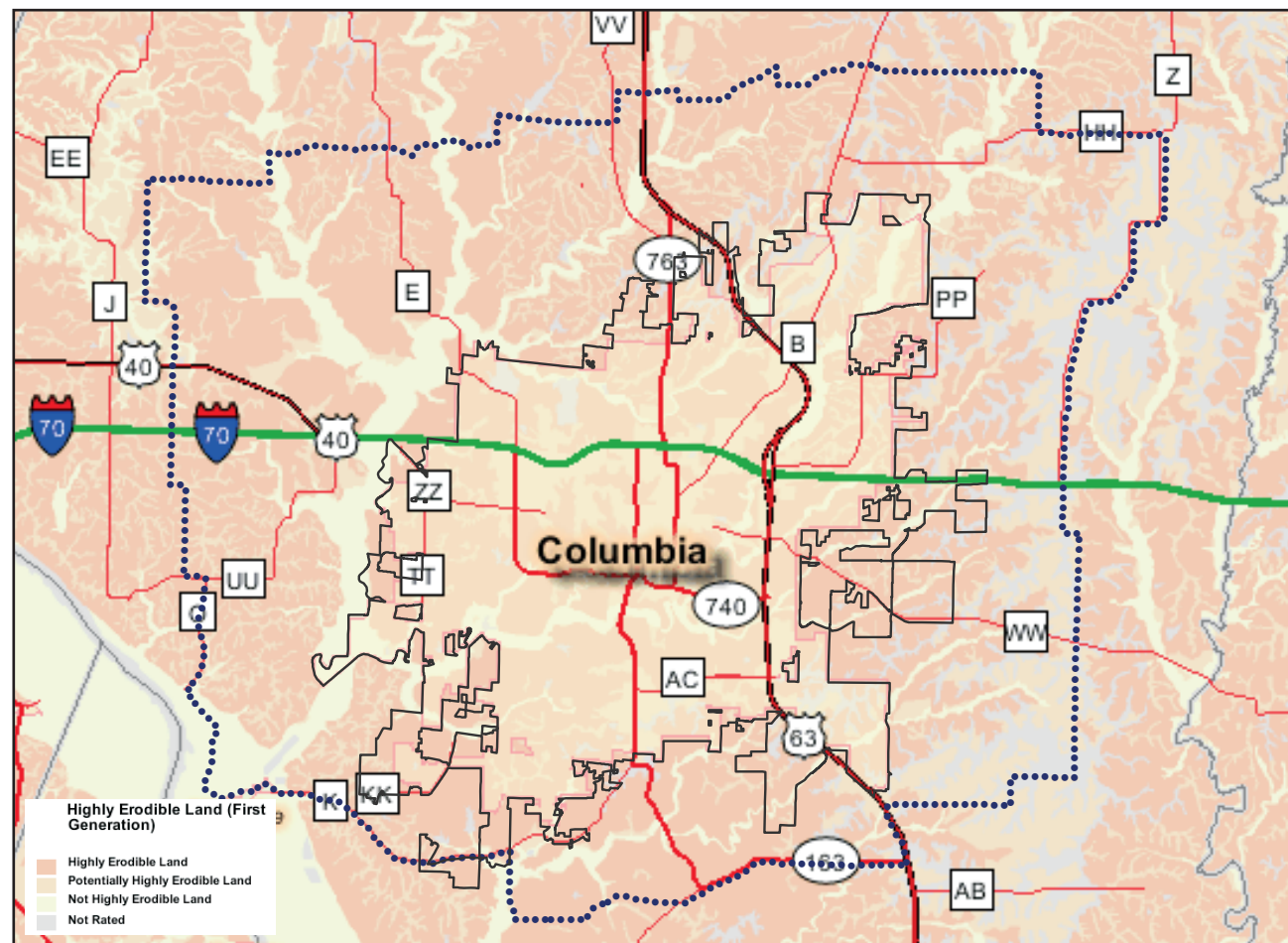


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Map 1-13: Highly Erodible Land  
Source: University of Missouri CARES

This data was only available as a graphic. The city and metro boundaries are laid over the map without georeferencing, thus they should be used for general reference only.



## Highly Erodible Soils

Highly erodible soils are the result of a combination of factors, which may include intense rainfall, steep slopes (particularly those greater than 10 percent and situated in major drainage areas), length of slopes, vegetation cover, and the physical and chemical properties of the soil. Certain soil types such as loess tend to erode more easily than others. Highly erodible soils generally coincide with steep slopes, which parallel the major creeks that flow through the study area. Highly erodible soils and steep slopes have associated impacts that make their disturbance hazardous to plants, wildlife, and human activities if they are

not properly managed. Map 1-13 illustrates highly erodible land within the study area.

## Steep Slopes

Percent slope refers to the ratio of vertical change in elevation and horizontal distance (i.e., 15 foot increase in elevation across 100 feet of distance = 15% slope). Typically, slopes of 15 percent are considered “steep.” Slopes are considered moderate when between 8-10 percent. Slopes in this moderate range are the maximum allowable for local roadway construction.



Steep slopes commonly occur adjacent to creek cut banks and in association with stream buffers and floodplains, which are protected by existing City and County regulations that deter development of such areas. Steep slopes often coincide and contribute to highly erodible soil conditions. Under normal conditions, where these areas remain undisturbed, they are not typically highly erosive. However, areas that have recently been cleared for development purposes are an exception. Map 1-12 shows slopes greater than 15% within the study area.

### Endangered Species

The presence of particular types of animal or plant species can also have the effect of limiting development. Within the study area there are no known endangered species that would impede future development.

### Environmental Regulations and Policies

As a means of protecting the natural resources identified above, the City has adopted a collection of ordinances, regulations, and policies designed to minimize the impacts that development has on these resources. Many of the existing regulations were adopted to ensure compliance with either state or federal mandates. Others were implemented based on best practices to ensure that certain environmental features were not unnecessarily removed or compromised as development progresses. In either case, the effect of these regulations has been to ensure that the limited natural resources within the community are retained for future generations.

The following subsections provide a brief explanation of what each of the existing ordinances, regulations, or policies does to protect the environmental resources within the study area. A more detailed discussion of potential revisions to these ordinances, regulations, and policies will be addressed in Chapter 4 of this plan. This expanded discussion incorporates the concerns and issues raised during the public input meetings relating to the protection of the study area's environmental assets and resources. Potential revisions to the existing regulatory and policy structure will be aligned with proposed land use strategies for effective

management of the growth anticipated in the study area.

### Floodplain Regulation

City and County floodplain regulations restrict development activity within the 100-year floodplain. Limited development may occur inside the 100-year floodplain subject to the issuance of a floodplain development permit. Applicants within the city limits must show that foundations of proposed residential structures in the floodplain will be elevated at least two feet above the 100-year flood event level. Special construction techniques may be employed for commercial structures, as an alternative to the two-foot elevation requirement, to allow flood waters to pass through the structure (e.g., flood doors). All structures built in the floodplain must be anchored and engineered to withstand the forces of floodwater currents.

Building permits for structures in the floodway may be approved subject to the completion of engineering studies that prove the activity will not result in an increase in flood water levels upstream (i.e., "no-rise" certificate). Map 1-6 shows the FEMA 100-year Flood Hazard Areas in the study area.

### Stormwater Regulation

The City and County adopted stormwater regulations in response to requirements mandated by the Environmental Protection Agency (EPA) as part of implementing Phase II of the Clean Water Act. These regulations were adopted by the City in 2007 and the County in February, 2010. Within each set of regulations are two components—(1) stormwater management standards and (2) stream buffer standards.

### Stormwater Management

The adopted regulations of both the City and County address the water quantity and water quality that leave a development site. The regulations specify that the volume of post-development runoff cannot exceed that of a site's pre-development state. This means that, in many instances, new developments require significant on-site detention and filtration facilities. Previous regulations allowed storm water to be discharged directly into creeks.

Properties subject to floodplain regulations in the City are zoned district F-1, floodplain overlay district.



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Under the City's stormwater regulations, subdivisions preliminarily platted prior to September, 2007 are exempt from the new regulations; however, all future subdivisions must comply. The goal of the new regulations is to mitigate flooding, erosion, pollution of streams, and personal property damage caused by development activity.

### Stream Buffers

A major component of the City and County storm water regulations is the stream buffering requirement. Stream buffers are natural vegetation areas that serve as boundaries between disturbed land and local waterways. They act as filtration systems for storm water runoff entering creeks, thereby protecting aquatic habitat. Stream buffers also stabilize stream banks, mitigate flooding, and preserve natural areas that serve as vital habitat and corridors for the movement of land animals, including people. Stream buffers are measured from the ordinary high water mark and vary in width depending on stream type.

There are three regulated stream types identified in the City's and County's regulations:

Stream Type	Description	Total Buffer Width (each side)
1	Perennial	100 ft
2	Intermittent	50 ft
3	Ephemeral	30 ft

Table 1-4: Stream types and respective buffers

Stream buffers are expanded to include slopes greater than 15 percent that are adjacent to outer buffers. County regulations include a 200-foot buffer from karst features such as sinkholes. The inner half of stream buffers must be left as undisturbed natural vegetation. In the City, but not in the County, accessory structures such as sheds may be built within the outer half of these buffers. Trails and maintained lawns may be situated within the outer buffer.

The application of the buffer requirements is not universal. Within the City of Columbia, properties that were subdivided or had an approved preliminary plat prior to the ordinance's effective date of January 2, 2007, do not need to comply with the buffer requirements. In Boone County, subdivisions and projects approved prior to April 30, 2009, do not need to comply with the County buffer requirements.

### Landscaping Regulations

As part of the City's zoning ordinance (Chapter 29) landscaping and screening standards exist. These provisions are intended to:

- Establish healthy environmental conditions by providing shade; air purification; oxygen regeneration; groundwater recharge; storm water runoff retardation; erosion control; and noise, glare, and heat abatement
- Provide visual buffering from streets, to buffer potentially incompatible land uses, and to generally enhance the quality and appearance of a development site and the city in total
- Encourage the preservation of existing trees and vegetation
- Supplement the land disturbance permit requirements

In general, landscaping standards apply to all new development and new parking lots exceeding a minimum threshold size. There are several exclusions to the landscaping requirements, which are explained in Section 29-25 of the zoning ordinance.

### Tree Preservation Regulations

While the City requires tree preservation, the County has no specific tree preservation ordinance. However, with the recent adoption of the County's stream buffer regulations, there exists an opportunity to implement the first ongoing regulation that will have a direct effect on tree preservation.

In general, tree preservation has been most effective on unsubdivided parcels greater than one acre inside the City limits. This is the result of the City's requirement that a tree survey be conducted to determine what climax forest exists on a site prior to land clearing activities. The ability to preserve trees once property is

platted is challenging, since most residential lots are less than the required one-acre minimum size for a tree survey.

### Greenbelt/Trail Plan and Trails Master Plan

The Metro Greenbelt/Trail Plan (2002)<sup>6</sup> and Trails Master Plan (2010) revisions are elements of the Parks, Recreation, and Open Space Master Plan. These plans describe the desired future network of greenbelts and trails, as well as strategies for the management of these areas.

### Bonne Femme Watershed Plan

The Bonne Femme Watershed Plan (2006) is a plan for the long-term viability of the watershed, which includes a portion of far south Columbia (Route K east of KK; as far north as Grindstone Parkway/Route AC).<sup>7</sup>

### Integrated Resource Plan

The Integrated Resource Plan (2008) is Columbia Water and Light's planning document for both supply- and demand-side management of the power production and distribution system.<sup>8</sup>

### Renewable Energy Policy

Passed by a vote of Columbia's citizens (2004), the City's renewable energy policy sets a progressively higher target for the percentage of Columbia's energy produced with renewable sources. The City is currently required to generate or purchase five percent of electric retail sales in renewable energy sources; this will escalate to 15% percent by 2022. Missouri voters have approved a similar renewable energy initiative.<sup>9</sup>



<sup>6</sup> "Columbia Metro Greenbelt/Trail Plan" City of Columbia, July, 2002; "2010 Trails Plan Update" City of Columbia, February 1, 2010

<sup>7</sup> Boone County Resource Management

<sup>8</sup> Integrated Resource Plan for the Water and Light Department, September, 2008

<sup>9</sup> Columbia Water and Light 2011 Renewable Energy Report, February, 2011





## 1.3 Infrastructure

Infrastructure is the basic framework of a community. Transportation systems, public safety services, utilities, and communications networks are essential components to the economic health and quality of life of a community.

Two general categories of infrastructure exist: hard and soft. Hard infrastructure includes facilities like sanitary sewer lines, electric lines, and roads. Soft infrastructure consists of a broad array of systems such as police, fire protection, and other emergency services. Both types are of crucial importance to a city. Adequate infrastructure is necessary to support existing housing, business, and industry sectors, as well as future growth.

Many in the community have expressed that growth has stretched the limits of our current infrastructure as the City and other service providers strive to maintain adequate services with only limited resources to support these networks.

### Utilities

#### City Electric Utility

As of 2011, the electric service area covered roughly 58.5 square miles. 98 percent of the City of Columbia's Water & Light customers were within the city limits. Boone Electric Cooperative serves much of the remaining metropolitan area, including the unincorporated portion.

The City electric system's peak generation capacity was 270 megawatts in 2006. Generation is anticipated to grow to 300 to 320 megawatts. An increasing capacity deficit exists. Beyond 2015, an increasing proportion of energy from natural gas, open market, and renewable sources will be needed to support energy consumption at its current rate of growth.

Commercial and residential customers use roughly the same amount of electricity, at 37 percent and 38 percent, respectively. Single family homes account for 62.8 percent of residential energy consumption.

Chapter 27 of the City Code establishes responsibilities for the construction of electrical facilities. Per the code, developers are responsible for the costs of trenching and installation of conduit, while the City provides materials and makes electrical service extensions. The City also installs street lights along public roadways in accordance with that chapter.

### Water Supply

The City of Columbia Water and Light Department's water service area totaled 89.2 square miles as of 2012. 93 percent of water service customers are within the city limits. There are some customers outside of the city limits, on the northeast side, that were acquired through a merger with a water district in the late 1990s. The water service territory is established; only properties developed in this area will lead to new customers.

The City water supply comes from 15 shallow wells that tap into an aquifer with approximately 44 billion gallons of water. The wells average 110 feet in depth and can collectively pump 30 million gallons a day. The commercial customer growth rate (5.5%) exceeded the residential customer growth rate (3.1%) during the years 1997-2007. The existing McBaine-area wells' supply capacity is projected to be reached somewhere between the years 2016-2019. System improvement needs for the years 2008-2028, inclusive, will cost the City an estimated \$1.2 billion in 2010 dollars.

The 2013 Source Water Protection Plan prepared by the Columbia Source Water Task Force and the Missouri Department of Natural Resources evaluates water supply threats and mitigation recommendations, and provides conservation best management practices, noting the relationship between enhancing, conserving and protecting existing facilities/water resources and minimized capital and operating costs over time. Columbia Water & Light reviews with both the Water and Light Advisory Board and the Energy and Environment Commission emerging trends and best

#### Infrastructure

##### Familiar Examples:

- Electric
- Water
- Natural Gas
- Sewage conveyance
- Refuse collection
- Police
- Fire Protection

##### Additional Examples:

- Banks
- Grocers
- Small service businesses
- Educational institutions
- Hospitals and clinics
- Transit systems
- High-speed Internet

practices in system management.

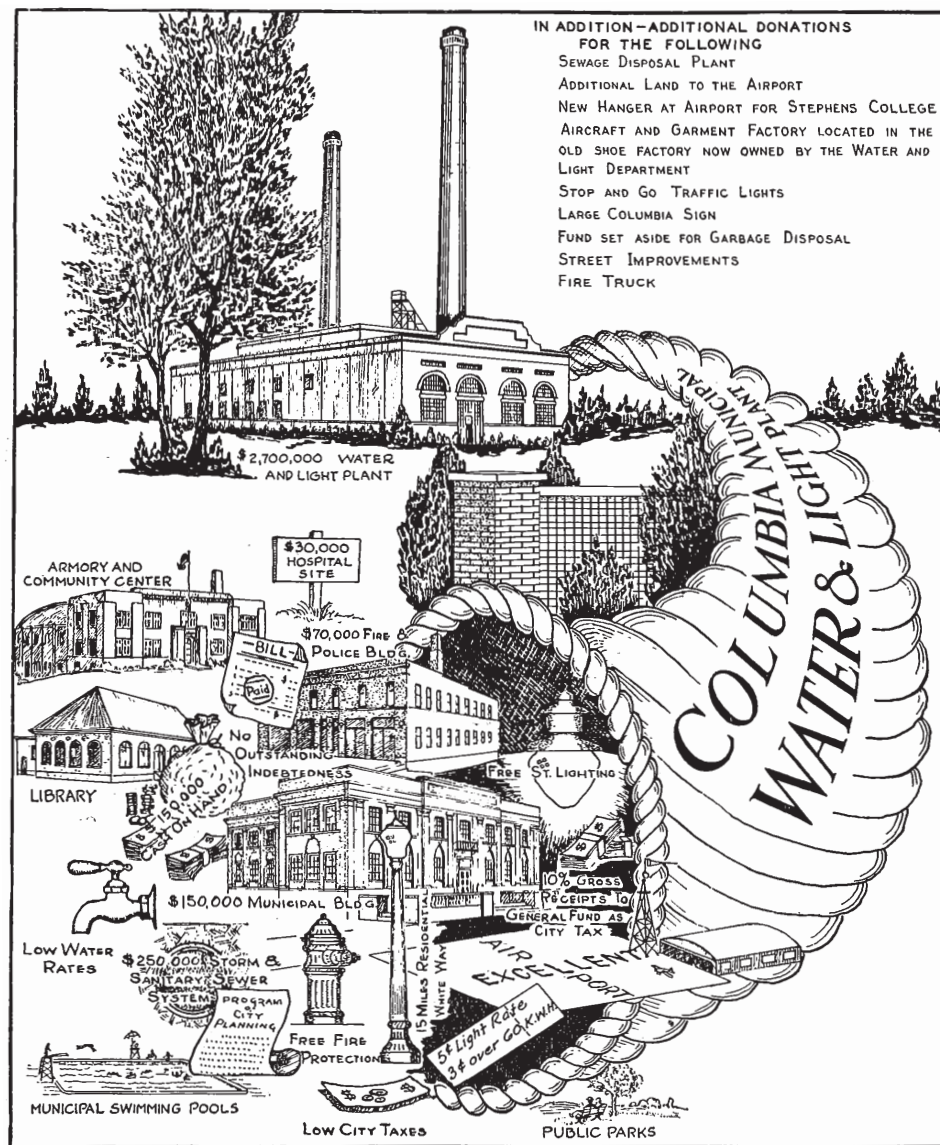
## Wastewater Collection and Treatment

Two main wastewater collection providers service the metro area, the City of Columbia's sewer utility and the Boone County Regional Sewer District (BCRSD). Several private, on-site wastewater treatment systems also serve the metro area. These require permits from and are inspected by the Missouri Department of Natural Resources (MoDNR).

The City's wastewater utility has a master plan (2004; updated a 1973 plan) which identifies treatment and collection needs and develops strategies for implementing facility improvements to accommodate future growth while maintaining system reliability, meeting regulatory requirements, and optimizing costs.

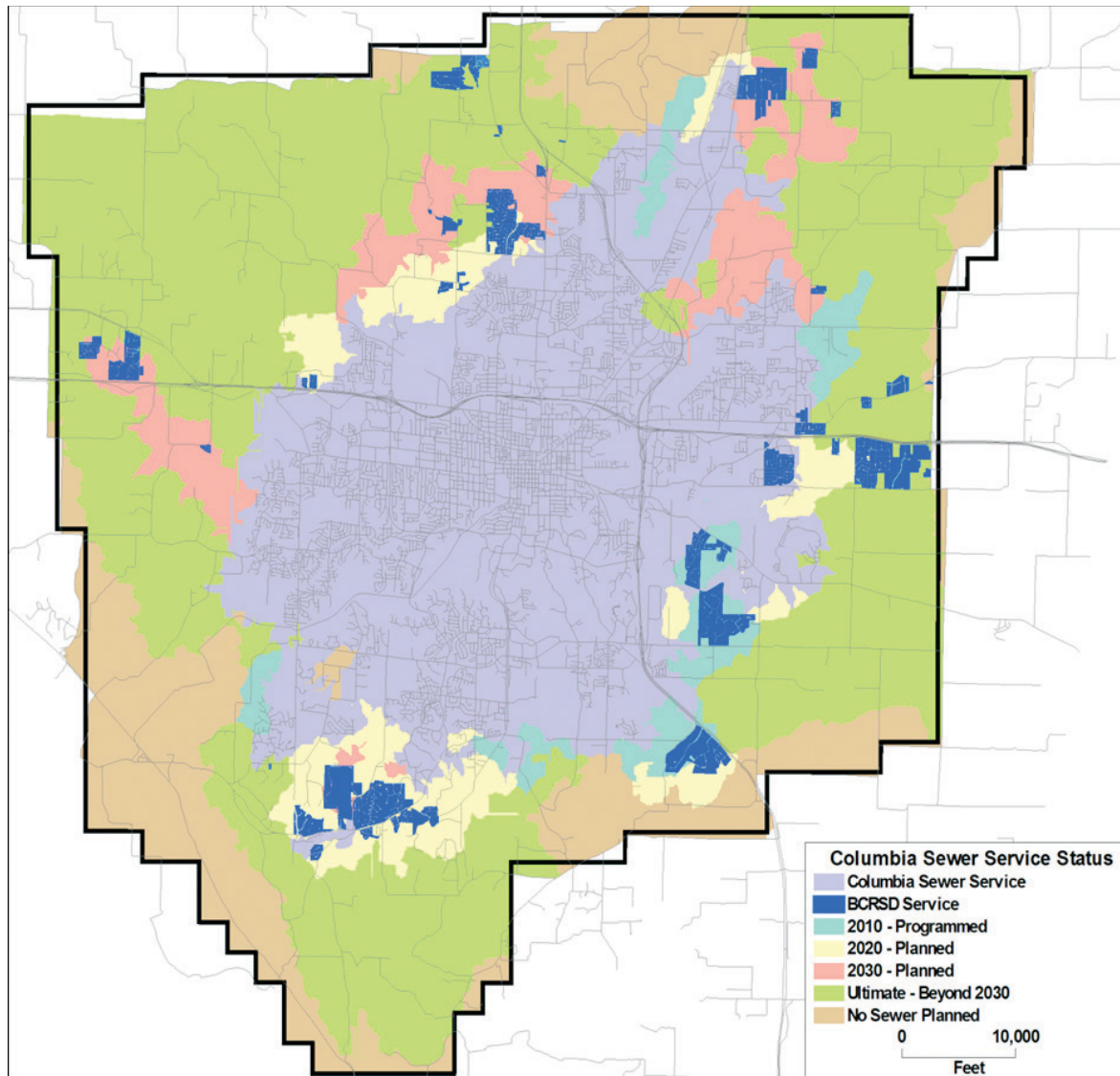
The ultimate wastewater service area is 190 square miles and includes four major watersheds: the Perche, Hinkson, Rocky Fork/Bear Creek, and Little Bonne Femme (the latter three are sub-watersheds of the Perche). In 2010, the actual connected population was approximately 100,000; by 2030, this figure is projected to reach 160,000 users. Approximately 12 to 15 million gallons of wastewater per day are currently generated; by 2030, this is estimated to increase to 28 million gallons per day. On the average, each person in the U.S. contributes 50-100 gallons of wastewater every day. If you include industrial and commercial water uses, the per person usage of water is as high as 150 gallons per day. Further discussion of the City's wastewater treatment plant may be found in section 1.7, Livable and Sustainable Communities.

Wastewater reductions are possible via conservation education and incentives, water saving/reuse technology, and infrastructure improvements. Wastewater comes from three sources: (1) homes (human and household wastes from toilets, sinks, baths, dishwashers, garbage grinders, washers and drains); (2) industry, schools, and business (chemical and other wastes from factories, food-service operations, school activities, hospitals, shopping centers, etc.); and (3) stormwater infiltration and inflow from run-off and groundwater (water that enters the sanitary sewer system during a storm, as well as groundwater that enters through cracks in sewers). Examples of ways to reduce usage are the use of



COLUMBIA'S HORN OF PLENTY

Figure 1-7: Columbia's Horn of Plenty  
Source: "The Pride of Columbia Missouri: Municipal Water and Light Department," April 1949



Map 1-14: Sewer Service Status  
Source: City of Columbia

low-flow toilets and high efficiency washers, multiple-use water systems (using bathwater to water a garden), and stormwater runoff mitigation (such as bioswales and rain gardens). The City of Columbia has a rigorous inflow and infiltration reduction program that targets removal through systematic investigation of the sanitary collection system and elimination of both public and private defects.

Future wastewater line projects include the second and third phases of the North Grindstone Creek line, along Hinkson Creek (to Ewing Industrial Park), and the Hominy Branch relief sewer. Paying for current infrastructure and future improvements will necessitate rate increases of \$27/month by 2030 for the average household.

Subject to funding and Council approval, the sewer utility will construct trunk and interceptor sewer lines up to a “100-acre point” of a drainage basin or development (whichever is less). A point system is used to rate requests. A developer may, as an alternative, construct trunk or interceptor sewers at his own expense. The City will then collect connection fees to reimburse the developer for excessive costs. Private developers generally fund 80 to 90 percent of total sewer construction in a watershed. The City has a fee schedule of connection charges depending on the connection size (wastewater volume) and a monthly user charge.

A large number of older homes are connected to private common collector (PCC) sewers, treatment systems that are shared by two or more residences. Aside from the ambiguity in maintenance responsibilities created by common ownership of a shared pipe, many PCCs are poorly designed and prone to backing up. The City Council has initiated a policy of separating PCCs at City expense on a first-come, first-served basis. Funding for the PCC separation program is taken from the 2008 voter-approved wastewater treatment bond issue.

## Storm Water Management

Much like electrical facilities, the City and private owners share responsibilities for the installation and maintenance of storm water infrastructure. Among those items maintained by the City are curb inlets, curbs and gutters, box culverts and pipes constructed



to city standards, roadside ditches, and improved open channels. Those items maintained by private or other owners include unimproved open channels, pipes not conforming to city standards, private piping systems, private detention/retention basins, and major open channels.

During the years 1983-1991, the City conducted a consultant-led study, organized task forces, gained Council adoption of goals and objectives, adopted the Land Preservation Ordinance (Chapter 12A), and prepared the Municipal Separate Storm Sewer Systems (MS4) permit required by the Environmental Protection Agency (EPA). The City's storm water management was strengthened in 1993 when it became one of a select number of cities nationwide to organize as a storm water utility. In 2007, protection measures were fortified by the adoption of stream buffer and storm water management ordinances, each a part of Chapter 12A. That section of City Code was further revised in 2012.

Storm water improvements are funded and maintained by storm water development charges paid by new development fees (ranging from \$0.09 to \$0.195 per square foot as of 2012) and monthly utility fees paid by users. Revenues are projected to cover \$1.2 million of a projected \$4.0 million annual cost by 2030, which amounts to a 70% annual maintenance budget deficit for this utility. According to the 2014 Capital Improvement Plan, 55 unfunded projects have been identified for a total of more than \$25 million. This budget deficit will need to be addressed by the utility in the form of a reduction in costs or increased revenue.

Policy One in the Growth Management Section of this Plan (Plan for Fiscally Sustainable Growth) suggests the City consider the recommendations of the Infrastructure Task Force as they relate to the costs and cost-sharing of infrastructure improvements. Maintenance and project needs of the stormwater utility are described in the 2008 Stormwater Utility Assessment, which outlines current and future goals of the stormwater regulatory programs and baseline financial projections, and in the City's annual capital improvement program.

In 2012, the City maintained over one million linear feet of storm drainage system. Over half of the system has exceeded its life

span and much of it is beginning to fail, causing sinkholes in street pavements and yards. Current resources are unable to keep up with the needed maintenance of the stormwater system. Consequently, maintenance activities are driven by emergency repair of failed infrastructure which can be more costly than regular maintenance.

All cities with a population of over 100,000 persons (including the City of Columbia) must maintain a Phase I National Pollutant Discharge Elimination System (NPDES) stormwater permit. The permit includes specific measures to address the minimization of pollution in the city stormwater system and local waterways. These measures include public education and outreach, public participation and involvement, illicit discharge detection and elimination, construction site runoff, post-construction site runoff, and pollution prevention and good housekeeping.

Green infrastructure, the use of natural features to mitigate the effects of stormwater runoff as well as to connect natural areas and improve water quality, has become a more familiar strategy in recent years. These methods have been implemented as a result of Chapter 12A of the City Code, which governs stormwater management and the requirements for both quantity and quality of runoff to be the same or better for a given site than in the site's pre-development condition. Another method of setting aside land to be preserved for environmental or other reasons is the use of conservation easements or stream buffers. Each excludes land from development, generally to achieve goals related to stormwater runoff, tree preservation, or another stewardship activity.

### Hinkson Creek Impairment

Hinkson Creek, whose watershed covers a large portion of the metropolitan area, faces particular pollution guidelines due to its status as an "impaired" stream. One requirement is that the creek must not exceed Total Maximum Daily Load (TMDL) limits for pollutants, which allow for a certain amount of point source (from a single, specific source) and nonpoint source (from multiple, cumulative sources) pollution before a body of water is considered impaired. Because Hinkson Creek has been designated as impaired, any development in its watershed, and particularly near



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its banks, must be undertaken with extra care to prevent pollutants flowing to the creek. The same standards apply to Grindstone Creek from the confluence of its north and south forks to its connection with Hinkson Creek.

## Transportation

### Roadway Transportation

The City's roadway system includes approximately 490 miles of local streets. The Missouri Department of Transportation (MoDOT) maintains an additional 204 miles of streets and lanes, and Boone County is responsible for 285 roadway miles in the metro area. These figures do not include private or university streets.

Constructing new roads costs approximately \$400 to \$1,000 per linear foot (in 2012 dollars). This figure increases if extenuating factors such as multi-lane roads, culverts, or bridges are involved, or if market-driven costs of materials and labor escalate. Road maintenance generally costs \$10,000 to \$11,000 per mile at existing levels of service, though these figures may be affected by the same factors as new construction.

The City's Capital Improvement Program (CIP) lists roadway projects of three general types:

1. New roads in new alignments
2. Reconstructed and expanded roadways
3. "Major maintenance" projects (roadways reconstructed in place without expanding capacity)

The first two categories relate to growth (responding to it, inducing it, or diverting traffic from other segments of the network), while the third category is mostly a response to aging facilities. Roadway projects and the general provision of infrastructure are oft-debated topics by residents, as the City has generally constructed infrastructure in response to an area's demand for services. Some residents have called for a more proactive provision of services that would build infrastructure ahead of demand, but could leave the City with underutilized facilities if factors like the recession of 2007-2010 occur. Others advocated an approach

whereby roads—including those needed to provide access to new development—are upgraded concurrently with construction of other essential utilities to serve said development.

The City's subdivision regulations require the dedication of road right-of-way when land is subdivided. The necessary amount to be dedicated can be difficult to determine, however, as some roadways on the City's Major Roadway Plan have not been sufficiently studied to establish future capacity needs.

Construction of major roadways is generally the responsibility of the subdivider if the roadway in question is needed to serve the development. The subdivider and City may share costs (at the discretion of the City Council) with the subdivider paying the equivalent of a local street cost and the City paying the balance of the cost including the cost of "major drainage structures" (City Code Sec. 22-109). The City's common practice is to define roadway improvement responsibilities through development agreements, which are contracts stating the obligations of the developer, the obligations of the City, and sometimes the obligations of a third party (e.g. a seller, property owner, or Transportation Development District).

### Coordination with Growth

Current practice does not coordinate capital improvement projects closely with land use growth, but the future land use map and existing zoning designations may be used to project infrastructure needs. An example is the Columbia Area Transportation Study Organization's (CATSO) Major Roadway Plan. CATSO uses a 24-hour travel demand model that forecasts the average number of daily trips along a roadway segment. The number of trips is based on simplifying assumptions of existing and future land use and the employment and residential trips that are generated in "transportation analysis zones." Land uses that generate employers attract trips; land uses that generate residents send trips to other zones. The model is generally used to demonstrate the impact of adding specific roadway segments to the plan. It only includes automobile trips and is not a "multi-modal" or "peak hour" model.

## Bicycle and Pedestrian Infrastructure

The City has sidewalks on approximately half of its streets. Sidewalks have been required by ordinance in new developments only since the early 1970s and are common in areas developed prior to the 1940s. However, many gaps exist in the city's sidewalk network, a remnant of the era between the 1940s and 1970s when sidewalks were not required.

The City requires property owners to maintain sidewalks. This often presents a problem in older neighborhoods where sidewalks have been allowed to deteriorate. New sidewalks may be installed as part of city sidewalk "gap" funding and paid for with benefit tax bills. They may also be installed with new road construction or reconstruction, or installed along major roadways at the City's expense if the route is on its Sidewalk Master Plan. The Sidewalk Master Plan prioritizes higher traffic routes with transit stops and a greater degree of connectivity to trip generators like schools, parks, and shopping centers.

## Non-motorized Transportation Plans

The CATSO Bicycle and Pedestrian Network Plan provides the broadest view of planned transportation routes. Local jurisdictions are left to determine what types of facilities are going to be built. The Sidewalk Master Plan is a specific project plan that identifies strategic new sidewalks eligible for city-funded construction as money becomes available. It is not tied to any particular funding source. The GetAbout Columbia Working Infrastructure Plan is a specific project plan detailing where Non-motorized Transportation Pilot Program (NTPP) (a federal program which awarded four city/county jurisdictions \$22.4 million each in grant funds) expenditures are planned.<sup>1</sup> The City was one of four communities chosen for this pilot program in 2006; an additional \$5.9 million was announced in 2012.

## Airport

The Columbia Regional Airport (COU) is located on city-owned property southeast of Columbia, east of Highway 63, near the town of Ashland. The airport has seen a recent increase in pas-

senger traffic, and currently provides commercial flights to and from Dallas-Fort Worth and Chicago O'Hare on American Airlines. The airport also serves general aviation users and features a fixed base operator providing fuel, maintenance services, and hangar space. The airport's plans for rehabilitation and expansion are detailed in the Airport Master Plan.<sup>2</sup>

The airport draws users from a nine-county area. A study found that, due to a lack of surface transportation access from the east and west, the airport does not capture its share of air travelers, who often drive to the international airports in Kansas City or St. Louis.

## Columbia Terminal Railroad (COLT)

The City of Columbia has owned this short line railroad since August, 1987. It operates the route as a freight hauling operation, carrying coal to the municipal power plant, and also ships commodities such as lumber to and from Centralia, where the Norfolk Southern railway provides a connection to outside suppliers and markets (Figure 1-8). The railroad has a transload facility in the city's northeastern industrial area that allows commodities and products to be stored and shipped to and from trucks.

<sup>2</sup> "Master Plan and Reports" Columbia Regional Airport, City of Columbia, 2012



Figure 1-8: Colt Short Line Railroad  
Source: Columbia Water & Light/City of Columbia



<sup>1</sup> "2030 Transportation Plan" Columbia Area Transportation Study Organization, May 22, 2008; "GetAbout Columbia: Infrastructure Updates" Public Works Department, City of Columbia, 2012



Another recent retail development occurred in 2011, when the COLT and the Columbia Convention and Visitors Bureau used City ownership of the rail line to leverage a “dinner train” tourist and entertainment attraction. The COLT also made a major safety improvement in 2009, with the grade separation of the railroad from Highway 63. The at-grade intersection had been a major safety hazard. Elevating and straightening the track allows the train to travel more reliably at 25 miles per hour (the line’s rated speed) along its full route.

## Telecommunications

The City of Columbia is served by three telecommunications providers (CenturyLink, Charter Communications, and Mediacom) for television, broadband and DSL internet, and voice services. Other companies also provide some of these services. Utilities and associated structures like cable, fiber, satellite, and other wireless infrastructure are a consideration in measuring and affecting economic development and quality of life. These utilities are typically exempt from most land development regulations with exceptions for telecommunications antenna towers, which are governed by the City’s Zoning Ordinance.

## Columbia Public Library

The Columbia Public Library is the flagship branch of the Daniel Boone Regional Library system, which serves both Boone and Callaway Counties. More than 1.8 million items were circulated at the Columbia Public Library to 735,625 visitors in 2010. This figure does not include items circulated through the digital library branch or via the other branches, which totaled over 2.2 million items.

## Hospitals and Clinics

Columbia is fortunate to have several hospital facilities and many clinics. The major hospital care providers are Boone Hospital Center and University of Missouri Health Care, which includes a teaching hospital for the University. Landmark Hospital and the Harry S Truman Memorial Veterans’ Hospital also provide care, as do the many clinics throughout the city. The presence of these

facilities has been identified as a factor in attracting and retaining city residents by providing both economic and quality of life benefits.

## Parks and Trails

Columbia features a wide variety of parks and recreation opportunities and facilities, including an expanding trails network. The City maintains 74 parks and facilities on 3,000 acres of land. Over 40 miles of trails traverse various parts of the city, including the MKT Trail, which connects to the statewide Katy Trail. Highlights of the system include the Columbia Cosmopolitan Recreation Area, a 533-acre regional park on the site of the former Columbia airport, which features softball, soccer, and baseball fields, as well as a skate park, tennis courts, shelters, and other multipurpose spaces. The Philips Park and Gans Creek Recreation Area sites, located in southeast Columbia, provide new areas for future amenities. The City’s Parks Master Plan serves as a guide to coordinate the development and maintenance of City parks and trail systems.<sup>3</sup> These facilities are shown on the 2010 Trails Plan Map, Map 1-15, on the following page.

## General Infrastructure Information

The City’s previous long-range land use plan, *Metro 2020*, did not integrate probable growth areas with needed infrastructure. Each utility or service provider’s enterprise fund may project growth in its own way and schedule necessary infrastructure improvements to meet projected needs, meaning that cross-utility coordination is difficult. This is due, in part, to the different service areas mentioned; what Columbia Water & Light projects as necessary electric infrastructure may be different than what it foresees as necessary to the water utility. The wastewater utility, meanwhile, serves an area that is larger than either the City water or electric territories.

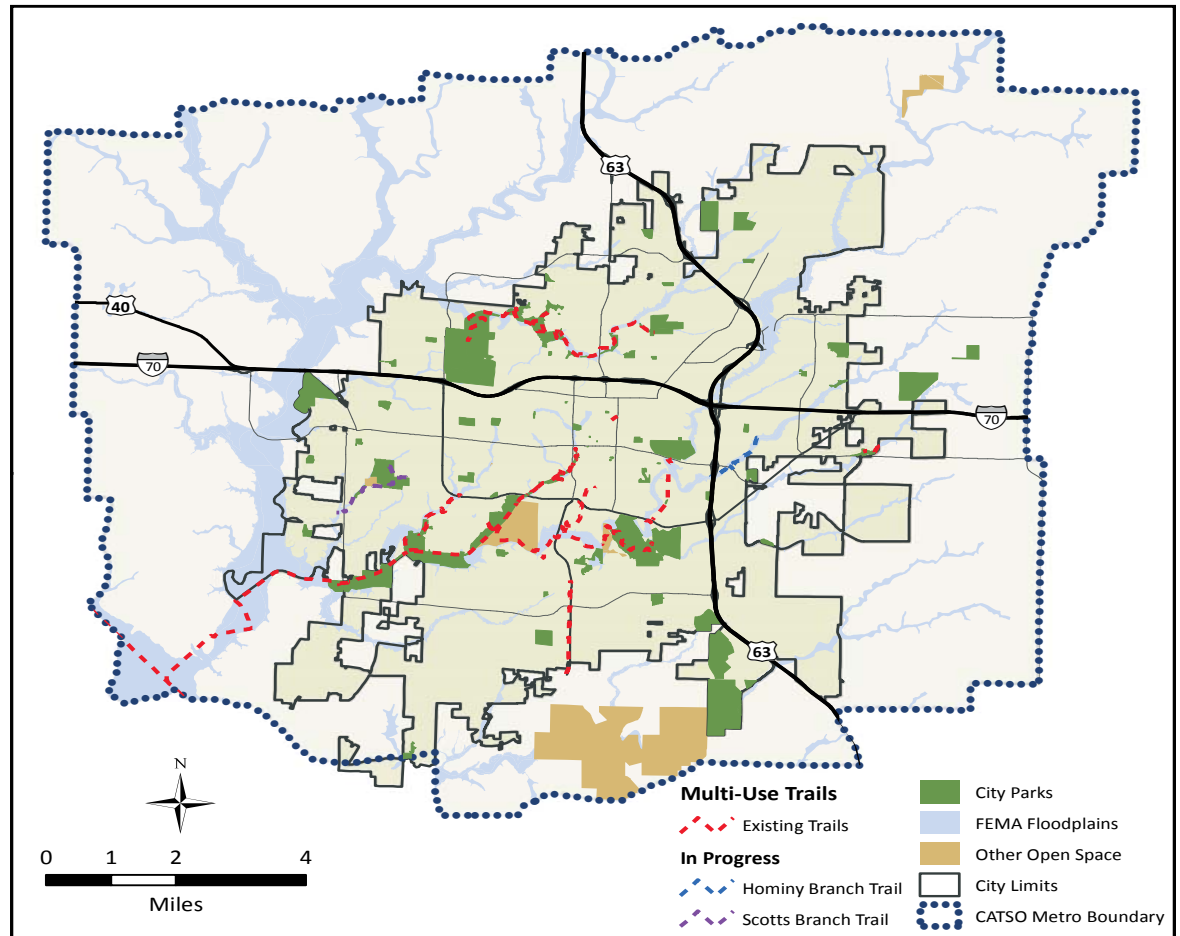
An Infrastructure Task Force (ITF) has been charged with making “guidelines for determining fair and balanced cost allocations and funding sources among stakeholders and to ensure infrastructure implementation is aligned with the comprehensive growth plan.”

<sup>3</sup> “Parks, Recreation, & Open Space Master Plan - 2002 Update” City of Columbia, 2002

Separate committees have been established to address sewer and storm water management issues.

The ITF has made some recommendations, mostly related to transportation infrastructure, with the exception that it deferred those recommendations necessary to “ensure infrastructure implementation is aligned with the comprehensive growth plan” until the comprehensive plan was completed.

The Capital Improvement Program (CIP) is the City’s primary budget and scheduling tool for capital needs. The CIP addresses needs ranging from the current year to ten plus years in the future. Since the CIP is not a fiscally constrained document, it is not uncommon for most of its listed projects to be unfunded, with the exception of those scheduled for construction in the one- to two-year planning period.



Map 1-15: 2012 Trails in Columbia

Source: Parks and Recreation, City of Columbia



## 1.4 Mobility, Connectivity, and Accessibility

Mobility, connectivity, and accessibility (for this chapter, MCA) are necessary for community interaction and the delivery of services. They each depend on transportation systems and are interrelated yet distinct.

**Mobility** necessitates movement, **accessibility** does not.

**Mobility** and **accessibility** are currently limited by a lack of **connectivity** in our street system and public transit system routes.

**Walkability** is the function of two things: facilities for walking, such as sidewalks and crosswalks, and destinations to walk to, like parks and businesses.

- **Mobility** is the ability and knowledge to move from one location to another by a variety of travel modes.
- **Connectivity** is needed to provide both mobility and accessibility; this means that streets, sidewalks, trails, and other public transportation facilities are linked in a system accommodating all modes. It may link people, places, and pathways.
- **Accessibility** is the ability or ease of persons to get directly to the places they need and want to go. It may also be defined as the means by which a person accomplishes some social or economic activity, and is dependent on knowledge.

The accessibility of public facilities and transportation systems is especially critical for persons with disabilities. The requirements of the Americans with Disabilities Act (ADA) and related laws are intended to ensure accessibility for citizens with disabilities. Several residents have indicated that access to public facilities and amenities is central to improving and maintaining Columbia's quality of life. Also included in Columbia Imagined's goals for a livable and sustainable community are aims to include universal design standards. Together, these concepts allow citizens access to employment, medical services, grocery shopping, and other needs.

While mobility requires movement, accessibility does not in all instances. Persons may gain access to services (e.g. the library) or goods through the Internet, or work from home by telecommuting. Good physical access minimizes the need for mobility, reducing the total number of trips that people must make. More

specifically, physical proximity from residential neighborhoods to schools, parks, workplaces, and shopping areas may reduce the number of motor vehicle trips. The use of universal design concepts (discussed in section 1.7 of this chapter) allows the greatest number of people use of and access to facilities. Greater connectivity makes for shorter, more efficient trips, which in turn reduce traffic and travel time.

## Key Elements

### Street System

A public street system with sufficient links between local and major streets that permits convenient movement across the community is vital to any community seeking to maximize MCA. With this in mind, culs-de-sac, loops, and other non-connecting streets should be limited in number relative to through or connecting streets. Multiple modes of travel, both motorized and non-motorized, need to be accommodated in street facilities and design, thereby leveraging the interconnected nature of a robust street network.

### Public Transit

Another major element is a public transit system that provides access to residential areas—particularly of higher density—and major employment areas. The system should implement vehicles and transit stops accessible to persons with disabilities. This transit network needs to include a sufficient number of routes across the community to ensure that all residents may access it.

### Sidewalks

A sidewalk system that, at a minimum, covers major streets and other important links throughout the street infrastructure is of vital importance. Included as part of the sidewalk system are curb ramps, accessible crosswalks, and other features to accommodate persons with disabilities, as required by the ADA's Standards for Accessible Design.



## Walkability

An important concept when discussing sidewalks, walkability generally refers to how comfortable pedestrians and non-motorized travelers are, as influenced by the built environment of a given area. How a given street's buildings present themselves to the sidewalks (if present) greatly influences walkability. For example, many of Columbia's downtown buildings are two or three stories tall. Coupled with wider sidewalks, this enhances the downtown's walkability, as compared to a street with very tall buildings that tower over sidewalks and create the effect of impregnable walls.

## Influences on neighborhood design

Many of Columbia's neighborhoods have a suburban character. Streets are wide enough to park cars, but because of available driveway parking, many streets have relatively few parked cars. In these environments, sidewalks were often considered optional. The most conspicuous absence of sidewalks is found in neighborhoods developed between 1940 and 1970, as well as some parts of the central business district and areas developed in the county and then annexed into the City. Because all new subdivisions are required to have sidewalks per the Subdivision Ordinance, the percentage of streets having sidewalks is gradually increasing.

## Green corridors

Some consider the concept of green corridors—smaller connections between larger natural areas, often habitats for wildlife, a type of MCA. These linear green spaces may also provide means by which humans can travel or recreate within a community. The MKT Trail may be considered a green corridor, though it lacks the general intent of such areas in specifically linking parks to each other.

## Parking

Parking facilities also create a type of accessibility, in that certain businesses or public facilities attract a larger number of people than may park streetside. The strategic location of parking lots and ramps near such traffic generators may be desirable for residents if other means of reaching these facilities is inconvenient or unavailable.

## Locational differences

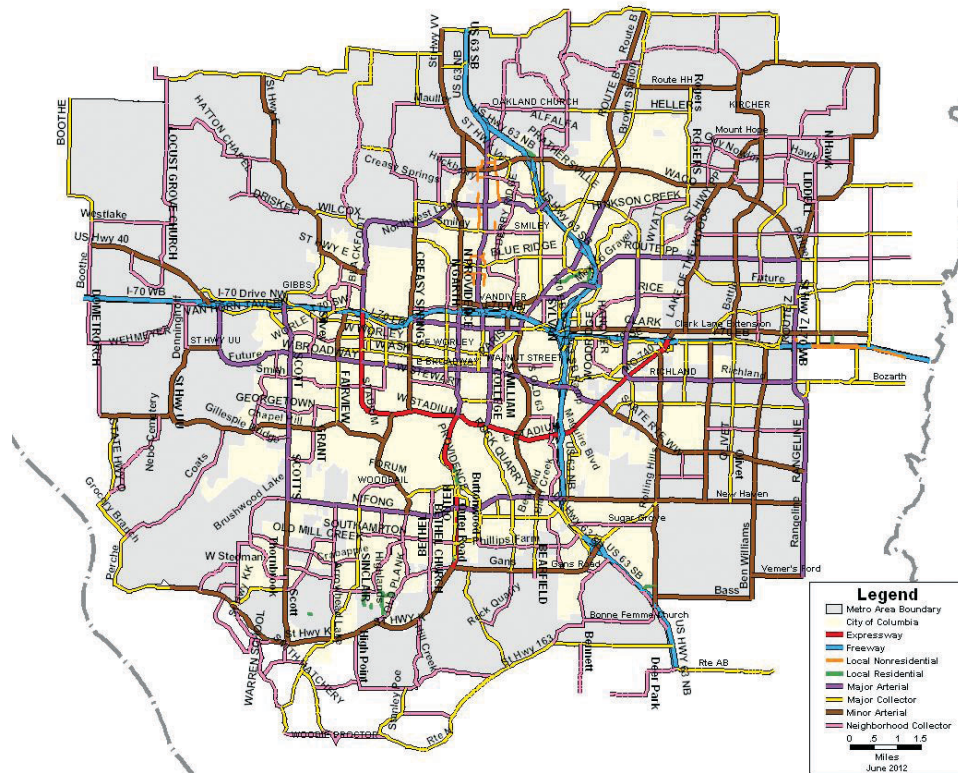
The central city is more conducive to permitting multi-modal (auto, bus, bicycle, and pedestrian) transportation, while outlying areas are more automobile-oriented with some bicycle trails and commuter bus routes established or planned. The ease with which emergency vehicles may cover the city and the safety of roadway designs are important for public safety providers.

## Other transportation

On a broader scale, alternative motorized travel options, such as an airport, regional/interstate/national bus service, and passenger railroad service are also important for movement from one place to another.

*“Columbia is a very physically active and healthy community.”*



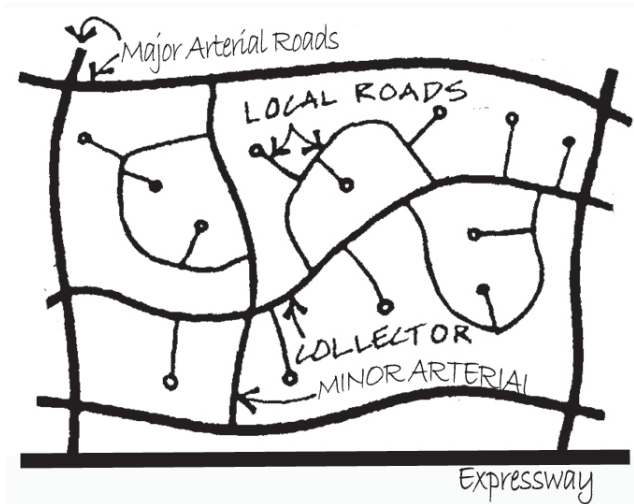


Map 1-16: CATSO's Major Roadway Plan

Source: City of Columbia

In practice, functional classification follows three rules:

1. The longer the trip, the bigger the roadway
2. The bigger the roadway, the faster traffic should travel
3. The faster traffic travels, fewer access points on and off the roadway are available



## Transportation Plans

The following current transportation plans facilitate the provision and implementation of MCA concepts:

### CATSO Major Roadway Plan

CATSO's Major Roadway Plan (MRP) encompasses a network of major streets intended to provide sufficient connectivity for traffic across the Columbia metro area. The MRP classifies streets according to their intended function and projected traffic volumes. The MRP lists existing and proposed future roads. Streets are classified as follows:

**Major Arterial** – A high volume, multi-modal street which handles the bulk of through traffic within the city. Major arterials connect to expressways and freeways and provide access to major traffic destinations. Example: Nifong Boulevard.

**Minor Arterial** – A mid-to-high volume, multi-modal street which moves a large portion of internal city traffic. Minor arterials usually connect to major arterials or expressways. Example: Forum Boulevard.

**Major Collector** – A mid-volume, multi-modal street which collects traffic from several neighborhoods and moves the traffic to the arterial network. Example: Ash Street.

**Neighborhood Collector** – A street intended to collect traffic from surrounding residential areas and connect to major streets. Example: Stewart Road.

**Local Non-residential** – A low volume, low speed street that provides access to commercial, industrial, institutional, and other intensive land uses. Example: Parker Street.

**Local Residential** – Residential streets provide direct access to residential dwellings. Ideally, they exhibit characteristics that contribute to a safe and attractive living environment, enabling enhanced site design and the creation of attractive streetscapes. Example: Glenwood Street.



## Sidewalk Master Plan

The Sidewalk Master Plan is a long-range plan for new sidewalk construction on major roads and strategic routes to school. Per City policy, a project on the Sidewalk Master Plan is eligible for 100 percent City funding, subject to available funds. The Master Plan was updated in 2012, and contained 42 projects that would cost approximately \$18.8 million to complete in 2012 dollars.<sup>1</sup>

## Trails Plan

The Trails Plan is a component of the City Parks, Recreation, and Open Space Master Plan, and includes the major greenbelts and other trails providing transportation and recreation functions. These trails provide connectivity between neighborhoods, major parks, and other areas of the city as well as providing a direct connection to the statewide Katy Trail. The presence of this network allows for alternative routes for non-motorized traffic in addition to the public street system.<sup>2</sup>

## Transit Master Plan (2008)

Columbia Transit has a three-phase plan for increasing ridership and improving service; phases II and III include expansion of commuter service, park and ride locations, vehicle maintenance and storage facilities; integration with the University of Missouri; performance goals to increase fixed routes during peak hours; and reducing the time between buses.

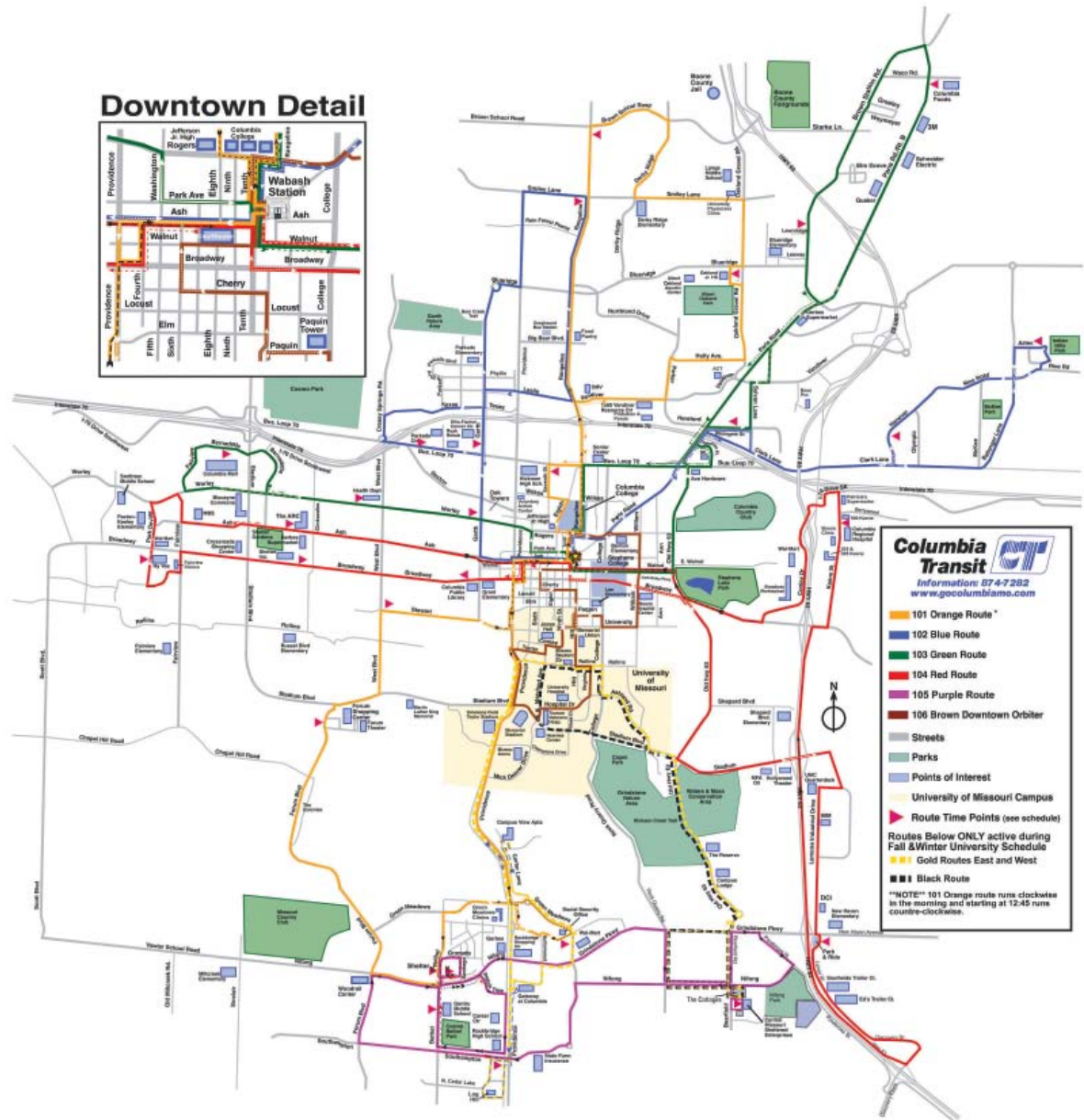
## Streets, trails, and bicycling amenities

The city street network (public and private) includes 585 linear miles of streets, with 42 miles of arterials, 86 miles of collectors, and 457 miles of local streets. On-street facilities include 61 miles of striped bicycle lanes, 32 miles of marked bicycle routes, as well as sharrows (on-street symbols resembling chevrons) and signs. The City also maintains over 350 public bicycle racks and approximately 350 miles of sidewalks and pedways.

Columbia features 25.4 miles of greenbelt/bicycle trails (shared

<sup>1</sup> "Columbia Sidewalk Master Plan 2012" City of Columbia, April 1, 2013

<sup>2</sup> "Parks, Recreation, & Open Space Master Plan - 2002 Update" City of Columbia, 2002



Map 1-17: Columbia Transit  
Source: City of Columbia



use paths), including the nine-mile MKT Trail connecting the central business district with the statewide Katy Trail. With the exception of the downtown area, bicyclists are allowed to ride on sidewalks and pedways/shared use paths. The City received a \$22 million grant in 2006 to improve non-motorized transit. This was done under the banner of GetAbout Columbia and involved a variety of projects citywide; additional projects were programmed for 2013 and 2014 under a second funding allocation.

### Columbia Transit System

The City's Columbia Transit (CT) system operates seven full-service, fixed routes; two commuter routes; and accessible para-transit service. CT buses are ADA accessible and equipped with bicycle racks. Three other routes serve the University of Missouri campus and the FastCAT route, designed to connect the City's three residential colleges/university with downtown housing developments, commenced in 2012. The CT system's hub is located in the downtown Wabash Station.

### Columbia Public Schools (CPS)

School bus operators dispatch 172 buses and transport approximately 9,000 riders daily throughout the CPS district. It is CPS policy to provide free bus transportation to students residing more than one mile from their school. The walking school bus program, as of 2011, included an additional 450 students and 150 volunteers.

### Other Transit

The Boone County Community Partnership commissioned a 2007 comprehensive inventory and needs assessment of transportation services in Boone County. The focus of the study was on transit needs and related coordination efforts to address those needs.<sup>3</sup> OATS, a regional transportation service providing on-demand service, fills gaps in the City's transit routes, particularly for the elderly or disadvantaged. Mo-X is a van and bus service offering travelers connections to both Kansas City International and Lambert St. Louis International Airports.

<sup>3</sup> "Boone County Coordinated Transportation Services" LSC Transportation Consultants, Inc; October 24, 2006

Megabus provides coach bus service to Kansas City and St. Louis, continuing to its Chicago hub. A number of taxi services are located in the Columbia area. There are 59 transportation and human service providers in Boone County, as of 2012.

### COLT Railroad

A local, short line railroad owned by the City of Columbia, the Columbia Terminal Railroad (COLT) links central Columbia with the Norfolk Southern line in Centralia along 21.34 miles of track.

### Columbia Regional Airport (COU)

The airport is located 15 miles from downtown near Highway 63, providing easy access to Jefferson City, Ashland, and Moberly. Airport planning priorities are retaining and expanding air service and increasing runway lengths to attract more frequent flights as well as larger aircraft. An increase in service via multiple carriers may be used to leverage improvements to the aging terminal building.

### Journey to Work Data

The majority of Columbia's working population is heavily reliant on automobile travel. In the Columbia metro area, driving alone to work is the predominant type of work trip (76.7%), followed by carpooling (12.3%), bicycling or walking (6.8%), working at home (3.0%), and public transportation (0.9%). A 2010 random sample survey found that more persons reported driving alone to work or school in 2010 than in 2008, though the perception of Columbia as a "bicycle-friendly community" increased during the same period of time.

### Connectivity Measures

Good street connectivity is fundamental to city planning. Street systems that offer multiple choices of direction, frequent intersections, and alternate parallel routes do a better job of moving traffic, other things being equal, than streets lacking these characteristics. A connectivity index (the number of intersections in a given area divided by the sum of intersections and culs-de-sac or other dead-end streets) is a simple measure that may be used to rate the degree of connectivity in a neighborhood or district. The

*"Increase funding for public transportation so that service is more frequent and usable by teenagers, elderly and people with disabilities. Give everyone transportation options."*

closer the index is to a score of one, the better the connectivity. Columbia has an abundance of cul-de-sac streets—more than 1,300—that are popular with homeowners and developers, but as a significant proportion of the city street network, they slow down street cleaning, delivery, pick-up, and emergency response services.

### Americans with Disabilities Act (ADA)

The ADA was passed in 1990 and provides protections for individuals with disabilities in a variety of areas. Title II of the ADA mandates that state and local governments make their programs and services accessible to persons with disabilities. One component of this is physical access at government facilities. Amenities such as parking have been studied for their accessibility to disabled users.

The City of Columbia began an ADA Transition Plan update in the fall of 2009. The plan includes three phases of implementation. The first phase reviews city facilities, including buildings, park shelters, and trail facilities to analyze levels of access, existing deficiencies, and potential corrective actions to comply with the ADA. The second phase examines the City's pedestrian facilities, including sidewalks, crosswalks, and curb ramps. Phase 3 assesses programs offered by the City in order to ensure that people with disabilities are assured an equal opportunity to participate in the programs and activities offered by the City of Columbia.

### Other Plans and Policies

#### CATSO 2030 Plan

The CATSO 2030 Long-Range Transportation Plan (2008) is a federally mandated plan required to be updated every five years. The CATSO plan includes a Major Roadway Plan and Bicycle and Pedestrian Network Plan for the region. Projects listed must be fiscally constrained; that is, jurisdictions must project adequate revenues to cover estimated project costs during the 20-year plan horizon. Columbia has approximately 50 miles of roadways to be improved or added at a cost in 2007 dollars of approximately \$275 million (here, roadways include bicycle and pedestrian facilities).

The Improve I-70 and the Mo. 740 East extension projects are not included in the fiscal constraint analysis. The City of Columbia adopts its own Major Roadway Plan as an element of the City's comprehensive plan. By policy, Boone County recognizes the CATSO plan as its own roadway plan.<sup>4</sup>

### CATSO Transportation Improvement Program (TIP)

The TIP is a four-year program of transportation investments that the City, County, and MoDOT intend to make within the metro area (technically required only for those projects involving federal funds). Though projects in the TIP are sometimes delayed from their scheduled completion year, the TIP is generally a reliable guide of what transportation improvements (including all modes) will actually be constructed.

### Construction of Transportation Improvements

City Code sections 22-71 through 22-79 describe the process for taking transportation projects and other public improvements from concept to construction. City Code section 22-108 describes City policy for cost participation in the construction of major roadways. Developers are generally responsible for the cost equivalent of local street construction. The City may pay for incremental cost increases to upgrade a roadway to a higher capacity.<sup>5</sup>

### Trail Right-of-Way Acquisition

The City uses its Trails Plan to notify property owners that trail right-of-way may be required as a condition of subdivision approval, as delineated in the Subdivision Regulations. The right-of-way is most often secured via subdivision action or by acquisition from other properties not involving subdivision. The trail is then designed and constructed by the City through its park public improvements process. In cases where a trail is needed to address the lack of a safe route to a nearby school or park, the subdivision regulations obligate a landowner seeking to subdivide property along the proposed trail to construct it.

<sup>4</sup> "2030 Transportation Plan," Columbia Area Transportation Study Organization, May 22, 2008

<sup>5</sup> "Columbia Code of Ordinances," Chapter 22, Section 22-108, December 2012



The Plan for How We Live & Grow



## 1.5 Economic Development

The vitality of a community is often measured by its economic performance compared to other communities of similar characteristics. As noted in Section 1.1, the City of Columbia is unlike many other communities within Missouri or its surrounding states. Columbia is unique in its employment base, its academic institutions, and its centralized location between St. Louis and Kansas City. These attributes contribute to a community that has been able to weather the economic challenges of the past half-decade better than most.

The following sections explore Columbia's unique economic attributes and ways in which these elements are leveraged to create a place where people come to learn, live, and work.

**Metropolitan Statistical Area (MSA)** is a geographical region with relatively high population density at its core and close economic ties throughout the area.

MSAs are defined by the U.S. Office of Management and Budget (OMB), and used by the U.S. Census Bureau for statistical purposes.

## Two Counties, One Metropolitan Statistical Area

The U.S. Census Bureau combines data for Boone and Howard Counties in the Metropolitan Statistical Area (MSA) Columbia is located within. Columbia is the largest city within the MSA, with an estimated population of 108,500 residents (2010 Census). The city has a daytime population approximately 26 percent greater than its resident population. This is an indicator of the city's economic centrality in the region. The city grows by day as a result of net in-commuters to work, tourists and overnight visitors, and shopping visits from outside the city limits.

## Demographics Profile

Columbia's success as a city is a function of how it has evolved and changed over time. The following tables provide an overview of the changes the community has undergone in several areas tied directly to economic prosperity.

## Population Growth

The growth of the city and its surrounding region has been consistent for many decades. Over the past 50 years, there has never been a decline in the community's population. Table 1-5 shows this trend.

Population Change				
Census Year	County Population	% Change (County)	City Population	% Change (City)
1960	55,202	—	36,560	—
1970	80,911	46.5%	58,814	60.8%
1980	100,376	24.1%	62,061	5.5%
1990	112,379	11.9%	69,101	11.3%
2000	135,454	20.5%	84,531	22.3%
2010	162,642	20.1%	108,500	28.3%

Table 1-5: Population Change

Source: U.S. Census

## Age and Gender Distribution

The ability of a community to meet the demands of growth and changes in technology relies on the diversity of its population.

Table 1-6 shows the population's age distribution in Columbia and Boone County. The majority of the local population—approximately 61%—is between ages 20-59. This distribution puts the majority of the local population in the prime working years of a person's life. The population of school-age children and retirees/seniors living in the city has steadily increased since 2000. School-age children (ages 5-19) and retirees/seniors (ages 65 and over) have grown 18 and 27 percent, respectively, during the past 10 years. These changes in the local population will bring several new challenges as the community prepares for future development and economic opportunities.



Age Cohort Breakdown & Change: 2000 and 2010				
Age Group	2000 Census		2010 Census	
	City	County	City	County
Under 5 years	4,884	8,452	6,510	6,727
5 to 9 years	4,706	8,689	5,642	6,293
10 to 14 years	4,537	8,814	5,100	6,076
15 to 19 years	9,275	12,900	11,067	9,765
20 to 24 years	15,885	18,981	21,700	16,601
25 to 29 years	7,598	11,127	10,416	9,331
30 to 34 years	5,822	9,502	7,270	7,161
35 to 39 years	5,593	10,062	5,968	6,402
40 to 44 years	5,224	9,861	5,317	5,968
45 to 49 years	4,892	8,995	5,642	6,619
50 to 54 years	3,973	7,452	5,534	6,619
55 to 59 years	2,729	5,020	4,991	5,968
60 to 64 years	2,133	3,960	4,015	4,774
65 to 69 years	1,793	3,189	2,604	3,038
70 to 74 years	1,647	2,784	1,953	2,279
75 to 79 years	1,531	2,349	1,628	1,736
80 to 84 years	1,147	1,687	1,411	1,411
Over 85 years	1,162	1,630	1,628	1,519

Table 1-6: Age Cohort Breakdown &amp; Change: 2000 and 2010

Source: U.S. Census

## Employers

Columbia is the principal location of businesses serving the MSA. Table 1-7 lists the region's largest employers and Table 1-8 shows those employed by employment sector.

As Table 1-8 shows, employment by job sector within the region has generally remained stable since 2006. The exception to this trend has been the construction, manufacturing, and wholesale trade sectors where job losses of 28.7, 30.7, and 19.6 percent, respectively, have been observed. These losses are contrasted by double-digit growth in the education services, art, entertainment, recreation, healthcare, and social services sectors.

Columbia MSA Largest Employers	
Business/Employer	Employees
University of Missouri*	8,608
University Hospitals & Clinics	4,468
Columbia Public Schools	2,117
Boone Hospital Center	1,655
City of Columbia	1,332
U.S. Dept. of Veterans Affairs**	1,278
MBS Textbook Exchange	1,239
Shelter Insurance	1,078
State Farm Insurance	1,063
Hubbell Power Systems, Inc.	758
Veterans United	719
Joe Machens Dealerships	630
State of Missouri (excludes MU)***	547
Kraft Foods (Oscar Meyer)	516
Columbia College	484
ABC Laboratories, Inc.	361
Boone County Government	350
Boyce & Bynum Pathology Labs	349
U.S. Postal Service	341
Columbia Insurance Group	324
Schneider Electric: Square D	309
CenturyLink	264
Midway USA	262
U.S. Dept. of Agriculture**	258
Boone County National Bank	251
Pepsico (Frito-Lay/Quaker Oats)	240
Woodhaven	227
3M	216
MFA, Inc.	215
Missouri Employers Mutual Insurance	201
Stephens College	~200

Table 1-7: Columbia MSA Largest Employers

Source: Individual companies (Fall, 2011)  
unless noted

\* Includes MU, Extension, and System  
Employees

\*\* Federal Office of Personnel

\*\*\* Missouri Office of Personnel

*“We like that education is important  
and that this is a well-educated town.”*



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Table 1-8: Columbia MSA Employment Sector Averages

Source: Missouri Economic Research and Information Center (June 21, 2011)

For Local Education Columbia, So. Boone County, Hallsville figures are included in the Local Government Section.

The Education sector (NAICS 61 & 611) is for the Private Education sector (Stephens & Columbia Colleges).

Likewise for hospitals, the University of Missouri Healthcare System is included in State Government, but Boone Hospital is in the Private Sector.

Columbia MSA Employment Sector Averages							
NAICS Codes	Industry	2006	2007	2008	2009	2010	% change 2006 -2010
11	Agriculture	154	154	159	165	148	-3.9%
21	Mining	77	68	61	72	61	-20.8%
22	Utilities	143	143	143	146	n/a	
23	Construction	4,335	4,132	3,872	3,246	3,092	-28.7%
31	Manufacturing	4,639	4,429	3,903	3,434	3,214	-30.7%
42	Wholesale Trade	2,726	2,635	2,645	2,229	2,191	-19.6%
44	Retail Trade	10,293	10,332	10,125	10,928	11,430	11.0%
48	Transportation & Warehousing	1,279	1,495	1,467	1,342	1,389	8.6%
51	Information	1,157	1,266	1,297	1,152	1,129	-2.4%
52	Finance & Insurance	3,336	3,355	3,460	3,379	3,481	4.3%
53	Real Estate, Rental, & Leasing	1,250	1,257	1,240	1,164	1,124	-10.1%
54	Professional & Technical Services	2,483	2,457	2,709	2,897	2,891	16.4%
55	Management of Companies & Enterprises	2,277	2,220	2,274	2,217	2,160	-5.1%
56	Administrative & Waste Services	2,427	2,885	2,725	2,136	2,445	0.7%
61	Educational Services	1,099	1,200	1,237	1,260	1,333	21.3%
62	Healthcare & Social Assistance	5,750	5,956	6,292	6,369	6,602	14.8%
71	Arts, Entertainment, & Recreation	652	672	633	687	751	15.2%
72	Accommodation & Food Services	8,226	8,409	8,373	8,177	8,310	1.0%
81	Other Svcs, except Public Administration	2,312	2,370	2,357	2,259	2,275	-1.6%
	Local Government	6,218	6,350	6,472	6,472	6,440	3.6%
	State Government	16,715	16,628	16,943	16,791	16,882	1.0%
	Federal Government	1,975	2,012	2,074	2,181	2,291	16.0%

While several job sectors have seen significant losses since 2006, the region's unemployment rate has remained below that of the state as a whole and the majority of several hundred metropolitan areas (MSAs). As of November, 2012, the Columbia MSA was ranked 21st out of 372 MSAs with an unemployment rate of 4.3% as compared to the national average of 7.4 percent. Much of this can be attributed to the region's business diversification, educated workforce, quality of life factors, and regional centrality.

## Income and Poverty

The following tables provide an overview of the changes in income and poverty within Columbia and Boone County. As Table 1-9 shows, income within Boone County and Columbia has increased at all levels since 1980. These increases can, to an extent, be explained by the fact that the region has added several major employers over this 40-year period offering high-paying jobs (e.g. higher education, medical, insurance). However, during this same period an unusually high number of jobs in the service

Income 1980-2010						
	Boone County			City of Columbia		
	Per Capita	Median Household	Median Family	Per Capita	Median Household	Median Family
1980*	\$11,857	\$26,513	\$34,708	\$11,454	\$23,316	\$34,906
1990*	\$16,578	\$33,460	\$44,517	\$16,246	\$28,779	\$45,138
2000*	\$19,844	\$37,485	\$51,210	\$19,507	\$33,729	\$52,288
2010**	\$25,124	\$45,786	\$64,616	\$25,369	\$45,427	\$67,231

Table 1-9: Income 1980-2010

Source: \*U.S. Census &amp; \*\*American Community Survey 2006-2010

sector—primarily retail—were added to the local economy. These types of jobs are typically lower paying than other employment opportunities and the higher than usual number of them is a result of Columbia's regional centrality as well as the fact that Columbia is home to three institutions of higher education.

While income has been increasing, it is not equally distributed over the entire population. This can be seen in the increased number of individuals and families in poverty (see Table 1-10). Since 1980, the number of persons in poverty has increased by 6 percent in Boone County and 9 percent in the City. This trend identifies a need for improvement in the provision of affordable housing, workforce development/training programs, and greater diversification of the employment base. The increase in the number of individuals and families in poverty may also be linked to changes in the definition of poverty used by the U.S. Census Bureau.

### Educational Institutions' Enrollment

The impact of education on the city and county is unmistakable. Within the study area's boundaries are three institutions of higher education, two elementary and secondary school districts, and numerous private and parochial schools. These institutions are preparing the next generation of leaders and innovators.

Enrollment rates for local educational institutions have seen a steady increase over the previous 30 years. Table 1-11 shows these increases for selected education providers.

Poverty 1980-2010				
	Boone County		City of Columbia	
	Persons	Families	Persons	Families
1980*	11,186	1,325	8,802	892
1990*	16,880	2,421	13,195	1,700
2000*	18,366	2,391	14,670	1,658
2010**	27,345	3,446	24,801	2,295

Table 1-10: Poverty 1980-2010

Source: \*U.S. Census &amp; \*\*American Community Survey 2006-2010

As the figures show, education is a mainstay within the study area—its impacts are numerous. As employers, our educational institutions provide jobs to over 11,000 people. And as an economic engine, the University of Missouri alone, in 2010, added \$400 million to the local economy and brought in an additional \$320 million in externally funded research.

Educational Institutions' Enrollment Rates				
Academic Institution	Enrollment by Academic Year			
	1990-1991	2000-2001	2010-2011	2012-2013
<b>Columbia Public Schools</b>				
Elementary	6,738	7,787	8,655	8,824
Secondary	6,216	8,420	8,895	8,898
<b>Columbia College</b>				
Undergraduate*	1,527	2,207	2,915	2,424
Graduate	N/A	125	211	201
<b>Stephens College</b>				
Undergraduate*	1,094	611	846	673
Graduate	N/A	49	259	209
<b>University of Missouri</b>				
Undergraduate*	18,763	18,058	24,592	26,545
Graduate	6,209	5,222	5,855	6,016

Table 1-11: Educational Institutions' Enrollment Rates

Source: Columbia Public Schools, Columbia College, Stephens College, University of Missouri; \*Includes online learning



## Economic Support Structure

As the prior section illustrates, the Columbia MSA has done well economically. Additional jobs have been added in higher paying employment sectors, per capita income is on the rise, and unemployment is significantly less than many of Columbia's peer cities, the state, and nation. While the poverty gap has grown, it has done so in relatively low proportion to the overall population growth and is not considered extreme. However, additional efforts should be made to increase the level of sufficiency for those most impacted.

### Agencies and Organizations

The continued economic success of the region will be tied to the public and private efforts to enhance opportunities for affordable housing, job diversification, and workforce development. There are many organizations in the region that are focused on providing such assistance.

For example, affordable housing is aided by organizations such as the City of Columbia, which provides down-payment assistance and homeownership education to lower-income families, Central Missouri Community Action (CMCA), which seeks to make housing affordable by reducing utility costs through weatherization programs, and the Columbia Housing Authority, which administers the Section 8 voucher program, enabling families to afford housing throughout the city.

Job diversification support comes from the unique role Columbia has as a regional center for healthcare, education, social services, and shopping, in addition to the business recruitment efforts of Regional Economic Development, Inc. (REDI), the University's technology incubator, the Chamber of Commerce, and other groups.

Columbia's workforce development comes from a variety of organizations. For instance, the Career Center provides training in a broad spectrum of emerging and high-demand fields, from solar panel installation to nursing. Job Point trains individuals in workforce skills, and Sheltered Enterprises matches people with physical and mental disabilities to jobs and training opportunities.

In addition to these service providers, the presence of several institutions of higher learning, from technical and community colleges to the University of Missouri system's flagship institution, also contribute to a diverse local workforce.

## Factors Contributing to Economic Success

Unique opportunities within the Columbia MSA have helped sustain the region through the past half-decade of economic recession. Maintaining, enhancing, and capitalizing on these advantages will encourage continued positive economic progress. The following sections provide an overview of the land resources, programs, and policies that support the regional economy.

### Land Resources

Within Columbia, there is limited commercial and office vacancy when compared against national averages. Based on research prepared by Plaza Commercial Real Estate and reported in the 2012 Commercial Realty Market Report, the retail vacancy in the Columbia market was 7.62 percent and office vacancy was 8.63 percent. At the national level, these values were 12.6 and 16.7 percent, respectively. Map 1-18 illustrates the locations of existing retail and office hubs in the City. It should be noted that having some vacant land in reserve for these uses is still considered healthy, since it provides options in the market.

Similar to the commercial and office inventory, industrial space vacancy is also below the national average. According to the same research, the industrial vacancy in the Columbia market was 7.82 percent compared to the national average of 12.3 percent.

The current vacancy rates of existing industrial, commercial and office inventory are less telling of the ability to meet future needs than the available acreage of land available for these uses. The "Where Are We Now?" of Chapter 4 describes the relationship between projected growth and the availability of land for commercial, industrial, office and residential uses to meet future needs in detail.

Additionally, and equally as important as the commercial and office sectors within the MSA, is an inventory of well-positioned

*“Retain and attract well-paying employment for the Columbia area for its current and future citizens by capitalizing on Columbia's natural economic advantage of location as well as its person-made advantages of workforce, large research university, and high quality of life.”*

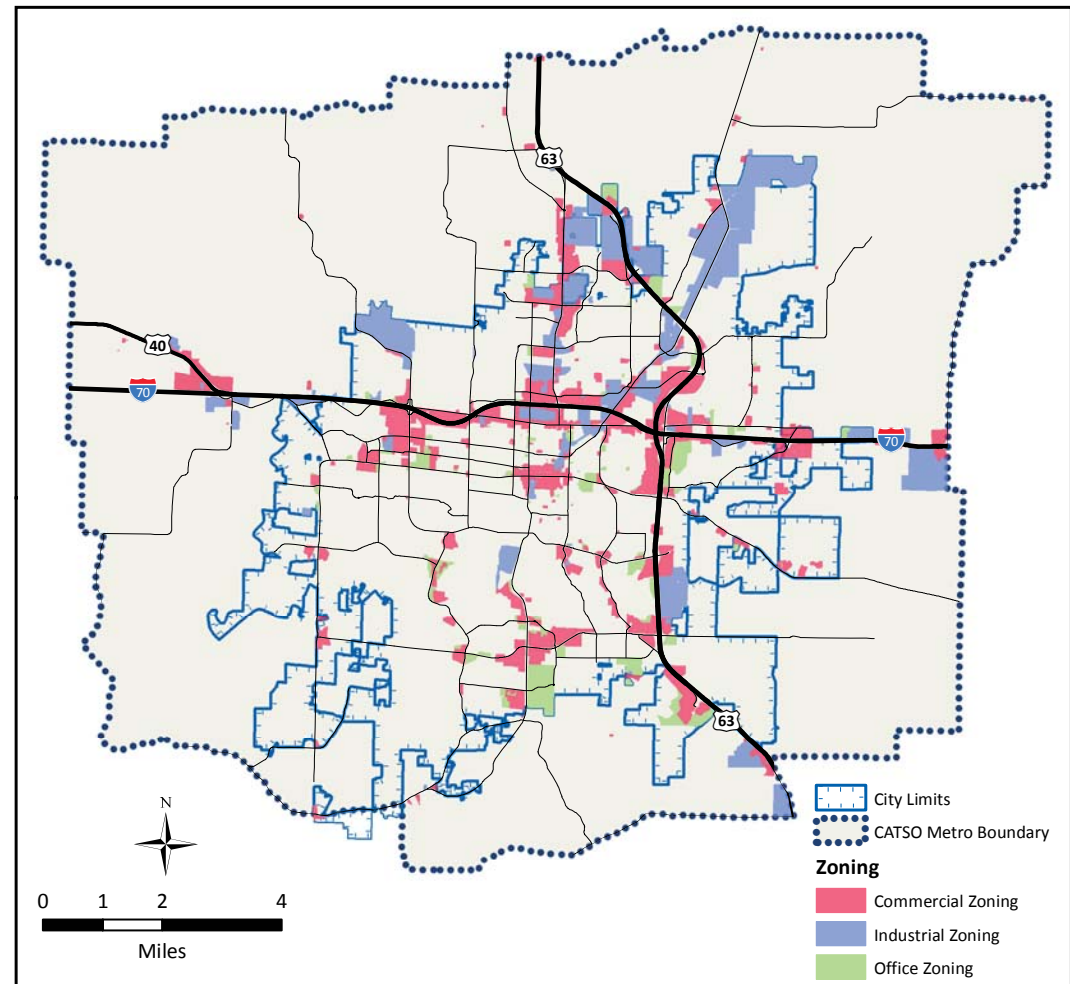
industrial sites. The MSA is unique in that it is home to the first certified industrial site (Ewing Industrial) in the state. Since bringing Ewing Industrial online, an additional site (the Sutter Tract) has been added to the MSA's collection of certified "shovel-ready" locations for industry. Discovery Ridge Research Park, a University of Missouri owned and operated facility, has recently been designated as the third certified site. Map 1-18 highlights the industrial properties in Columbia and Map 1-19 show the locations of industrial sites that are certified by the state.

### Built Resources

Infrastructure and structural improvements are needed to support emerging land use and market trends. The resurgence of the downtown as a desired area for both residential and commercial development is an example of how location and building usage have converged to meet current market demands in Columbia.

A renewed focus on creating buildings with active retail or service-based street frontages is gaining traction. This demand is supported by the increasing population brought forth by the new residential development. The ability to have walkable services and retail within close proximity to the generators for such services was not present in Columbia's downtown until recently.

A review of the walkability index for Columbia finds that on average a score of 37.7 out of 100 exists (see page 122 for more information on walk score calculation), which is low in comparison to peer cities. Improvements to the sidewalk connectivity within Columbia would likely improve this score. Several efforts to enhance sidewalk connectivity in Columbia are underway. The Disabilities Commission is addressing ADA-related deficits in the pedestrian network downtown, the Community Development Commission has shown support for ADA and related pedestrian improvements through the programming of the Community Development Block Grant (CDBG) funds, and the Bicycle and Pedestrian Commission has prioritized sidewalk projects in the Sidewalk Master Plan. These efforts are intended to close gaps in the sidewalk network and ensure compliance with federal policies related to accessibility for all citizens.



### Economic Partnerships

In July, 2011, *Forbes Magazine* ranked Columbia as the eighth "Best Small City for Business" in metropolitan areas of less than 250,000 people. Obtaining this ranking may be attributed, in part, to many individuals and organizations including the following:

#### Regional Economic Development, Incorporated (REDI)

Economic development efforts for the City and County are typically coordinated through a public/private partnership called Regional Economic Development, Inc. (REDI). This organization,

Map 1-18: Industrial, Office, and Retail Zoning  
Source: City of Columbia, Community Development



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formed in 1988, is tasked with cultivating, retaining, and seeking new businesses and industries for our community.

REDI uses three strategies to accomplish this:

1. Attract new companies and businesses to the community
2. Retain and expand existing businesses in the community
3. Foster an environment conducive to entrepreneurship and supporting entrepreneurial companies

Map 1-19: Certified Industrial Sites  
Source: City of Columbia,  
Community Development

**Business Attraction:** Two shovel-ready sites currently exist (Ewing Industrial Park and the Sutter Tract) within the City of Colum-

bia. Both sites are located north of Highway 63 near Route B (see Map 1-19). A third industrial site is located on Route Z in eastern Boone County and is a collaborative effort between Boone County and the Columbia Area Jobs Foundation (CAJF).

**Business Retention and Expansion:** REDI's strategy for retaining and expanding local businesses/industries includes establishing a formal program to provide support to these firms. This support includes visiting firms to conduct surveys to identify opportunities and/or challenges, assisting local firms that are competing to expand, and assisting local firms to maintain an investment in the community.

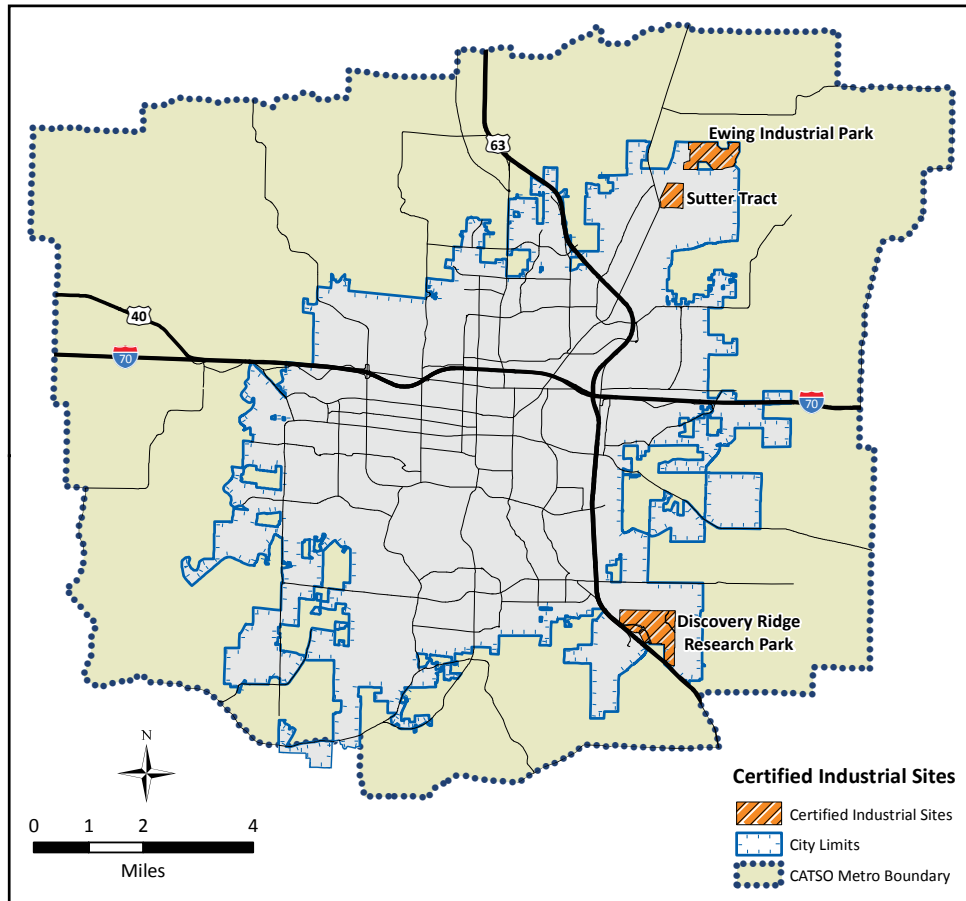
**Entrepreneurial Support:** In response to creating an environment conducive to entrepreneurship, REDI has opened the Brent and Erica Beshore Downtown Incubator. This space, in addition to that offered by the Life Science Business Incubator at Monsanto Place, addresses several of the physical needs for entrepreneurial businesses. In addition to these efforts, REDI is developing a strategy to encourage and foster support and awareness of entrepreneurial businesses.

#### University of Missouri

The University of Missouri (MU) provides a significant draw for potential industries and entrepreneurial "home-grown" business ventures. MU students generate in excess of \$250 million in off-campus expenditures per year in addition to spending generated by students attending Stephens College and Columbia College.

As Table 1-7 shows, the University is the largest employer in Columbia and offers companies an abundance of opportunities for collaboration. MU is one of five universities nationwide with law, medicine, and veterinary medicine schools and a nuclear research reactor on one campus. This combination of academic offerings, along with its \$400 million research operation, makes the University the largest individual contributor to the local economy.

University faculty, students, and alumni have worked together to identify competitive assets that set MU apart from other universities. These assets underlie five dynamic initiatives called the Mizzou Advantage. The five initiatives are:





1. Food for the Future
2. Media of the Future
3. One Health, One Medicine: The Convergence of Human and Animal Health
4. Sustainable Energy
5. Understanding and Managing Disruptive and Transformational Technologies

A network of collaborators — faculty members, centers, departments, corporate partners, and other universities — will drive activities related to each competitive asset. These collaborations seek more grants and opportunities to recruit the most prominent scholars and scientists. The Mizzou Advantage is a means of enhancing MU's status in higher education as well as a driver in creating new jobs and an improved quality of life for all Missourians.

### Promoting Innovation and Incubators

Not only does MU enjoy notable distinction in academia, it has a notable presence in the realm of economic development, as shown in its contribution to the local economy. The University generated \$320 million in externally funded research and related expenditures in 2009, which supported over 9,000 jobs statewide. According to REDI and the University, for each \$1 million of external funding, 39 jobs are created. Mizzou is also responsible for 25 percent of all higher education research and development expenditures in the state.

In addition to these notable financial impacts, the buildings and facilities on MU's Columbia campus make a significant contribution to the local economy. The MU Life Science Business Incubator at Monsanto Place provides an environment conducive to company growth and a place for MU researchers to further develop their research into profitable businesses. The MU Research Reactor (MURR) is the largest U.S. producer of radioisotopes used in the diagnosis and treatment of cancer. The Dalton Cardiovascular Research Center and International Institute for Nano and Molecular Medicine are on the cutting edge of research related to cancers and other diseases. The Christopher S. Bond Life

Sciences Center was ranked eighth in the nation and 15th in the world for the influence of its plant and animal science research from 1999-2009.

Discovery Ridge University Research Park at South Farm represents a significant MU-owned and-operated asset for economic development in the community. This 550-acre, shovel-ready research park is envisioned to become a thriving environment of business and research activity—in an atmosphere of innovation, collaboration, and creativity—for tenants who desire close proximity to the intellectual resources of the University of Missouri. Phase 1 of the park (139 acres) is open for development and is home to ABC Laboratories. Construction of an 80,000-square-foot incubator was announced earlier this year to provide additional research facility space.

### Fostering Entrepreneurialism

Entrepreneurial businesses continue to gain a greater presence within our region. In 2000, research prepared by the Missouri Economic Research and Information Center (MERIC) and University of Missouri Office of Social and Economic Data Analysis (OSEDA) showed that there were approximately 4,000 full-time entrepreneurs and 4,000 part-time entrepreneurs in Boone County.

The largest concentration of full-time entrepreneurs was in the construction, healthcare, and social assistance industries. Part-time entrepreneurs were concentrated in healthcare and social assistance, management of companies, and professional and technical services. Full-time entrepreneurs' average annual earnings were recorded at \$34,200, exceeding the national average of \$28,200.

### Supporting Small Business

One of the key factors to a local economy's success is the support of small businesses. Given the regional centrality of Columbia, quality of life, and educated workforce, there is great opportunity for start-ups as well as more established businesses. These types of businesses are where ideas and innovations emerge, leading to significant recognition for the region. Several existing businesses,

"Mizzou Advantage identifies the key areas in which the University of Missouri-Columbia is uniquely positioned in the worlds of higher education and research. In each of the five areas a network of MU faculty, centers, departments, corporate partners, national labs, and other organizations will develop creative research and educational approaches and collaborate on large grants and contracts, conferences, and other kinds of events to further enhance MU's stature and impact."

-University of Missouri Office of the Provost



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such as Veterans United Home Loans and Savage River Farms, allow Columbia to be recognized as a dynamic and innovative community for establishing a business.

Maintaining this desirable business environment is an essential component to progressing forward as a city and regional destination. Enhancement of our existing economic development programs and partnerships is critical to ensure the region remains competitive in an increasingly complex global market.

### Alignment with State Economic Development Activities

The region's economic success is based on a combination of factors that include, but are not limited to, location, workforce, quality of life, and a coordinated approach to attracting, cultivating, and retaining businesses and industries. These efforts are tailored specifically to the region and its assets; however, they are also closely aligned to state policies relating to economic development efforts.

In 2010, Jay Nixon, the governor of Missouri, in efforts to identify a clear path for statewide economic growth, launched the Initiative for Economic Growth. The initiative promotes the following seven industry clusters:

1. Advanced Manufacturing
2. Energy Solutions
3. Biosciences
4. Health Sciences and Services
5. Information Technology
6. Financial and Professional Services
7. Transportation and Logistics

As noted previously, our local economic development efforts are similarly aligned with the governor's program. Such alignment is a result of the substantial influence that the University of Missouri has on our local economy. Its research focus, coupled with other programs, places our region in a unique position to be a

leader in the state for years to come.

Recent business and industrial recruitment efforts by REDI have also contributed to the local economy. The attraction of IBM will fill a niche within the Information Technology cluster and support of the Veterans United Home Loans expansion shows focus on the Financial and Professional Services sector.

Combined efforts of the University and REDI will help the region to remain competitive as economic conditions continue to change. As the governor's strategy suggests, the pursuit of a common focus on economic growth is best implemented in partnership rather than isolation.

### Incentive Policies and Programs

Attracting businesses to the region sometimes requires the use of specific economic incentives and enticements. Such programs exist at the city, county, and state levels. Examples of the programs are:

#### Boone County Policies and Programs

##### Industrial Revenue Bonds (IRB)

Program administered by the Industrial Development Authority (IDA) that can issue tax-exempt industrial revenue bonds (IRB) for development of commercial, industrial, agricultural, and manufacturing facilities. An IRB may be used to finance the purchase of land, land improvements, buildings, machinery, and equipment that have an asset life span equal or greater than the term of the lease. A project granted an IRB should create significant long-term employment opportunities, preferably diversifying the industrial base.

##### Chapter 100 Bonds

A state business recruitment and expansion program available for qualifying companies in need of infrastructure to attract or retain high-skilled, high-paying jobs. Boone County can issue tax-exempt revenue bonds to industrial development projects, to finance land, buildings, fixtures, and machinery. One of the recent Chapter 100 projects was the ABC Labs expansion project at Discovery Ridge.

### City of Columbia Policies and Programs

Incentives available to assist Regional Economic Development, Inc. in bringing businesses into the region include:

- Electric rate incentives
- No local earnings tax
- Local taxes that are sales-based
- Moderate property tax rates
- Community Development Block Grants for public infrastructure are available outside the city limits

In addition to these monetary inducements, REDI also provides specific services to businesses and industries that are interested in locating within the region. These added services are aimed at making the investment as streamlined as possible. The added services REDI offers include:

- State and local permitting assistance
- Executive relocation assistance
- Assignment of a Specific REDI staff member as a company's personal community ambassador
- One-stop shop for local business issues

### State Policies and Programs

The State of Missouri offers several incentives that assist its communities in bringing new businesses and industry into the state. The State offers programs in three general categories, including financing assistance, tax credits, and tax exemption, that make Missouri a desirable place for business.

### Special Purpose Incentive Programs

Additional programs are available to the City that may be used to promote or entice new economic development. These programs include tax increment financing (TIF), community improvement districts (CID), transportation development districts (TDD), and tax credits. The common factor associated with these programs is that each uses tax dollars to pay back initial investment costs generally associated with infrastructure installation or building improvements. Each of the programs, with the exception of tax credits, requires the City Council to pass ordinances or enter into



inter-governmental agreements before property owners may take advantage of program provisions.

The City has used TIF downtown to facilitate redevelopment of the Tiger Hotel and the former Regency Hotel site. A CID was adopted in 2011 by local business owners as a means of generating additional sales tax revenue to fund improvements downtown, commonly known as The District. Many major commercial shopping centers throughout the city are located in TDDs, which permit the collection of additional sales taxes for the purposes of recouping off-site infrastructure costs necessitated by the new developments.

Federal and state historic preservation tax credits may be used as additional development incentives for downtown and other older parts of the City. These credits may be used by businesses or individuals to offset expenditures. In 2012, the City commissioned a study entitled "Economic Impact of Historic Preservation in Columbia." This study provides information on how the use of historic tax credits has influenced the local economy through the creation of jobs, heritage tourism, and increased property values. While not a widely used form of incentive, this study sheds light on the opportunity that exists to preserve Columbia's historic assets, offset the expenses associated with such endeavors, and increase tax revenues and property values.

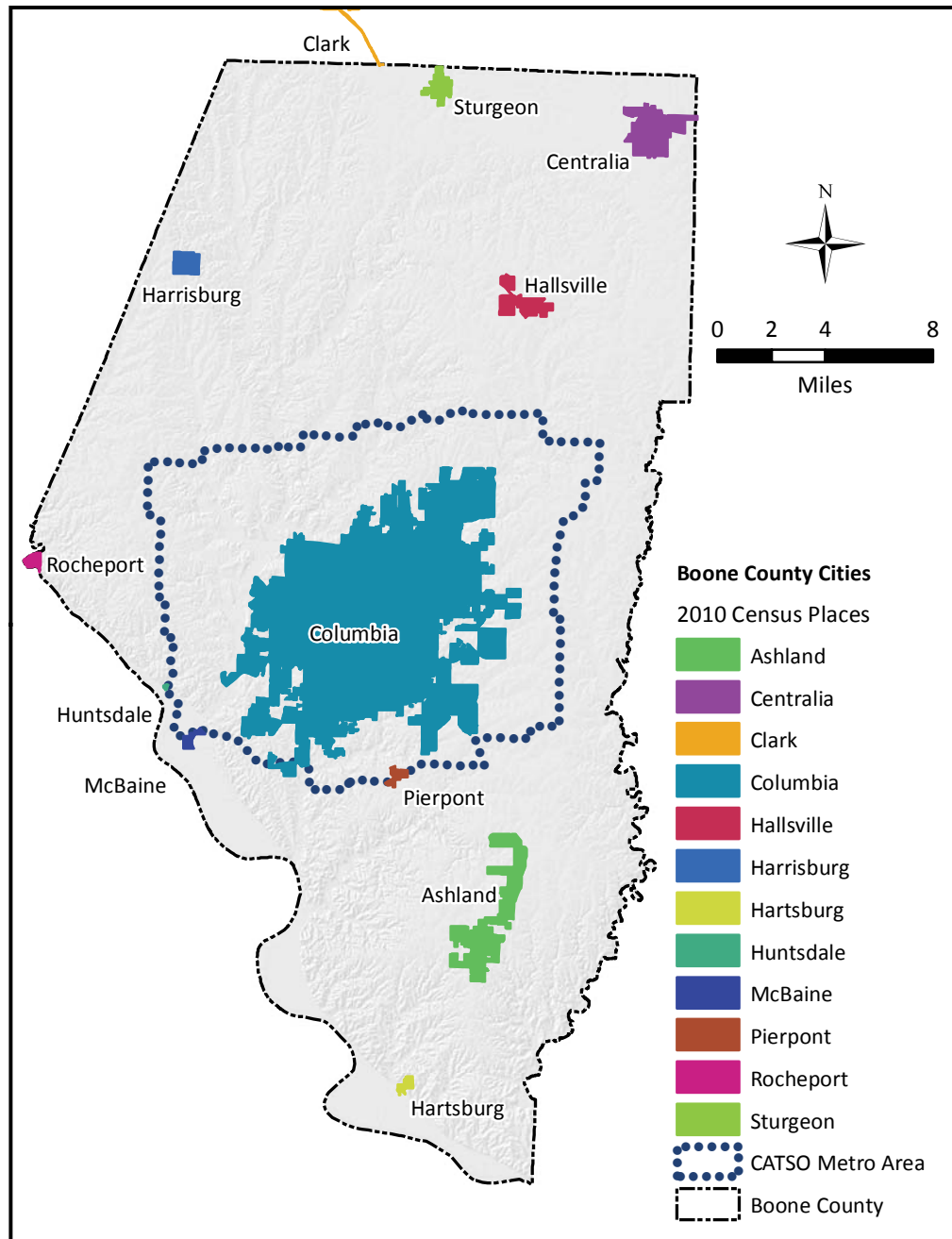
Special purpose incentive programs include:

- Tax increment financing (TIF)
- Community improvement districts (CID)
- Transportation development districts (TDD)
- Tax credits



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Map 1-20: Boone County Cities  
Source: U.S. Census, 2010



## 1.6 Inter-Governmental Cooperation

Various public agencies are engaged in the planning and development of Columbia and its metro area. Coordination can be challenging due to the varying priorities of each public agency. Despite these challenges, public entities work toward a coordinated and comprehensive planning approach that provides the best possible service to citizens within the metro area.

Successful inter-governmental cooperation efforts look beyond individual agency needs and consider the greater good. Cooperation relies on sharing information and ideas, and developing joint solutions that meet the needs of all stakeholders.

The development of Columbia Imagined has involved a diverse group of individuals representing all facets of community life. It incorporates ideas, visions, goals, and objectives from those in the city as well as in Boone County in a transparent and inclusive planning process. Inter-governmental cooperation will yield better planning decisions in the future for all those involved or affected.

This section explains existing relationships in our region. Cooperation and coordination occurs not only at the governmental level between city, county, and state functions, but also occurs in areas addressed by cooperative service agreements, such as fire protection, stormwater permitting, and sewer provision.

## Land Use Planning Coordination

### City of Columbia and Boone County

City and Boone County land use plans overlap in the unincorporated portions of the metro planning area. While these plans are generally consistent, the policies relating to growth at the urban fringe differ. These differences have been reconciled in parts of the urban fringe through the creation of joint special area plans—the Northeast Area and the East Area Plans, both of which have been adopted by the City Council and the Boone County Commission.

Cooperative City-County planning was authorized in 2003 by Policy Resolution 149-03A. The purpose of the resolution was to allow the planning commissions to work together, analyze compatibility of standards and regulations, identify common goals and issues of mutual concern, identify major growth areas in the urban fringe, and develop a mechanism for timely sharing of information.

### City of Columbia and Institutions of Higher Education

The University of Missouri operates independently of City and County regulations and planning because of its status as a public institution. The University has a Master Plan that is updated and presented to the public annually. This public review process provides an opportunity for City and County involvement in the University's master planning process.

While limited involvement exists in producing joint land use plans with the University, state law does require the University to involve cities in the review and comment of master plans for university research parks prior to Board of Curators approval. In Columbia, the University has a research park at Discovery Ridge, on the city's southeast side, and has solicited comment from the Planning and Zoning Commission and City Council prior to final adoption by the Board of Curators. Updates to the master plan for the research park have also been routed through this review process. This level of coordination ensures that infrastructure needs and potential environmental issues are considered prior to finalization of site improvements.

In the case of private colleges, such as Columbia College and Stephens College, City review of their master plans is required by the City Zoning Ordinance.

## Cooperative Relationships

There are many organizations within the metro planning area that either have defined territorial limits or provide broad services. These organizations are identified in Table 1-12. Maps of their applicable service areas are shown in the appendix. A brief description of some of these relationships follows.

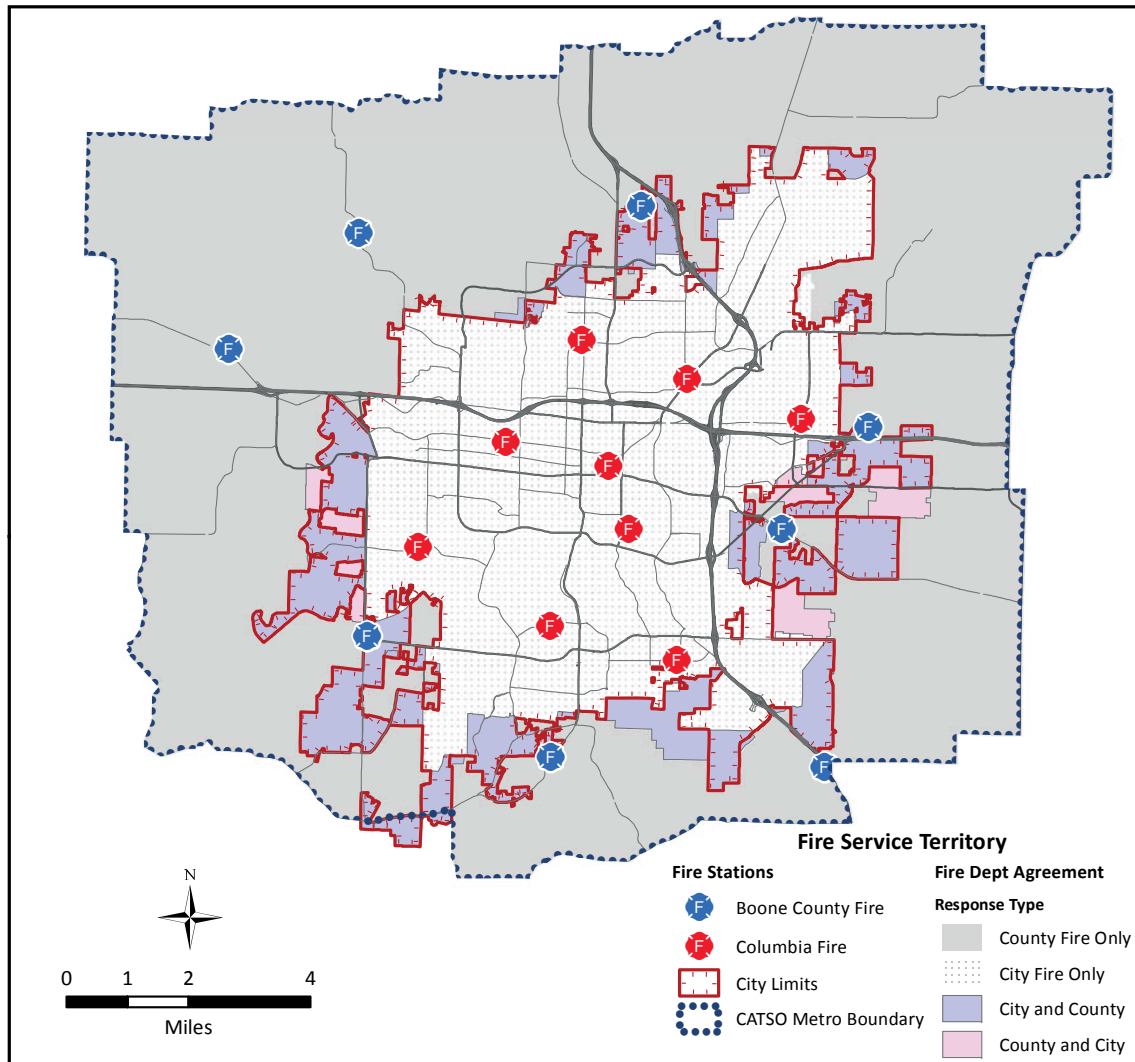
*“Preserve the willingness of community members to engage in constructive dialog.”*

Organization	Service Area
Boone County	City is included in County for most services
Boone Electric Cooperative and Columbia Water & Light	Overlapping between City and County
Boone Hospital	Throughout City and County
Daniel Boone Regional Library District and Columbia Public Library	Inside and outside City
School District Boundaries	County-wide (includes portion of Hallsville)
University of Missouri – land use and utilities	MU campus
Boone County Regional Sewer District	County and portions of urbanized fringe
City of Columbia Public Works - Sewer Division	City with territory treatment agreements
Consolidated Public Water Service Districts and City of Columbia Water & Light	Overlapping between City and County
Mid-Missouri Regional Planning Commission	County (contractual relationship)
Boone County Fire Protection District and Columbia Fire Department	City and County (territorial agreement)
Columbia Area Transportation Study Organization	City and County metro area

Table 1-12: Relationships of Cooperative Organizations



The Plan for How We Live & Grow



Map 1-21: Fire Service Territory  
Source: City of Columbia, Fire Department

### City of Columbia Fire and Boone County Fire Protection District

A 2008 update to the City of Columbia-Boone County Fire Protection District (BCFPD) Territorial Agreement resolved the problem of overlapping jurisdictional coverage and costs by extending the City's fire service area to include all property within the City limits and providing payment to the Boone County Fire Protection

District to jointly respond to service calls in those areas that had previously been exclusively in BCFPD's jurisdiction.

### City, County, and Columbia Public Schools

Leaders from the City of Columbia, Boone County, and Columbia Public Schools (CPS) have quarterly meetings to discuss issues of mutual concern, such as the coordination of ballot issues. The City also has ex-officio membership on CPS's Facilities Planning Committee, which provides assistance in reviewing school site selection choices and other facilities-related matters.

### City and County

The Columbia/Boone County Department of Public Health and Human Services is a combined City-County Health Department with shared management of a portion of the Sanford-Kimpton Building and grounds located at the northwest corner of Worley Street and West Boulevard. This organization is responsible for promoting and protecting the health, safety, and well-being of the community. The department is broken into five divisions: Health Administration, Community Health, Human Services, Animal Control, and Environmental Services. The Environmental Services Division plays a key role in the health and safety considerations of land use and development.

The Environmental Services Division is responsible for evaluating on-site septic systems and making sure that failing systems are appropriately repaired or connected to a public collection system. This activity requires working with public sewer providers (BCRSD and the City) and at times the Boone County Commission and City staff to facilitate annexation or pre-annexation agreements. Additionally, this division is responsible for food service establishment inspections and plan reviews. This activity involves the coordination of building plan review with plan review staff from both the City and County.

### Boone County Regional Sewer District and City of Columbia Sewer Utility

Boone County Regional Sewer District (BCRSD), City-County Public



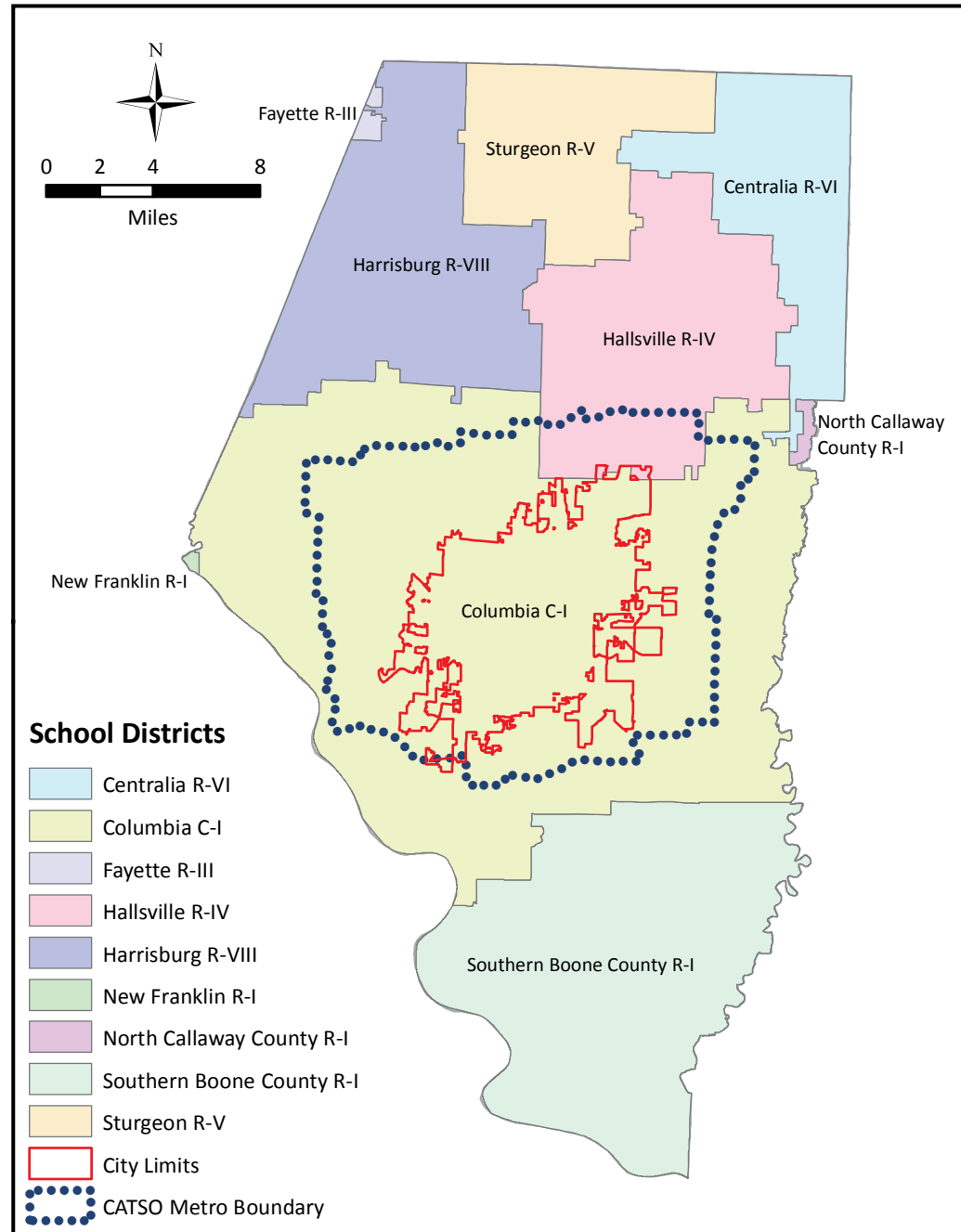
Health and Community Services, and the City of Columbia are currently engaged in an ongoing process to resolve the issues of providing sewer service to the urban fringe to replace failing on-site systems. Additionally, these agencies are working jointly on procedures to streamline the process and format of interconnection agreements that enable BCRSD to connect its lines to the City sewer system within the City sewer service area. The BCRSD has a number of cooperative agreements with the City that enable the two wastewater utilities to connect facilities, with BCRSD providing collection services and the City providing treatment.

Generally, the City provides sewer to all residents within its boundary, and the BCRSD or private on-site systems provide sewer to those located outside the urbanized area. However, there are exceptions to this rule.

In the 1980s, approximately 75-100 “package” treatment plants were eliminated in conjunction with the construction of the City’s sewer treatment plant. Prior to building the treatment plant, the City had acquired many of the package plants and their associated systems. Many of these facilities were in developments constructed in the County at the time of the treatment plant’s construction, and annexation was not required. Consequently, many of the subdivisions have remained as unincorporated County subdivisions since their connection.

In addition, the BCRSD acquired several privately operated treatment facilities prior to the City’s construction of the treatment plant. As the new treatment plant was completed these private BCRSD systems were eliminated and their customers were connected to the City’s system. However, the customers associated with those developments were retained by BCRSD.

In some cases development occurred after the treatment plant was fully constructed prior to City Council passage of Policy Resolution 115-97A dealing with annexation to obtain public utility service. In these circumstances, wholesale sewer service was provided to developments without the requirement to be annexed into the City. Thus, there are some County developments that were not part of the elimination program that now have city sewer service and are not obligated to be annexed into the City.



Map 1-22: Boone County School Districts  
Source: City of Columbia

## City of Columbia Parks and Recreation and Columbia Public Schools

The City of Columbia and Columbia Public Schools share recreational facilities on a number of school campuses. Such cooperative efforts help to reduce the duplication of such facilities and allow for facilities to be optimally located. Examples of joint-use facilities are found at Lange Middle/Albert Oakland Park, Gentry Middle/Rock Bridge High/Cosmo Bethel Park, Mill Creek Elementary, Fairview Elementary Tennis Courts, and the Hickman High School pool.

## Regional Economic Development, Incorporated

REDI is the public-private partnership dedicated to promoting and recruiting economic development opportunities for both the City of Columbia and Boone County. Its board is comprised of city and county business leaders as well as elected and appointed officials from the City and County governments. Recommendations of the REDI board and recruitment efforts often require the coordination of City and County resources and approval from one or both elected bodies.

## Columbia Area Transportation Study Organization

Columbia Area Transportation Study Organization (CATSO) is a federally-mandated partnership of the City, County, and Missouri Department of Transportation (MoDOT). The State of Missouri coordinates with CATSO through its department of transportation planning framework. The MoDOT Planning Framework is a seven-year old system for engaging planning partners in transportation investment decisions around the state. “Planning partners” generally refers to Metropolitan Planning Organizations (MPO) of which there are seven in Missouri, regional planning commissions, and councils of government. MoDOT engages its planning partners through information meetings, planning exercises, committee service, and surveys.

CATSO activities involve the preparation of the Long-Range Transportation Plan (LRTP) and the Transportation Improvement Program (TIP). There are two CATSO bodies— the Technical Committee and the Coordinating Committee— which meet quarterly.

The Technical Committee meets and discusses potential changes to the local and metropolitan transportation system. This committee is mostly comprised of professionals engaged in planning or engineering functions at the City, County, and MoDOT. The members of the Coordinating Committee include upper-level City and County staff members, Missouri Department of Transportation staff, Federal Highway Administration staff, Federal Transit Administration staff, a representative from the Boone County Commission, and the Mayor of the City of Columbia. The Coordinating Committee is responsible for the approval of all MPO plans, studies, and reports, and holds public hearings to solicit citizen input.

All meetings of either committee are open to the public. Public involvement is most often seen when there are recommendations for changes to the local and metropolitan transportation systems, which generally are also presented to the Planning and Zoning Commission and/or the City Council.

## Stormwater Steering Committee

The Stormwater Steering Committee is a committee of City, County, and University of Missouri staff engaged in the management or enforcement of environmental or stormwater programs within their respective organizations. The committee is charged with improving the coordination of these various programs and ensuring compliance with the jointly-issued MS4 permit dealing with county-wide stormwater quality.

## Cooperative Projects

Several cooperative projects have been completed since the adoption of Metro 2020. These projects are discussed below.

## Comprehensive planning

As a way of ensuring that city growth and development looked beyond the municipal boundary of the time, *Metro 2020: A Planning Guide for Columbia's Future* took into account the urban fringe areas by extending the land use plan to the entire metro area. This approach to comprehensive planning was the basis for long-range transportation planning for the metro area. The

**CATSO:** Columbia Area Transportation Study Organization

CATSO is a federally-mandated partnership of the City, County, and Missouri Department of Transportation.

preparation of Metro 2020 involved City staff and representative groups of the public. However, since its adoption, the plan has been criticized for not incorporating enough public input. The Columbia Imagined effort has been more publicly oriented, with significant opportunity for public participation.

### Small Area Plans

Both the Northeast Area Plan (2009) and East Area Plan (2010) were collaboratively developed through the efforts of the Boone County and City of Columbia Planning and Zoning Commissions. These plans identified issues and opportunities for development, growth, and preservation which, after public engagement processes, were consolidated into land use plans intended to guide development decisions. These small area plans are incorporated into Columbia Imagined as supplemental planning documents.

### Community Improvement & Transportation

Recent collaborative projects include:

- Boone Hospital and the City of Columbia shared costs and cooperatively improved William Street adjacent to the hospital as a signature street, including landscaped medians, crosswalks, special lighting, a roundabout, and intersection improvements.
- The University of Missouri, MoDOT, and the City (GetAbout Columbia) collaborated on the Stadium Boulevard pedway, a walkway connecting College and Tiger (formerly Maryland) Avenue on the north side of Stadium.
- The City, MoDOT, and three Transportation Development Districts agreed on cost sharing for the Mo. 740 (Stadium Boulevard) improvements between I-70 and Broadway.
- The Missouri Department of Conservation (DOC) made a land swap agreement which ceded former DOC property for park use along Highway 63 (Waters-Moss Conservation Area) in return for a building site on the Gans Creek Nature Area.

- The MKT Parkway (MKT Trail) is an 8.8-mile recreational trail extending from downtown Columbia to Hindman Junction, where it connects to the 238-mile long Katy Trail. The MKT is maintained by the City of Columbia between downtown and Scott Boulevard, and the trail is maintained by Boone County west of Scott Boulevard to Hindman Junction. The Missouri Department of Conservation, which maintains the Katy Trail, also manages conservation areas adjacent to the MKT Parkway to provide restricted use buffers along the trail.
- The Source Water Protection Task Force, dedicated to protection of the public water supply, is made up of City, University, and Water District officials. The Task Force is charged with the development of a Source Water Protection Plan for the City's water supply as outlined in the Missouri Department of Natural Resources' Guidelines for Developing a Source Water Protection Plan. Once the plan is completed, the Task Force will present its findings to the Water and Light Advisory Board, which will review the plan and make a recommendation to the City Council on its adoption.

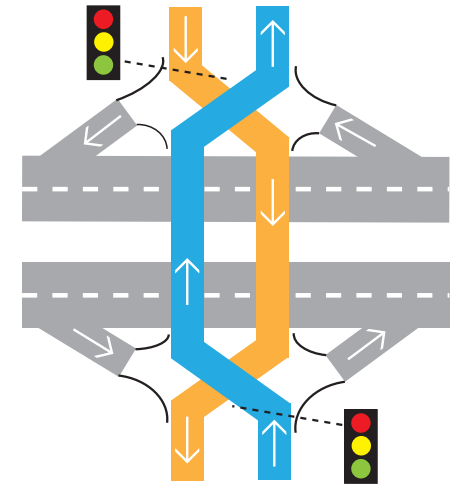
### Inter-Agency Cooperation

#### City Departmental Cooperation

A number of City departments collaborate on common concerns. For example, the Parks and Recreation Department (PRD) maintains vegetation in street rights-of-way that otherwise are the responsibility of Public Works. This relationship reflects the PRD's already established capacity to manage vegetation in City parks.

The Neighborhood Services Division of Community Development coordinates volunteer participation in the Adopt-a-Spot program, which uses volunteers to maintain beautification projects along public streets and in other public places, thus relieving Public Works of additional maintenance costs and fostering community pride in the city's appearance.

The Office of Community Services serves as a liaison between various City departments and the Human Rights Commission, which may hear fair housing complaints (e.g., discrimination in



A **diverging diamond** interchange is being built to improve traffic flow at the I-70 and Stadium Boulevard intersection. The City, MoDOT, and three Transportation Development Districts agreed on cost sharing for this project.



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access to housing based on race, color, disability status, religion, national origin, age, or familial status). The Office has also hosted Fair Housing Symposia.

The Building and Site Development Division of Community Development leads an interdepartmental Development Review Committee (DRC) that coordinates and facilitates plan review of development projects with all of the departments involved in the development process, including Public Works, Planning, Fire, Water and Light, Health, and occasionally others. The DRC allows developers to add their proposals to the agenda to present plans, ask questions, and receive informal feedback from the committee prior to submitting plans for formal review.

The Planning and Zoning Division of Community Development convenes “concept review” meetings around proposed developments and zoning actions that ultimately require Council approval. The meetings are attended by development professionals and all reviewing departments.

### Board and Commission Cooperation

The City Code fosters cooperation and collaboration between Council-appointed boards and commissions through crossover appointments. For example, one member of the Bicycle and Pedestrian Commission must be a member of the Parks and Recreation Commission. One member of the Community Services Advisory Commission must also be a member of the Community Development Commission. The membership of the Downtown Columbia Leadership Council must include a Planning and Zoning Commissioner and a Historic Preservation Commissioner.

## Regional Cooperation

As the preceding sections have illustrated, there are many on-going cooperative and coordinated activities occurring between multiple government functions and agencies in the planning area. Efforts should be made to continue cooperation between entities.

There are, however, practical limitations to regional cooperation. Some limits are the result of unwillingness or not understanding

the benefit of such cooperative actions, while other limits may be legislative. Below are two examples of possible regional cooperative actions that could be undertaken to move cooperation outside the boundaries of the Columbia metro area and Boone County.

### Boone County Regional Cooperation

Boone County is limited by the state legislature in how it may practice planning and development. It cannot for example, segment the county into an urbanizing fringe and the remainder of the county for purposes of adopting ordinances governing features such as storm water.

### Federal Housing Assistance and Funding

Though “suitable housing in a decent environment with access to economic opportunity” is a regional need, the U.S. Department of Housing and Urban Development’s (HUD) rules for the use of Community Development Block Grants and HOME Investment Partnerships (HOME) make it difficult to fund agencies that operate across regions. The City of Columbia is an “entitlement community,” which means it receives annual formula grants (i.e., non-competitive grants based on a pre-determined formula) for the purposes of creating suitable housing. However, the funds can only be spent only within the city limits. Funds for activities in unincorporated areas must be obtained through different channels.





## 1.7 Livable and Sustainable Communities

### Key Components of Livable and Sustainable Communities

#### Design for:

- Longevity, life stages, & inclusiveness
- Public safety
- Mobility
- Community spaces

#### Promote:

- Quality of life as an economic driver
- Equitable access
- Infrastructure that is sustainable, efficient, & effective
- Density & infill

Livable and sustainable communities embrace urban design that promotes a distinct sense of place, a vibrant downtown core, and safe and walkable neighborhoods. Beyond particular design aspects for buildings, sites, and public spaces, livable and sustainable communities are defined by access to jobs, education, and services; efficient use of infrastructure; and the protection of natural and cultural resources.

The term “livable” implies the quality of being suitable and comfortable for living. Meanwhile, “sustainable” refers to designs and practices enabling the present generation to meet needs without compromising the capacity of succeeding generations. When combined, the terms define places in which we live well but also within our means.

## Columbia’s Livable and Sustainable Practices and Indicators

### Sustainable Infrastructure

Five City-owned buildings have been awarded recognition by the Green Building Council for Leadership in Energy and Environmental Design (LEED). This designation is granted for using environmentally sensitive building materials and design techniques. Several other structures citywide have obtained LEED certification, including facilities at the University of Missouri, Stephens College, Columbia College, Boone Hospital, and Battle High School.

LEED for Neighborhood Development (LEED-ND) recognizes minimum block length as a factor in the arrangement of streets. In Columbia, block lengths vary from approximately 300 feet downtown to a more typical 1,000 feet in outlying areas (400 to 1,000 feet is the recommended range). The maximum length of a cul-de-sac street in the City Code is 750 feet.

The City has also implemented stormwater regulations for quantity and quality of runoff. Several solar-powered public parking lot lighting fixtures have been installed, and other fixtures upgraded to energy-efficient light-emitting diode (LED) technology.

### Sewer Policies

The City builds interceptor (trunk) sewers for approximately one-half of the drainage area’s ultimate population. The City adds a “relief” sewer in same easement when approaching the first line’s capacity. The city treatment plant is augmented with a wetlands complex in the McBaine Bottoms. The wetlands, constructed in the early 1990s, added several million gallons of treatment capacity to the plant. The treated effluent supplies a wetland restoration area (Eagle Bluffs), which was acquired and completed by the Missouri Department of Conservation in the mid-1990s.

### Design for Public Safety

Crime Prevention through Environmental Design (CPTED) is a set of principles for defensible space and other environmental design conducive to the reduction of fear and incidence of crime. The City has not codified CPTED principles; however, the Columbia Police Department encourages CPTED design where appropriate. One idea inspired by residents during the Columbia Imagined planning process was to establish design guidelines addressing height, setbacks, materials, parking, and the use of street level space in buildings in accordance with CPTED to help build a safe city. Other ideas included having a central gathering place in each neighborhood and conveniently located green spaces to encourage pedestrian movement.

Columbia’s police station is centrally located downtown. A police training center is located just south of the city limits on Meyer Industrial Boulevard. The Police Department also staffs substations in select public buildings, such as the Activity and Recreation Center, and some fire stations.

### Fire Prevention and Protection

Chapter 9 of the City Code regulates minimum fire flows and



flow durations in new developments: 1,500 gallons per minute (GPM) for four hours (800 GPM in one- and two-family areas). It also regulates maximum hydrant spacing to 300 feet (500 feet in one- and two-family areas). The Columbia Fire Department also maintains a fire protection planning goal to achieve a response time of four minutes and thirty seconds for 85% of its calls. There are nine City fire stations. The spacing between these stations is planned to optimize coverage of the city and location in relationship to frequent call areas such as Interstate 70.

## Design for Safety on Roadways

A standard practice in roadway system management is the establishment of speed limits. By Code, the City has a speed limit of 25 miles per hour (MPH) on public streets except where otherwise posted. The City has begun testing the concept of 20 MPH residential streets to improve neighborhood safety. Speeds on higher capacity roads are greater. A standard traffic engineering practice is to perform speed studies, then set speed limits at the 85th percentile—the speed at which 85 percent of users drive at or below.

The City installs traffic calming measures on existing streets if neighborhood residents request a study, the study supports the expenditure of funds on traffic calming devices, and there is consensus on the improvements. Typical traffic calming devices include speed humps, speed tables, diverters, chokers, chicanes, and pavement striping. Studies indicate that trees planted near the edge of a street may also slow traffic.

The City has a catalog of street standards, including rights-of-way, sidewalks or pedways, and roadway widths to accommodate travel and parking. Since 2004, City street standards have included **complete streets**, requirements for sidewalks, bicycle lanes, and shared use pedways to facilitate bicycle and pedestrian travel along roadways. Each street classification (local, neighborhood collector, major collector, minor arterial, and major arterial) has more than one standard cross-section, allowing decision makers to choose street width, bicycle and pedestrian improvements, shoulders, medians, on-street parking, and right-of-way widths according to the street setting.

The use of **complete street** design standards supports safe pas-

sage for both motorized and non-motorized users. Citizen input is generally sought before roadway improvement projects are undertaken, through written comments as well as public forums.

## Design for Mobility

City parking requirements for a variety of public and private facilities include bicycle parking spaces and, as an incentive to avoid overpaving parking lots with spaces for motor vehicles, each required bicycle parking space is credited toward the total on-site parking requirement.<sup>1</sup>

City buses are designed to accommodate two bicycles on racks, allowing riders to complete trips by bicycle. The Bicycle and Pedestrian Commission developed and maintains a Bicycle Route Map that identifies City-designated bike routes.

Columbia Transit requests bus shelters or bus shelter easements when new developments are located on bus routes, likely to generate bus trips, and when existing bus stops are not in close proximity. The new bus stops are equipped with shelters, benches, refuse containers, and paved paths. Many stops in older, developed sections of town are marked only by signs.

Columbia operates a paratransit system in the majority of City neighborhoods (approximately 70 percent of Columbia residents live within the paratransit service area). Areas not currently covered include properties north of Brown School Road, most of the East Area (east of Highway 63 and south of I-70), and much of southwest Columbia.<sup>2</sup>

The City continuously evaluates access to facilities and programs, accommodations for people with disabilities, and administrative policies and procedures by updating its transition plan to meet the Americans with Disabilities Act (ADA) standards. Approximately 10 percent of Columbians report a disability.<sup>3</sup>

*How do you know if your community is livable and sustainable?*

**Can kids trick-or-treat in your neighborhood or walk/bike to get an ice cream cone?**

- Safe
- Walkable
- Near Amenities

### Complete Streets Policy

In 2011, Columbia was one of 11 Missouri communities recognized by the Missouri House of Representatives for having a complete streets policy. Since 2004, City street design standards have required pedestrian and bicycle facilities in all new and rebuilt streets.



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<sup>1</sup> "Columbia Code of Ordinances," Chapter 29, Section 29-30, December, 2012

<sup>2</sup> "Paratransit Service Area Map," City of Columbia, September, 2012

<sup>3</sup> American Community Survey, three-year (2009-2011), US Census Bureau

*“An active community is a vibrant community. This has been shown time and time again.”*



The City has partnered on Safe Routes to Schools grants with the PedNet Coalition to expand the Walking School Bus program in the City's public school system. In Spring 2011, 12 elementary schools participated in the program, with 450 students and 150 volunteers walking.

In 2005, non-motorized transportation consultant Dan Burden worked with the City on a walking audit to assess the pedestrian transportation network in Columbia and recommend tools and intersection treatments to address deficiencies.<sup>4</sup> Walkability scores may be compared for different neighborhoods in Columbia based on pedestrian facilities and proximity to desirable destinations (e.g., goods and services, recreation facilities, community assets).

### Design for Community Spaces

Columbia's downtown is the cultural hub of the city, the focus of design studies, and a targeted area for enhanced public places that exceed standard design. Columbia is a "Percent for Art" community, meaning it invests in public art in major city capital projects. The City also has an adopt-a-spot program, enlisting volunteers to donate time to maintain landscaping enhancements in public areas. Several plans (2010 Downtown Charrette Report, Avenue of the Columns Plan, 2002 Downtown Beautification Project Plan, Land Use and Urban Opportunities—aka Sasaki—Plan) include conceptual designs of downtown streetscapes, plazas, and other public spaces.<sup>5</sup> Improvements to the Eighth and Broadway intersection and Boone County Plaza have resulted from the push for better civic design downtown.

Flat Branch Park is an example of a special park (neither a neighborhood park nor a community park) that functions as a community gathering space. The Boone County Government complex includes a community gathering space consisting of a plaza, landscaped amphitheater, courthouse lawn, and veterans' memorial.

Aside from parks, nature preserves, and school grounds, civic spaces beyond downtown are relatively scarce. The Village of

<sup>4</sup> "Columbia, Missouri Walking Audit Report," Dan Burden, 2005

<sup>5</sup> "Charrette Report: The City of Columbia, Mo.," H3 Studio, October 8, 2010; "Avenue of the Columns, Columbia, Missouri: Project Overview and Update," Avenue of the Columns Committee, 2005; "Downtown Columbia: Beautification Project," Downtown Columbia Association, August 2002; Land Use and Urban Opportunities Study: The Campus-Downtown District," Sasaki, 2006

Cherry Hill has a public green, which is used for public events and attractions such as the "Magic Tree" each December. In Columbia, the public library, the ARC, and government, college, and university facilities also serve as community gathering places.

## City Initiatives and Policies

### Livability

The concepts of livability and sustainability are not new for residents of Columbia. The City, residents, and the private sector have all responded to the need and desire for a high quality of life which will also sustain monetary, environmental, and cultural resources.

In *Metro 2020*, residents defined qualities that establish livable neighborhoods. In Section 4.2, the term **livable** is described as follows: "Livable implies that a neighborhood is safe, with a focused center and easy access by various means of travel to schools, shopping, and services."<sup>6</sup>

The *2020 Plan* describes 13 policies for livable and walkable neighborhoods. A key component of the policies is an emphasis on safe and multi-modal transportation options, allowing residents to travel to school, work, and to fulfill basic needs. Safety, preservation of existing neighborhoods, and quality amenities are additional concepts highlighted in the plan. These principles were also recommended by the Visioning Commission as a framework for designating neighborhood districts.<sup>7</sup>

### Quality of Life as an Economic Driver

The importance of quality of life as an economic driver is an ongoing consideration for City staff and administrators. In its work to recruit high-quality jobs to the city, the area's economic development partnership, REDI, cites quality-of-life factors as important in later rounds of competition for employers it seeks to bring to Columbia. Initial interest from these firms concerns cost and site location factors: land, infrastructure, energy, labor, taxes,

<sup>6</sup> "Columbia Metro 2020: A Planning Guide for Columbia's Future" Department of Planning and Development, City of Columbia, January 16, 2001, pg. 15

<sup>7</sup> "Imagine Columbia's Future: Community Vision and Action Plan: Final Report" Visioning Committee, City of Columbia, 2008

permit processes, and accessibility. Quality of life and amenities are decisive factors, however, once a short list of communities has been identified.

Columbia has eight superior quality-of-life categories that draw residents: jobs and services, the city's cultural and educational opportunities, climate, transportation options, superior health-care, high-quality recreation opportunities, well-established media outlets, and employment resources.

### Cultural Resources

The City of Columbia is one of few comparable cities that not only has a cultural plan but has prioritized the implementation of arts

promotion programs. The City's cultural plan grew out of the Cultural Plan generated by the Arts Resources Council in 1987, the Columbia Arts Facilities Study commissioned by the Mid-America Arts Alliance and the Missouri Arts Council, and "A Learning Community: a report from the Columbia 2000 Task Force. *Creative Columbia: A Blueprint for Action*, was first adopted in 1993, after extensive community consultation. It establishes four main goals: arts education, arts business, arts visibility, and arts policy, with specific goal statements for each that guide the City's Office of Cultural Affairs in programming decisions. Plan revisions have continued, generally in five-year increments, as is standard for other city planning documents.<sup>8</sup>

<sup>8</sup> "Creative Columbia: Cultural Plan for Columbia," Office of Cultural Affairs, City of Columbia, 2005

The Berry Wholesale Grocery Building, a 1920s warehouse in Columbia, underwent a full historic rehabilitation in 2009. Today, the mixed use building (below, far left) features an upscale furniture store, art gallery, fitness center, and 12 apartments. In a historically dismal year for construction, \$3 million in project costs yielded 50,000 hours of skilled labor.





**Universal Design** is defined in many ways, but for many it means the design of goods and environments to be usable by everyone, to the greatest extent possible, without the need for adaptation or custom fabrication. Universal design is an approach to both livability and sustainability, as it allows for longer-term use of housing stock by individuals.

## Promote Equitable Access

The City has several boards and commissions advocating for equitable access for all citizens, including the Disabilities Commission, Bicycle and Pedestrian Commission, Public Transportation Advisory Commission, Commission on Human Rights, and Community Development Commission. The City's Affordable Housing Task Force final report recommends adopting **universal design** principles as a part of the City's definition of affordable housing to aid seniors and persons with disabilities.

Universal design principles:

1. Equitable use: The design is useful and marketable to any group of users.
2. Flexibility in use: The design accommodates a wide range of individual preferences and abilities.



3. Simple and intuitive use: Use of the design is easy to understand.
4. Perceptible information: The design communicates necessary information effectively to the user.
5. Tolerance for error: The design minimizes hazards and the adverse consequences of accidental or unintentional actions.
6. Low physical effort: The design can be used efficiently and comfortably.
7. Size and space for approach and use: Appropriate size and space is provided to approach and use a facility or amenity.<sup>9</sup>

## Sustainability

The City's commitment to sustainability is evidenced by its creation of an Office of Sustainability and securing Energy Efficiency Community Block Grant (EECBG) funds to support it. The Office performs energy assessments of multiple City-owned buildings with a view toward realizing energy and cost savings, as well as other pertinent activities and research. The Office of Sustainability includes among its goals the design and recommissioning of public facilities for long-term cost savings and reduction of environmental impacts.<sup>10</sup>

The City also has a renewable energy policy which sets a target for the percentage of Columbia's energy produced with renewable sources. The City is currently required to generate or purchase 5 percent of electric retail sales in renewable energy sources; this will escalate to 15 percent by 2022. This was discussed in section 1.2 of this plan.

While some programs exist to promote energy conservation and efficiency in existing housing, such as the City's Low-Interest Home Performance loans, owner-occupied housing rehabilitation program, and Central Missouri Community Action's weatherization program, as described in the Livable and Sustainable policies in Chapters 4 and 5, this plan calls for increased efforts to maximize the environmental design capacities of the existing housing

<sup>9</sup> "Affordable Housing Policy Committee Report" Affordable Housing Policy Committee Members, City of Columbia, February 18, 2008

<sup>10</sup> Office of Sustainability, City of Columbia, 2013

stock (as older houses may need energy efficiency, stormwater and other upgrades) as a key strategy to promote affordable housing and environmental sustainability.

## Beyond Columbia

Other municipal, state, federal, and professional organizations promote similar livability (and often, by implication, sustainability) criteria. Several resources available to Columbia are summarized below.

The Environmental Protection Agency, the Department of Transportation, and the U.S. Department of Housing and Urban Development have formed the Partnership for Sustainable Communities to promote sustainable communities nationwide. This effort represents the federal government's commitment to livable and sustainable communities by addressing the shared goals and opportunities of collaboration in the areas of environmental protection, transportation, and housing.<sup>11</sup>

The Partnership for Sustainable Communities' concept of livability was first included in federal transportation policy by the TIGER II 2010 Discretionary Grant Program. This program is intended to deliver transportation benefits and positively impact qualitative measures of community life. Applicants were asked to select from the following responses, to evaluate whether a project would improve the quality of the living and working environment of a community:

1. Will significantly enhance or reduce the average cost of user mobility through the creation of more convenient transportation options for travelers;
2. Will improve existing transportation choices by enhancing points of modal connectivity, increasing the number of modes accommodated on existing assets, or reducing congestion on existing modal assets;
3. Will improve accessibility and transport services for economically disadvantaged populations, non-drivers, senior citizens, and persons with disabilities, or will

<sup>11</sup> Partnership for Sustainable Communities: An Interagency Partnership: HUD, DOT, & EPA, 2012

make goods, commodities, and services more readily available to these groups; and/or

4. Is the result of a planning process which coordinated transportation and land-use planning decisions and encouraged community participation in the process.<sup>12</sup>

Realizing the importance of multi-modal transportation on environmental, health, and quality of life indices, as well as the relationships between housing, energy efficiency, and transportation, the Federal Transportation Administration (FTA) has promoted six principles of livability:

1. Provide more transportation choices to decrease household transportation costs, reduce our dependence on oil, improve air quality, and promote public health.
2. Expand location- and energy-efficient housing choices for people of all ages, incomes, races, and ethnicities to increase mobility and lower the combined cost of housing and transportation.
3. Improve economic competitiveness of neighborhoods by giving people reliable access to employment centers, educational opportunities, services, and other basic needs.
4. Target federal funding toward existing communities—through transit-oriented and land recycling—to revitalize communities, reduce public works costs, and safeguard rural landscapes.
5. Align federal policies and funding to remove barriers to collaboration, leverage funding, and increase the effectiveness of programs to plan for future growth.
6. Enhance the unique characteristics of all communities by investing in healthy, safe, and walkable neighborhoods, whether rural, urban, or suburban.<sup>13</sup>

The FTA Livability website highlights how the agency's programs fit into the larger DOT Livability Initiative and the Federal Sustain-

<sup>12</sup> Ibid.

<sup>13</sup> "Sustainability Toolkit: A Tool Kit for Maximizing Community Transportation Options" Federal Transit Administration, U.S. Department of Transportation, August, 2011



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able Communities Partnership, and provides trail-related training and resources, in partnership with many federal and state agencies and nonprofit organizations.

A diverse group of organizations, from housing to health promotion organizations, have also adopted livability principles such as the suggested checklist sponsored by the Canada Housing and Mortgage Association “Community Indicators for an Aging Population,”<sup>14</sup> and the U.S. initiative sponsored by CEOs for Cities and the Rockefeller Foundation.<sup>15</sup> Additionally, *Forbes Magazine* has developed expanded criteria for livability (measured by unemployment, crime, income growth, cost of living, and artistic and cultural opportunities) and has used the criteria to measure the country’s 200 largest Metropolitan Statistical Areas.<sup>16</sup>

## How to Design Livable and Sustainable Communities

Several design and business professions recognize the benefits of livable and sustainable communities. A popular set of guidelines has been promulgated by the American Institute of Architects (AIA). In recent years, design recommendations have emerged on how to achieve vibrant, desirable communities that are aligned with livable and sustainable policies.

Additionally, sustainable and livable community performance indicators have been the focus of transportation, community development, housing, and planning professional organizations seeking to evaluate and refine the sustainable and livable concept. For instance, in 2010, the Energy and Environment National Conference evaluated these principles in terms of several indicators:

- Efficient land use (“smart growth” development policies that increase accessibility and reduce sprawl)
- Economic development (productivity, competitiveness, property values, and tax revenue)
- Public safety, fitness, and health (whether community design

<sup>14</sup> “Community Indicators for an Aging Population” Canada Housing and Mortgage Association, July, 2008

<sup>15</sup> Livability Challenge, CEOs for Cities, [ceosforcities.org](http://ceosforcities.org)

<sup>16</sup> “America’s Most Livable Cities” *Forbes.com*, May 14, 2010

reduces crash risk and encourages active transport: walking and cycling)

- Preservation of cultural and environmental resources (historic structures, mature trees, traditional architectural styles)
- Equity and affordability (particularly the quality of facilities and services for walking, cycling, and public transit)
- The quality of social interactions (neighborliness, fairness, respect, community identity, and pride)<sup>17</sup>

## Selected Data for Columbia

For data on housing affordability and housing market analysis, see the City of Columbia Consolidated Plan of Housing and Community Development 2010-2014, Chapter 1. Boone County data related to demographic, economic, family support, health, and mental health indicators for children is also available.<sup>18</sup>

Affordable housing, the efficient use of existing infrastructure, the success of public transit, walkability, accessibility and connectedness are all highly dependent upon not only the density of an area but how density is designed and functions. A snapshot of how density may be described in Columbia is presented below.

Residential density measures:

- Residential densities are nearly all less than 17 dwelling units per gross acre (R-1, R-2, R-3 districts and 99% of PUD districts): 99.6% of total residentially zoned land in city.
- Most of Columbia’s residential density is below the transit-supportive residential density threshold of 7-8 dwelling units per acre.

Measuring Density:

- Population density in the City is approximately 1,720 persons per square mile.

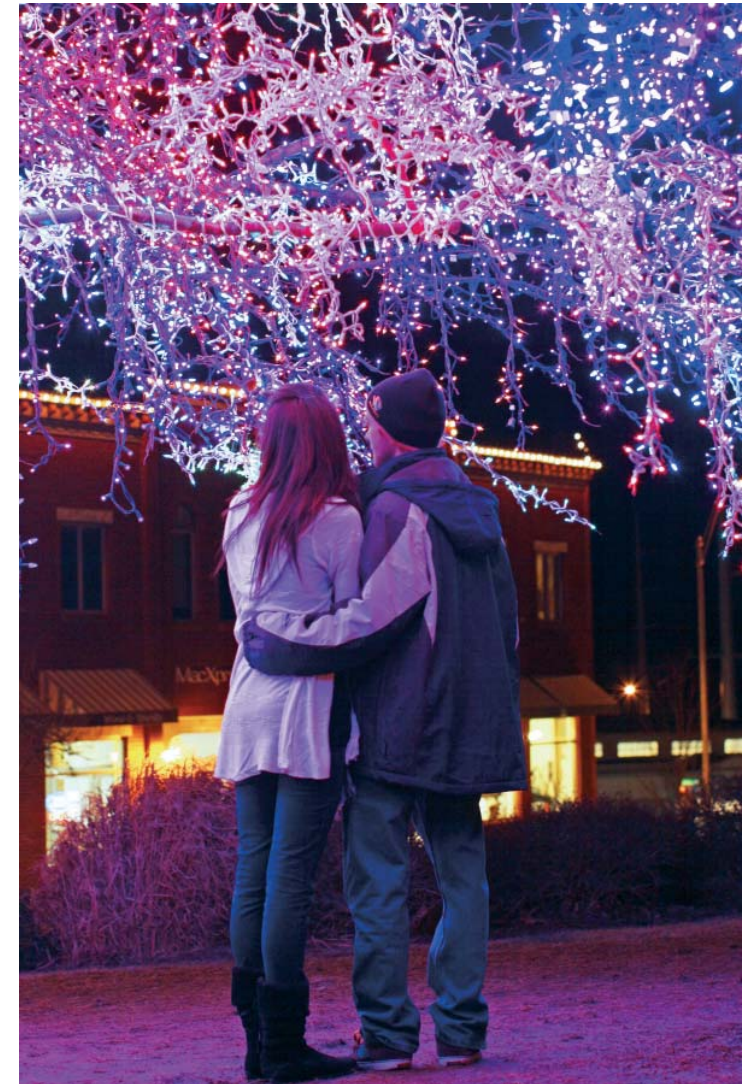
<sup>17</sup> “Session 65: Livability: What Is It? And How Do You Measure It?” Todd Litman, Victoria Transport Policy Institute, Energy and Environment Conference, Raleigh, N.C., June 9, 2010

<sup>18</sup> “Kids Count in Missouri, 2011 Data Book: Boone County” Office of Social and Economic Data Analysis, University of Missouri, 2011



- The density of the street network is often overlooked as support for development density. While higher densities are generally beneficial to the environment, since more people are able to live on less land, high-density development on single-frontage parcels where roadways and intersections are widely spaced may result in what some term “dysfunctional densities.” Higher ratios of housing units to connection points may increase traffic congestion if street networks are not designed to support them.
- The LEED-ND (Leadership in Energy and Environmental Design-Neighborhood Development) rating system<sup>19</sup> reserves a rating point for areas that have a street density of 140 intersections per square mile. This is a very high level of connectivity that Columbia only approaches in its original downtown area.

<sup>19</sup> “LEED for Neighborhood Development” U.S. Green Building Council, 2011



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## **Chapter Two – Planning Process**

From Visioning to Imagined  
Planning Partners  
Groundwork for Public Participation  
Public Input and Participation  
Phases of the Plan  
A Living Document



### Vision

Growth Management Vision, from Imagine Columbia's Future, 2008

Columbia, Boone County and the surrounding region protect and preserve the **natural environment**, agricultural areas, and cultural resources; provide **adequate infrastructure**; include **diverse, mixed-use, walkable and bicycle-friendly** neighborhoods; and develop in ways that positively contribute to and sustain **community culture, heritage, and character**. Our community accomplishes these ends through an open, inclusive, transparent, predictable, and accountable planning process with **fair allocation of costs**.



Visioning Columbia Logo

The best comprehensive land use plans are community plans involving multiple stakeholders from all areas and aspects of the community. They seek to identify consensus-built land use solutions. Cities have long been compared to living organisms—they change over time based on resources, constraints, and opportunities. City planning helps guide a city's growth and development to meet the needs and desires of the community in light of these factors.

Long-range, comprehensive planning recognizes how the built environment affects all aspects of community life: health, affordable housing, accessibility, the natural environment, social equity, public amenities, transportation, economic development, and employment. An effective comprehensive plan must therefore consider the relationship between land use policies and how a community develops. Effective planning does not happen in a vacuum; rather, it is an open dialogue between all members of the community.

This chapter describes the visioning process that led to this comprehensive plan, the process to develop the plan itself, and how the plan will be revised in the future.

### From Visioning to Imagined

In 2007-2008, the City of Columbia participated in a visioning process whereby 13 citizen topic groups distilled 1,500 community big ideas into 43 goals and 128 strategies. This comprehensive plan is an outgrowth of the visioning process.

The development of this comprehensive plan comes at a unique time in Columbia's history. The City grew by 28 percent between 2000 and 2010, though this was tempered by the economic downturn and slow recovery of 2008 and beyond.

In calling for a new plan, citizens, stakeholders, and policy makers alike were sensing two things: the City was unlikely to grow as it had in the recent past, and the time was right to determine both *where* and *how* growth and development would occur in the future. Incentives, regulations, and policies, the three-legged stool which supports land use and community development, could be

reexamined in light of citizen expectations.

In 2009, the City Council, in response to the charge for a new comprehensive plan, created a 15-member task force to work with the Planning and Zoning Commission and city staff to further the visioning and develop a plan that went from a vision to *Columbia Imagined*.

The result was a multi-year planning effort, including extensive public input to assess existing conditions, develop goals and objectives, and analyze alternative future land use and growth scenarios. The role of the planning partners, the phases of the plan, and the public participation process are described in detail below.

### Planning Partners

The development of Columbia Imagined was the effort of many individuals. The **Planning and Zoning Commission** was the principal entity responsible for facilitating the plan through the public review and recommendation process. The Planning and Zoning Commission also provided oversight on the schedule followed to produce the plan drafts, the plan's future land use map, and its implementation table.

The Planning and Zoning Commission was assisted by the **Comprehensive Plan Task Force**, which served as an active advisory committee to identify the key policies, principles, and expectations shared by the community during the numerous public engagement surveys and forum meetings. The Task Force was instrumental in reaching out to various stakeholder groups and engaging them in public dialogue about the ideas presented in Columbia Imagined. Additionally, the Task Force was the sounding board for recommended plan text, ideas, policies, goals, objectives, and strategies presented by City staff. The breadth of experience provided by the Task Force's members was instrumental in ensuring that Columbia Imagined is a balanced document representing the diverse views that define Columbia.

The technical aspects of conducting research, preparing for public engagement, analyzing data, and drafting the plan were assigned

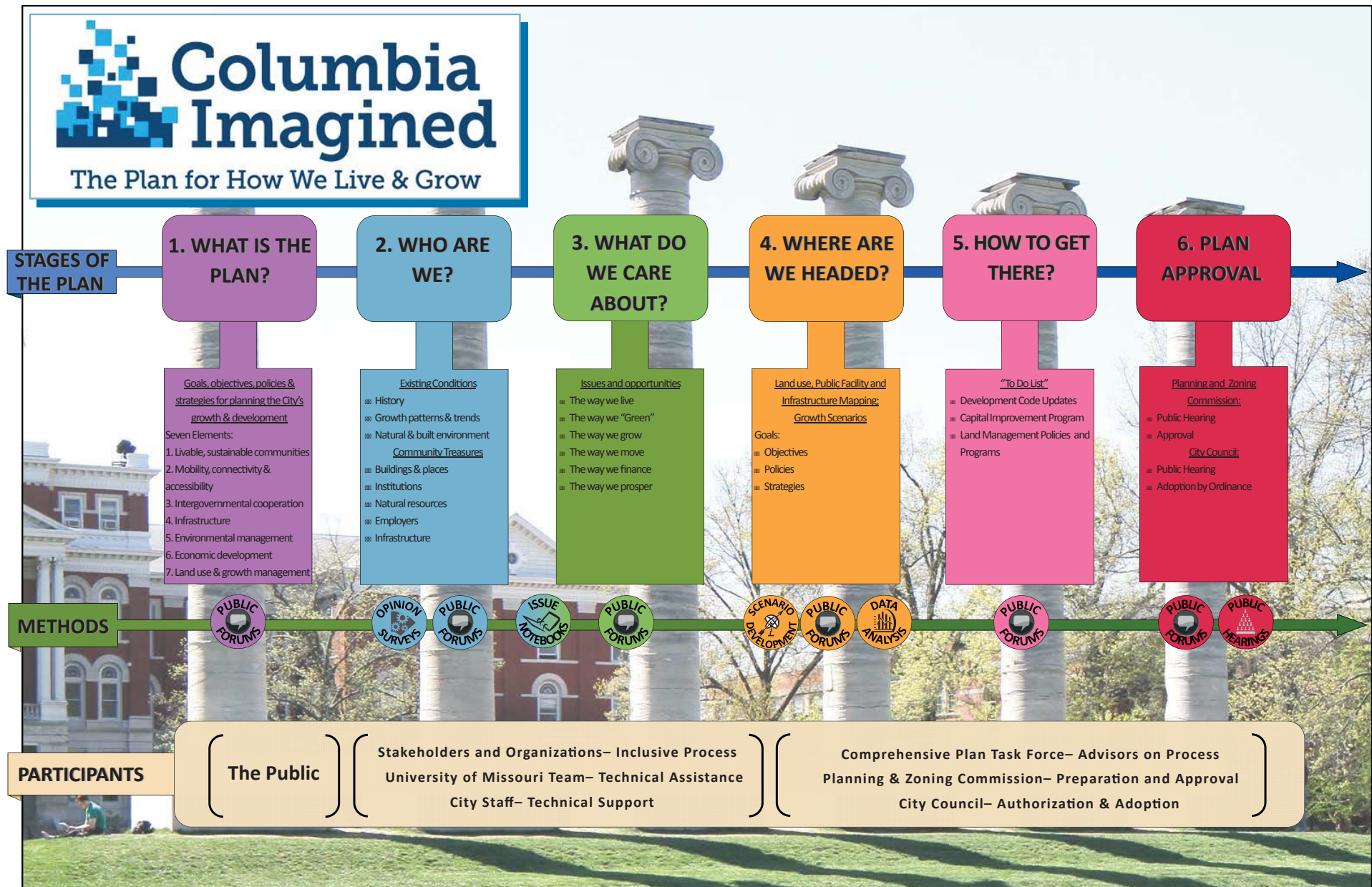


Figure 2-1: Columbia Imagined Work Plan

to a team of **consultants** from the University of Missouri and the staff of the City's **Community Development Department**. Working in collaboration, the consultants and staff developed all of the survey instruments used in the planning process, produced public engagement kits, and conducted the majority of the public engagement meetings.

The **citizens of Columbia** who participated in the process of developing the ideas expressed throughout Columbia Imagined are the most important. These stakeholders worked with the Task Force, MU consultants, and City staff to identify the major issues and opportunities facing the city. Without their involvement, Columbia Imagined would be a document developed with little influence from those actually affected by its ideas, goals, and objectives. The public was engaged from the outset of the planning process to ensure the plan embodies the citizens' ideas, and was then infused with the technical resources of professional staff.

## Groundwork for Public Participation

To garner public input, the Task Force worked with Vangel, a local marketing company, to develop an advertising and media campaign and identify a list of key stakeholders. This engagement included the branding of the plan, resulting in the creation of a distinctive name, logo, and tagline to make the plan meaningful and memorable. The Task Force named the plan Columbia Imagined: The Plan for How We Live & Grow.

Task Force members served as plan ambassadors, networking with other community groups to extend the planning process to a variety of stakeholders and geographies. During the plan's various stages, Task Force members gave dozens of presentations throughout the community, personally reaching hundreds of citizens.

*Columbia Imagined* meeting kits were developed so that members of community groups would have outreach, promotion, education, participation, and presentation materials available to take to their respective groups and meetings. This proved to be a successful tool, as presentations were hosted by the public for the public at meetings ranging from neighborhood associations to

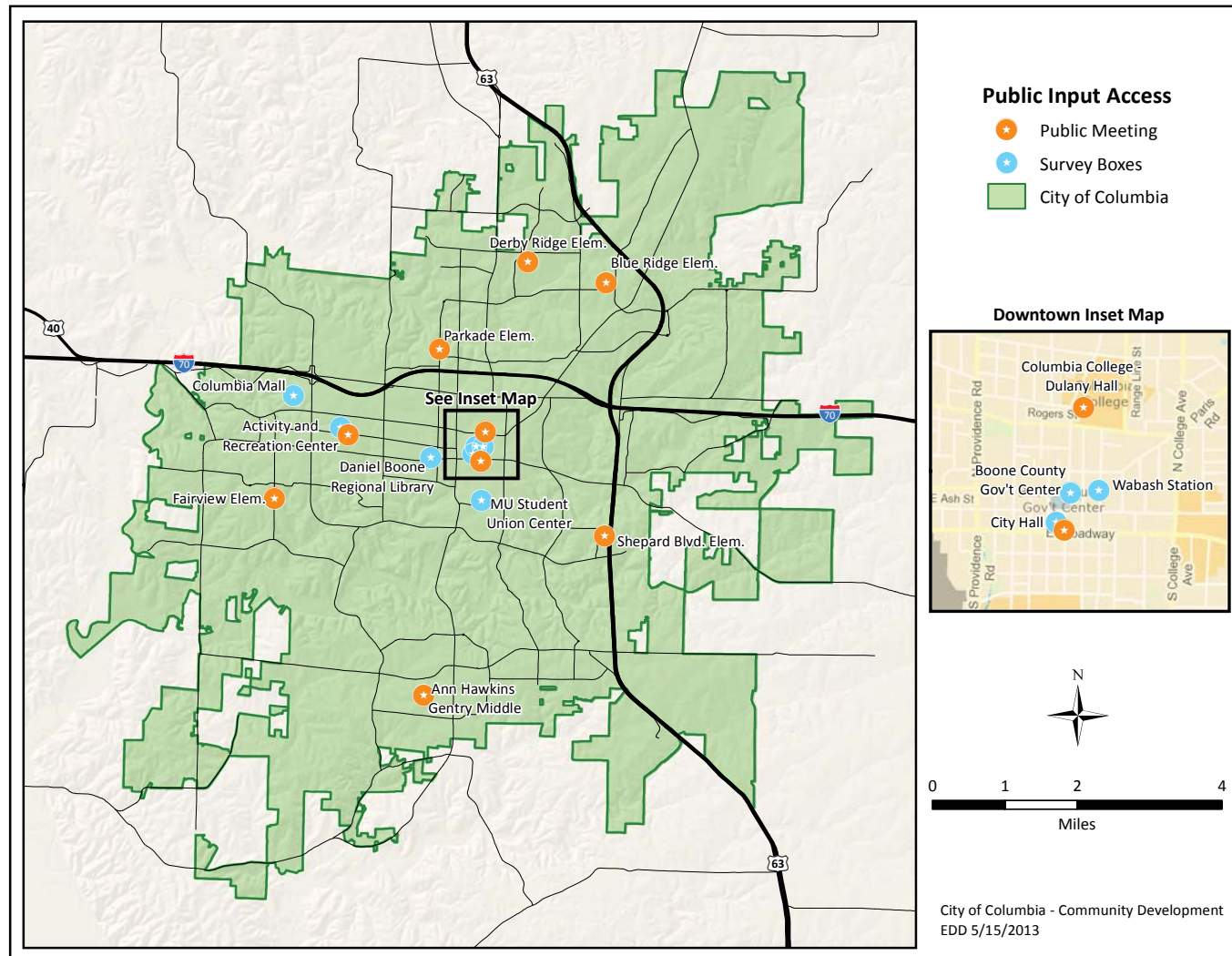
special interest and civic groups.

Other methods used to enhance and gather public input included but were not limited to:

- Website and social media including Facebook and Twitter
- Utility bill announcements
- Civic association mailers/email distribution lists
- Flyers in the Friday Folders sent home with elementary school students
- Personal notifications to stakeholders
- Newspaper articles
- Press releases and meeting advertisements
- Information and survey drop boxes in several locations around town
- Online surveys and live voting during presentations
- Public access television segments and announcements

Through the development of community engagement techniques, branding and advertising, and participating in and serving as ambassadors for dozens of public meetings, the Task Force served a critical role in increasing public awareness of the *Columbia Imagined* planning process.





Map 2-1: Public Input Access

Overall, during the planning process:

- **26 public meetings** were held throughout the community at nine separate locations
- Over **700 public input surveys** for each of the five phases and plan draft were collected
- More than **80,000** citizens were directly asked to provide input and participate in the development of the plan

#### Plan outreach and participation opportunities were broad and diverse:

- **24,000 information sheets** were sent to families with elementary students during the 2011-12 and 2012-13 school years to describe the plan, ask for input, and announce upcoming meetings
- Utility bill newsletters, sent to **55,000 commercial and residential utility customers**, reported on the plan's status for 25 billing cycles
- Information and survey boxes were placed at **seven high-traffic facilities** including the Wabash Bus Station, the Activity and Recreation Center (ARC), and Daniel Boone Public Library
- Special interest and community groups were asked to participate

through surveys, meetings in a box, facilitated discussions and special presentations. Groups included neighborhoods, the PedNet Coalition, the NAACP, MU, and the Chamber of Commerce

- Electronically, information about the plan was sent to **75** neighborhood associations, the City's **50+** boards and commissions, and the Planning and Zoning listserv at each phase of the plan
- Plan information/input was available online **24-7** at **Columbiainmagined.com**, via Facebook and Twitter, and Survey Monkey surveys
- Ads were placed in the *Columbia Tribune* prior to every public meeting, with online ads providing a direct link to the final draft of the plan and input survey



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## Public Input and Participation

In April 2011, the public outreach and education phase of the plan kicked off with the Comprehensive Plan Task Force setting a goal of engaging at least 3 percent of the City's population in the process of developing Columbia Imagined.

The reason for engaging as many residents as possible in the planning process was threefold:

1. The plan, to be effective, should represent the needs and desires of all residents.
2. Each citizen has unique knowledge about the city: where it has been, where it is now, and trends that will help to guide its future.
3. Solutions will only emerge if developed by an engaged and diverse group of citizens brainstorming together.

Public input was key to understanding how the city should grow and develop in the future. Participation by the public was the only way to ensure the plan describes the expectations of the community and explains "how to get there."

### Phases of the Plan

Columbia Imagined was developed through six distinct phases designed to organize public input, data collection, and plan approval:

- Phase I, "What Is the Plan?" was the initial public education period in which the purpose, process, and desired outcome of the plan was described.
- Phase II, "Who Are We?" presented relevant existing conditions, including existing services and policies and demographic, population, and trend data. The existing conditions were organized by seven categories, as detailed in chapter 1.



- Phase III, "What Do We Care About?" explored preferences and issue areas citizens thought the plan should address.
- Phase IV, "Where Are We Headed?" used the preferences and issues developed by citizens in Phase III to set goals and objectives, which were organized by the seven categories developed in Phase II. The goals were then applied to potential growth scenarios and reviewed by the public.
- Phase V, "How to Get There?" assigned action items and milestones, and identified potential resources, policy outcomes and stakeholders to implement the plan's policies; these policies were prioritized by the public.
- Phase VI, "Plan Approval" allowed the plan to be reviewed and adopted by the Planning and Zoning Commission and City Council following public hearings, setting forth the process for the plan to be implemented and updated at relevant milestones.

#### Phases of the Plan:

##### I. What is the Plan?

Public Education

##### II. Who Are We?

Foundation in Facts and Values

##### III. What Do We Care About?

Preference & Issue Identification

##### IV. Where Are We Headed?

Goal-Setting and Scenario Choice

##### V. How to Get There?

Implementation Program

##### VI. Plan Approval and Beyond

## Phase I: What is the Plan?

### Public Education

In Phase I, two kick-off public meetings were held to explain each of the six phases of the plan, describe how the planning process would be carried out, and explain the impetus for and benefits of developing a comprehensive plan.

Additionally, residents were asked three questions to begin the public input process:

1. What do you think of this approach to developing the comprehensive plan?
2. How would you like to be involved?
3. Who else do you think needs to be involved?

These questions were used to gauge interest in the plan, identify stakeholders, and adjust the planning process to allow the most public input.



Public brainstorming meeting

## Phase II: Who Are We?

### Foundation in Facts and Values

With any planning process, it is important to take stock of where you have been and where you are as a community before plotting a course to where you want to go. To understand the history and future of the community, it was key that this plan take into consideration both quantitative (such as demographic or population) and qualitative (measures of values and preferences) data.

Seven topic categories were developed to organize and analyze existing conditions data and to facilitate community discussion on specific issue areas.

These categories were later used in Phase IV to organize goals, objectives, and strategies by which the plan's ultimate implementation could be evaluated.



Videos of meeting available online



Drop box for convenient participation



Things we like about Columbia as shared in public input forums:

- MKT Trail
- Downtown
- Roots n' Blues
- True/False Film Festival
- MU Concert Series
- The ARC
- Stephens Lake Trail
- Rock Bridge State Park
- MU sporting events
- Daniel Boone Public Library
- Restaurants

The seven categories, listed below, are explained in detail in Chapter One of the plan, which describes existing conditions.

### Seven Categories

In Phase II, residents answered survey questions, both in online and paper formats, for each of the seven categories. Residents were asked their thoughts and if there were areas for which additional data would be useful.

For example, the Land Use and Growth Management survey asked:

1. What development trends have you observed?
2. How do you feel about recent growth trends in Columbia?
3. What do you identify with in the current descriptions of the community?
4. What do you think is missing from the current descriptions of the community?
5. What would you add?

These survey questions (five for each of the seven categories, for a total of 35 questions) were asked of community participants following presentations highlighting the key data for each of the seven categories. Extensive existing condition reports, developed by the Task Force and City staff, were also provided for public review.

Presentations of the conditions categories were available in a variety of formats: in person at public input meetings held in the fall of 2011, digitally recorded presentations on YouTube, and electronically on the *Columbia Imagined* webpage and Phase II online survey.

Starting with Phase II, all surveys were available online; respondents were thus able to share survey links with their contacts.

## Phase III: What Do We Care About?

### Issue Identification

In Phase III, the planning process was brought to the community. Phase III meetings were held on different evenings in different locations across the City. This phase allowed residents to interact with the planning partners and other residents in a discussion-based forum.

In total, nine community meetings (four at public schools, three at centrally located public facilities, and one each hosted by the NAACP and University of Missouri Facilities Department) were held for Phase III. The meetings facilitated dialogue on the community's strengths and weaknesses through two related brainstorming activities.

The first activity asked residents to consider and share what they liked best about the community. This "Favorites" exercise asked four questions to get participants to focus on positive aspects of the community or those elements the City should enhance or preserve.

In the second exercise, a fifth and sixth question were added (building on the answers to questions one through four), asking residents to share the development, growth, and quality of life issues that concern them.

### Favorites and Issues Exercise Questions

- What are your favorite things to do in the Columbia area?
- Where are your favorite places to go in the Columbia area?
- What are your top reasons for living in the Columbia area?
- Based on the above, what should be preserved in and around Columbia?
- What factors do you think affect how we live and grow in and around Columbia?
- What are the issues you are most concerned about as a result of changes that have taken place in Columbia and its surroundings in the past ten years?

In addition to input meetings, drop boxes with information about the plan and the latest survey were developed in Phase III (and used in subsequent phases) to provide convenient participation options. The survey boxes proved to be an effective outreach tool, especially in high traffic areas such as the Wabash bus station, Daniel Boone Public Library, and Columbia Mall.

Through the drop boxes, meeting kits, online surveys, and public input meetings, more than 300 Phase III surveys were collected, yielding hundreds of answers to the six Favorites and Issues Questions. This survey data was analyzed using keyword and qualitative theme frequency to identify commonalities. The results of the survey are described in depth in the “Favorites Exercise—Framing Preferences” section of Chapter Three, with Figure 3-1 illustrating the statistical analysis.

### Elements to preserve

Key elements desired for preservation include parks, trails, and green space; downtown assets; a friendly and small-town feeling; cultural opportunities; affordable housing; healthcare and employment opportunities; historic assets; walking and biking amenities; and good public schools.

At each public meeting, issue maps were created to organize the elements residents thought most important to address in the plan. These issue maps were analyzed and consolidated into a master issues map of the factors affecting growth and development in and around Columbia. This process is described in greater detail in the “Issues Mapping” section of Chapter Three, and the results are displayed in Figure 3-3.

### Factors Affecting Growth and Development – Issue Areas

1. Neighborhoods/Quality of Life
2. Managing Change
3. Use of Space
4. Downtown
5. Housing

6. Community Safety
7. Recreation
8. Transportation
9. Education
10. Community Participation
11. Jobs and Economic Development
12. Healthcare

## Phase IV: Where Are We Headed?

### Goal-Setting and Scenario Choice

In Phase IV, using the Favorites and Issue Maps, goals and objectives were developed to represent the most commonly occurring themes from citizen input in Phases III and IV.

These are the plan’s “Big Ideas,” discussed in greater detail in Chapter Three. In addition, the goals and objectives greatly mirror the sentiments expressed during the visioning process, showing the community’s vision for the future has not changed significantly from 2008 and is relatively cohesive.

In the Phase IV meetings and surveys, citizens were asked to share thoughts on the best way for Columbia to grow and develop in the future. Participation in this phase was robust, with nearly 300 citizens either attending one of the four meetings or submitting a survey. This produced roughly 500 goals and nearly 1,000 objectives regarding how the community should grow and develop in the future.

These responses were carefully considered, matched, and refined, resulting in 35 top goals and objectives, five in each of the seven categories, for greater consideration by the public.

Once the goals and objectives were developed, two Phase IV wrap-up meetings were held. In the first meeting, the public reviewed the 35 goals and objectives and gave feedback through

Issues of concern facing Columbia expressed in public forums:

- Crime
- Social and economic inequalities
- Poverty
- Public transportation funding and expansion
- Undesirable downtown development
- Sprawl and fringe development impacting traffic and infrastructure
- Student housing
- Worries about maintaining small-town feel
- Concerns about schools being rough or far away
- Declining infrastructure
- Poor resource management
- Losing historic properties or neighborhoods



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live voting as to whether they represented a coherent vision for Columbia. Online voting was also available for 30 days after the meeting to allow for more participation in this critical step of the plan.

The 35 goals and objectives are described in detail in Chapter Three, and they will be used to evaluate the implementation of *Columbia Imagined* in Chapter Five.

At the second Phase IV wrap-up meeting, the public was able to review potential growth scenarios for future development. The growth scenarios were the first step in answering three questions about Columbia's existing and future land use patterns:

1. Where have we been? (A review of 20-year growth trends in housing, land use mix, and density.)
2. Where are we headed? (A review of trend growth scenarios—what Columbia might look like in 20 years from now if our city grows as it has over the past 20 years.)
3. Where do we want to be? (Goal-based growth scenario—based on citizen input, how do we want the City to grow in the future?)

These goal-based growth scenarios were evaluated in a similar manner by the public as the goals and objectives, with live feedback and surveys.

## Phase V: How to Get There?

### Implementation Program

In Phase V, public input from the four previous phases was evaluated by the planning partners so that the implementation program would address the issues, goals, and objectives that had emerged. An implementation table was developed to identify policies, strategies, and action items to achieve how the community should look and function in the future. Policies, strategies, actions, and stakeholders were organized in the table by category.

Citizens were then asked to review and prioritize the table to ensure the implementation program aligned with the public's

priorities. This implementation program thus provides the work program to be undertaken by the City to realize the plan's objectives.

To confirm the plan draft addressed public expectations, a series of public hearings were held in Phase V in late spring and early summer of 2013. Review drafts were provided to the public both in hard copy and online, and comments on the plan were reviewed by the Planning and Zoning Commission and Comprehensive Plan Task Force.

## Phase VI: Plan Approval and Beyond

Following the final public meetings held as a part of Phase V, the plan was formally considered by the Planning and Zoning Commission at a public hearing. This hearing is a requirement for the Planning and Zoning Commission and allowed for additional public input before making a recommendation to the City Council.

Following the public hearing on June 6, 2013, the Planning and Zoning Commission voted 9-0 to recommend approval of the plan to the City Council.

Following this recommendation, the City Council held a public hearing on October 7, 2013 and the Council unanimously voted in favor of the plan's adoption. By adopting the plan, the City Council endorsed the ideas expressed by the community and the course of action to achieve them.

Following the plan's approval by the City Council, the commission's work to implement the plan's recommendations began.



## A Living Document

Columbia Imagined is a “living” document, and as such, should be revised and updated regularly to ensure its relevance as the guiding document for community-based, land use decision making. To achieve this goal, the ideas, policies, goals, and objectives of the plan must be reviewed at regular intervals. These intervals will allow new data and emerging issues to be examined, as well as allow for public input to successfully implement key plan elements.

Chapter Five of this plan describes how the plan is to be reviewed, evaluated, and updated over time, in order to maintain its relevance.



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## **Chapter Three – Big Ideas**

Summary of Goals and Objectives

“Big Ideas” in the Making

How Big Ideas Are Realized



In Phases III and IV of the plan's development, hundreds of community members participated in public discussions held throughout the city (schools, City Hall, the ARC) and via printed and online surveys. This participation provided more than 1,200 responses to the questions "What do we care about?" and "Where are we headed?" The goal was to identify what mattered most to residents about Columbia's past, present, and future.

These meetings were hosted by City staff and the Comprehensive Plan Task Force after data from earlier public discussions and surveys had been summarized and converted into 35 goals and objectives (see pages 93-94). This introduction seeks to capture and synthesize the seven "Big Ideas" that were identified through these outreach efforts.

The Big Ideas that follow did not emerge at a single meeting, from a single exercise, or even during a single phase of the plan. Figuring out what matters most to people in the community is not a simple task, and asking residents to describe a shared vision in one single way or one type of setting typically does not work. Big Ideas are best expressed through a process; they should be viewed as an end point rather than a beginning.

Three public exercises were undertaken in Phase III and IV:

- Phase 3 { 1. Favorites Exercise (Framing Preferences)
- 2. Issues Mapping
- Phase 4 { 3. Setting Goals and Objectives.

While the answers to these exercises were diverse and sometimes polarizing, careful grouping, comparison, and analysis of the results indicated areas of shared consensus. The Big Ideas are used to assist in setting the goals and objectives of Columbia Imagined, the pace and direction for the plan's trends analysis, its future growth scenarios, and its policy recommendations.

This chapter first presents a summary of the goals and objectives articulated by the public, followed by an explanation of the intent, process, and output generated by the exercises conducted in Phases III and IV. These exercises have directly influenced the

plan's analyses, projections, and recommendations, which are described in Chapter Four of this document, *Growth Plans & Policies*.

## Summary of the Goals and Objectives



### Land Use and Growth Management

The land use and growth management goals encourage environmentally and contextually appropriate land use and development. The **goals** are promote and protect existing neighborhoods, the central city, and mixed-use development; discourage sprawl and encourage density in the city core; promote diversity in housing stock; and evaluate the relationship between zoning and development.

The **objectives** for this category are recommend incentives, tools, and protections against insensitive redevelopment; evaluate stormwater and environmental design issues in central areas; engage in sub-area planning and promote neighborhood schools; encourage mixed use and downtown living; promote citywide home ownership; and reduce barriers to infill development.



### Environmental Management

The environmental management goals address the sustainability of natural and built environments and promote energy efficiency, innovation, and resource management. The **goals** recommend that the development process, including building codes, take into consideration best development practices.

The **objectives** propose investigating incentives and regulations to encourage energy efficiency and recycling, and making better use of vacant urban areas while limiting sprawl when considering how and where annexation should occur based upon the provision of services.



### Infrastructure

The infrastructure **goals** reflect the need and expectation that all types of infrastructure from sewers and stormwater facilities to roads and non-motorized transportation facilities to communications resources will be well-maintained, equitably paid for, and developed to anticipate and meet the needs of the community. The **goals** seek to assess and cover the costs of new infrastructure development as well as maintenance and replacement needs; enhancement of the non-motorized transportation system; and advancement in communication technologies.

The **objectives** for these goals focus on private and public partnerships, with an emphasis on the coordination of upgrades and maintenance, leveraging of assets and resources, and cost-sharing mechanisms.



### Mobility, Connectivity, and Accessibility

The mobility, connectivity, and accessibility **goals** consider multiple modes of transportation, the promotion of access to goods and services by all residents throughout the city, the distribution of transportation costs, and how to make the city's transportation system more efficient.

The **objectives** for these goals include promoting and enhancing the transit and trails systems, reconsidering funding mechanisms for transit, focusing on accessibility and safety of the transportation network, and considering regional public transit.



### Economic Development

The economic development **goals** have two primary focal points: diversifying and strengthening the economy and enhancing the elements already contributing to the local economy. **Goals** rec-

ommend support for small business owners, attracting new jobs and industries, considering regional economic development, and expansion of the local economy to new and emerging sectors.

The **objectives** to reach these goals include promotion, incentives, reductions in regulatory barriers, and public investment to support Columbia's economic assets and potential.



### Inter-Governmental Cooperation

The inter-governmental cooperation **goals** are directed toward regional collaboration, a reduction in uncertainty about development outcomes, better public participation processes and transparency, and coordination in the provision of services.

The **objectives** to meet these goals encourage strengthening relationships, identifying areas where it may be possible to leverage resources or reduce conflicts, promoting regional transportation and economic development, and coordination of development.



### Livable and Sustainable Communities

The livable and sustainable community goals focus on community aspects related to the quality-of-life experienced by residents.

**Goals** generated by the public recommend promoting the health of individuals and families, development standards promoting neighborhoods that are accessible to jobs, becoming a model for universal design standards, promoting the downtown's vibrancy, and variety in housing options throughout the community.

The **objectives** to reach these goals are to promote wellness through a healthy environment and access to healthy foods, recreation, health care, and social services; the use of form-based zoning, smart growth, neighborhood centers, and other tools; to promote aging in place codes and ADA compliance; support of the arts community, historic preservation, and an eclectic downtown; and support of livable, walkable, and affordable neighborhoods.



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## The 35 Goals and Objectives

In the meetings and surveys of Phase IV, citizens were asked to share thoughts on the best way for Columbia to grow and develop in the future. Participation in this phase was robust, with nearly 300 citizens either attending one of the four meetings or submitting a survey. This produced roughly 500 goals and nearly 1,000 objectives regarding how the community should grow and develop.

Responses were carefully considered, matched, and refined, resulting in 35 top goals and objectives, equal to five in each of the seven categories.



### Land Use and Growth Management

Goal 1: The personality and character of neighborhoods is preserved

Objective: Provide incentives, tools, and protections to discourage contextually inappropriate redevelopment in historic neighborhoods  
Obj.: Use incentives to maximize the environmental design capacities of the existing housing stock as older houses may need energy efficiency, stormwater, and other upgrades

Goal 2: Columbia citizens celebrate a sense of community through strong neighborhood planning

Obj.: Anticipate enrollment needs and promote neighborhood schools as focal points of new development  
Obj. Develop sub-area land use plans for areas before they develop and planning tools for existing neighborhoods

Goal 3: Encourage density in the city's core

Obj.: Use development regulations (e.g. first-floor commercial, integrated parking garages) to encourage mixed use downtown  
Obj. Use incentives and promotion to encourage living downtown near services and neighborhood-oriented businesses

Goal 4: Housing is diverse, affordable, and attractive

Obj.: Encourage and promote home ownership in all areas of the City  
Obj. Examine property maintenance regulations to protect renters

Goal 5: Consider the relationship between zoning and industrial and commercial growth

Obj.: Incentivize mixed and desired uses in key locations (zones and nodes)  
Obj.: Make better use of vacant space through "creative" solutions addressing barriers (including regulatory) to infill development



### Environmental Management

Goal 1: Columbia fosters forward-thinking policies for sustainable, self-reliant, and innovative development

Objective: Continue to increase the amount of energy generated through renewable, carbon-limiting sources  
Obj.: Encourage environmentally friendly developments, including trails, parks, and green spaces to reduce reliance on private automobiles

Goal 2: Columbia is a model for affordable and practical environmental sustainability

Obj.: Biomass resources (parks, trees, streams) are rated in good environmental condition  
Obj.: Expand the recycling program to reduce per capita landfill needs

Goal 3: Promote more energy-efficient construction practices

Obj.: Incorporate energy-efficient standards into the building codes  
Obj.: Include an energy audit and minimum-efficiency and incentives in the occupancy permit process

Goal 4: Green space shall be promoted and maintained in the downtown and urban areas

Obj.: Encourage urban gardening  
Obj.: Use incentives to encourage better use of open lots

Goal 5: Establish an urban services area to plan annexation and preserve the character of both higher and lower density neighborhoods

Obj.: Effective zoning will reflect a comprehensive, long-term plan that preserves green space  
Obj.: Conduct periodic review and potential adjustment of the urban services area in light of development trends



### Infrastructure

Goal 1: Assess the true cost of new development on infrastructure and have mechanisms to recover these costs

Objective: New developments will fund the infrastructure necessary to make them viable  
Obj.: Determine the impact of new development on existing infrastructure

Goal 2: Emphasis will be placed upon infrastructure maintenance

Obj.: Create use-based fees and cost-share programs for hard and soft infrastructure  
Obj.: Improve downtown infrastructure—sewers, stormwater facilities, and alleys

Goal 3: Aging infrastructure in older neighborhoods will be replaced and repaired

Obj.: Assistance with maintenance issues will be a coordinated process

Goal 4: Connect trails and enhance the non-motorized system

Obj.: Expand the ability to bike in/out of the downtown area  
Obj.: Build more bike and walking paths to complement more trails

Goal 5: Columbia is connected to the world by the most reliable and most equitable communications technologies

Obj.: Working with communications providers, install the best wireless and fiber networks and emerging technologies  
Obj.: Pursue grants that bridge the digital divide





### Mobility, Connectivity, and Accessibility

Goal 1: Columbia is a fully accessible and efficient community for all modes and abilities

Objective: Promote a good public transit system with extended hours

Obj.: Promote non-motorized transportation through easy access—sidewalks, paths, and safe crossings at busy intersections

Goal 2: Employ a reliable and equitable mechanism to develop and maintain all transportation systems

Obj.: Develop a process to determine how to share the costs of transportation

Obj.: Reduce reliance on automobiles as residents' primary transportation mode

Goal 3: Columbia will have a comprehensive, interconnected trail and walking/bike path system that allows people to move around the city efficiently by walking, bicycling, or wheelchair

Obj.: Develop policies that allow all new development to connect to existing bike/pedestrian trails

Obj.: Purchase/use public right-of-way to provide additional connections in existing areas

Goal 4: Ensure that public transit fits the needs of all people who do or could use it

Obj.: Consider a looped/interconnected system with three or four hubs, not just one—Wabash Station (downtown), south end of MU campus (hospitals, etc.), east and west sides of city

Goal 5: Promote public transportation system expansion with regional considerations

Obj.: Create partnerships between regional stakeholders to produce an integrated transportation system

Obj.: Focus on developing a transit system between Columbia and Jefferson City including the Columbia Regional Airport and Jefferson City Amtrak Station



### Economic Development

Goal 1: Maintain and improve downtown

Objective: Encourage quality retail and citizen support of enterprises

Obj.: Maintain policies that promote continued viability of private business ownership downtown and in surrounding areas

Goal 2: Utilize and expand the existing park system to promote economic growth through tourism development, pet facilities, and special events

Obj.: Conduct a feasibility study and encourage collaboration between the Chamber of Commerce, Parks and Recreation, and other stakeholders

Obj.: Identify funding sources and partnerships for development of new facilities and expanded programs

Goal 3: Diversify and broaden the economy, including new industry clusters

Obj.: Evaluate tax incentives for entrepreneurial/small businesses

Obj.: Increase growth by addressing barriers to small/entrepreneurial businesses

Goal 4: Columbia will be a regional leader in health care

Obj.: Columbia will have high-quality health care facilities that are well-funded

Obj.: Residents will have access to a variety of specialists to meet all health care needs

Goal 5: Attract new businesses and advanced manufacturing opportunities to the metro area

Obj.: Develop the Columbia Regional Airport/Discovery Ridge-Highway 63 Corridor to provide light industrial/high tech jobs

Obj.: Employment options will be diversified beyond higher education and health care



### Inter-Governmental Cooperation

Goal 1: Encourage greater collaboration between City, County, and educational institutions

Objective: Coordinate City and County planning, land use, and transportation efforts to facilitate growth of higher education campuses

Obj.: With Columbia Public Schools, promote education, health, and quality of life for all students and their families

Goal 2: All stakeholders should be engaged in the process of determining changes in the community

Obj.: Employ public visioning processes

Obj.: Processes and implementation shall be transparent

Goal 3: Encourage regionally connected areas

Obj.: Identify funding to support regional transit development

Obj.: Attract other communities and cities in our region to support this idea

Goal 4: The City's zoning, annexation, and neighborhood planning processes will be transparent and predictable so that developers and residents understand review criteria

Obj.: Design planning processes that engage differing viewpoints and are continually evaluated for effectiveness

Obj.: Work in tandem with the County to present the differences in zoning and educate the public to better understand potential outcomes

Goal 5: Promote cooperation within the multi-jurisdictional political system

Obj.: Community partners develop and agree on major goals and work toward achieving them

Obj.: The community is engaged in legislation and policy creation



### Livable and Sustainable Communities

Goal 1: Columbia will be a healthy, diverse, and enriching community for all residents that promotes healthy people and families

Objective: Promote health through clean air, waterways, and a green city providing healthy lifestyles through recreation, community gardens, adequate grocery stores, and farmers' markets

Obj.: Promote easy access to health care, social services, mental health, and elder care

Goal 2: Development standards encourage compact, contiguous neighborhoods within reach of workplaces

Obj.: Deploy form-based zoning and other tools such as design guidelines, smart growth, and mixed use

Obj.: Each neighborhood should have a central gathering place such as a park, school, or library

Goal 3: The City will become a model community for implementing universal design standards

Obj.: Develop codes that allow for aging in place

Obj.: Design standards will be in compliance with ADA requirements

Goal 4: Downtown Columbia should be a vibrant, beautiful, and affordable place to live and work

Obj.: Downtown Columbia supports a rich arts community

Obj.: Enhance the vibrancy, historic integrity, and eclectic composition of the greater downtown

Goal 5: Neighborhoods that are economically, aesthetically, and socially varied will be promoted

Obj.: Plan future developments that are livable and walkable for residents throughout the City

Obj.: Promote affordable housing throughout the community

## “Big Ideas” in the Making

### Favorites Exercise – Framing Preferences

#### Intent

The Favorites exercise, used during Phase III of the plan development process, was designed to begin understanding community-wide preferences. This exercise, developed and refined by University of Missouri consultants over two decades of community input sessions, stimulated a great deal of public participation and engagement in the plan. The online survey alone had 242 responses, with more public input coming from meeting participants and survey boxes placed in convenient locations around town. The ability for residents to take the survey and then pass on the survey link to their contacts was described as being a “quick, painless, and pass along” way to participate in the plan. Copies of the survey can be viewed in the appendix.

#### Process

Residents were asked four open-ended questions on what are their favorite things in and about Columbia: things to do, places to go, things that make Columbia special, and what must not be changed. By understanding which tangible and intangible aspects of the community should be preserved for the future and promoted in the present, citizens framed their priorities in terms of their preferences.

Open-ended questions generate unrestrained responses and often unexpected results. While not the deliberate intention of the exercise, the favorites data also provided useful information on how residents uniquely and collectively see and interact within the natural, built, and social environment.

Once the electronic and printed surveys were collected, City staff and University consultants worked to organize and analyze the more than 1,200 answers. Questions were organized by common themes and the data was refined and verified by two teams to make sure the analysis was thorough and balanced. The first data analysis approach grouped and counted related responses by question and the second analysis counted the frequency or number of times individual words were used throughout all four questions. Both the related response and word counts, as

described below, suggested the same commonalities and key themes among the data.

Overwhelmingly, both analysis tools showed a strong correlation with residents not wanting changes to the places they liked to go or the activities they liked to do and that people lived in Columbia based on their answers to the questions of their favorite places and things.

Additionally, while the correlation was not as strong, many growth issues to be addressed (a question asked during the subsequent Issues Mapping exercise) were also related to residents’ favorites. These answers were less likely to be related to their favorites than the answers to questions three and four because respondents were thinking more broadly and to the future rather than personally and in the present during the Issues Mapping exercise.

A summary of the results of the Favorites exercise is presented in Figure 3-1. The detailed results of both the theme group counts and the word counts are provided for review in the appendix.

#### Results

The results of the Favorites exercise are described by question and represent the priorities of the community. The resulting policy recommendations are described in Chapter Four.

#### Likes and Favorites

The most commonly liked places to go and things to do in Columbia were related to recreation, including parks, trails, and athletic facilities; cultural and entertainment venues and events; the downtown; University of Missouri sports, events, and amenities; and shopping and dining. Other responses covered a wide range of interests, activities, and places throughout the city.

#### Parks, Trails, and Recreation Facilities

Park was the word most used to describe a favorite place to go, and trail was the third-most-used word. Similarly, many responses included outdoor activities: walking, running, walking dogs, and hiking on trails. Participation in activities at parks also received a high response rate. Allied interests, such as riding bikes and

“My husband and I are new to Columbia. We have enjoyed the parks and MKT trail. We enjoyed First Night especially and the Missouri Theater. We have participated in events for our church at several park locations. We love the arts and will be joining the Arts League.”

“I came in 1971 to work at UMC and remained ever since. It used to be easy to get around but is getting more difficult with all the growth and traffic.”

“Columbia is affordable, I can live close to where I work, there are decent opportunities to experience music and the arts, and access to trails/parks.”

sports activities, had a fairly high response rate, indicating that residents like to go places and do things that promote active living and being outdoors.

### Entertainment and Culture

Entertainment and cultural opportunities were the next most highly cited things to do and places to go. Popular cultural and entertainment events included festivals, arts events, performances, galleries, and concerts. Specific mentions include Ragtag Cinema and the True/False Film Festival, indicating residents value independent films and film festivals. Other popular entertainment and cultural assets include the Roots 'N' Blues festival, the Missouri Theater, and the public library.

### Downtown

Downtown Columbia was the second most popular place to go. Respondents answered downtown or "The District" for all four of the questions in the survey, demonstrating that residents highly regard the diversity of shopping, dining, and things to see and do in the central city.

### University of Missouri

The community highly regards the presence of the University of Missouri and the associated culture, services, and amenities associated with being a college town. The words "college" or "university" were mentioned numerous times over the four questions, and the MU campus was mentioned specifically as a favorite destination.

### Shopping and Dining

Residents also commonly cited shopping and dining opportunities, both Downtown and throughout the city, as favorites.

### Top Reasons for Living in Columbia

The top reasons residents cited for living in Columbia focused on the quality of life. Many of the favorite places and activities were mentioned, including parks, trails, green space, downtown assets, and cultural opportunities. However, these responses were more expansive and included more intangible qualities than answers to the first two questions.

Common responses included the small town feel with big city amenities, the feeling that Columbia is the right size, an appreciation for life in college towns, friendly people, a good school system, and family and friends. Not surprisingly, many people live in Columbia for a job, and many also described Columbia as being affordable.

### Elements to Preserve

The elements to preserve reflected many of the responses to the previous three questions. The city park system, the trail system, downtown vibrancy, and aspects of the natural environment (aggregated mentions) were most frequently described as needing preservation. Arts and cultural activities, historic places, and the small town feel were also highly cited elements to be preserved in Columbia.

### Issues Mapping

#### Intent

The second public input exercise in Phase III was issues mapping. This exercise is called "mapping" because forum attendees were first asked to brainstorm independently, then collectively, and identify issues that may affect growth and development in and around Columbia. The format of these sessions allowed for dialogue among residents and encouraged collaborative results.

The timing of this exercise was deliberate in that residents were able to respond about issues with their favorite elements fresh in their minds, yet they were also encouraged to think broadly, considering past examples and the future. This produced responses with issues that ranged from personal to professional and community-wide.

#### Process

Eight public engagement meetings were held to obtain input on the issues affecting Columbia's growth and development. The exercise asked forum participants to answer three open-ended questions encouraging them to consider growth-related issues that they believed needed to be addressed in the plan. This exercise built on the priorities established during the favorites exercise. The questions asked in the exercise are in the Appendix.

*"What should be preserved or regained? Progressive attitudes and innovation, a spirit of volunteerism and civic engagement, the natural environment, arts and cultural activities, and neighborhoods that do not have housing for only one group."*

*"These issues affect how safe I feel at home, the safety of my children at school, maintaining the 'small town' and 'college town' feel of Columbia and its reputation as a safe, healthy place to live."*

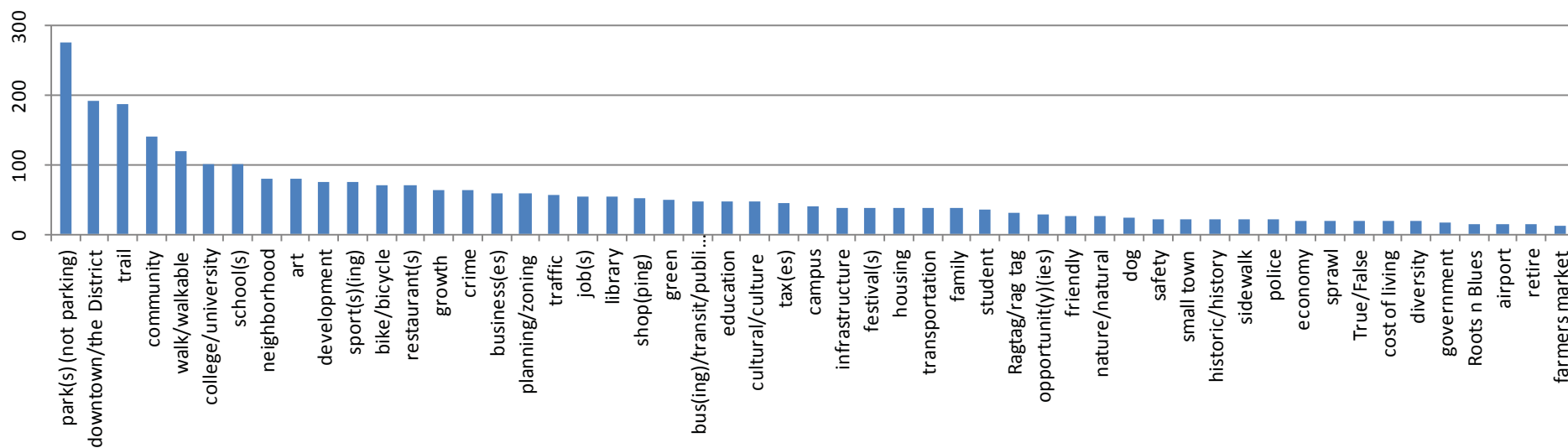
*"The community disconnects from their environment because they go from house to car to building and don't see the city at less than driving speed."*



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Source: Columbia Imagined public surveys and wordle.net



As issues were raised, the University of Missouri consultants added them to a large overall “issues map.” Broad “overarching” issues were identified as primary topic areas and common issues were grouped together. Related overarching issues were connected by dashed lines or connecting two-way arrows, as were common issues between the broader topic areas. As the input session progressed, the issue map became a visual representation of related elements.

### Results

Upon completion of the eight public input sessions, staff and the consultants review the results. This analysis identified 12 primary issue areas within those raised. The related sub-issues provided at the input sessions were placed into one of the 12 primary issue areas.

After conducting this initial analysis, staff further refined the related sub-issues to consolidate them into more general categories to use in the goal and objective setting phase of the plan. The 12 primary issue areas are shown in the sidebar on the following page.

To assist in making the issue mapping exercise more understandable, the staff created a Master Issues map. This map took the 12 primary issue areas and related sub-issues (as refined by staff) and combined them on a single map. This map was presented at the conclusion of Phase IV and is shown in Figure 3-3. Additionally, each public input session’s issue map was transcribed. These maps are shown in the Appendix.

## Goals and Objectives

### Intent

The final Big Ideas public input activity occurred in Phase IV of the plan, “Where Are We Headed?” Using the Issues Maps as a reference point, goals and objectives were developed for each of the issue areas and then organized by the seven topic areas described in detail in Chapter One of the plan.

### Process

Residents were able to participate in this public input process in

the same ways as the Favorites and Issues Mapping exercises: online surveys were once again used, as were printed surveys submitted throughout town in drop boxes and during public meetings. Additionally, there were four public input sessions held in which three of the twelve primary issues areas were presented and goals and objectives were collected from those in attendance.

Because it can be difficult to distinguish between a goal and an objective, the following definitions and examples were used to explain goals and objectives during this exercise:

Definition:

**Goals** are broad, value-based long-term statements that reflect a community’s desires and expectations.

**Objectives** are specific measurable actions that can be used to assess progress in achieving goals and satisfying community needs.

Example:

**Goal:** The quality of planning, development, and maintenance should be very high in Columbia.

**Objective:** Columbia’s growth should be guided by a 20-year comprehensive plan which reflects the values and needs of the community.

The online and printed surveys asked residents to consider setting goals and objectives for any one of the seven plan categories as discussed in Chapter One. The survey instructions indicated that the term of the plan, the plan’s outlook, was 20 years, and that participants should provide at least two goals and two objectives for each theme area. The following question was repeated twice on the survey form, except that when question 2 was asked it indicated “please list a 2<sup>nd</sup> goal.”

“Transportation is a huge factor that affects nearly all aspects of everything else. Good options like biking, walking, public transportation, and safe roads are all vital.”

“The physical and social environment, our families, school and work places, how we move about, our food systems and recreational activities affect how we live and grow.”



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*“There is a struggle to balance development in accordance with population growth with the maintenance of a vibrant, local culture encouraging the free use of public space, the creation of art and music, and the proliferation of independent, locally-owned and operated businesses... the culture and community which made this an attractive home for 100,000 people.”*

**The 12 Issue Areas identified by residents were:**

1. Transportation
2. Jobs & Economic Development
3. Healthcare
4. Community Safety
5. Housing
6. Neighborhoods / Quality of Life
7. Education
8. Use of Space
9. Community Participation
10. Downtown
11. Recreation
12. Managing Change

Please list a goal you have regarding Columbia’s future—Where should we be in 20 years?

*Goal 1:*

Please list two objectives related to this goal:

*Objective a:*

*Objective b:*

**Results**

By the time the public input meetings concluded and the online and printed surveys were closed, there were 191 online and nearly 50 printed surveys collected suggesting hundreds of goals and objectives. These goals and objectives were sorted, refined, and smoothed by the staff to create a draft of set of 35 goals and objectives—five per plan category. These goals and objectives were believed to best reflect the body of responses received during the public input process. However, to ensure the accuracy of the draft and the exercise, further review and refinement was asked of the public.

After the goals and objectives were compiled and analyzed by staff, the Comprehensive Plan Task Force provided further input before the draft goals and objectives were presented to the public. Once again, surveys were offered for the public to participate, this time allowing for critique and comments on the goals and objectives.

The online survey mirrored the live voting exercise conducted during the Phase IV wrap-up meeting. Additionally, the online voting allowed for residents to comment on goals and objectives not voted on during the public forum meetings. Due to meeting-time constraints, 14 of the 35 goals and objectives—two for each of the seven topic areas—were randomly selected for live voting at the public forums.

During the online and live voting exercise, residents were asked to react to each of the proposed goals and objectives with “On the right track,” “Needs tweaking,” or “Go back to the drawing board.” During the live voting exercise, once residents keyed in their responses, the voting record of the group was projected in real time. Residents then had time to write down their individual comments or voice suggestions to the group.

A live voting example is shown below for one of the Environmental Management goals. Live voting was conducted on the goals and objectives independently.

**Goal:** Establish an urban services area to plan annexation and preserve the character of both higher and lower density neighborhoods

**Obj.** Effective zoning laws are in place and reflect a comprehensive, long-term plan that preserves green space

**Obj.** Conduct periodic review and potential adjustment of the urban services area in light of development trends

**Goal: Attract new business to the metro area**

1. On the right track
2. Needs tweaking
3. Go back to the drawing board

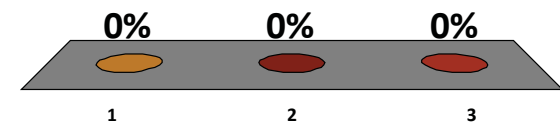


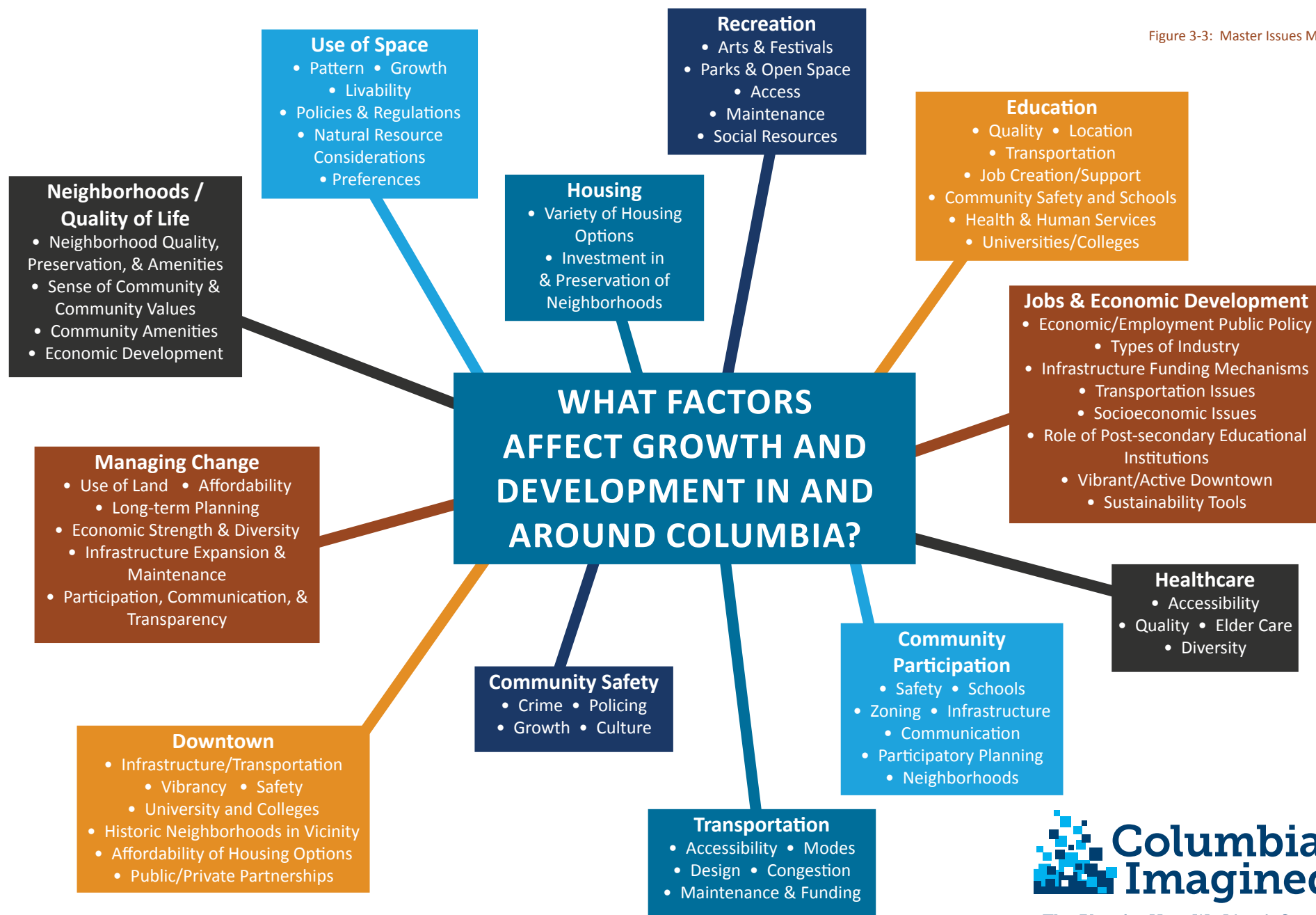
Figure 3-2: Live Voting Example

Regardless of the response, residents were asked to provide feedback on how the goals and objectives could be improved. This process identified the extent to which the right priorities were being reflected and allowed for revisions to ensure that goals and objectives were framed correctly.

The process by which goals and objectives were selected, sorted, smoothed, voted on, and refined is reflected by the input/output model, Figure 3-5.



Figure 3-3: Master Issues Map



*“Columbia needs to decide what sort of city it wants to be.”*

*“Stop talking about mixed-use, affordable housing in the downtown area—just do it.”*

*“Address the issues through clear and comprehensive regulations with predictable outcomes.”*

*“We need to feel safe in our community. In 20 years, every neighborhood needs to be a safe neighborhood.”*

The complete list of the proposed goals and objectives and the live and online voting results are included in the Appendix.

At the end of Phase IV, it was apparent that many of the same themes were reflected in each of the public input exercises. Commonalities include:

- Ensuring infrastructure is in place to support existing and future growth
- Promoting affordable and diverse housing
- Maintaining and enhancing neighborhoods
- Promoting all forms of transportation
- Promoting parks and open space in the city
- Ensuring meaningful public participation and transparency
- Revising zoning codes and regulations to address how and where growth should occur
- Diversifying and enhancing the economy
- Promoting and enhancing the downtown core
- Encouraging density and development in key areas while limiting sprawl
- Maintaining a small-town feel
- Thinking and acting regionally
- Promoting health, safety, and education

At the core of public input was the importance of promoting a high quality of life through the built environment, social services, and public policy.

### How Big Ideas Are Realized

The next step in Columbia Imagined aligns the public input from Phases III and IV with meaningful information from the Existing Conditions analysis. To protect and enhance Columbia’s strengths as a community, address opportunities for improvement, and provide the quality of life envisioned by the public over the next

20 years, this plan recommends policies and strategies based on the Big Ideas.

Chapter Four first describes identified constraints, from environmental to other resources, and how Columbia is likely to grow and develop if present patterns continue. By examining the ways in which land use affects the built, social, and natural environment, Chapter Four then identifies land use principles that align with community goals and objectives. Finally, Chapter Four provides direction through policies and strategies to not only understand “Where are we going?” but also “How to get there.”



Figure 3-4: Live Voting Advertising Graphic

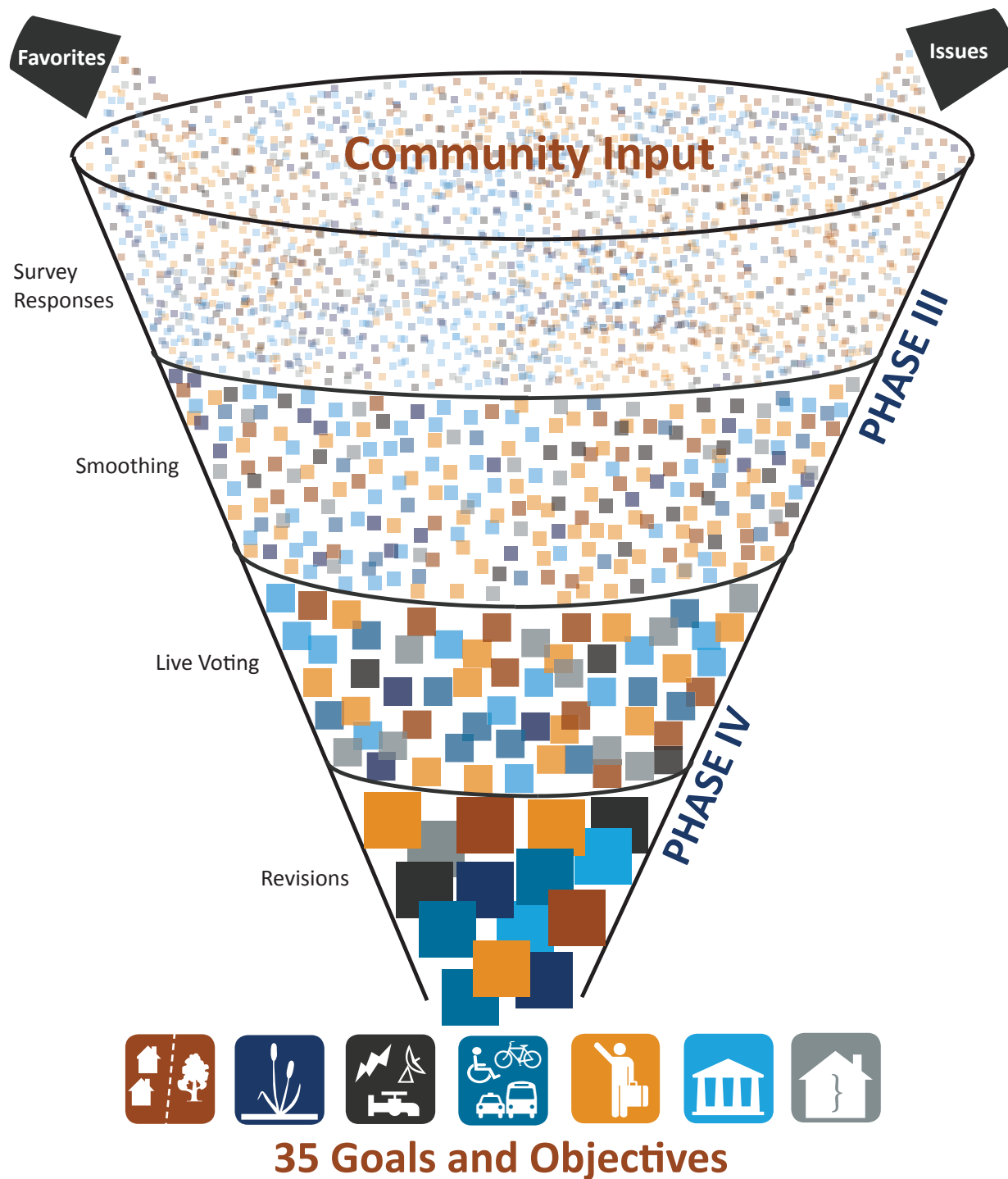


Figure 3-5: 35 Goals and Objectives input/output model

Goals and objectives were selected, sorted, smoothed, voted on, and refined. The process started with community input on favorites and issues. The input was sorted and smoothed into draft goals and objectives. The draft goals and objectives were then taken back to the public for review in the live voting exercise. With the live voting results, the goals and objectives were revised, leaving the final 35 goals and objectives, shown on pages 93-94.



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## **Chapter Four – Growth Patterns & Policies**

Where Are We Now?

Where Are We Going?

Where Do We Want to Go?

Land Use Principles and Policies

This chapter provides the reader with an understanding of basic land use trends and issues in the metro area. Land use policies can be changed to accommodate sustainable growth and development while improving Columbia's livability.

This chapter is organized into three sections. The first section answers the question, "Where are we now?" with data on the physical composition of the city in terms of land uses, mixtures, and densities. This section also identifies existing land and infrastructure capacities to accommodate future growth.

The second section asks, "Where are we going?" It introduces two models for projecting population, housing, and employment growth to 2030 and shows where capacity exists to accommodate the demands that growth will place on the city's land, infrastructure, and services.

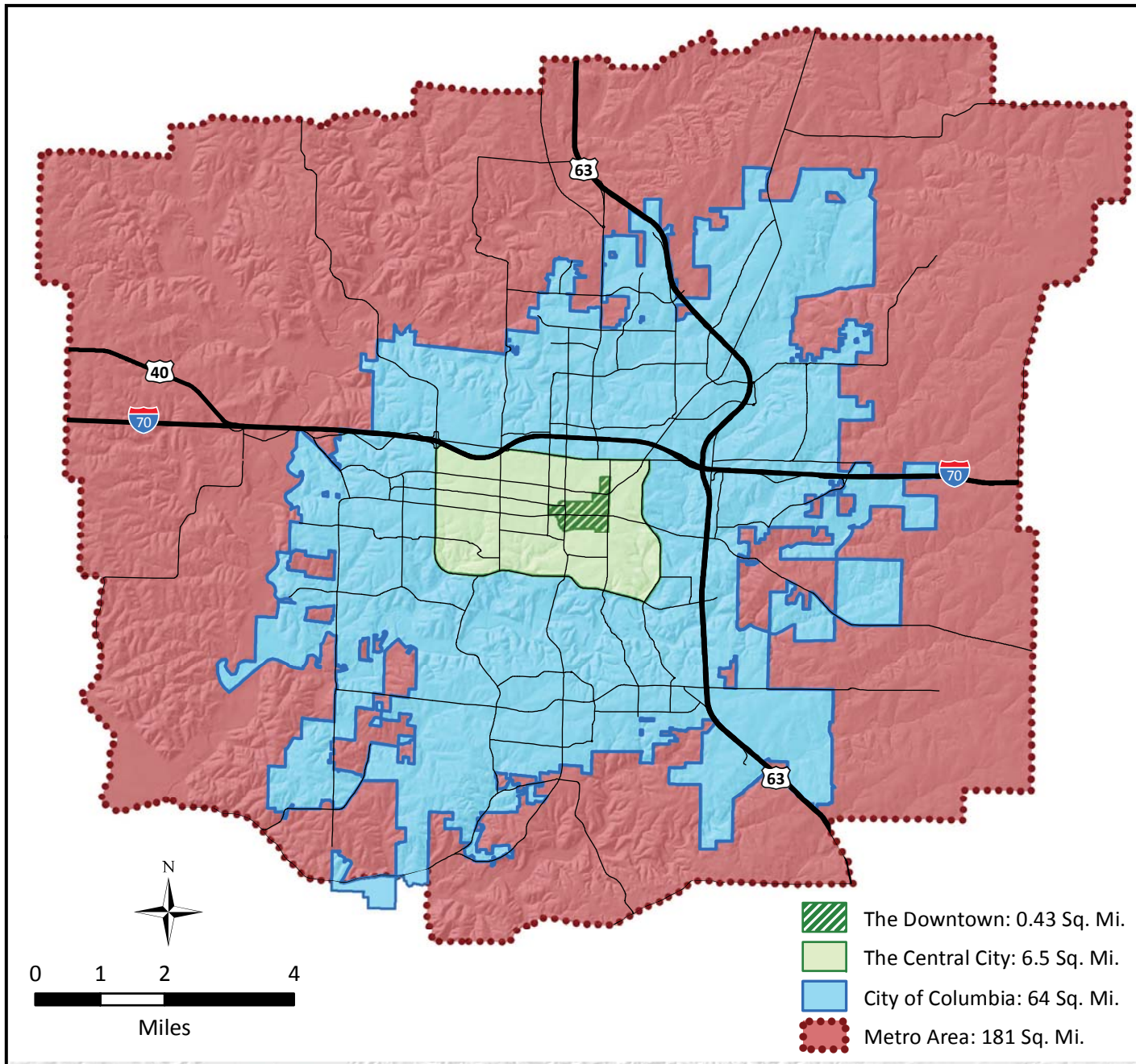
Section three asks, "Where do we want to go?" It acknowledges that current land use trends do not fully satisfy citizens' needs and desires. It suggests strategies to advance Columbia toward the livability and sustainability goals expressed by its citizens. Public input gathered in Phases III and IV of the comprehensive plan process is recast as community-wide visions for each of the categories. From these shared visions flow the principles and policies that will guide Columbia's future land use planning efforts intended to improve upon current land use practices.

## Growth Areas Defined

The study area is divided into four sub-areas, which are shown in Map 4-1. Each sub-area has a unique set of associated land use characteristics, opportunities, and challenges that are highlighted in the following discussion of land use and growth management. The geographic boundaries are:

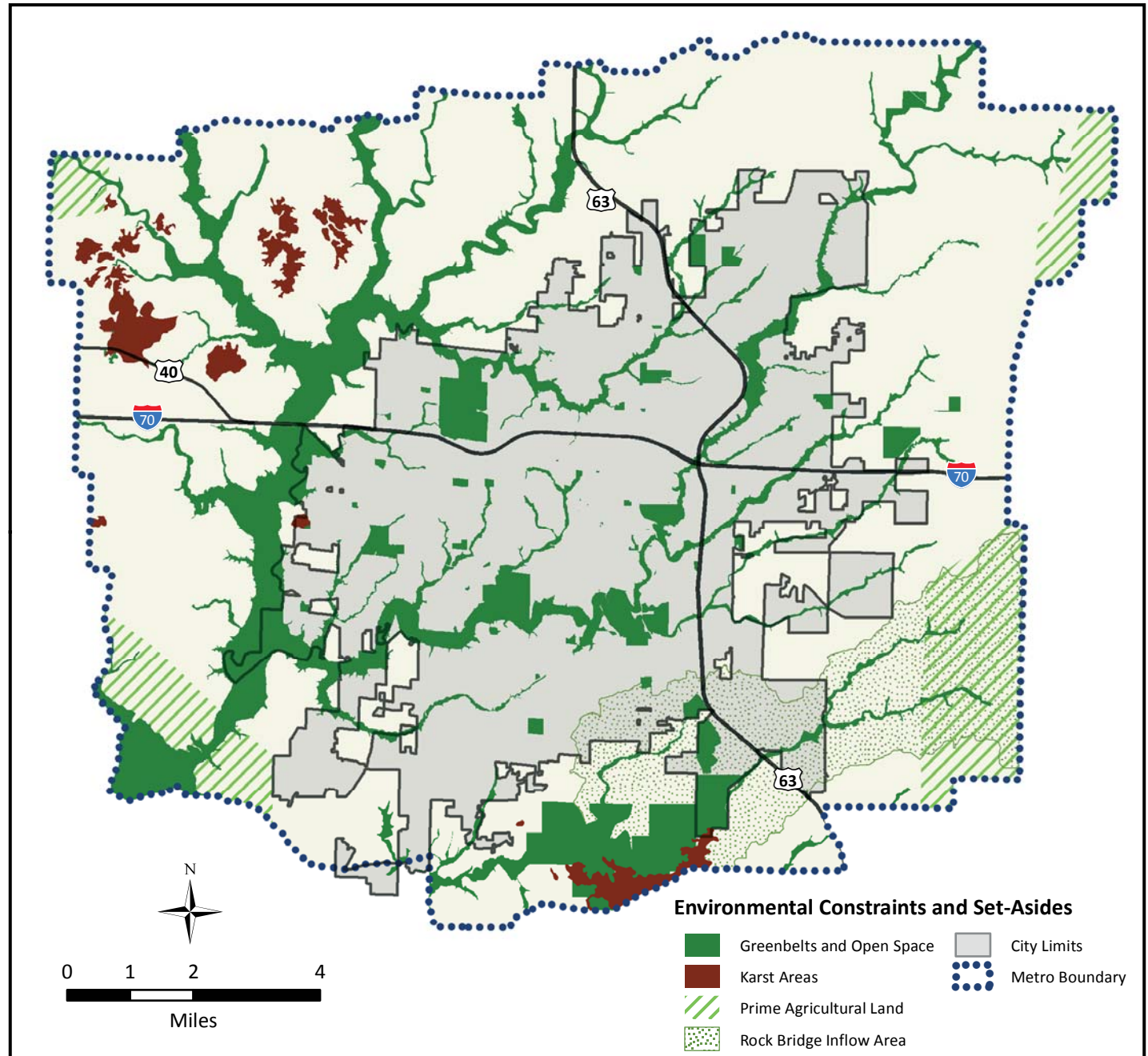
1. **The Metro Area.** This 181-square-mile area includes the City of Columbia and surrounding unincorporated areas that are projected to urbanize within the next 20 years. This is the outer extent of the comprehensive plan study area. The metro area is defined by federal transportation planning statutes for metropolitan areas and includes urbanized areas or areas expected to urbanize within 20 years.
2. **The City of Columbia.** This approximately 64-square-mile area defines the city proper. It includes urbanized areas as well as several thousand acres of vacant developable land.
3. **The Central City.** Includes approximately 6.5 square miles of land bounded by Stadium Boulevard, Old 63, and Business Loop 70. This area is comprised of the central business district and surrounding neighborhoods, which offer several infill redevelopment opportunities.
4. **The Downtown.** This 0.43 square mile area is circumscribed by College Avenue, Elm Street, Garth Avenue, Park Avenue, 10th Street, Rogers Street, Pannell Street, and Wilkes Boulevard. Downtown is defined by commercial, industrial, and residential areas bordered by the University of Missouri, Stephens College, and Columbia College, and are either established or transitioning towards higher-density, mixed-use, and pedestrian-oriented development.





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Map 4-2: Environmental Constraints and Set-Asides  
Source: City of Columbia



## Where Are We Now?

### Available Resources & Constraints

It is impractical to discuss the many details related to urban development form and pattern without first identifying what resources are available and how they can be used. In land use planning, the primary resource affecting development is land area or, more specifically, **developable land** area. Knowing not only how much land is available to accommodate growth, but also its best use is vital to the success of any long-range planning effort. Implicit in this determination is the need to inventory the natural landscape and its characteristics, followed by a consideration of the effects that various land uses will have on the overall health, safety, and general welfare of individual citizens and the community as a whole.

Environmental constraints and set-asides within the entire metro area were identified by using 2007 land coverage imagery from the City's Natural Resource Inventory, which was described in detail in section 1.2 of Chapter One. On the opposite page, Map 4-2 shows a synthesis of the Natural Resource Inventory, illustrating the environmental constraints and set-asides. Development within these areas may threaten basic life-sustaining resources such as drinking water, forests, and recreational areas. Beyond these basic needs, preservation of local agriculture and cultural resources, including irreplaceable natural and historical landmarks, is essential to sustainable growth. These features tie residents to the land, its attributes, and each other and help to form strong bonds and a shared sense of pride in Columbia.

Another key component of long-range land use planning is acknowledging that growth is ultimately limited by **physical geography** and **finances**. Growth can only be sustained if sufficient revenues exist to pay for it. This includes not only financing new infrastructure and services but, more importantly, long-term maintenance of existing infrastructure. In land use planning, two rules of thumb often hold true:

1. The farther utilities and services are extended, the greater the cost.
2. The more utility customers, the greater the revenue to support the utility.

This means that it is typically more efficient and economical to provide public services to high-density development than to low-density development. Not only is it cheaper from a public infrastructure and service provision standpoint to build “up” rather than “out,” but it also consumes less land area, which supports a more compact urban area and shorter travel distances.

### Baseline Population & Housing Development Data

Understanding and anticipating future development is a critical first step in being able to plan for Columbia's growth and expansion. However, equally important is understanding where the community has been with its population and housing.

As presented in Chapter One and shown in Table 1-1 to the right, Columbia's population has consistently grown from 1960 to present. During the previous 20 years (1990-2010), Columbia's population increased by 36 percent (39,399 residents), from 69,101 in 1990 to 108,500 in 2010. The significant increase in City population between 1960 and 1970 is partially due to the 1969 annexation, which added roughly 18 square miles of land to the city.

Environmental, physical and policy constraints impede the ability to develop land. For example, areas with endangered species habitats, karst topography, steep slopes, or those located within the 100-year flood plain or a stream buffer are unlikely to be developed.

**Developable land** refers to areas with minimal impediments and constraints to site development and the provision of infrastructure.

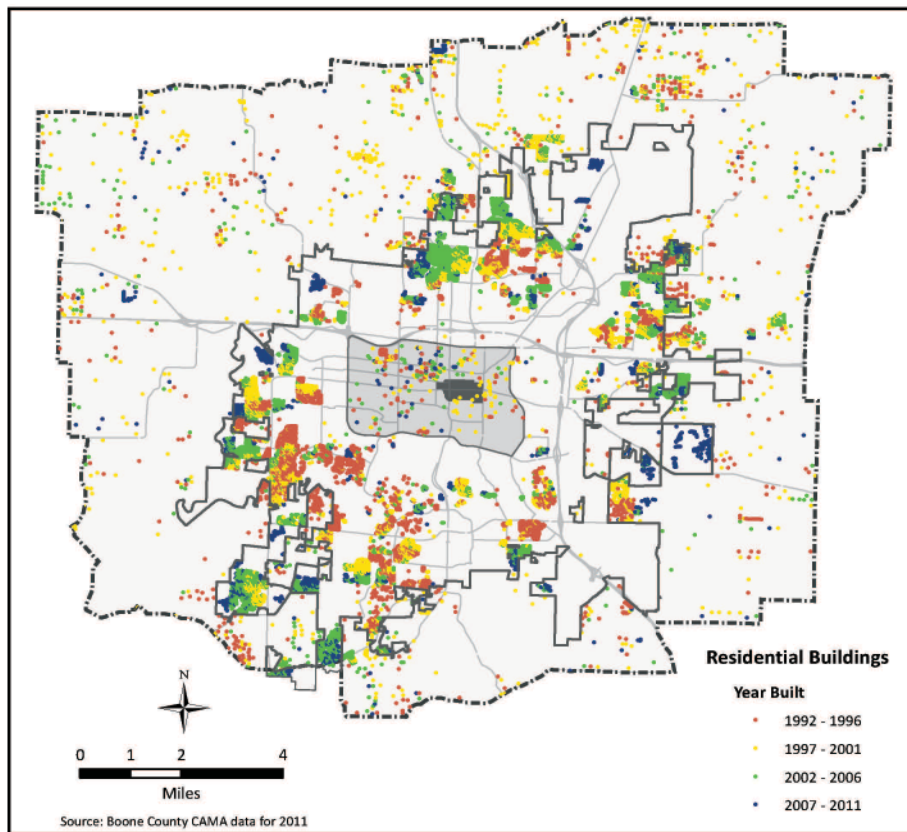
Population of Columbia		
Census Year	Population	% Change
1960	36,560	
1970	58,814	60.8%
1980	62,061	5.5%
1990	69,101	11.3%
2000	84,531	22.3%
2010	108,500	28.3%
Source: U.S. Census		

Table 1-1 from Chapter 1.

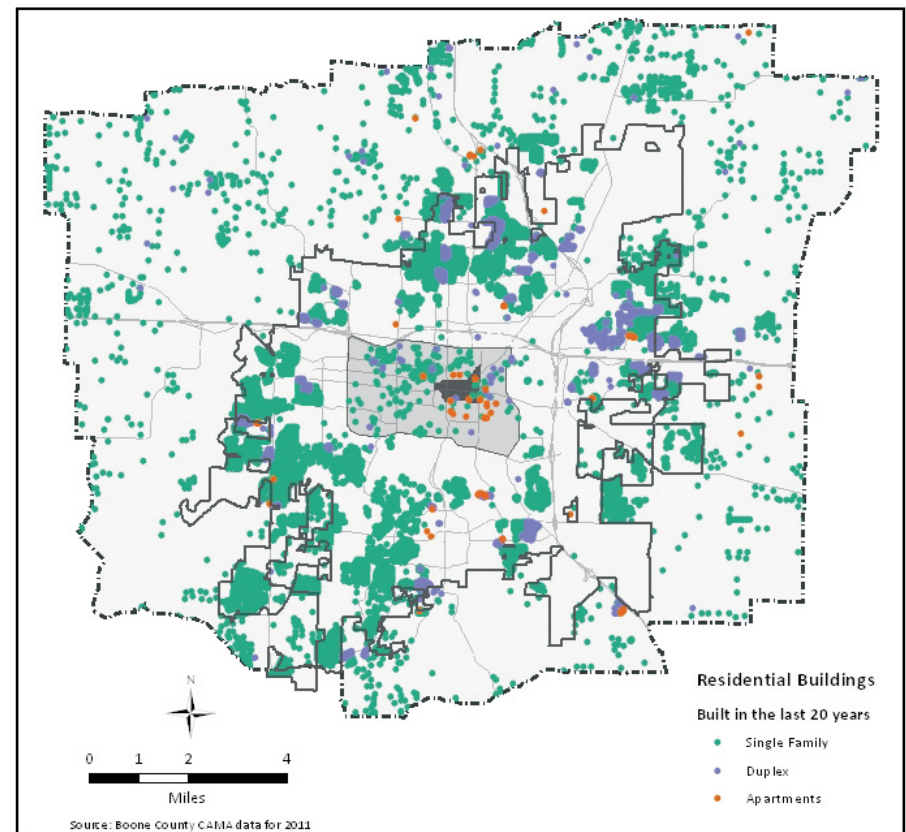


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Map 4-3: Residential buildings built in the last 20 years



Map 4-4: Residential buildings, by housing type

Unit Type	Classes	Total Units	Percentage of Total Units	Estimated Gross Acreage	Estimated Gross Density
<b>Single Family Detached: 1990-2009</b>	Single Family Residence & Zero Lot Line Single Family built after 1989	12,520	56.6%	7,175.0	1.7
<b>Duplex: 1990-2009</b>	Duplex, 2-family residential built after 1989	3,748	17.0%	695.8	5.4
Multi-Family, Owner-occupied: 1990-2009	Apartment – Garden, Condominium Fee Simple, Condo Common Area, Four-plex, Triplex built after 1989	853	3.9%	105.9	8.1
Multi-Family, Renter-occupied: 1990-2009	Apartment – Garden, Apartment – High-Rise, Residential 3-Family, Residential 4-Family built after 1989	4,991	22.6%	516.3	9.7
<b>Total Multi-Family</b>	Owner-occupied and renter-occupied multi-family built after 1989	5,844	26.4%	622.1	9.4
<b>TOTAL (ALL UNIT TYPES)</b>		22,112	100.0%	8,492.9	2.6

Table 4-1: Residential buildings built 1990-2009

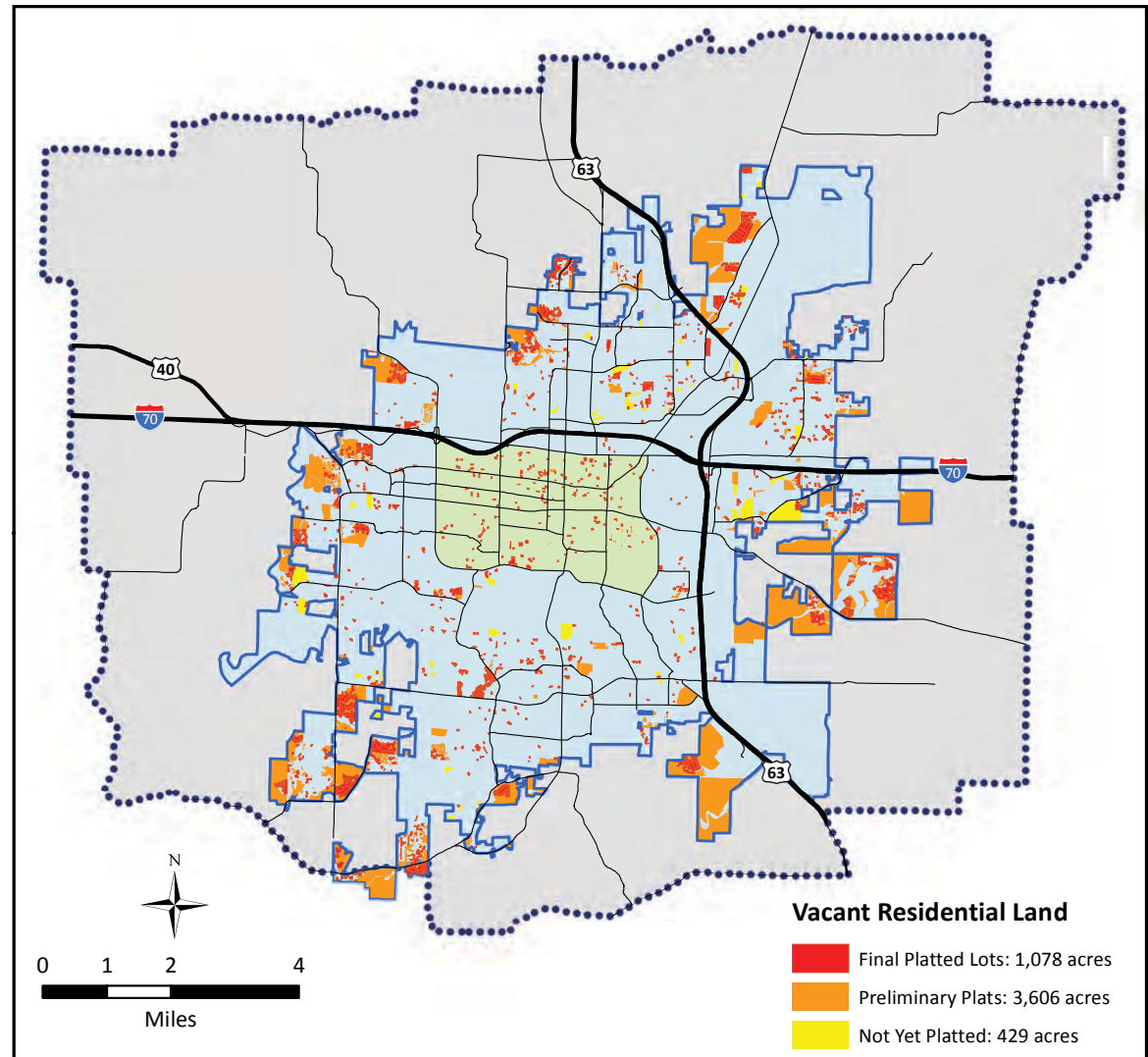
Gross acreage was estimated by taking the total area of parcels of a specific unit type and increasing it by 20 percent. This takes the average percentage of right-of-way areas (not included in the parcels layer) into consideration, giving a more accurate estimate. The estimated gross density was calculated using the gross acreage.

Corresponding residential development during this time period saw a 110 percent (22,122 units) increase in new housing units (see Table 4-1). Approximately 56 percent (12,520 units) of the units built between 1990 and 2010 were single-family detached structures built at an average gross density of 1.7 dwelling units per acre (low-density development). Approximately 97.5 percent of new housing units were built on land outside of the central city (see Maps 4-3 and 4-4), suggesting that most new housing development is occurring on previously undeveloped land at the suburban fringe as opposed to infill development or redevelopment of existing urbanized areas. An exception to this development pattern has been the development of approximately 1,000 new multi-family dwelling units downtown since 2009. The overall citywide development density is approximately **2.6 units per acre** (see Table 4-1).

A parcel-level breakdown of buildable land (land with access to public sewer) has identified an existing inventory of approximately 5,100 acres of vacant available land (platted and unplatted), which is shown in Map 4-5. Approximately 1,100 acres are final platted, meaning that infrastructure is in place and building permits may be issued for construction of new dwellings on this land. Approximately 3,600 acres are preliminarily platted, which means they are entitled to develop subject to detailed review and approval of final plats and construction plans. The approximately 400 acres of land that remain are available for development (have residential zoning and are currently undeveloped); however, they must first be platted. Future residential growth should occur on these sites before new land is targeted for subdivision and development since investment in infrastructure, engineering, and development entitlements has already been expended.

Residential Capacity		
	Available Acreage	Potential Units
<b>City</b>	5,105	13,364
<b>Metro</b>	219	564
<b>Total</b>	5,324	13,928

Table 4-2: Residential capacity in Columbia, based on current growth trends and presently developable residential lots



Map 4-5: Vacant Residential Land  
Source: Boone County and City of Columbia

## Baseline Commercial and Industrial Growth

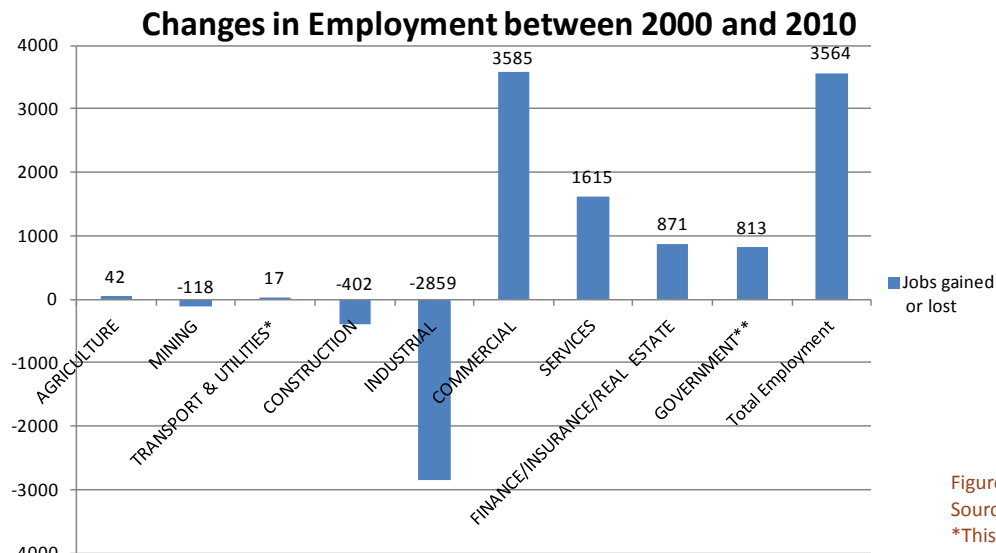
Knowing where Columbia stands economically is a necessary prerequisite to pursuing a land use vision. Local businesses provide the jobs, wages, goods, and services necessary to sustain a vital economy.

As the economic hub of the region, Columbia has maintained a diversified employment base in spite of the economic downturn experienced nationally over the past five years. The majority of jobs created in the region are located within the city limits. This is reflected in the difference between the city's daytime population, which was 25 percent higher than its resident population in 2000 and 22 percent higher in 2010.

The total number of jobs in Boone County has increased 3.3 percent, from 107,134 jobs to 110,698 jobs between 2000 and 2010 (see Figures 4-1 and 4-2). Most of this increase—approximately 12 percent of all new jobs (5,200 jobs)—has been in the commercial and service sectors. While industrial job growth (agriculture, construction, industrial, mining, and transport and utilities sectors) has declined over the past 10 years—a 28 percent reduction (3,362 jobs)—these losses are partially offset by increases in job

Figure 4-1: Boone County Employment Change 2000-2010

Source: Missouri Economic Research Information Center (Local Employment Dynamics) 2010, and U.S. Bureau of Labor Statistics



creation in the finance/insurance/real estate and government service (including education services) sectors, which have added 871 and 813 jobs, respectively, in the past 10 years.

The increase in the number of commercial and service-based jobs may be attributed to the city's central location in the state and its status as a regional destination. Columbia is also home to many stable economic assets, including three academic institutions, and headquarters to several national companies and world-class medical service providers. Continued growth in these sectors is anticipated and will likely require land to be allocated to accommodate this growth. Recent losses in the industrial sector will have an impact on the need for land to accommodate future industrial users. From a land use and zoning perspective, industrial jobs include traditional manufacturing as well as high-tech operations. As new strategies are developed to recruit and retain industrial employers, land must remain available to accommodate future expansion, relocation, or new construction.

Boone County Employment 2010

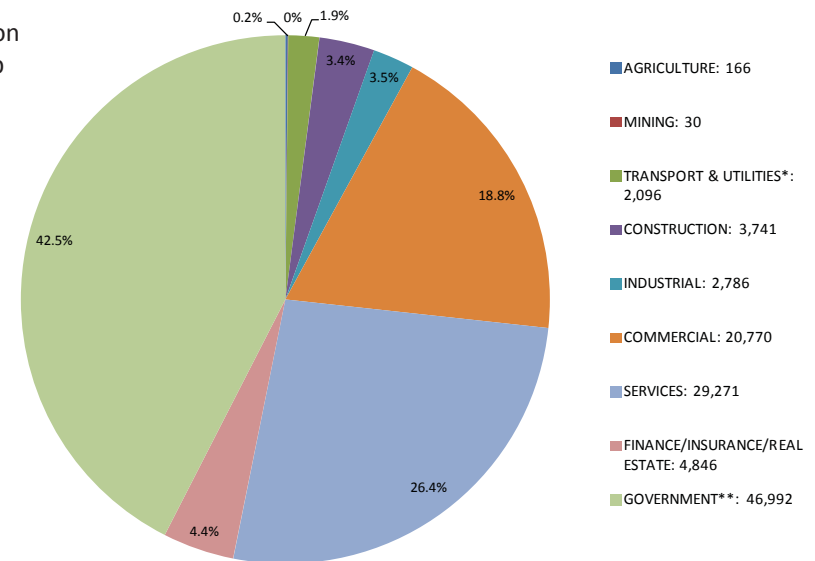
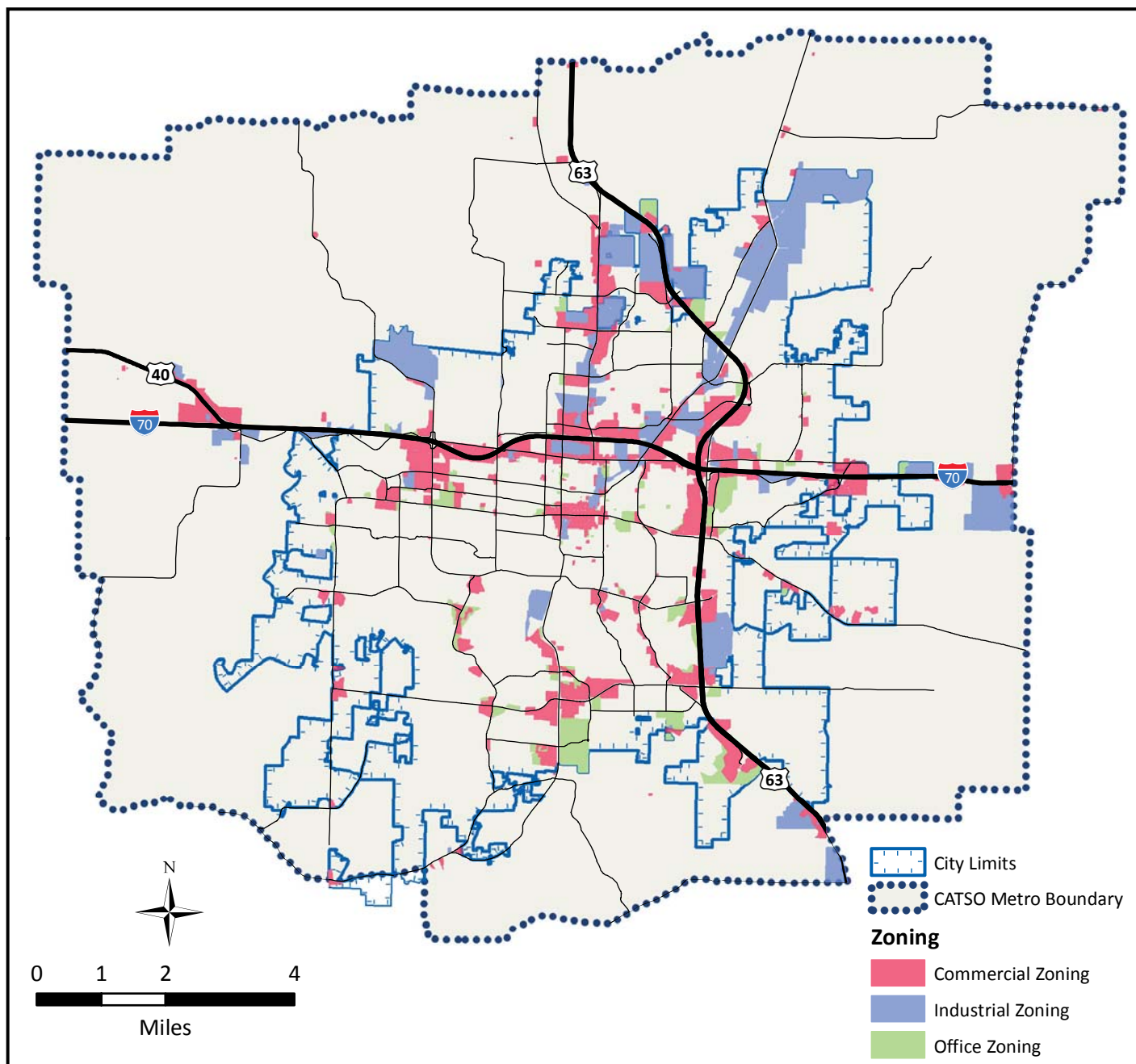


Figure 4-2: 2010 Boone County Employment

Source: MO Economic Research Information Center (Local Employment) 2010; U.S. Bureau of Labor Statistics  
 \*This sector comprises 3 primary activities: warehousing, storage, movement and trade of goods; the movement of people; and the provision of utility services: electric power, natural gas, steam supply, water supply, & sewage removal; \*\*Figure includes federal, state, and local government jobs (inclusive of education services)





The Plan for How We Live & Grow

The following section estimates population growth and land use needs, and compares the scenarios to citizens' visions of how Columbia should grow.

## Where Are We Going?

### Growth Projections

**The Columbia Area Transportation Study Organization (CATSO)** is a Metropolitan Planning Organization (MPO) responsible for transportation planning in the Columbia metro area. CATSO is responsible for ensuring a coordinated transportation planning process among its planning partners— the Missouri Department of Transportation, the City of Columbia, and Boone County— and all transportation stakeholders in the region.

**CATSO Model** projections are based on current land use regulations, historical development trends, infrastructure availability, and the 20-year population and employment projections presented in the Columbia Area Transportation Study Organization (CATSO) 2030 Transportation Plan.

**Show-Me Model** projections are based on the University of Missouri's Show-Me Model, which forecasts regional growth based a series of locally calibrated economic principles.

Two methods are used to estimate future growth and development in the city over the next 20 years—one based on historical growth (CATSO Model) and the other based on economic factors (Show-Me Model). Results from both approaches are used to generate high and low estimates of future population, housing, job growth, and land use needs, which may be used to plan and budget for future capital improvement projects.

#### CATSO Model

The Columbia Area Transportation Study Organization (CATSO) uses a population projection model to predict transportation infrastructure needs in the Metro Area over a 20-year period. Since CATSO's 2030 Transportation Plan shares the same study area and planning horizon as the City's Comprehensive Plan, it is directly applicable to the current analysis of long-range land use needs. The CATSO Model relies on historic population data and land use trends, which are projected forward to estimate future growth. While historically reliable, the CATSO Model is not able to account for the effects of short-term trends such as the past decade's building boom and recession.

#### Show-Me Model

The Show-Me Model is an economics-driven model that was developed by University of Missouri researchers and is specifically calibrated to estimate growth and development within the metro area based on a series of local and regional economic trends and influences. The Show-Me Model offers three growth projections based on varying assumptions about economic growth. Scenarios were provided for low, medium, and high growth rates through 2030. The high growth scenario is used in the following analysis of population, housing, job growth, and land use needs.

In the following analysis of projections produced by each model,

Current Residential Capacity		
	Available Acreage	Potential Units
<b>City</b>	5,105	13,364
<b>Metro</b>	219	564
<b>Total</b>	5,324	13,928

Table 4-3: Residential capacity in Columbia, based on current growth trends

it is assumed that land use regulations and housing market trends will remain unchanged, resulting in the same average development density, distribution, and pattern seen in past decades. This exercise allows for reasonable predictions on where and how future growth will occur under existing regulatory policies and practices, and how much land area and infrastructure will be required to maintain current development patterns. By comparing the growth trajectories anticipated by both models and comparing these projections to the community's future vision of Columbia, it is possible to chart a new course for future growth that is more aligned with Columbians' values and desires.

The decision to run both models is based on the recognition of the strengths and weaknesses of each as well as the assertion that presenting a range of estimated growth more accurately reflects the uncertainty associated with making such predictions. While preparing for the highest possible growth scenario is crucial to long-range planning efforts, it is also important to be prepared for a slower growth scenarios, which may significantly limit revenue available for capital investments. This is key to ensuring that local governments maintain fiscally sustainable spending policies.

## Future Population & Housing – Growth Model Comparisons

The CATSO Model projects a greater rate of population and housing growth (1.5 percent annually) than the Show-Me Model (1.1 percent annually). The main reason for this discrepancy is that the Show-Me Model uses a non linear formula, which predicts a slight increase in growth following the current recession impact followed by slower than average growth in the years following this growth increase. The CATSO Model predicts a consistent 1.5 percent growth rate year after year (see Figure 4-3).

By 2030, the city population is projected to grow from 108,500 (2010 population) to between 131,797 and 146,134 according to Show-Me and CATSO Model predictions, respectively. Metro Area population is projected to grow from 134,572 (2010 population) to between 165,503 (Show-Me) and 181,276 (CATSO). This population growth would require new residential dwellings to be constructed. Figure 4-3 provides the estimates of population growth at five-year intervals through the 2030 planning horizon for both growth projection models. It is estimated that the city population will grow between 22 and 35 percent over this period, with a net population gain of between 23,300 and 37,600.

Between 11,486 and 16,363 new housing units will be needed to accommodate this increase in city population. Figure 4-4 shows the anticipated number of housing units over the next 20 years at five-year intervals. Given this anticipated increase in population and housing demand, if future city residential development is assumed to occur at the existing average density of 2.6 units per acre, there is enough developable, residentially zoned land within the city limits to accommodate approximately 13,400 new housing units, with an additional capacity in the surrounding metro area to accommodate 564 new housing units (see Table 4-3).

The City of Columbia has 5,105 acres of developable land, which is more than enough to accommodate the estimated 20-year housing demand of 11,486 units projected by the Show-Me Model, assuming an average future development density of 2.6 units per acre.

However, if growth occurs as projected by the CATSO Model,

### Projected Population Growth for Columbia

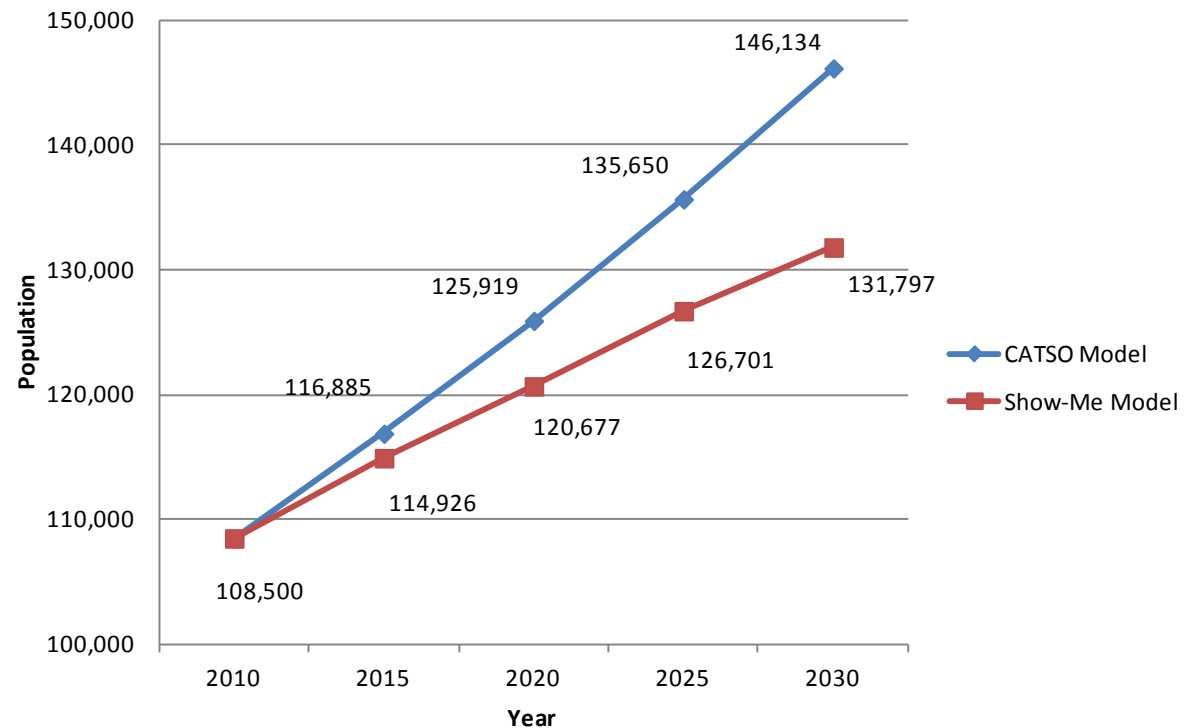


Figure 4-3: Projected Population Growth for Columbia



The Plan for How We Live & Grow



Projected housing unit need is calculated using 2010 Census data (total population/total number of households = 2.3 persons per household). As population growth continues, this chart estimates 2.3 new persons will require one new housing unit. Table 4-1 calculates housing units per acre based on current growth trends.

## Projected Housing Unit Need for Columbia

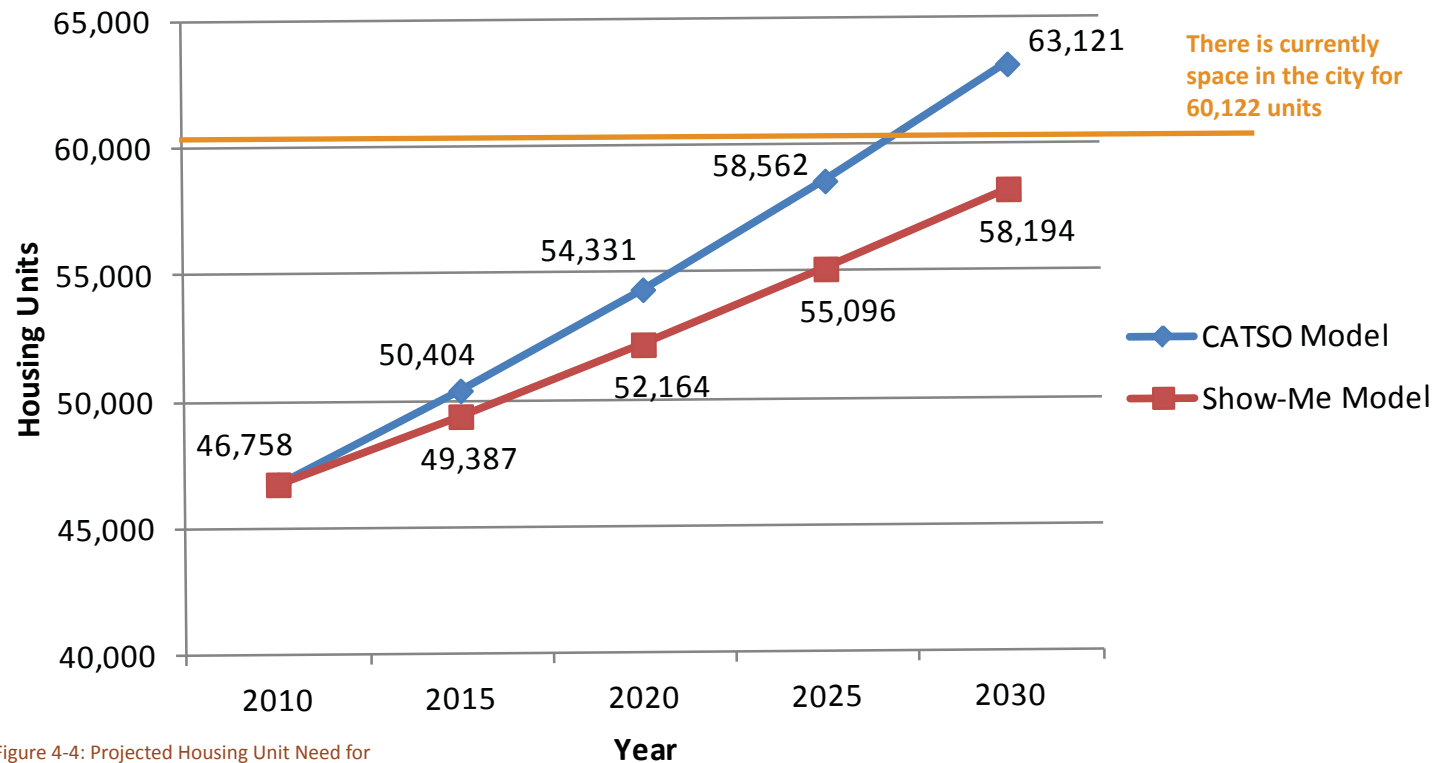


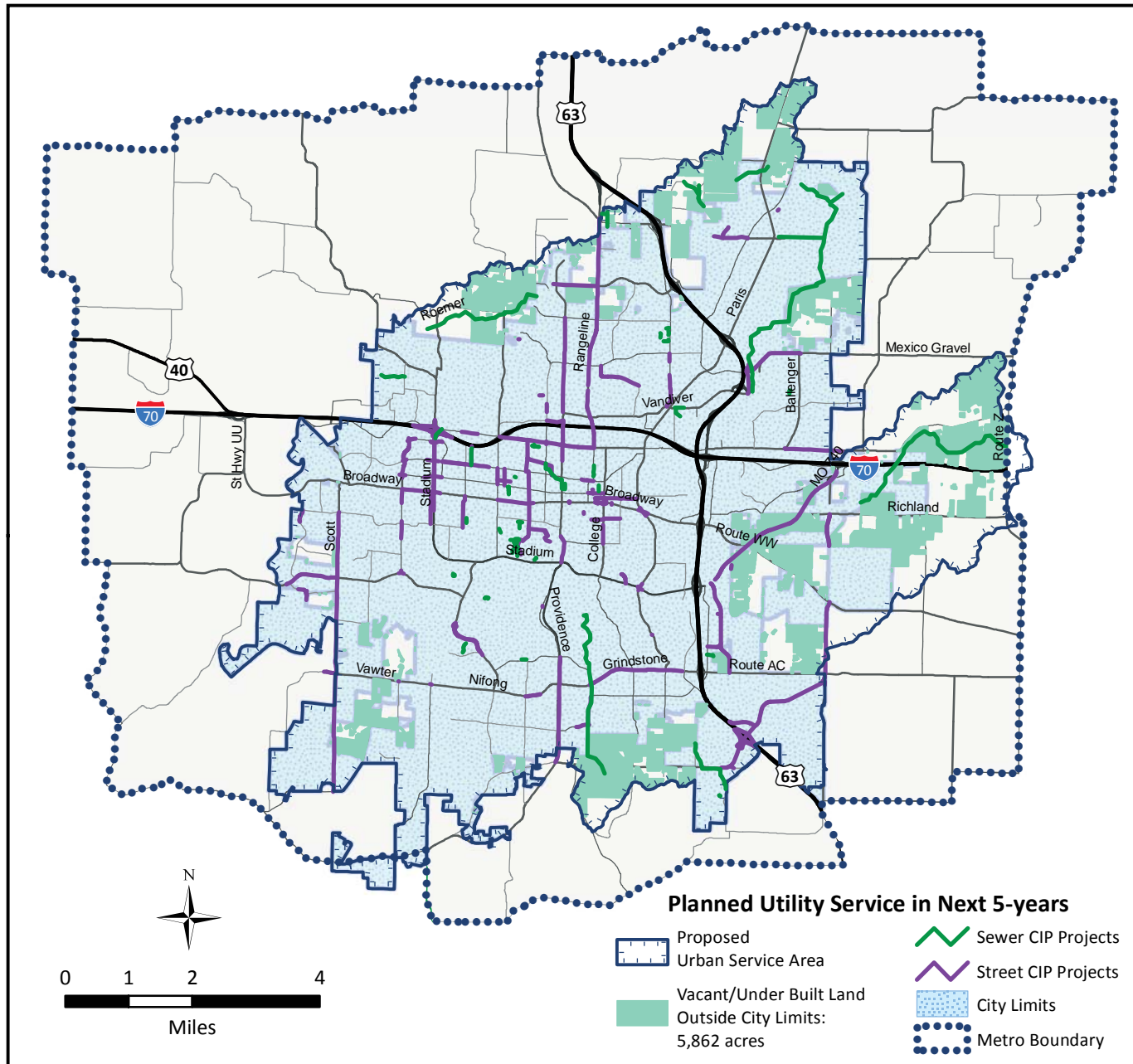
Figure 4-4: Projected Housing Unit Need for Columbia

16,363 new housing units will be required. This is 2,435 units greater than the estimated capacity of the developable, residentially-zoned land in the city and metro area. An additional 937 acres of land would need to be developed, beyond the current city limits, to accommodate this higher growth. Utilities, streets, and services would need to be extended or upgraded to serve the new development areas. Map 4-7 shows vacant and under-built land where City utility service expansions are planned in the next five years. This land may be the best area to develop if the higher-growth CATSO scenario occurs. However, it should be noted that policies introduced in the following section—“Where do we want to go?”—and strategies presented in Chapter Five

aim to reduce the amount of land needed to accommodate new growth by redirecting it toward existing urban areas and encouraging higher-density development, which may reduce the need to expand the City limits.

### Future Employment Needs – Growth Model Comparisons

Both models project net employment growth. The CATSO Model projects an annual job growth rate of 1.3 percent. The Show-Me Model projects an annual job growth rate of 1.4 percent.



Currently, the City has enough developable, residentially zoned land within its limits to accommodate the anticipated increase in population and housing demand based on the Show-Me Model, but needs an additional 937 acres of land to meet the demand forecasted by the CATSO Model.

These numbers assume similar development patterns continue. A greater discussion of the relationship between density, development patterns, community composition and quality of life is presented in the “Where do we want to go?” section of this chapter.

Map 4-7: Planned utility service in next five years, including vacant/under-built land  
Source: City of Columbia



The Plan for How We Live & Grow

The CATSO Model predicts employment growth will mirror population growth, while the Show-Me Model predicts that overall job growth will exceed population growth by 0.2 percent annually. Despite a lower population projection than the CATSO model, the Show-Me model anticipates higher employment than CATSO. This suggests a significant departure from the jobs to housing balance predicted by CATSO based on historical trends and implies that more office, commercial, and industrial land may be needed to accommodate future employment in relation to housing.

99,628 jobs were in the metro area at that time. Both the employment ratio and the distribution of jobs between employment sectors are expected to remain the same through 2030. Figure 4-5 shows the projected employment growth for both the CATSO and Show-Me Models.

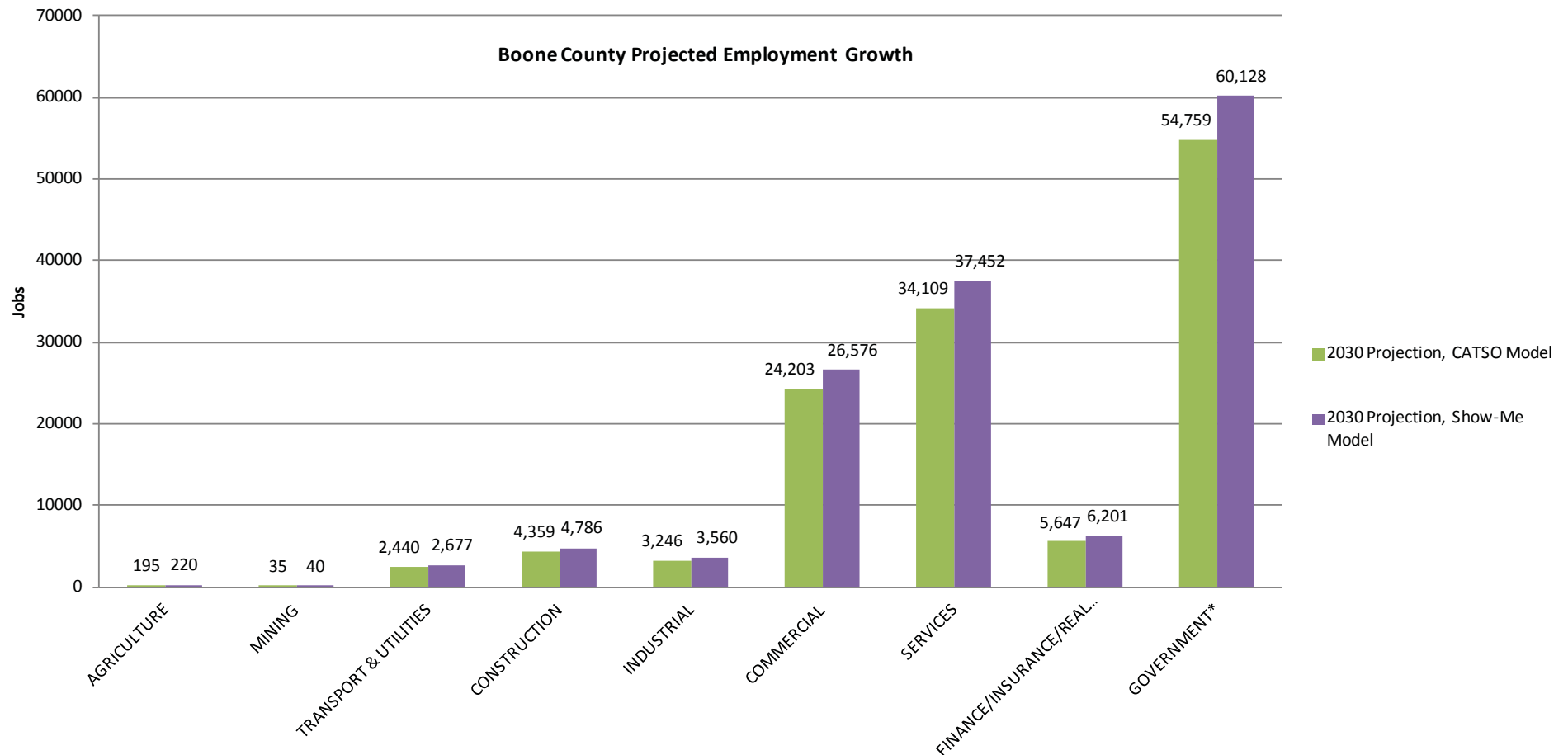
By projecting 2030 employment growth, it is possible to estimate whether there is enough commercial, industrial, and office zoned land available to accommodate growth through 2030.

The CATSO Model shows that approximately 10 times more industrially zoned land is currently available than what will be needed to accommodate 2030 growth. Conversely, the model shows

Figure 4-5: Boone County Projected Employment Growth

\*Government sector includes education services and state, local, and federal employment

In 2010, a total of 110,698 jobs were located in Boone County as shown in Figure 4-2. The metro area is assumed to have approximately 90 percent of those jobs; therefore, it is estimated that





shortages in the availability of commercial and office zoned land, with only 79 and 23 percent of the needed land available to meet projected 2030 demands.

According to the Show-Me Model projections, there is approximately seven times more industrially zoned land available than what will be needed to accommodate predicted growth through 2030. Approximately 45 percent of the projected 2030 commercial land use needs may be met through use of existing vacant commercially zoned land. However, only 15 percent of the anticipated future office land use needs may be met by the existing office zoned land (see Tables 4-4 and 4-5).

These acreage estimates are based on the employment forecasts generated by each model and the following allocation factors:

- Commercial jobs, consolidated to include jobs in the commercial and services sectors: 20 employees/acre
- Industrial jobs, consolidated to include jobs in agriculture,

Despite the appearance of significant discrepancies between available and needed land to accommodate future job growth, it should be noted that amendments to existing zoning districts are commonly required to support the flexibility needed to adapt to uncertain future market and development conditions. Policy guidelines, combined with future growth strategies and the Future Land Use Map, will be used to ensure that future rezoning requests are consistent with long-range land use planning efforts.

mining, transportation and utilities, construction, and industrial sectors: 18 employees/acre

- Office jobs, consolidated to include jobs in the finance/insurance/real estate and government (inclusive of education services) sectors: 29 employees/acre

These data suggest that the amount of undeveloped land for commercial and office land will need to be augmented to accommodate future growth.

Vacancy rates of 10 percent are considered desirable to maintain a healthy balance between land prices and availability in commercial, industrial, and office markets.

Overall, Columbia has much lower vacancy rates in retail (7.62 percent), office (8.63), and industrial (7.82) than the national average in each of these sectors in 2012 (12.6, 16.7, 12.3 percent respectively). This has been the trend for vacancy rates in the city over the past five years, with the exception of the retail vacancy rate, which was one to two points higher in 2008 and 2009 than the national average but has since fallen.<sup>1</sup>

<sup>1</sup> The Plaza Commercial Realty 2013 Market Report for Columbia, Missouri

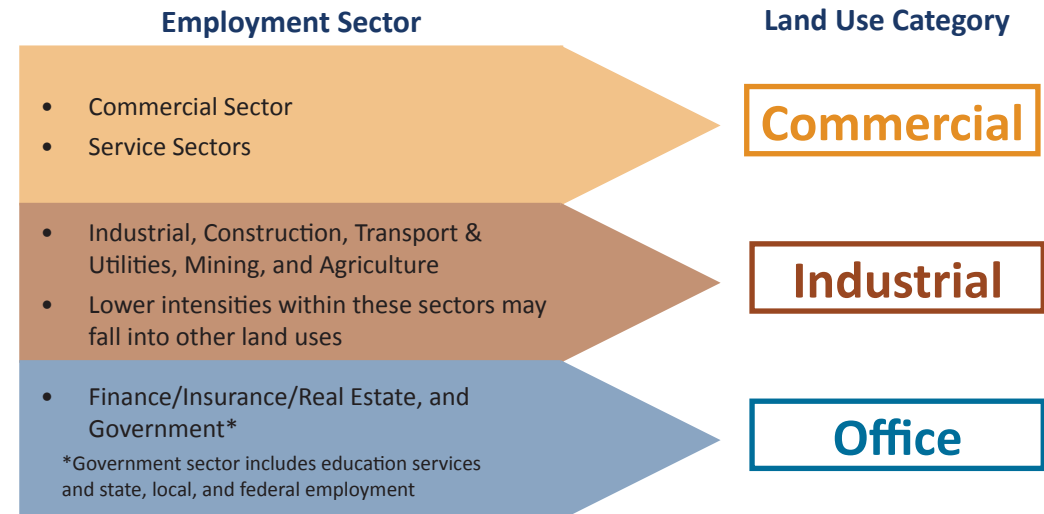
Developed and Undeveloped Lands		
Land Use	Developed	Undeveloped
Commercial	3,078 acres	264 acres
Industrial	2,218 acres	616 acres
Office	904 acres	80 acres

Table 4-4: Developed and Undeveloped Lands

\*Inside city limits as of 12/31/12

2030 Estimated Acres Needed for New Employment		
Land Use	CATSO Model	Show-Me Model
Commercial	333 acres	591 acres
Industrial	58 acres	83 acres
Office	346 acres	531 acres

Table 4-5: 2030 Estimated Acres Needed for New Employment



The Plan for How We Live & Grow

An **urban services area** functions as a guide to where services may be realistically provided at a fair cost to citizens, and beyond which the provision of some utility services may not be prudent or cost-effective.

An **accessory dwelling unit (ADU)** is a secondary dwelling unit created on a lot with a principal one-family dwelling, and which is subordinate to the principal dwelling.

Accessory dwelling units may be attached to the principal dwelling or built as a detached structure.

## Where Do We Want to Go?

### Principles, Policies, and Strategies to Guide Future Growth

This section identifies principles, which represent core beliefs and values of Columbia citizens (i.e., goals and objectives), and suggests corresponding policies and strategic approaches that may be used to support these principles (i.e., where we want to go).

Policies are general rules of conduct that are based on the core principles about what the city should become. Each policy identified below is supported by a suggested strategic approach, discussed in Chapter Five, which outlines a path toward achieving the specific principle and policy.

In this chapter, principles appear in blue boxes next to the related policies, allowing the reader to directly correlate recommended policies and strategies with the citizens' visions that inspired them.

The policies are grouped according to the seven categories that define the structure of Columbia Imagined. For the purpose of presenting these policies, some categories have been combined with others to capture where the policies best fulfill the intent

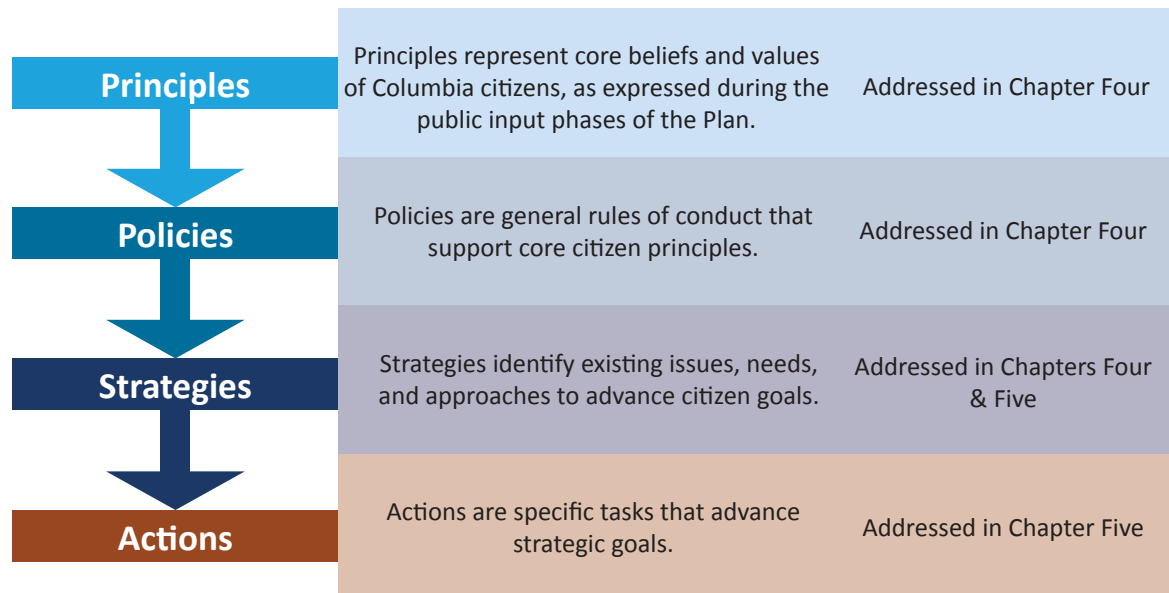
of the related principles. Infrastructure and inter-governmental cooperation policies and strategies overlap with the other categories and so have not been treated separately.

Several of the policies and subsequent strategies are linked to particular land use districts or geographic areas. These are graphically depicted on the updated **Future Land Use Map (FLUM)**, which is presented in Chapter Five along with the Implementation Plan. The **Implementation Plan** summarizes the strategic approaches described herein and lists specific actions that could be used to implement the strategies and policies.

Many of the recommended land use policies, strategies, and implementation tasks are intended to support the long-range goal of creating livable neighborhoods by increasing development density and improving access to services. This intent is reflected in strategies such as revising zoning and subdivision regulations to allow smaller residential lot sizes and **accessory dwelling units**, encouraging the integration of small-scale commercial service centers and medium-density multi-family housing options within otherwise uniform single-family neighborhoods, and adopting City infrastructure investment policies that incentivize infill development projects while cutting subsidies for growth outside a proposed **urban service area**.

Columbia Imagined favors crafting subjective strategies rather than designing a quantitative strategic plan to achieve its growth vision. It recommends several approaches and implementation tasks that work both independently and as part of broader strategies to achieve citizen goals.

Since the details relating to the degree and effectiveness of each approach to implementation and the political will needed to implement the recommended policies, strategies, and tasks are largely unknown, it is not possible to accurately predict the long-range results of this plan's recommendations. Rather than attempting to predict the precise outcomes of proposed land use policies, it is suggested that the policies, strategies, and tasks be revisited every five years and that empirical data be collected and reviewed to determine whether the implementation strategies have proven to be effective and are worth continuing.



## Land Use Principles and Policies – Livable and Sustainable Communities

### Policy One: Support Diverse and Inclusive Housing Options

Livable and sustainable communities provide housing options for residents at a variety of incomes, tastes, needs, abilities, and ages. How the built environment is designed, both in terms of personal and public spaces, impacts how people create community and social networks, how they get around, and where they choose to live. During the public input phase of the plan, participants expressed a desire to encourage healthy lifestyles, a sense of community, and a variety of housing options. Through diverse and inclusive housing options, the community will be able to meet the needs of the present population and respond to shifting demographic needs over time.

The demographic composition of the City reflects a need for a variety of housing options. Nearly one-third of the population is comprised of college students, the baby-boomer population

is aging, and one in ten residents report a disability.<sup>1</sup> Additional demographic and market research and public input identify other unmet needs in the forms of affordable housing and diversity of housing choices.

Strategies to support diverse and inclusive housing options include the promotion of **universal design**, **aging in place**, and **affordable housing**.

**Universal design** is the design of goods and environments to be usable by everyone, to the greatest extent possible, without the need for adaptation (see chapter 1.7 for more detail). Universally designed homes allow for people to live in homes for longer periods of time as their physical ability changes. A universally designed community allows for all citizens to enjoy the public realm, participate in community amenities and recreation opportunities, and access the services they need for living.

An inclusive community also considers policies to promote **aging in place**. The concept of **aging in place** means people will have access via proximity, transportation options, and universal design

<sup>1</sup> American Community Survey, 3-year (2009-2011), U.S. Census Bureau



#### Livability Vision

Columbians will live in well maintained, environmentally sound neighborhoods that include a range of housing options and prices; that are within walking distance of amenities such as schools, places of worship, and shopping and recreation facilities; and that are supported by citywide bicycle, pedestrian, and transit systems. Columbia will support urban design best practices, aesthetics, and environmentally friendly planning to increase a spirit of community and preserve its existing character.

The concept of **aging in place** means people will have access via proximity, transportation options, and universal design to medical, social, commercial, service, and housing options that will support their needs for living throughout their lifecycle.

As described in chapter 1.7, **Universal Design** describes the design of goods and environments to be usable by everyone, to the greatest extent possible, without the need for adaptation or custom fabrication.

## The Principles of Livable and Sustainable Communities

### Principle: We value our health.

Columbia will be a healthy, diverse, and enriching community for all residents that promotes healthy people and families. Health will be promoted by preserving the quality of life; sustaining natural resources such as clean air, waterways, and natural areas. **Healthy lifestyles** will be encouraged by providing recreational opportunities and access to wholesome food and health care.

Columbia will be a regional leader in health care by providing high-quality, well-funded healthcare facilities. The community will promote easy access to healthcare, social services, mental health, elder care, and a variety of specialists to meet all health care needs.

### Principle: We value a sense of community (small town feel).

Smart growth principles will be adopted to ensure that neighborhoods are **livable** and **walkable**. Development standards will encourage **compact** neighborhoods with access to work places, services and gathering places. **Mixed-use** neighborhoods with facilities and options to reduce the need for automobile travel will be supported. We will promote **density** and discourage sprawl.

Columbia is a place that nurtures a strong sense of community and culture by supporting and providing access to art venues, library services, and community meeting spaces. Each neighborhood should have a **central gathering place** such as a park, school, library, or **neighborhood commercial district**. Central resources such as libraries, schools, recreational facilities, and community centers create environments that cultivate responsible citizenship and creative opportunities, and support a high quality of life.



Citizens expressed a strong desire for **mixed-use** development, which allows for further integration of commercial and residential land uses extending beyond the central business district and into both existing and new residential neighborhoods. This idea is reflected in many citizen comments that used the words “**livable**,” “**walkable**,” etc. to express their desire for complete neighborhoods.

#### **Housing Vision**

A diversity of housing choices will be dispersed throughout the community to achieve an adequate supply of safe, quality, affordable, energy efficient, and accessible housing.

Affordable housing was described by the City’s Affordable Housing Policy Committee’s 2008 Report as “Any housing where basic housing costs, including rent, utilities, mortgage payments, and home repairs necessary to maintain a reasonably safe and secure home in standard condition are less than 38% of household income for home occupants and 30% of household income for renters.”

to medical, social, commercial, service, and housing options that will support their needs throughout their life cycle. Policies promoting a variety of housing types and housing flexibility, combined with highly walkable places close to amenities, appeal to people who want to live in the same home or neighborhood as they age. An example is multigenerational designs that allow extended families to live together in comfortable arrangements. Creating homes like these requires looking at existing accessory dwelling unit policies, zoning policies, and possibly adjusting

### **The Principles of Livable and Sustainable Communities**

#### *Principle: We value attainable and diverse housing options.*

Columbia promotes **affordable housing** and responsible home ownership by assisting with home ownership in older areas of the City, and supporting private nonprofit organizations that will develop, purchase, and manage affordable housing units in Columbia. Housing options should be diverse and attractive, and designed to integrate seamlessly into the surrounding neighborhood.

Maintenance and **rehabilitation** of deteriorating housing stock will be encouraged by providing assistance to owners and holding absentee landlords accountable in neighborhoods where the quality of housing is declining due to a lack of maintenance. Efforts will be made to maximize the environmental design capacities of existing housing stock, as older houses may need **energy efficiency**, storm water, and other upgrades.

#### *Principle: We value attractive, vibrant, and diverse places.*

Columbia will create memorable and **attractive** boulevards and streetscapes that incorporate landscape design, site amenities, art, and thematic elements.

Columbia will promote neighborhoods that are economically, aesthetically, and **socially varied**.

building codes to allow for neighborhood-compatible flexibility. These issues are discussed in the third policy in this section.

**Affordable housing** is the product of several factors. While typically describing housing for lower-income individuals, affordable housing may also mean residents can afford to live in a variety of locations which meet their needs, are safe, and allow for flexibility of choice. Flexibility in housing designs and types allows existing neighborhoods to provide options for a variety of incomes. Reducing energy costs through greater efficiency and transportation costs through proximity and alternatives are additional ways to increase affordability.

Protecting existing affordable housing is another concern moving forward as market factors drive development. While downtown has more housing than ever before, increased desire to live downtown is driving up prices. As land becomes valuable, existing affordable housing, often in the form of older structures, is being replaced by new, higher-rent structures. As the community prioritizes infill development, conversations about the value of the existing housing stock, affordable housing, and historic preservation will need to take place.

Affordable housing may also be encouraged through incentives less directly tied to land use policies, like reducing regulatory barriers and partnerships with affordable housing organizations. The City’s Affordable Housing Policy Committee report defines and describes such policies and strategies to encourage affordable housing. Addressing neighborhood compatibility and affordability is further discussed in policy three of this section.

### **Policy Two: Support Mixed-Use**

Citizens have expressed a strong desire for **mixed-use** development, which allows for further integration of commercial and residential land uses beyond the central business district into both existing and new residential neighborhoods. This idea is reflected in many citizen comments using the words “**livable**” and “**walkable**” to express their desire for complete neighborhoods.

Building on many of the strategies described in policy one, complete neighborhoods have safe and convenient access to the

goods and services needed in daily life. This includes a variety of **housing options**, **universal design** of public and private spaces, access to grocery stores and other commercial services, quality public schools, public open spaces and recreational facilities, affordable transportation options, and civic amenities.

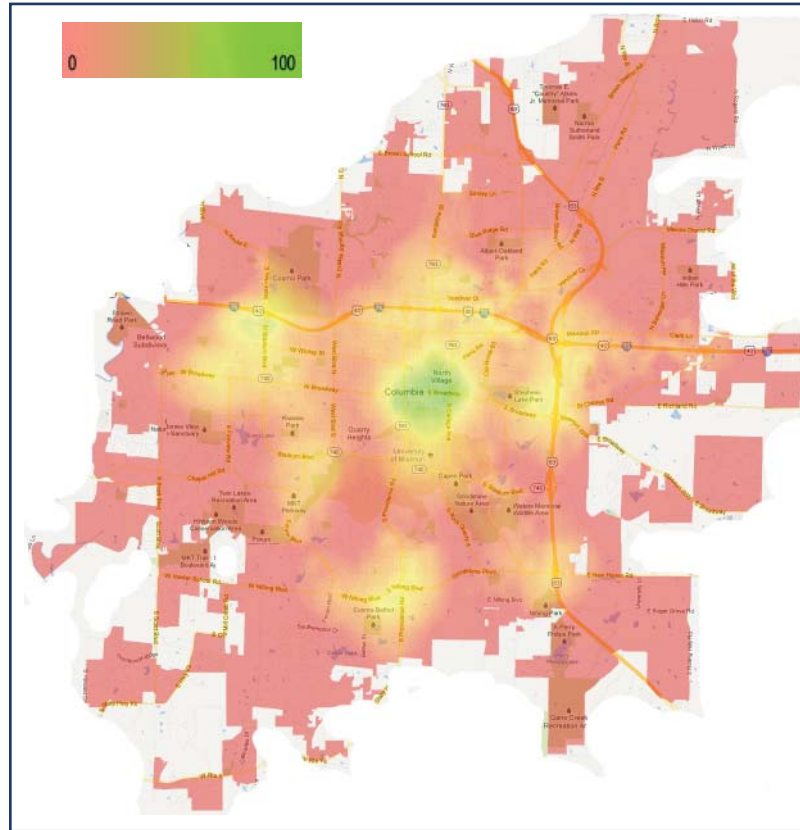
An important element of a complete neighborhood is its construction at a **walkable** and **bikeable** human scale and meets the needs of people of all ages and abilities. Walkable, bikeable neighborhoods also encourage **healthy lifestyles** for community members.

The lack of mixed-use and walkable neighborhoods is apparent in the existing land use pattern. Today, Columbia is composed primarily of homogeneous single-family neighborhoods and large regional shopping centers, rather than neighborhoods with neighborhood-scale shopping and services within walking distance. This can be seen in the low **walk scores** throughout most of the City in Map 4-8.

While only proximity to amenities is used to calculate walk scores, facilities for walking and biking—like sidewalks, crosswalks, and trails—are another component of complete neighborhoods. These elements of the built environment can be retrofitted into the existing urban fabric and provided in new developments.

A few simple changes can achieve new mixed-use neighborhoods and **enhance existing commercial nodes to include residential opportunities**. One such change is incentivizing **higher densities** in new development areas. As development densities decrease, reliance on automobiles to reach services increases, and regional, auto-oriented commercial “big box” development becomes the model for providing these services.

In order to sustain truly local **neighborhood commercial** service centers, higher densities of residential development must be built around them to supply enough local clientele to support the businesses within them. Five minutes (one quarter mile) is widely considered to be a reasonable walking time to reach services. Therefore, new neighborhood commercial nodes, or “**urban villages**,” should ideally be spaced approximately one-half



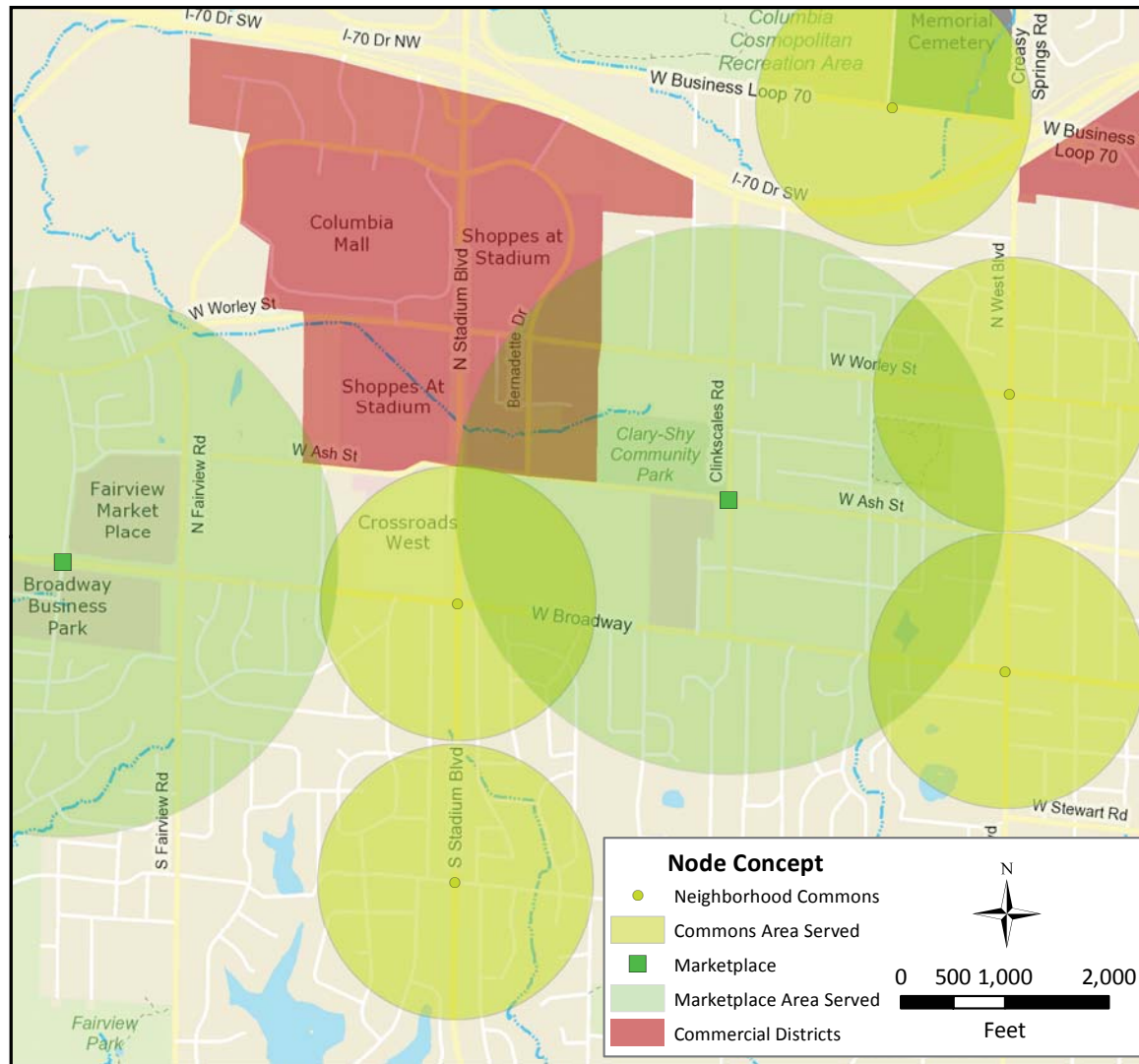
Using a 0 (auto-dependent) to 100 (highly walkable) point scale, walk scores indicate the ability—or lack thereof—for residents of various neighborhoods to walk to services, amenities, shopping, and jobs. Encouraging walkability—both in new and established neighborhoods—has health, affordability, accessibility, and other quality-of-life benefits for residents.

Map 4-8: Walk Score Map  
Source: Walkscore.com

mile apart to provide walkable goods and services to surrounding residents. This spacing pattern coincides with city-wide roadway connectivity goals, which recommend intersections of public collector and arterial streets every half mile. Map 4-9 shows an area of Columbia that follows this walkable, mixed-use development pattern, with the existing nodes highlighted.

This policy has positive implications for public transportation services by encouraging the location of high-density residential and commercial services along major road corridors that are easily

“We might lose the most attractive aspects of our community: walkable neighborhoods.”



Map 4-9: Illustration of the node concept  
Source: City of Columbia

An **urban village** is a medium-density development that includes mixed-use residential and commercial property, good public transit, and pedestrian-oriented urban design. In urban villages, everything you need is within walking distance (e.g. grocery stores, services, entertainment, and restaurants), including public squares to relax and meet people. These urban villages are a contrast to auto-centric, fringe development.

served by public transit, thereby decreasing reliance on automobiles as a means of accessing basic commercial services.

Introducing walkable, **mixed-use** nodes at neighborhood edges also presents an opportunity to integrate new housing options into neighborhoods that are mostly homogeneous, thus providing opportunities to accommodate greater demographic diversity and creating neighborhoods that are more economically, aesthetically, and **socially varied**.

The concept of mixing land uses to create more complete, **livable**, and **walkable** neighborhoods should not be limited to residential environments. Mixed-use principles and policies are applicable to new and existing commercial and **employment centers**, which traditionally have lacked residential components. Most notably, Columbia's **downtown**, which is home to a diverse range of commercial and industrial uses, has historically been void of residential opportunities. This trend has been changing with the introduction of several apartment buildings over the past few years. However, there remains a strong demand for more downtown residential units and a greater variety of unit types to meet the needs of diverse demographics and incomes.

Bringing residents to commercial areas has different challenges than bringing commercial services into established residential neighborhoods. The challenges associated with introducing com-

The node concept is a good way to think about how we can mix residential, employment, and commercial uses. Map 4-9 shows an area of Columbia that has three levels of commercial development:

- **Neighborhood-scale commercial** is a walkable center located within a residential neighborhood; it can include a small market, day care, and small professional offices.
- A **marketplace** provides for the sale of day-to-day needs and should be built around a primary tenant, ideally, a grocery store.
- A **commercial district** is a regional shopping destination built at an automobile scale. It can also include high-density apartments and large office buildings. Columbia Mall and Shoppes at Stadium are examples of this type of commercial.



mercial uses and development into residential areas are discussed in the following section.

### Policy Three: Facilitate Neighborhood Planning

One of the most controversial issues in land use allocation is development and redevelopment in established neighborhoods, also known as **infill development**. It can be particularly challenging when commercial uses are proposed in or near residential neighborhoods. Traditional land use planning has resulted in a landscape of homogeneous and segregated land uses. As Columbia strives to achieve a greater mixture of uses, it is important to recognize and respect unique neighborhood characteristics.

How can the City achieve successful integration of commercial uses into established neighborhoods? There are two strategies that help create a climate where residential neighborhood stakeholders become more accepting of infill redevelopment. The first strategy is early neighborhood engagement. The second is addressing land use compatibility issues.

Early neighborhood engagement means involving neighbors in the process well before specific development proposals are submitted, to **identify potential infill sites** in their neighborhoods and to discuss how these properties could and should be used. Early engagement provides an opportunity to evaluate options without the immediate threat of change. It allows neighbors to contribute ideas, **build consensus**, and prepare for the fact that a vacant lot or dilapidated building may be a sign of change to

come. Neighbors may also identify business types of benefit to residents and seek to match desired uses with ideal locations.

Creating **neighborhood land use plans** may be the best method of identifying what transitional parcels should be used for in the future. City staff should work with established neighborhood and homeowners' associations to develop neighborhood plans—especially in areas where older housing stock or poor building conditions may present opportunities for redevelopment. The goal is to create neighborhood land use plans that identify site-specific redevelopment concepts and outline conditions that mitigate particular land use compatibility concerns of neighbors. This represents a proactive approach to infill development and mixed use and was a strong recommendation that emerged from public input.

Public input also indicates considering **historic preservation** and community character, as well as property maintenance and aesthetic considerations, is important in neighborhood planning. This may be achieved through regulatory policy, incentives, or guidance, such as design compatibility standards developed by neighborhoods themselves.

Planning will also help neighborhoods encourage attainable and diverse housing and home ownership options while preserving their neighborhood's character. Residents can identify goals for their neighborhood—perhaps flexible zoning options or overlays to encourage or incentivize certain housing options or mixed-use

**Infill development** refers to the development or redevelopment of vacant or underutilized land in established areas. It is the opposite of sprawl.

#### *Principle: We value historical character.*

The vibrancy, historic integrity, and eclectic character and composition of the greater downtown will be preserved and enhanced. Neighborhoods and historic areas with a unique character will be protected by promoting **historic preservation** of significant structures rather than demolition. Sensitive redevelopment will be supported within historic neighborhoods.

#### *Principle: We value neighborhood planning.*

Columbia citizens will celebrate a sense of community through strong neighborhood planning. **Neighborhood land use plans** should be prepared to support positive development and redevelopment in both new and old neighborhoods. The personality and character of established neighborhoods should be preserved. School enrollment needs should be anticipated with new residential development, and schools should continue to be the focal point of new neighborhoods.

Many of the ideas expressed in this section closely align with **smart growth principles**:

1. Mix land uses
2. Take advantage of compact building design
3. Create a range of housing opportunities and choices
4. Create walkable neighborhoods
5. Foster distinctive, attractive communities with a strong sense of place
6. Preserve open space, farmland, natural beauty, and critical environmental areas
7. Strengthen and direct development towards existing communities
8. Provide a variety of transportation choices
9. Make development decisions predictable, fair, and cost effective
10. Encourage community and stakeholder collaboration in development decisions

Source: U.S. EPA, "What is Smart Growth?" 2010.

strategies (multigenerational housing, **accessory dwelling units**, urban agriculture, etc.), district or destination branding (such as seen in the East Campus Historic District or the North Village Arts District), or infrastructure upgrades. These plans can enhance the amenities and identity of neighborhoods. Neighborhood planning is as much about promoting desired changes as protecting existing neighborhood character from undesired changes. Successful neighborhood plans can serve as good examples for new policies, incentives, and regulations that could be considered for city-wide adoption.

Neighborhood plans can define how **affordable housing** can be integrated into the neighborhood and how to work with private, nonprofit organizations that develop, purchase, and manage affordable housing units. Neighborhood plans can help coordinate maintenance and **rehabilitation** of deteriorating housing stock, as well as retrofit older houses so they are more **energy efficient**. In the planning process, the neighborhood will get to build consensus about its collective values and what direction it would like to develop in the future.



## Policy Four: Promote Community Safety

Livable and sustainable communities are places where people feel safe in their homes and neighborhoods, and while shopping, working, and recreating. The following land use principles can encourage or discourage how safe a community is and how it feels:

- The physical design of the built environment— lighting, layout, and physical and visual access
- The message a place conveys to residents and visitors— upkeep and investment
- The spatial distribution of public safety resources—the location of police stations, fire stations and safe zones
- Availability of community services— access to resources such as affordable housing, education, transportation, employment and services

Places that are highly walkable and mixed use offer inherent benefits for public safety. Building upon policy two of this chapter, public places with a variety of mixes generate activity and “eyes on the street” at various times of day. Walkability also allows for more people to be on the street which may deter criminal activity by decreasing opportunity and heightening visibility. This may be enhanced by the incorporation of **Crime Prevention Through Environmental Design (CPTED)** principles.

CPTED principles are rooted in environmental psychology studies which study the built environment and crime. These principles, which focus on the lighting, layout, condition and visual and physical access of the built environment, may be incorporated into subdivision review, zoning codes, and neighborhood planning. Section 1.7 of the existing conditions chapter describes a public forum suggestion to establish design guidelines addressing height, setbacks, materials, parking, and the use of street level commercial space (with windows on the street) in buildings in accordance with CPTED principles to help build a safe city.

CPTED principles are related to the **Broken Windows and Defensible Space theories** which suggest that property maintenance, visual cues of investment and natural surveillance make neighborhoods and the public realm safer. Simply put, visitors and residents feel safer in places that look safe and residents with personal investment discourage crime in their own neigh-

borhoods (this is often called community policing). Additional investment in the Crime Free Housing, Neighborhood Watch, targeted code enforcement and property maintenance assistance programs support these principles.

The land use and growth management planning principles in this plan can also enhance public safety as growth management and population projections allow for more efficient and proactive siting of police and fire stations, emergency response and disaster preparedness technology, safe zones and disaster shelters, and mitigation of environmental hazards. Road layout and subdivision design affects emergency, fire and police response times, and compact and contiguous growth allows for efficiency in the spatial locations of public safety providers.

The livable and sustainable communities policies described in this chapter (Support Diverse and Inclusive Housing Options, Support Mixed-Use, Facilitate Neighborhood Planning and Promote Community Safety) build upon one another and other policies proposed in this plan to offer strategies for increasing access to community resources and promoting neighborhood-based solutions to public safety.

In policy two of this section, complete neighborhoods are described as having safe and convenient access to the goods and services needed in daily life, including: housing options, universal design of public and private spaces, access to grocery stores and other commercial services, quality public schools, public open spaces and recreational facilities, affordable transportation options, and civic amenities.

Neighborhood planning encourages thoughtful and context-sensitive placement of goods and services, infill development, affordable housing, and transportation options. Common space built in new development and retrofitted into existing neighborhoods— such as pocket parks, community gardens, community centers or neighborhood schools – builds a sense of community, reflects investment, and contributes to placemaking.

Neighborhood-oriented safety programs, such as evacuation plans and neighborhood watch, are another outgrowth of neigh-



**Crime Prevention through Environmental Design (CPTED)** is a set of principles for defensible space and other environmental design elements conducive to the reduction of fear and incidence of crime.

CPTED is based on three overlapping strategies:

1. Natural access control
2. Natural surveillance
3. Territorial reinforcement

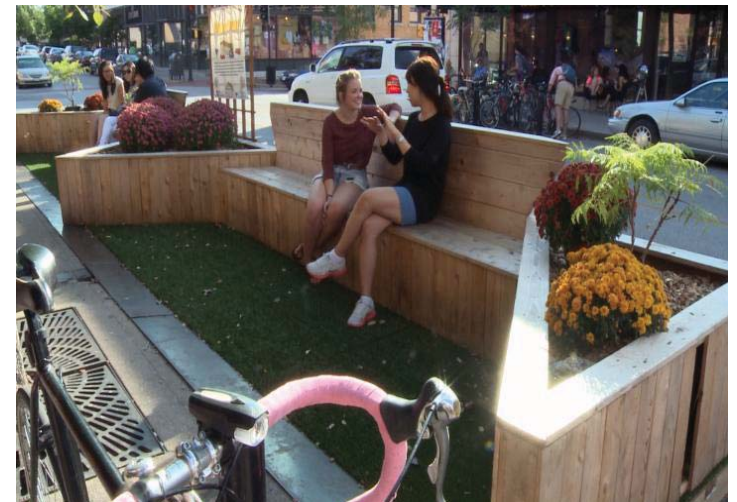


neighborhood planning and inclusive housing. Highly walkable neighborhoods and mixed use districts put eyes on the street, increase pedestrian safety, and allow for neighbors to get to know one another and work towards collective goals. Mixed housing and affordable transportation options near jobs and services also have the potential to address the lack of choice which contributes to concentrated poverty and a lack of upward mobility.

A safer, more livable and sustainable community will rely upon the policies and principles in this section (Livable and Sustainable Communities), but will also build upon the policies and principles described in the following sections of this chapter.

**Broken Windows Theory** holds that when neighborhoods appear to be broken down, disordered, and generally unfriendly, they serve as a magnet to delinquent behavior and crime.

The theory of **Defensible Space** was developed by Oscar Newman in the 1970s. The theory constructs the built environment can be designed as “defensible space” where crime is deterred through a sense of community and the use of tools such as resident surveillance and image.



## Land Use Principles and Policies – Growth Management

The goal of growth management is to guide the location, timing, and pattern of development to ensure that it occurs in an orderly, compact, and economical manner alongside the necessary infrastructure. While the costs and physical limitations of extending sanitary sewer are of primary consideration in designating where growth will occur, other infrastructure considerations, including transportation system capacity, environmental suitability of land, and existing land use patterns, should also be evaluated.

In addition, the relationships between inter- and intra-governmental organizations affect growth management in the ways in which agencies work together.

### Policy One: Plan for Fiscally Sustainable Growth

Citizens expressed a clear desire for the city to grow in a way that is **fiscally sustainable**, equitable, and efficient, which prioritizes the maintenance of infrastructure and services to existing residents. Achieving this result may be accomplished by the establishment of development fees or service boundaries so that there is a mechanism to sustain a compact, contiguous urbanized area.

The City's Capital Improvement Program (CIP) is the primary

budgeting document used to plan spending on major public projects over a ten-year period. The CIP is influenced by immediate infrastructure needs and long-term development goals and has a significant and direct impact on where, when, and how much growth the city can absorb at any given time.

The schedule for public sewer and road improvements has the greatest impact on the ability to grow. Since these projects are scheduled within the CIP, the City can project with some certainty where growth is likely to occur within its service area. Presently, the east and northeast portions of the metro area have the greatest capacity for growth since major sewer line extensions have been installed or are planned in these areas to serve once-undevelopable property at urban densities. A primary goal in these areas is to ensure that minimum densities and land use mixtures are reached to adequately sustain the continued maintenance of public infrastructure and services being provided to them.

In order to gain a more comprehensive understanding about the impacts of growth, additional steps should be taken to quantify the **true cost** of growth, particularly concerning public infrastructure investments and maintenance. Long-range planning decisions should rely on a fiscally responsible approach that balances new infrastructure investment with maintaining a high level of service for existing customers. This is ideally achieved by linking land use planning directly to CIP budget allocations.

to accommodate low-density suburban development.

Financing and construction of public infrastructure will be aligned with new growth. The impact of new development on existing infrastructure will be determined, and new development will fund the infrastructure necessary to make it viable. The **true cost** of new development on infrastructure will be assessed, and mechanisms will be put in place to recover these costs by allocating them among stakeholders in a fair and balanced way.

Greater efficiency will be achieved through close collaboration between the City, County, and educational institutions to **coordinate planning** and investment in public infrastructure and services to support sustainable development.



#### Growth Management Vision

Columbia, Boone County, and the surrounding region will have a well-planned, proactive growth strategy that protects the environment and the city's character, preserves our heritage and uniqueness, and addresses the manner in which infrastructure (including, but not limited to, roads, utilities, and other common facilities used by the community) is developed and maintained.

### The Principles of Growth Management

#### *Principle: We value fiscally sustainable growth.*

Columbia fosters forward-thinking policies for **fiscally sustainable**, self-reliant, and innovative development. Environmentally friendly developments that reduce reliance on private automobiles are encouraged, including trails, parks, and green spaces.

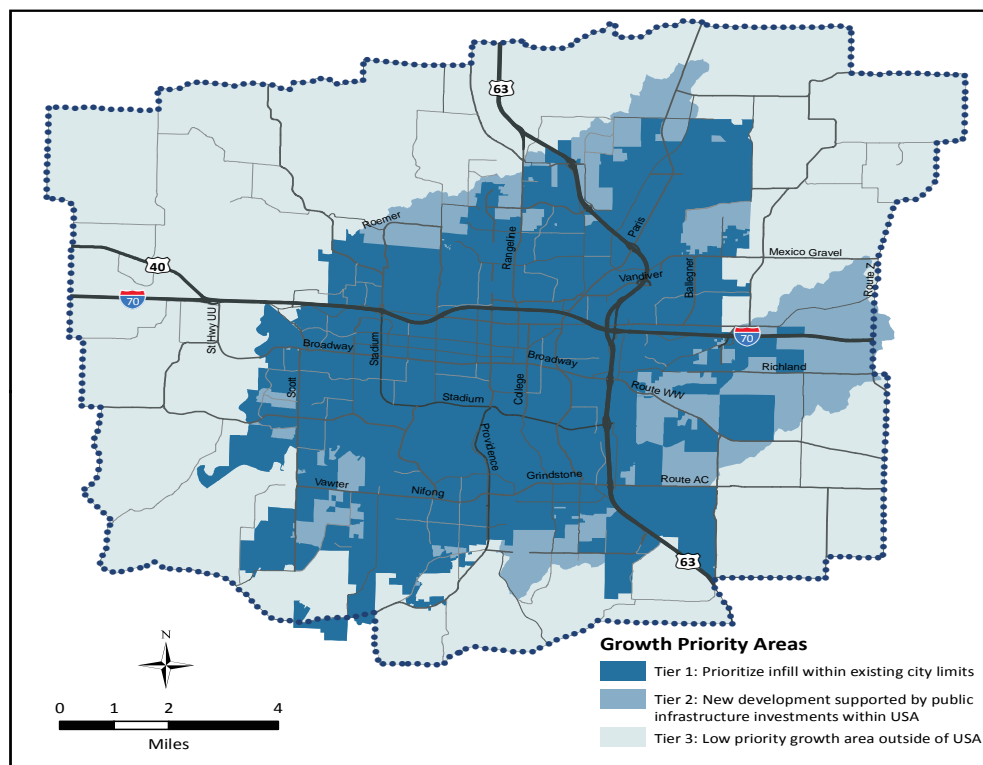
Maintenance of existing public infrastructure and services is prioritized over expansion of infrastructure to serve new development. Funding for maintenance and replacement of existing infrastructure in **compact and contiguous** urbanized areas will be prioritized to support higher-density **infill** development projects over construction of new infrastructure



### Three-Tier Growth Priority Areas:

- **Tier 1:** Prioritize infill within existing city limits
- **Tier 2:** New development supported by public infrastructure investments within urban service area
- **Tier 3:** Low priority growth area outside of the urban service area

Map 4-10: Three-tier growth priority areas  
Source: City of Columbia



The City Council established an Infrastructure Task Force in 2011 to develop guidelines for determining fair and balanced cost allocations and funding sources among stakeholders and to ensure infrastructure implementation is aligned with the comprehensive growth plan.

Physical expansion of the city's boundary through the annexation process is a related and equally important factor affecting growth. The City's policy has been to require annexation of land prior to allowing connection to City sewer service. This provides both an environmental service, as it typically results in removing on-site lagoons or septic tanks, and an economic service by securing additional tax revenue for infrastructure maintenance and ensuring that we do not become landlocked by surrounding incorporated areas. Annexation should be guided by our ability to provide basic services to property and a cost-benefit analysis of the revenue and environmental benefits of the annexation versus the cost of service provision. The state statute on annexation indicates

that services should be provided within a reasonable time period and should strive to maintain a **compact and contiguous** urban boundary. It is in the City's best interest to grow in such a manner as to avoid overextending its boundary and committing itself to significant expenditures in improvements needed to meet its obligations to newly annexed areas.

### Policy Two: Establish an Urban Services Area

An urban services area functions as a guide to where services may be realistically provided at a fair cost to citizens, and beyond which the provision of some utility services may not be prudent or cost-effective. The City should establish an urban services area and adopt policies to discourage growth outside of it, thereby ensuring orderly growth. Enforcement of the urban service area would come from limiting City contributions to those public infrastructure projects that are budgeted in the Capital Improvements Program. The urban services area may be amended at prescribed intervals (e.g. every five years) by a joint City-County effort to accommodate certain development or public facilities.

A policy of consistently assessing the sufficiency of services provided to a development before zoning, plat, or plan approval is crucial to ensuring all parts of the plan area are given the same consideration. Sufficiency-of-services provisions ensure that new developments are paying for their impacts on infrastructure expansion and use. The sufficiency test should analyze the adequacy of infrastructure. This includes water, electric, sewer, and roadways, as well as public safety services including police, fire, and other first responders. Impact fees could be collected to offset public infrastructure and service costs.

### Policy Three: Prioritize Infill Development

Infill development is a high priority for the city, as it typically adds density and tax base to areas served by existing infrastructure. Current zoning and restrictions may unnecessarily prevent increasing the density of established residential neighborhoods. Options should be considered to introduce density and alternative housing options in established neighborhoods. Strategies to achieve this goal may include accessory dwelling options and small lot subdivisions, which can accommodate minor density increases without disrupting neighborhood



quality and character. These options may be used to support citizen goals such as affordable housing, aging in place, and intermingling of diverse socioeconomic groups within established neighborhoods.

Costly public infrastructure improvements may be needed to support infill development. However, in recognition of the long-term **advantages of infill** versus sprawling growth, the City should provide incentives that support redevelopment projects which are consistent with neighborhood plans and/or established compatibility criteria for the applicable Future Land Use Map land use district.

The issue of **land use compatibility** is paramount to successful infill development efforts. Both policy and regulatory standards should be reviewed and updated to ensure that they appropriately address common neighborhood concerns pertaining to transitions between incompatible land uses and best practices for mitigating negative impacts of increased traffic, noise, odors, aesthetics, and other concerns. The identification of acceptable and predictable standards for infill development—particularly where mixed land uses are proposed in established neighborhoods—is an important part of the City’s overall infill strategy.

#### Policy Four: Recognize Regional Opportunities to Address Growth Management

Many of the growth management problems and opportunities faced by the City—particularly keeping up with new infrastructure needs while balancing maintenance obligations and budgetary concerns, improving regional transportation, and managing new growth areas—can be dealt with effectively through regional or statewide cooperation and solutions.

To address regional growth management opportunities, the City, County, and entities such as the University of Missouri, the State of Missouri, and Columbia Public Schools should actively pursue cooperative planning opportunities, inter-governmental agreements, broader information exchange and communication, collaborative initiatives, and closer cooperation with each other and with other entities in the region and state. These entities will be encouraged to identify and address issues of shared concern

for which a multi-jurisdictional perspective can best achieve mutually beneficial solutions.

Successful regional cooperation already exists in many areas, such as major roadway planning by the City, Boone County, and MoDOT through CATSO, territorial service agreements between water districts, and pre-annexation agreements between the City and developments planned for annexation in the near future. However, other opportunities exist for governmental organizations to be responsive to the external effects of their policies on other entities and jurisdictions and to effectively collaborate together.

Specifically, recognizing the relationship between the siting of new schools and residential growth is an area in which additional cooperation will yield growth management opportunities. Development pressures in the north and east have resulted from the development of new schools and vice versa. As Columbia Public Schools seeks new locations, working with the City, Boone County, and other applicable agencies will ensure the proper infrastructure is in place to support not only the school but the development likely to be generated by the new school. At the same time, new schools require large sites, auxiliary services, and adequate infrastructure. Thus, Boone County and the City may assist Columbia Public Schools in identifying growth trends and where new schools will be needed. Encouraging cooperation in school siting in accordance with growth capacity and desirability is a key priority.

Other areas where cooperation may be pursued are rental property codes. While the City inspects and regulates rental property for health and safety compliance, the County, lacking a home rule charter, does not have the legal ability to do so. As managing rental property outside of the City boundary may be desirable due to fewer regulatory barriers, the effect may contribute to exurban development outside of areas with ideal infrastructure in place. If the County is granted the authority to regulate rental property, the City and County could coordinate similar rental property codes.

Additional opportunities in regional transportation are discussed in Land Use Policies – Mobility, Accessibility, and Connectivity.



The Plan for How We Live & Grow



### Environment & Land Use Vision

Land use planning will incorporate planning for preservation of the natural environment (including scenic views, natural topographies, rural atmosphere, watersheds, healthy streams, natural areas, native species, wildlife corridors, preservation of green space, and the development of greenways and unique environmentally sensitive areas), agricultural areas, and cultural resources, bike and pedestrian trails, preservation of our heritage and uniqueness, as well as roads, utilities, and other common facilities used by the community.

## Land Use Principles and Policies – Environmental Management

Setting aside green space for environmental services, recreation, and nonmotorized transportation is a familiar and widely accepted necessity among Columbia's citizens and land developers. Funding for public parks and greenbelt trail connections continues to benefit from strong community support and funding, and is the community asset that citizens value most according to recent surveys (Phase III input; 2010 Community Survey). As the city continues to grow, it is vital to continue building on the existing network of greenways and parks to ensure that the quality of life enjoyed and expected by residents is not only sustained but improved.

### Policy One: Adopt Alternative Development Regulations

Existing development and zoning regulations often create barriers to allowing more environmentally sound options in the development of land. To truly embrace the desires of maintaining the quality of life and small-town feeling of Columbia while at the same time accommodating projected housing and population needs, alternatives to the traditional standards of development should be investigated.

## The Principles of Environmental Management

### *Principle: We value the natural environment.*

Columbia is a model for affordable and practical environmental sustainability. **Natural resource preservation** within the built environment is supported, including maintaining **open space**, natural landscapes, sensitive features, and watersheds in good condition.

Two possible revisions to the City's subdivision and zoning regulations could fulfill this need. The first option is to create a green space conservation zoning district, which places green space **preservation** on equal footing with other land uses. The second is to establish conservation subdivision regulations, which place additional emphasis on the identification and protection of valuable natural features on land slated for development.

Conservation subdivision standards are designed to maintain rural character by incorporating large **preservation** areas for sensitive environmental corridors, prime agricultural land, scenic views, significant archaeological and historic sites, and **open spaces**. This is achieved by clustering homes on smaller individual lots and preserving substantially more usable open space than would be provided by conventional subdivision design. The resulting common areas may serve the same function as public neighborhood parks without the need for dedication of additional land area by the developer. The compact nature of clustered conservation subdivisions typically results in lower development and maintenance costs associated with infrastructure, since roads and utilities tend to be more concentrated. Figure 4-6 shows the development of a property under conventional and conservation subdivision practices.

### Policy Two: Prepare a "Green Infrastructure" Plan

Green infrastructure refers to the concept of providing connected natural ecosystems as part of the framework for both conserva-

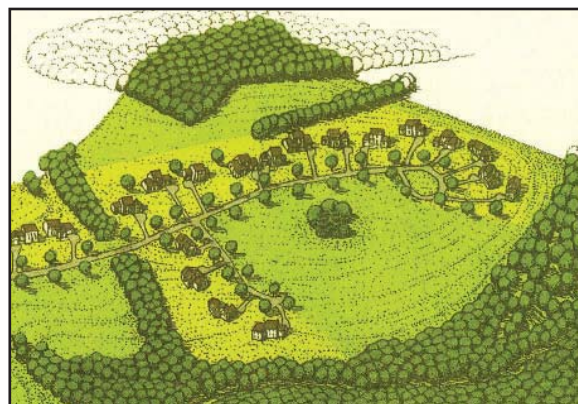
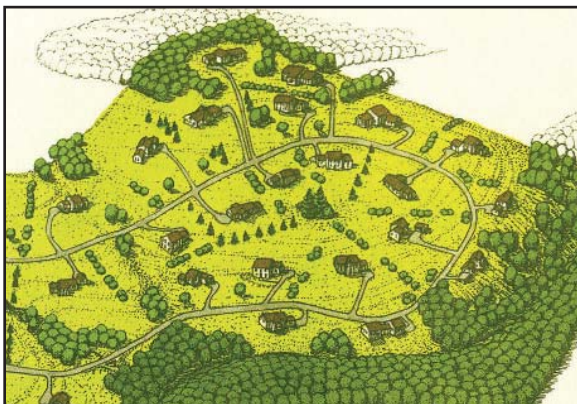


Figure 4-6: Conventional vs. Conservation Subdivisions  
© Randall Arendt

tion and development.<sup>2</sup> As the name implies, green infrastructure recognizes the importance of natural area networks as part of a complete infrastructure plan. It can include large-scale preservation of natural landscape features such as forests, floodplains, and wetlands, or smaller scale practices such as the use of rain gardens, porous pavements, and green roofs.<sup>3</sup>

The City's floodplain and stream buffer regulations are designed to limit development activity in streamside areas and provide water filtration, stream bank stability, and flood protection for individuals and their property. While preservation of natural areas is a positive by-product of these regulations, they are primarily designed to improve water quality and mitigate storm water impacts on personal property. As such, they do not provide for the preservation of intact natural areas of sufficient size or with adequate connectivity to support the habitat needs of many common plant and animal species.

Green infrastructure systems incorporate riparian corridors, which provide for wildlife habitat, storm water filtration, flood mitigation, and the movement of people and animals between larger hubs such as regional parks and natural areas. In the same way that a sewer or water line does not function if it is broken, green infrastructure corridors cannot be effective when they are fragmented by development encroachment. Figure 4-7 provides a graphic example of an interconnected green infrastructure network.

Development of a green infrastructure plan may be the best method to address the environmental **preservation** objectives identified by stakeholders. The plan would coordinate the preservation, restoration, and linkage of existing natural areas, identify habitat requirements for indigenous plants and animals, and provide guidelines for future development activity. Low-impact development (LID) designs and storm water best management practices (BMPs) could be integrated into such a plan as well as other elements of neighborhood design, including trail connections, to support the City's expanding park and greenway trail

network. The 2007 Natural Resource Inventory provides a majority of the baseline data needed to support such a planning effort.

### Policy Three: Implement Agricultural Land Preservation Techniques

Another area of concern expressed by stakeholders is the preservation of agricultural land as urban development continues to spread into historically agricultural areas of the county. Agricultural zoning districts in Boone County and Columbia may not effectively mitigate the conversion of farmland to suburban style residential development. Existing County land use policies and regulations encourage preservation of agricultural land but do not mandate it.

In addition to environmental benefits, green spaces provide social, psychological, health, and community benefits. Green spaces provide places to gather, recreate, play, display public art, grow food, hold festivals, exercise, walk dogs, meet neighbors, get fresh air, and enjoy nature.

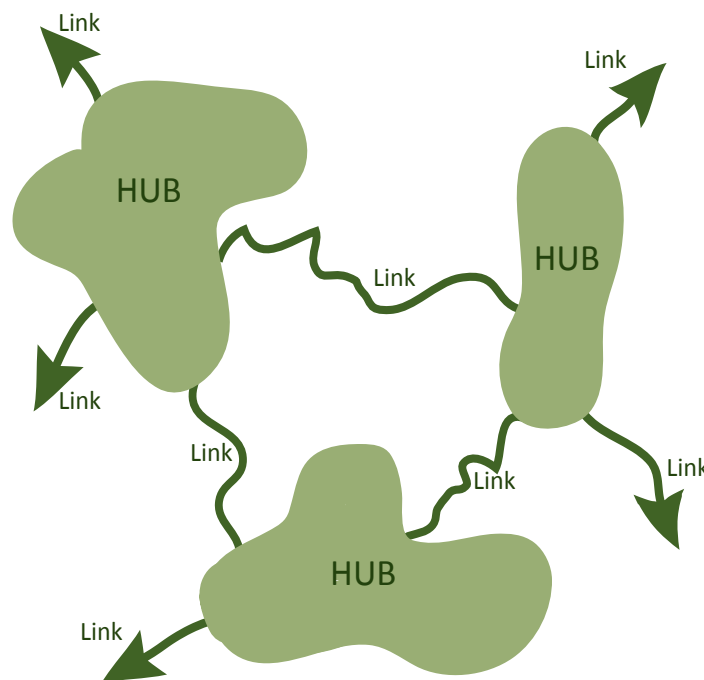


Figure 4-7: Interconnected "green infrastructure" network

<sup>2</sup> "Green Infrastructure: Smart Conservation for the 21st Century." Mark A. Benedict and Edward T. McMahon, *The Conservation Fund*, May, 2001

<sup>3</sup> "Water: Green Infrastructure" U.S. Environmental Protection Agency, January 4, 2013



There are various ways to ensure that **preservation** of prime agricultural land is achieved, including the use of more restrictive agricultural zoning districts, purchase of development rights (PDR), and transfer of development rights (TDR). PDR involves purchasing development rights for a particular tract of land and placing a permanent deed restriction on the property to ensure that it remains as agricultural land. Transfer of development rights, shown in Figure 4-8, involves transferring land use rights from one area (the “sending area”) to another (the “receiving area”). This would allow developers to purchase the right to build at higher densities. The money from these density bonus purchases would then be used by the local government to purchase conservation easements or land identified as important for preservation. These methods are most effective as part of a coordinated system that is integrated into the land use and development regulations and policies of one or more jurisdictions.

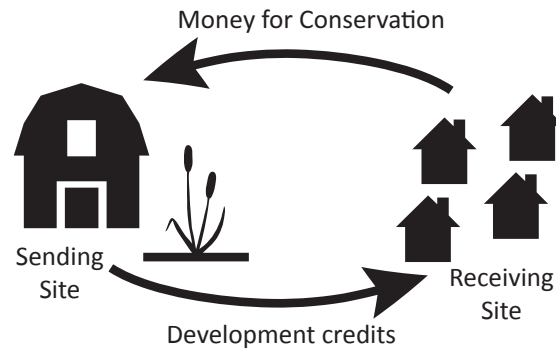


Figure 4-8: Transfer of development rights (TDR)

Agricultural zoning districts could also be modified to increase the minimum lot size in agricultural districts to 20 or even 40 acres in order to discourage subdivision of tracts into pieces that are too small to sustain agricultural uses.

#### Policy Four: Coordinate Land Disturbance and Development Permits

Drastic or unnecessary alteration of the natural topography of the land for development purposes should be avoided. A major goal of the City’s land **preservation** regulations is to ensure that consideration is given to the preservation and restoration of natural

features in the grading or development of land.<sup>4</sup> While this idea is supported by City land preservation and subdivision regulations, there may be room for regulatory improvement to better achieve this objective.

Agricultural land is exempt from local and state land disturbance regulations. To discourage circumvention of land preservation ordinances, Boone County imposed a six-year temporary abeyance of development permits on agricultural land that is cleared without a land disturbance permit and/or when stream buffers are removed.<sup>5</sup> This is expected to reduce instances in which agricultural land is cleared without a permit immediately prior to being sold for development. However, implementation and enforcement of this provision has been suspended by the County Commission until the City adopts the same or similar provisions.

On land that is not exempt from land disturbance regulations, land disturbance permits are currently issued independently of development permits, regardless of whether development is planned for the near future. The result may be that a site is cleared of vegetation years prior to development taking place, creating an unnecessary eyesore and, if unchecked, erosion problems. A potential solution is to require that disturbance permits only be issued with an accompanying building permit, or within a reasonable time period of building permits being issued. While well-intentioned, this method may be difficult to implement. An exception might be to allow grading of land prior to development only if it is needed to correct existing drainage problems or to mitigate unsafe conditions.

#### Policy Five: Enhance Tree Preservation Standards and Invasive Species Management

Closely tied to land disturbance is the issue of tree **preservation**. Trees stabilize soils, provide habitat for wildlife, filter toxins from air and water, and perform a host of other valuable environmental services that make their preservation worthwhile. The management of invasive species is also a growing concern. Most residential lots within the City are exempt from the tree preservation requirements because they are less than an acre in size. This

<sup>4</sup> City of Columbia Code of Ordinances. Sec. 12-A. Land Preservation

<sup>5</sup> Boone County Storm Water Ordinance. Sec. 9.3



exemption could be eliminated by requiring climax forest to be identified during the platting process for new developments and preserved on separate common lots (as in conservation subdivisions), or by dedicating conservation easements. In keeping with “green infrastructure” connectivity goals, modifications to the tree preservation requirements could also encourage the preservation of linked swaths of forest extending beyond the current 25 percent climax forest preservation minimum. Urban forestry planning may address the role of integrating trees and forest preserves on public property with these strategies.





### Transportation Vision

Columbia and central Missouri, a growing urban community, will have a modern transportation system that allows its citizens to move about freely within the region using whatever means are desired—automobile, bus, bicycle, walking—and to do so safely, within a reasonable time frame, and without encountering needless congestion.

## Land Use Principles and Policies – Mobility, Connectivity, and Accessibility

### Policy One: Accommodate Non-motorized Transportation

It is important that residents have **diverse transportation options**. Allowing residents the ability to travel via means other than an automobile lessens the effects of traffic (e.g. noise, congestion, and air pollution) on the surrounding environment, both built and natural. The City should identify corridors important not just for motorized transportation but non-motorized transportation improvement, and work with developers and local land owners to set aside or acquire areas for such use. Improving the **multi-use trail network** will **connect neighborhoods** and support future growth while simultaneously achieving environmental goals.

The ability to walk or ride a bike between neighborhoods or to commercial developments is not solely based on an extensive network of trails. Building sidewalks as envisioned by the City's subdivision regulations, with provisions for connections or stubs to undeveloped parcels leading to hubs of activity or public facilities, will, over time, add up to a comprehensive network of non-motorized transportation facilities, contributing to the convenience, safety, and overall health of study area residents.

In addition, multi-modal transportation facilities (and accessory structures) from bus stops to sidewalks to the airport should be accessible for all residents. New facilities are built to ADA standards, but older, existing facilities may not be ADA compliant.

Citizens with Disabilities			
	With a Disability	No Disability	Percent Disabled
<b>City of Columbia</b>	9,392	89,892	9.5%
<b>Boone County</b>	15,599	137,819	10.2%

Table 4-6: Citizens with disabilities in Boone County and Columbia. Source: American Community Survey, three-year (2009-2011), U.S. Census Bureau

As a part of the City's ADA transition plan, transportation facilities with low accessibility should be identified and prioritized for improvements.

### Policy Two: Improve Transit Service

The establishment of frequent bus service, connected to alternative transportation corridors and facilities such as trails and greenways, can reduce traffic in the plan area and provide residents a connection to Columbia's major commercial hubs. In an era of budgetary concerns and shrinking funding for public transportation, this strategy will be difficult to implement to the extent desired by many residents.

A major component of the success of a new bus route is how its efficiency is measured. This efficiency is directly related to the concentration of households in the route service area, and this number of households generally needs to be higher than that found in the single-family units in half of the city's residential neighborhoods.

Encouraging compact development near transit corridors and commercial hubs supports transit service feasibility. As the City grows and residential and commercial corridors become more established, public transit routes may be added to better serve these areas and to enhance employment and living opportunities.

### Policy Three: Promote a Mobility Management Public Transportation System

As discussed in Policy 2 above, expanding the public transit system provides more opportunities for all citizens. However, while fixed-route public transit is a large component of public transportation, other social service and transportation agencies such as Services for Independent Living and OATS, Inc., also provide transportation services for lower-income people, the elderly, those with disabilities, and others with special transportation needs in the community.

According to recent census results, nearly 16,000 residents in Boone County report a disability. Map 4-11 indicates census



## The Principles of Mobility, Connectivity, and Accessibility

*Principle: We value access to a variety of safe and efficient transportation options.*

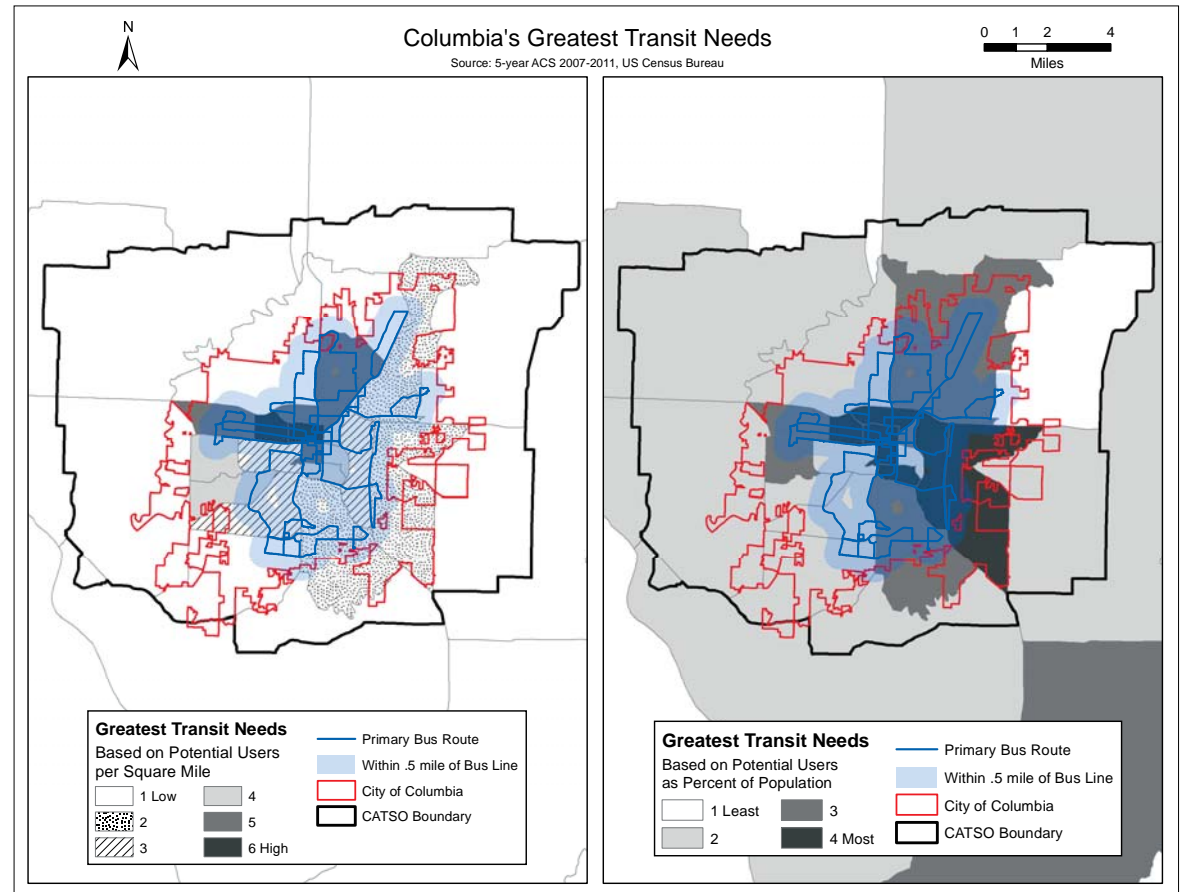
Columbia's transportation network will support safe, efficient, and **diverse transportation options** so that all residents may easily live in Columbia without a private automobile. Non-motorized transportation infrastructure, public transit service, and regional airport service will continue to be improved.

Columbia will have a comprehensive, interconnected trail and walking/bike path system that allows people to move around the City efficiently by walking, bicycling, or wheelchair. Development and funding of a **multi-use trail network** will achieve connectivity within and between new and existing developments. This network of trails will be extensive, safe, and able to accommodate a variety of users ranging from recreational to non-motorized travelers. The non-motorized trail network will **connect neighborhoods** and support future growth while simultaneously achieving environmental goals by fostering the preservation of linked greenbelts that prevent erosion, filter pollutants from water and air, and provide connected habitat corridors for wildlife.

tracts with the greatest transportation needs based upon demographic considerations (age, income, report a disability).

The Coordinated Public Transit-Human Services Plan adopted by CATSO in March, 2013, recommends the region promote a **mobility management** system. The mobility management concept, as promoted by the American Public Transit Association, calls for improved coordination among transportation providers and service agencies to reduce costs and redundant services, leverage resources, and allow for efficiency through critical mass.

While specifically directed at residents with specialized transportation needs, promoting a mobility management system in the metro area will optimize transportation resources in the region,



which has the potential to positively affect all users.

Greater coordination, communication, and partnership activities in regional public transportation have other potential benefits, such as partnerships between Columbia Transit and Columbia Public Schools, and dedicated commuter transit between nearby localities. Bus rapid transit between Columbia and Jefferson City and commuter rail between Columbia and Centralia were examples that were suggested in the public input process.

Map 4-11: Columbia's Greatest Transit Needs  
Source: City of Columbia

The four types of limitations which preclude persons from driving are (1) physical limitations, (2) financial limitations, (3) legal limitations, and (4) self-imposed limitations.



#### ***Business Vision***

Columbia will attract, retain, and encourage the growth of new businesses by establishing a business friendly climate, enhancing regional economic partnerships, and promoting reciprocal business relationships.

#### ***Investment Vision***

Significant investments in the physical, community, and business environment, as well as the tools to leverage economic strength, will bring vibrancy and diversity of culture, professions, and businesses and lead to major attractions and exciting destinations.

## **Land Use Principles and Policies – Economic Development**

### **Policy One: Foster Opportunities for Economic Growth Partnerships**

Valuable economic growth partnerships are found throughout the community. Local business owners and entrepreneurs work with one another and government agencies to foster a network of information sharing, shared resources, and business promotion. The Downtown Business Improvement District, the Convention and Visitors Bureau, the Chamber of Commerce, REDI (Regional Economic Development, Inc.) and numerous other groups actively promote a climate of economic growth through partnerships.

Inter-governmental cooperation is also a key factor in promoting partnerships for economic growth. The City and Boone County, in cooperation with REDI, actively recruit large-scale industrial users to occupy certified shovel-ready sites located in the Ewing, LeMone, and Discovery Ridge industrial parks, located on the northeast, east, and southeast edges of the urbanized area. Of particular interest are high-tech industries, which have minimal environmental impacts and the potential to bring high-paying jobs to the community.

In addition to this partnership, a unique opportunity exists between REDI and the University of Missouri in growing the entrepreneurial business community. The University's ability to attract outside research dollars and projects, coupled with its unique incubator facilities, has resulted in several successful business start-ups. However, to sustain these successes, additional affordable and accessible space for entrepreneurs to cultivate their ideas is needed. Entrepreneurs work together, with the University and with the business community, to foster innovation in events such as TEDx. REDI has also positioned itself to stand in the gap by offering incubator space in the Fifth and Walnut Parking Garage to meet this ever-increasing demand. While never intended or capable of overshadowing the University's incubator space, REDI's Fifth and Walnut location provides another venue for entrepreneurs to launch their ideas.

### **Policy Two: Promote Columbia's Strengths and Address Its Weaknesses**

A central location, vibrant downtown, educated workforce, business-supportive climate, and high quality of life set Columbia apart from many similarly sized communities. Couple these attributes with a sufficiency of readily available commercial, industrial, office, and residential sites for varying end users, and it is no wonder that Columbia ranks high on many national surveys as one of the best places to live and to work.

These attribute, however, were not developed overnight. Significant efforts have been made to cultivate relationships between local and county governments, academic institutions, state and federal agencies, and local residents. This effort has resulted in propelling Columbia from a sleepy community in the early 1900s to the burgeoning full service city that it is today. Of special note is the diversity and vibrancy of the downtown, offering places to live, work, and play, which has been cultivated in recent decades through strong patronage by residents and business owners. Columbia has seen many successes since 1826, and there are still many more to be achieved.

Progress, however, is not without conflict or missteps. The past decade of population and development growth, followed by a prolonged recession, has resulted in unforeseen impact on infrastructure. The delay in allocating resources to support infrastructure replacement and upgrades has, in some instances, thwarted Columbia's ability to attract high-quality employers capable of further diversifying our local economy.

As such, efforts to overcome funding deficiencies for necessary infrastructure upgrades in roads, facilities such as the regional airport, and storm water management are critically important as Columbia and the region compete in the increasingly complex global jobs market. Columbia cannot rest on its past achievements or present accolades if it desires to continue to be identified as a location for business.

Striving to implement a superior roadway and non-motorized transportation system which affords easy access to employment centers and neighborhoods, expanding air carrier service

## The Principles of Economic Development

### *Principle: We value a strong local economy.*

Columbia will foster positive attitudes toward economic development by modernizing zoning ordinances, supporting economic development incentives, and removing impediments to business development. Columbia's natural advantages—MU, a central location, attractive environment, and educated people—will be leveraged to foster economic development and support **innovation** and entrepreneurialism. An employment base that is qualified and trained to work in a variety of industries, with decent wages and benefits, will provide opportunities for professional development, further education, good health, and a high quality of life.

Columbia will attract new businesses to the metro area. It will continue to **diversify** and broaden the local economy by addressing barriers to small/entrepreneurial businesses. New employment centers will be promoted by designing and marketing them as livable mixed-use centers that are highly connected and enjoy access to all City services and amenities, including parks, schools, and entertainment.

### *Principle: We value regional connectivity.*

Columbia will facilitate development of the necessary infrastructure to support emerging **technology industries** including high-tech business parks, community Internet access, and a skilled workforce.

### *Principle: We value stakeholder participation in decision-making processes.*

All stakeholders should be engaged in the process of determining changes in the community. Planning processes are designed to **engage diverse stakeholder groups** and work toward reaching consensus on major issues. Citizen engagement processes are continually evaluated and improved in an effort to **maintain transparency** and utilize new technology and methods to better **inform and educate** stakeholders.

### *Principle: We value Downtown as a hub for residential, commercial, and cultural activities.*

Downtown Columbia is a vibrant, beautiful, and affordable place to live and work. High-density housing and mixed-use development is encouraged downtown.

#### **Downtown Vision**

Downtown Columbia will have a variety of safe housing options, including new and revitalized units, for all age groups and income levels, with access to desirable amenities. Development and design guidelines will be instituted.

“What goods and services do people use? Can more be provided locally? We are smart creative people that can grow small businesses from within.”

to include multiple providers flying to regional hubs, improving the efforts of environmental stewardship by innovation, and collaboration with stakeholders are a must for long-term success and business attraction. Success will be further obtained by improving and marketing Columbia's natural advantages such as its location, educated workforce, supportive business climate, recreational and cultural amenities and events, vibrant downtown, diverse housing options, and readily available commercial, office, and industrial land base.

## Policy Three: Promote High-Quality Job Producing Developments

To ensure that Columbia is positioned appropriately to meet not only the needs of the changing industrial and manufacturing marketplace but also the desires expressed by residents regarding accommodation of these uses, deliberate action must be

taken as it relates to their future location and design. The days of large, sprawling manufacturing sites producing durable goods in relatively isolated areas are unlikely to be repeated in Columbia. This is evidenced by the types of businesses which have, or are seeking to, locate here and where they have chosen to set up their operations.

The past decade has seen the development of three “shovel-ready” certified industrial sites. These locations offer users unique opportunities to gain entry into the market faster and with fewer costs since advanced engineering and environmental due diligence have been completed to ensure the sites have adequate infrastructure resources to support new industrial uses. Furthermore, these sites have undergone public vetting through the process of achieving their land use entitlement and therefore are considered “acceptable” for new industrial users.



The Plan for How We Live & Grow



While it is critically important that the existing shovel-ready sites are positioned with sufficient infrastructure resources and land use entitlements, it is also important to understand that several are located within master planned industrial developments. This approach has the ability to ensure that support services to meet the needs of future employees can be accommodated on-site.

Master planning has been expressed as a desirable attribute to be incorporated in any future industrial development consideration. Not only do such environments better meet the needs of their users, they often result in developments that are more context sensitive and integrate in their designs amenities (such as sidewalks and regional detention/storm water management) not previously considered in large, freestanding single-user industrial sites.

Investments should also be made to retrofit existing employment centers with infrastructure such as sidewalks, greenway trail connections, and the addition of convenience amenities to support workforce needs. Historical industrial parcels located along the COLT Railroad, extending from the city center to northeast Columbia, are well situated to tie into existing downtown amenities and housing options to create truly walkable employment districts. The COLT Railroad also has the potential to become a residential transportation corridor to Centralia. Recognizing potential economic development and expanded transportation opportunities in the future, the City should continue to maintain the existing COLT railroad tracks and existing right-of-way, and invest in rail technologies.













## **Chapter Five - Implementation Plan**

How do we get there?

Implementation Table

Plan Review, Evaluation, and Update Process

Future Land Use Map

Glossary of Acronyms

## How Do We Get There?

This chapter describes how the policies described in Chapter Four may be accomplished. The chapter begins with an implementation table, which presents strategies and actions to support the plan's policies. This sets the work plan for the Planning and Zoning Commission, City Council, City staff and other possible actors and stakeholders necessary for the plan's implementation. In Phase V of the plan, the public vetted the strategies, actions, and participants presented in the table, and prioritized the strategies and actions they felt should be accomplished at specific milestones. By identifying the most pressing needs and opportunities, the public has additional oversight and ownership in the planning process.

Following the implementation table, the schedule and process for reviewing and updating the plan itself is presented. How the plan is to be used and evaluated is also included in this section.

Finally, this chapter presents the Future Land Use Map (FLUM). The FLUM represents the implementation of the plan's proposed land use policies while considering issues such as projected population growth, land availability, environmental sensitivities, and planned infrastructure. The FLUM is a policy tool to guide land use decisions over the plan's 20-year horizon and represents how, where, and at what quality the city should grow based on the desires and expectations of the community.

### Implementation Table

Policy	Strategy	Actions	Participants & Stakeholders	Public Prioritization
<b>Livable &amp; Sustainable Communities</b>				
<b>Policy One: Support diverse and inclusive housing options</b>	Encourage universal design and practices for aging in place	<ul style="list-style-type: none"> <li>Encourage universal design standards in residential building codes to ensure new housing stock meets the needs of all residents</li> <li>Create codes that allow for multigenerational housing and accessory dwelling units</li> <li>Create zoning that encourages a variety of housing options and services</li> </ul>	AIA Chapter, Boone County Center on Aging, Boone County Codes Commission, Board of Realtors, Builders' Assn., Chamber of Commerce, City Council, Developers, Disabilities Advocates/Community, Neighborhood Associations	Medium
	Promote construction of affordable housing	<ul style="list-style-type: none"> <li>Incentivize creating a percentage of owner-occupied and rental dwelling units in new residential developments to meet affordable housing standards</li> <li>Follow the recommendations of the Affordable Housing Policy Committee report</li> <li>Require a mixture of housing types and price ranges within new subdivisions to provide options for integration of affordable housing and non-traditional family units (singles, one-parent households, etc.)</li> </ul>	AIA Chapter, Boone County Codes Commission, Builders' Assn., CHA, City Council, Developers, Habitat for Humanity, Mayor's Housing Policy Committee, Neighborhood Associations, University of Missouri	Medium

Policy	Strategy	Actions	Participants & Stakeholders	Public Prioritization
<b>Policy One: Support diverse and inclusive housing options</b>	Promote home ownership and affordable housing options, and encourage integrated residential densification via flexibility and dwelling unit options	Amend Zoning Regulations to: <ul style="list-style-type: none"> <li>Allow accessory dwelling units in the R-2 zoning district</li> <li>Introduce a cottage-style small-lot residential zoning district to accommodate single-family detached housing options that may be more affordable due to smaller lot and home sizes</li> <li>Allow zero lot line setbacks and narrower lot width standards in the R-2 district to accommodate single-family attached dwelling options (as opposed to duplexes, which necessitate rental vs. owner-occupied housing)</li> </ul>	AIA Chapter, Boone County Codes Commission, Board of Realtors, Builders' Assn., CHA, City Council, Developers, Neighborhood Associations	Low
<b>Policy Two: Support mixed-use</b>	Establish neighborhood scale commercial and service nodes	<ul style="list-style-type: none"> <li>Use planning tools and decision making to locate smaller-scale commercial and service businesses adjacent to neighborhoods</li> <li>Neighborhood plans should address desired locations and types of potential new businesses</li> </ul>	Columbia Board of Realtors, Developers, Neighborhood Associations, REDI, Small Business Incubators	High
	Adopt form-based zoning	<ul style="list-style-type: none"> <li>Use <i>Metro 2020</i> Land Use District Design Guidelines as a basis for developing and applying form-based zoning</li> </ul>	Central MO Development Council, Columbia Home Builders Association, Developers, Downtown Associations, Historic Preservation Commission, Neighborhood Associations, Urban Land Institute	Low
	Identify service gaps and support zoning and development decisions to provide walkable local commercial service & employment nodes	<ul style="list-style-type: none"> <li>Incentivize mixed and desired/needed uses in key locations (zones and nodes)</li> <li>Build on <i>Metro 2020</i> guidelines to make land use compatibility decisions, and to determine when separation vs. integration of land uses is appropriate</li> </ul>	Bicycle & Pedestrian Commission, Developers, Energy & Environmental Studies (MU Extension), Neighborhood Associations, PedNet	High
<b>Policy Three: Facilitate neighborhood planning</b>	Facilitate the creation of neighborhood land use plans ahead of development/redevelopment pressure	<ul style="list-style-type: none"> <li>Work with HPC to prepare a Historic Preservation Plan, which surveys areas of historical significance and develops strategies for their preservation</li> <li>Develop local incentives to encourage/support historic preservation and mixed-use planning in neighborhoods</li> <li>Work with CPS to identify appropriate school sites based on growth projections, and coordinate zoning and capital improvement projects to support these sites.</li> <li>The City should work with neighborhoods to develop a planning process, then develop plans for 2-5 neighborhoods/year</li> </ul>	Colleges & Universities, Columbia Public Schools, Developers, DLC, Downtown Community Improvement District, Historic Preservation Commission, Neighborhood Associations	High
<b>Policy Four: Promote community safety</b>	Identify opportunities to promote community safety through design, community policing and promotion, the siting of public safety facilities, and access to community resources	<ul style="list-style-type: none"> <li>Encourage CPTED principles in subdivision and zoning codes</li> <li>Support defensible neighborhoods through programs such as the Crime Free Housing, Neighborhood Watch, targeted code enforcement and property maintenance assistance programs</li> <li>Facilitate public safety facility and technology placement using population projections and growth management</li> <li>Increase access to community services and resources and promote neighborhood-based solutions to public safety</li> </ul>	Columbia Public Schools, Developers, Neighborhood Associations, Parks and Recreation Dept., Planning & Zoning Commission, Property Owners, Public Safety Providers, Social Service Providers.	To be determined by the Council (policy added post-public prioritization)



Policy	Strategy	Actions	Participants & Stakeholders	Public Prioritization
<b>Land Use and Growth Management</b>				
<b>Policy One: Plan for fiscally sustainable growth</b>	New development will pay a fair allocation of infrastructure costs	<ul style="list-style-type: none"> <li>Revise development standards to establish a fair allocation of funds for offsite improvements needed to support the impacts and needs of their development projects</li> <li>Develop a scorecard system for new development proposals (similar to Boone County's), which objectively assesses the appropriateness of new development based on short and long-term infrastructure costs and burdens on public infrastructure and services</li> <li>Consider the recommendations of the Infrastructure Task Force as they relate to the costs and cost-sharing of infrastructure</li> </ul>	Board of Realtors, Boone County Resource Management, Columbia Public Works, Developers, Energy & Environment Commission, Home Builders Association, Infrastructure Task Force, developers, REDI	High
	Give funding priority to the maintenance of existing public infrastructure and services	<ul style="list-style-type: none"> <li>Replace and repair aging infrastructure in older neighborhoods</li> <li>Improve downtown infrastructure—sewers, storm water facilities, and alleys</li> <li>Size replacement infrastructure to meet increased demands from higher-density development</li> </ul>	Columbia Public Works, Infrastructure Task Force, developers, Boone County Resource Management, Energy & Environment Commission, neighborhood associations, REDI	Medium
<b>Policy Two: Establish an Urban Service Area</b>	Limit or discourage growth beyond the established area	<ul style="list-style-type: none"> <li>Use watershed boundaries/future land use map as guides for sewer, facilities build out</li> <li>Establish development review criteria that will utilize Capital Improvement Program Plan programming for infrastructure upgrades and installation</li> <li>Coordinate adoption of similar City and County sufficiency-of-services provisions</li> <li>Establish standards with which to assess existing and/or needed infrastructure improvements for developments during review processes</li> </ul>	Board of Realtors, Boone County Regional Sewer District, Boone Electric Cooperative, Columbia Public Schools, Columbia Public Works, Columbia Water and Light, Conservation Organizations, Consolidated Water Districts, Mid MO Development Council, Property Owners, REDI, Smart Growth Coalition	Low
	Modify urban service area as necessary to support value-added growth	<ul style="list-style-type: none"> <li>Develop criteria to determine the capacity of the urban service area and the benefits of expanded development territories</li> <li>Conduct periodic review and potential adjustment of the urban service area in light of development trends and existing infrastructure maintenance needs</li> </ul>	Boone County Regional Sewer District, Boone Electric Cooperative, Columbia Public Schools, Columbia Public Works, Columbia Water and Light, Consolidated Water Districts, REDI	Low
	Identify potential changes to City annexation policy to promote compact and contiguous growth	<ul style="list-style-type: none"> <li>Consider revising, relaxing or eliminating the annexation requirement where city sewer service extensions are needed for public health reasons but do not serve compact and contiguous growth patterns</li> <li>Investigate opportunities to provide public sewer service on properties with failing on-site facilities</li> <li>Explore additional territorial agreements between the sewer utility and the Boone County Regional Sewer District</li> </ul>	Boone County Regional Sewer District, Boone Electric Cooperative, Columbia Public Schools, Columbia Public Works, Columbia Water and Light, Consolidated Water Districts, Developers, DNR, Property Owners, REDI	Low

Policy	Strategy	Actions	Participants & Stakeholders	Public Prioritization
<b>Policy Three: Prioritize infill development</b>	Incentivize infill	<ul style="list-style-type: none"> <li>Explore opportunities to make infill projects more attractive to developers, including regulatory and financial incentives</li> </ul>	Banks/Financial Institutions, Boone County, CHA, CID, Columbia Public Works, Developers, Neighborhood Associations, REDI, State of Missouri	Medium
	Remove incentives that favor suburban sprawl	<ul style="list-style-type: none"> <li>Stop spending taxpayer dollars to fund infrastructure extensions that serve only new suburban residential development</li> </ul>	Boone County, CHA, CID, Columbia Public Works, Developers, REDI, State of Missouri	Medium
	Develop specific development guidelines and standards that address common concerns related to impacts of infill development, particularly in relation to existing residential neighborhoods	<ul style="list-style-type: none"> <li>Promote neighborhood-level land use planning to guide infill development</li> <li>Engage stakeholder groups in an update to standards for transitions between incompatible land uses such as commercial and residential</li> </ul>	Central City Neighborhoods and Associations, CHA, CID, Columbia Public Schools, Developers, Neighborhood Associations	High
<b>Policy Four: Recognize regional opportunities to address growth management</b>	Review new and existing inter-governmental agreements	<ul style="list-style-type: none"> <li>Conduct efficiency analyses of existing cooperative agreements</li> <li>Periodically review and modify service territories/agreements/policies to reflect development trends</li> </ul>	Boone County, CATSO, Mid-Missouri RPC, REDI, Sewer & Water Districts, State of Missouri, University of Missouri	Medium
	Acknowledge the impact of school siting on growth and development within and adjacent to the urban service area	<ul style="list-style-type: none"> <li>Collaborate with Columbia Public Schools and Boone County to identify potential school sites based on projected growth and infrastructure</li> <li>Encourage CPS budgeting practices that will permit cost sharing for necessary infrastructure with the City and County</li> </ul>	Boone County, CATSO, Columbia Public Schools, Mid-Missouri RPC, REDI, State of Missouri	Medium

Policy	Strategy	Actions	Participants & Stakeholders	Public Prioritization
<b>Environmental Management</b>				
<b>Policy One: Adopt alternative development regulations</b>	Adopt a conservation zoning district	<ul style="list-style-type: none"> <li>Establish a zoning district to delineate regulated natural preservation areas where disruption of natural landscape features is minimized and a connected, uninterrupted network of streams, parks, trails, and wildlife corridors (i.e. green infrastructure) is maximized</li> </ul>	Boone County, Columbia Parks and Recreation, Conservation Groups, Developers & Builders, State of Missouri DNR	Medium
<b>Policy Two: Prepare a “green infrastructure” plan</b>	Acknowledge opportunities for environmental preservation and enhancement within the City	<ul style="list-style-type: none"> <li>Create and implement a plan governing preservation, restoration, and linkage of existing natural areas, identify habitat requirements for indigenous plants and animals, and provide guidelines for future development</li> <li>Prepare an urban forestry plan</li> </ul>	Boone County, City Arborist, Columbia Parks and Recreation, Conservation Groups, Greenbelt Land Trust of Mid-Missouri, State of Missouri DNR	High
	Preserve environmentally sensitive areas	<ul style="list-style-type: none"> <li>Maintain and preserve open space along major stream corridors, specifically including floodplains; this may be by private action or public acquisition</li> </ul>	Boone County, City Arborist, Columbia Parks and Recreation, Conservation Groups, Greenbelt Land Trust of Mid-Missouri, State of Missouri DNR	High
<b>Policy Three: Implement agricultural land preservation techniques</b>	Encourage preservation of sensitive natural areas and prime agricultural land	<ul style="list-style-type: none"> <li>Establish zoning protections designed to preserve the current agricultural uses in these areas</li> <li>Establish policies to maintain existing farmland for future use through mechanisms such as the purchase of development rights (PDR) or transfer of development rights (TDR)</li> <li>Create a TDR and/or PDR program, with areas sending their development rights to receiving areas that are permitted to build with increased densities to protect environmentally sensitive areas such as forested lands, steep slopes, and riparian corridors and buffers</li> </ul>	Boone County, Columbia Center for Urban Agriculture, Greenbelt Land Trust of Mid-Missouri, Missouri Farm Bureau, State of Missouri, USDA	High
<b>Policy Four: Coordinate land disturbance and development permits</b>	Strengthen land disturbance regulations	<ul style="list-style-type: none"> <li>Create City steep slopes ordinance to discourage excessive cut &amp; fill, which results in “table-topping” of sites, loss of natural landscape features</li> <li>Strengthen tree preservation regulations: enhance policies regarding the percentage of climax forest and tree preservation required for lots or developments, revamp City regulations to consider developments as a whole instead of individual lots, and encourage cross-development preservation in support of the green infrastructure concept</li> </ul>	Boone County, City Arborist, Columbia Community Development, Columbia Public Works, Developers, EPA, State of Missouri DNR	Low
<b>Policy Five: Enhance tree preservation standards and invasive species management</b>	Encourage land preservation	<ul style="list-style-type: none"> <li>Reduce ambiguities in the subdivision and zoning codes by refining language to be more specific in its intent and implementation; encourage preservation of usable/accessible open space in planned unit developments (PUDs)</li> </ul>	Boone County, City Arborist, Columbia Parks and Recreation, Developers, Greenbelt Land Trust of Mid-Missouri	Low
	Implement conservation subdivision standards	<ul style="list-style-type: none"> <li>Establish policies in City and County code encouraging the preservation of common open space in subdivisions through the adoption of conservation (cluster) subdivision standards</li> </ul>	Boone County, City Arborist, Columbia Parks and Recreation, Developers, Greenbelt Land Trust of Mid-Missouri, Volunteer Services	High



Policy	Strategy	Actions	Participants & Stakeholders	Public Prioritization
<b>Mobility, Connectivity, and Accessibility</b>				
<b>Policy One: Accommodate non-motorized transportation</b>	Encourage interconnectivity between neighborhoods, commercial districts, and employment centers using non-motorized transportation networks	<ul style="list-style-type: none"> <li>• Prioritize greenway trail projects that connect neighborhoods to commercial and employment centers</li> <li>• Enforce the ordinance that requires landowners to maintain public sidewalks adjacent to their properties</li> </ul>	Bicycle and Pedestrian Commission, Bike and Track Clubs, CID, Columbia Parks and Recreation, Columbia Public Works, Disabilities Community, DLC, Neighborhood Associations, PedNET	High
<b>Policy Two: Improve transit service</b>	Support and promote the public transportation system	<ul style="list-style-type: none"> <li>• Connect bus routes with trails and greenways</li> <li>• Pursue new technologies and efficiencies to enhance the system</li> <li>• Encourage compact development near transit corridors and commercial hubs to support transit feasibility</li> </ul>	Boone County Center on Aging, Boone County Family Resources, Bicycle and Pedestrian Commission, Columbia Public Works, Columbia Transit, CoMET, MACC, OATS, Services for Independent Living	High
	Expand the existing transit system to meet ridership needs	<ul style="list-style-type: none"> <li>• Evaluate the existing transit system and opportunities for system improvements based upon ridership surveys</li> <li>• Evaluate different route designs and models</li> <li>• Explore diversification of funding sources</li> </ul>	Boone County Center on Aging, Boone County Family Resources, Bicycle and Pedestrian Commission, Columbia Public Works, Columbia Transit, CoMET, Disabilities Commission, MACC, OATS, Services for Independent Living	Medium
	Support and promote affordable and efficient air travel into and out of Columbia Regional Airport	<ul style="list-style-type: none"> <li>• Recruit nearby communities to support Columbia Regional Airport</li> </ul>	Airport Advisory Commission, Airline Industry, Central MO Municipalities, Chamber of Commerce, Columbia Public Works, MU & Colleges, Private Business, REDI, State of MO	Low
<b>Policy Three: Promote a mobility management public transportation system</b>	Promote public transportation system expansion with regional considerations	<ul style="list-style-type: none"> <li>• Focus on developing a transit system between Columbia, the Columbia Regional Airport, Jefferson City, and the Jefferson City Amtrak Station</li> </ul>	Boone County, Boone County Center on Aging, Boone County Family Resources, Columbia Transit, CoMET, MACC, OATS, REDI, Services for Independent Living, State of MO, Surrounding Counties and Communities	Low
	Identify funding to support regional transit development and create partnerships between regional stakeholders to produce an integrated transportation system	<ul style="list-style-type: none"> <li>• Coordinate with MU, Columbia College, Stephens College, social service agencies, major employment centers, and Boone County</li> </ul>	Boone County, Boone County Center on Aging, Boone County Family Resources, Columbia Transit, CoMET, Disabilities Community, MACC, OATS, REDI, Services for Independent Living, State of MO, Surrounding Counties and Communities	Low

Policy	Strategy	Actions	Participants & Stakeholders	Public Prioritization
<b>Economic Development (includes Inter-Governmental Cooperation)</b>				
<b>Policy One: Foster opportunities for economic growth partnerships</b>	Promote cooperation within the multi-jurisdictional political system to minimize cost, maximize efficiency, and ensure adequate support of community services that support all citizens	<ul style="list-style-type: none"> <li>• Coordinate with CPS to select future school sites</li> <li>• Coordinate with CPS to prepare for education system demands resulting from population growth</li> <li>• Coordinate public transit service with MU</li> <li>• Coordinate student housing needs with MU</li> </ul>	Boone County, Boone County Family Resources, Columbia College, Columbia Transit, CPS, DLC, MACC, MU, REDI, Stephens College, State of Missouri	Medium
<b>Policy Two: Promote Columbia's strengths and address its weaknesses</b>	The City's planning and development processes will be transparent and predictable so that developers and residents understand review criteria	<ul style="list-style-type: none"> <li>• Audit existing processes and modify as necessary to facilitate early engagement, informed citizens, and meaningful stakeholder involvement in development matters</li> </ul>	Community Development, Developers, Neighborhood Associations, The Public	High
	Connect Columbia to the world by the most reliable and most equitable communications technologies	<ul style="list-style-type: none"> <li>• Work with communications providers to install the best wireless and fiber networks and emerging technologies</li> <li>• Pursue grants that bridge the digital divide</li> </ul>	ABC Labs, CenturyLink, Chamber of Commerce, Charter Communications, DLC, Mediacom, MU, REDI, State of Missouri, Socket	High
<b>Policy Three: Promote high-quality job-producing developments</b>	Recruit clean industry to Columbia	<ul style="list-style-type: none"> <li>• Identify funding sources and partnerships for development of new facilities and expanded programs</li> </ul>	Boone County, Chamber of Commerce, Energy and Environment Commission, MU, REDI, State of Missouri	Medium
	Support local entrepreneurial ventures	<ul style="list-style-type: none"> <li>• Evaluate tax incentives for entrepreneurial/small businesses</li> </ul>	Boone County, Centennial Investors Angel Network, Chamber of Commerce, CID, Columbia College, Developers, DLC, MACC, MO Innovation Center, MU, REDI, SCORE, State of Missouri, Stephens College, University Center for Innovation & Entrepreneurialism	High

## Plan Review, Evaluation, and Update Process

The following plan review and evaluation procedures should be conducted according to the timelines given:

1. A set of evaluation criteria, including indicators or metrics, together with specific action statements, will be developed for each of the seven plan categories by the Planning and Zoning Commission, with the assistance of City staff, for City Council review and approval within the first two years after plan adoption.
  - Evaluation criteria may include short-term (1-2 years), medium-term (3-5 years), and long-term (more than five years) measurements.
  - The evaluation criteria will serve as a “Report Card” and will describe how and where the City is making progress on implementation of the plan and where additional attention is needed.
2. A status report will be reviewed by the Planning and Zoning Commission as needed, but no less than once every five years.
  - Status reports will include a review and evaluation of plan goals and objectives using the evaluation criteria discussed above.
  - The status report may be included as an element of the Community Development Department’s Annual Development Report.
  - A specific format for reporting will be developed to maintain consistency in reporting.
3. Existing conditions and population and employment projections will be updated after data from the 2020 Census are available.
4. A full review and update of *Columbia Imagined* will occur within 10 years of adoption of the plan, with a preliminary target of 2020.
5. Requests for amendments to the implementation table, Future Land Use Map, or the plan itself may be brought forward by the general public, City staff, the Planning and Zoning Commission, or City Council.



The Plan for How We Live & Grow



## Future Land Use Map

The Future Land Use Map (FLUM) serves as a guide for future development by providing a view of how specific land use areas and elements fit into the broad context of the city as a whole. It translates proposed land use strategies into a pattern for use within the 20-year planning horizon and serves as a guide for planners, decision makers, and the general public as they consider the merits of zoning and subdivision requests as well as capital investments.

Six districts reflect the primary land use classes:

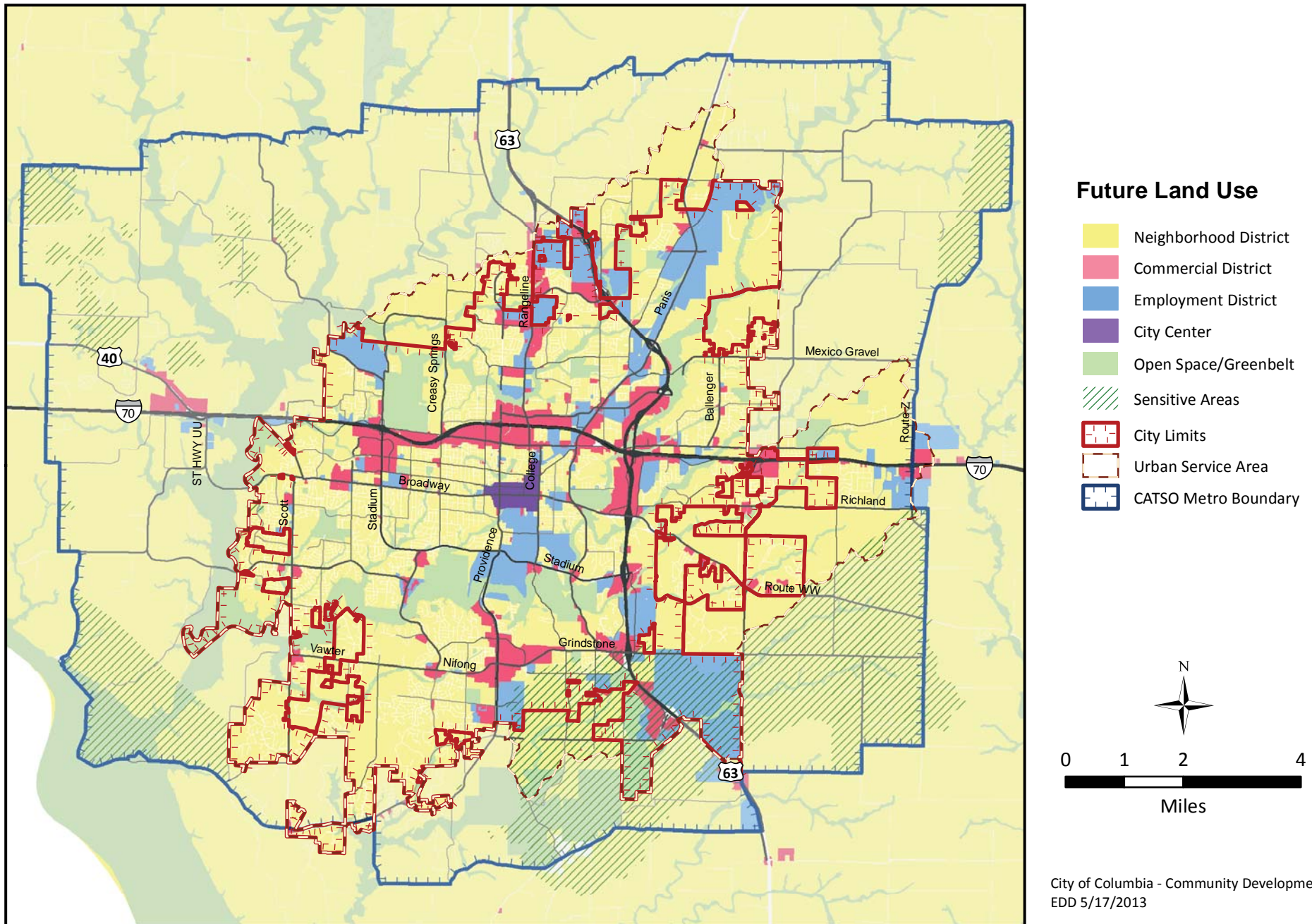
1. **Neighborhood District:** The neighborhood district accommodates a broad mix of residential uses and also supports a limited number of nonresidential uses that provide services to neighborhood residents.
2. **Employment District:** Employment districts are for basic employment uses, including offices, corporate headquarters, manufacturing, warehouses, and research parks. The district contains significant concentrations of employment within the city and includes supporting uses such as multi-family residential, convenience retail, day care facilities, and restaurants.
3. **Commercial District:** The commercial district contains a variety of citywide and regional retail uses as well as offices, businesses, personal services, and high-density multi-family dwellings as supporting uses within the district. Most of the retail uses in this district depend on auto or transit access to and from major roadways to support and sustain their business activity.
4. **City Center:** The city center district is intended to be the focal point of the City of Columbia, serving as the education and government center of the community. This single district is an area of mixed uses and is built at a pedestrian scale. The city center includes the central business district (CBD), which comprises the downtown office and commercial area.
5. **Open Space/Greenbelt:** The open space/greenbelt district is designed to provide for the recreational and aesthetic needs of the residents of Columbia. It is also intended to protect sensitive areas such as floodplains

and hilly terrain from development and preserve prime natural areas. Uses included in this district are public and private parks, other open spaces, golf courses, and greenbelts (the same as the existing floodplain overlay-zoning district).

6. **Sensitive Areas:** This overlay district identifies karst topography, the Devil's Icebox Recharge Area, and prime agricultural land. While these landscape elements are not specifically protected by existing land use regulations, they represent desirable land uses and natural features that are threatened by development activity. Preservation and protection of these areas should be encouraged to mitigate negative impacts on community resources and safety.

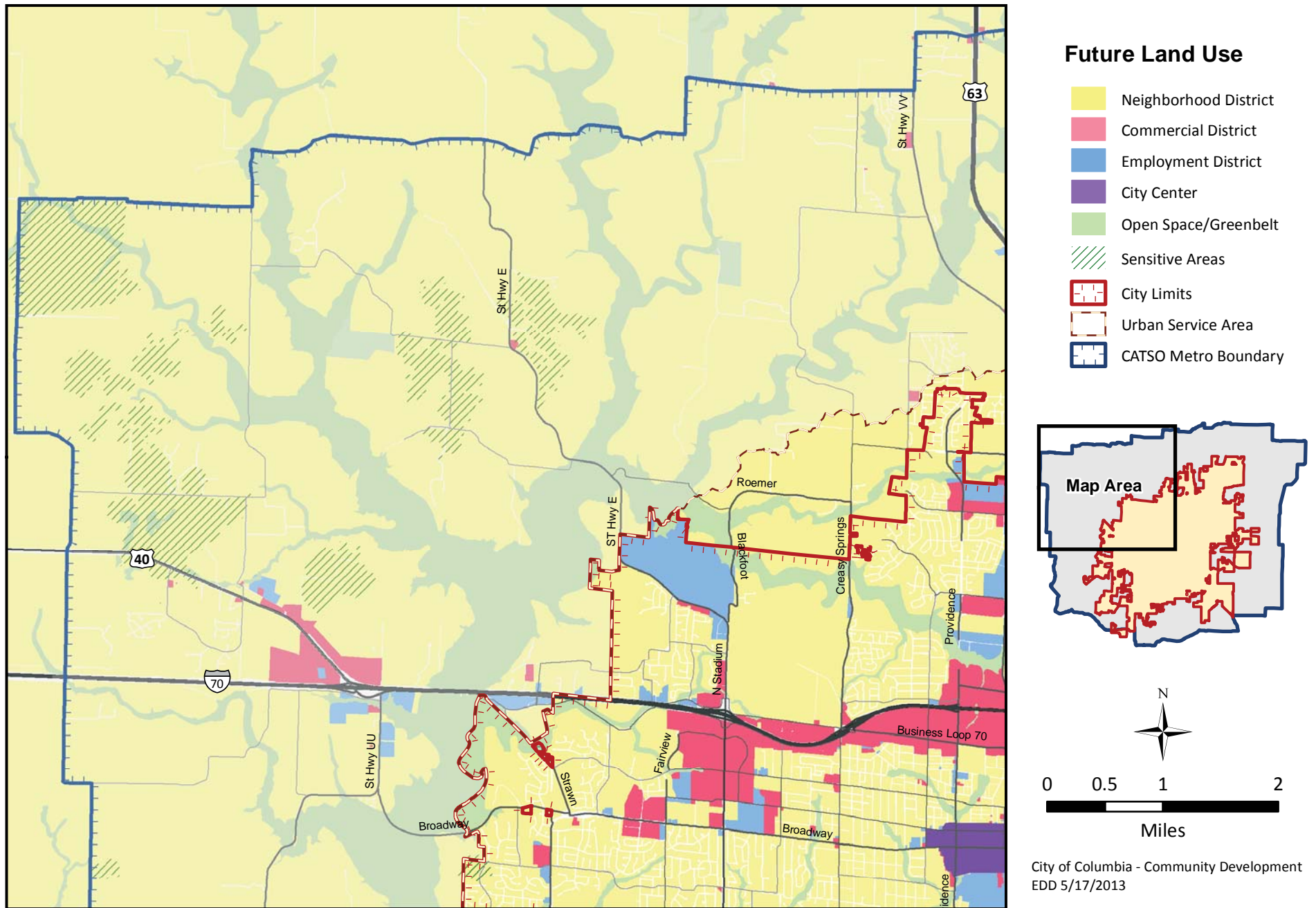
The Future Land Use Map identifies an **Urban Service Area**, which includes areas outside of the existing city limits that are scheduled to be served by City sanitary sewer within the next three years based on the FY2012 CIP. In keeping with the strong desire expressed by citizens to maintain a fiscally responsible growth pattern, the urban service area is intended to steer development to areas where the City has already made significant investments in infrastructure. City annexation and extension of services to land outside the urban service area should be considered only in situations where it can be proven that the City's return on its capital investments would result in a net fiscal gain, including reasonable consideration for long-term public infrastructure and service maintenance costs.

The land use classes shown on the FLUM retain the district policies and compatibility guidelines from *Metro 2020*, which provide detailed textual criteria to guide appropriate site selection and transitions between different use types to ensure that new development does not detract from the value or marketability of adjacent property, or diminish its use and enjoyment. Compatibility guidelines are provided for each of the major land use districts, including employment, commercial, city center, open space/greenbelt, and neighborhood districts. The neighborhood district contains a subset of criteria to guide uses including residential dwellings, neighborhood amenities (i.e. neighborhood commons), and commercial nodes (i.e. neighborhood marketplaces). These criteria are provided in the appendix for reference.



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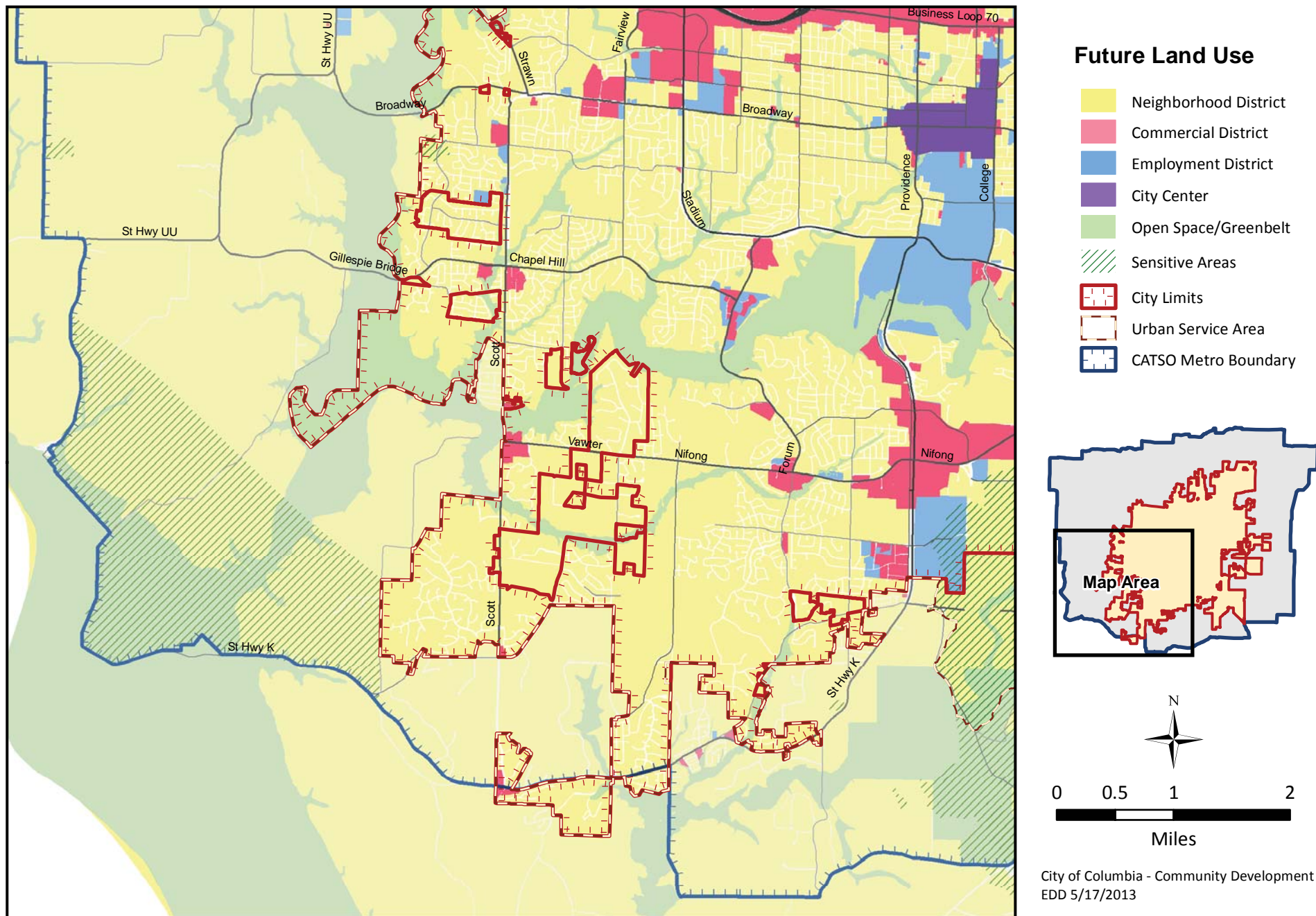




Map 5-2: Future Land Use - Northwest Quadrant  
Source: City of Columbia

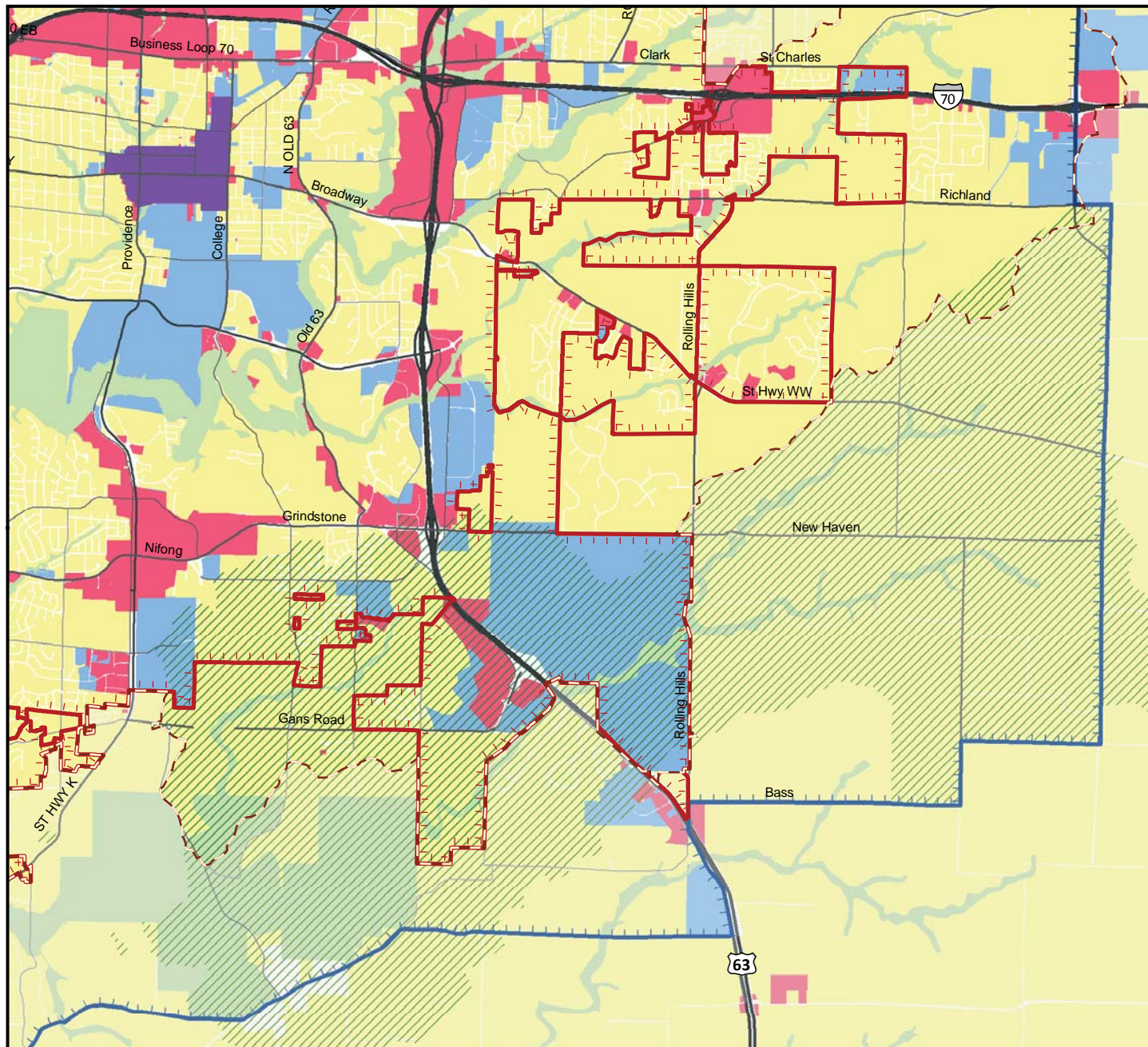






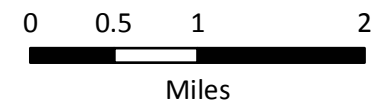
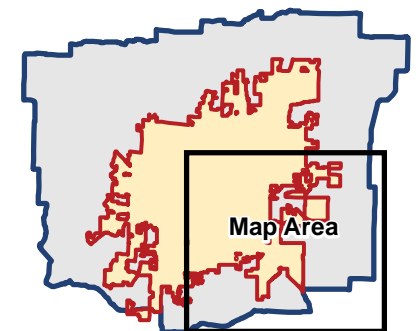
Map 5-4: Future Land Use - Southwest Quadrant  
Source: City of Columbia





### Future Land Use

- Neighborhood District
- Commercial District
- Employment District
- City Center
- Open Space/Greenbelt
- Sensitive Areas
- City Limits
- Urban Service Area
- CATSO Metro Boundary



City of Columbia - Community Development  
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Map 5-5: Future Land Use - Southeast Quadrant  
Source: City of Columbia



## Glossary of Acronyms

<b>ADA</b> - Americans with Disabilities Act	<b>MPO</b> - Metropolitan planning organization
<b>AIA</b> - American Institute of Architects	<b>MSA</b> - Metropolitan statistical area
<b>BCFPD</b> - Boone County Fire Protection District	<b>MU</b> - University of Missouri
<b>BCRSD</b> - Boone County Regional Sewer District	<b>MURR</b> - MU Research Reactor
<b>BMP</b> - Best management practices	<b>NASS</b> - National Agricultural Statistics Service
<b>CAJF</b> - Columbia Area Jobs Foundation	<b>NPDES</b> - National Pollutant Discharge Elimination System
<b>CATSO</b> - Columbia Area Transportation Study Organization	<b>NRI</b> - Natural Resources Inventory
<b>CPS</b> - Columbia Public Schools	<b>NTPP</b> - Non-motorized Transportation Pilot Program
<b>CID</b> - Community Improvement District	<b>OSEDA</b> - University of Missouri Office of Social and Economic Data Analysis
<b>CIP</b> - Capital Improvement Program	<b>PCC</b> - Private common collector
<b>CMCA</b> - Central Missouri Community Action	<b>PDR</b> - Purchase of development rights
<b>COU</b> - Columbia Regional Airport	<b>REDI</b> - Regional Economic Development, Inc.
<b>CPTED</b> - Crime Prevention through Environmental Design	<b>TDD</b> - Transportation Development District
<b>DLC</b> - Downtown Leadership Council	<b>TDR</b> - Transfer of Development Rights
<b>DRC</b> - Development Review Committee	<b>TIF</b> - Tax Increment Financing
<b>EECBG</b> - Energy Efficiency Community Block Grant	<b>TIP</b> - Transportation Improvement Program
<b>EPA</b> - Environmental Protection Agency	<b>TMDL</b> - Total maximum daily load
<b>FTA</b> - Federal Transportation Administration	<b>USA</b> - Urban service area
<b>HUD</b> - Housing and Urban Development	<b>USDA</b> - U.S. Department of Agriculture
<b>IDA</b> - Industrial Development Authority	
<b>IRB</b> - Industrial revenue bonds	
<b>ITF</b> - Infrastructure Task Force	
<b>LED</b> - Light emitting diode	
<b>LEED</b> - Leadership in Energy and Environmental Design	
<b>LEED-ND</b> - LEED for Neighborhood Development	
<b>LID</b> - Low impact development	
<b>LRTP</b> - Long-range Transportation Plan	
<b>MERIC</b> - Missouri Economic Research and Information Center	
<b>MoDNR</b> - Missouri Department of Natural Resources	
<b>MoDOT</b> - Missouri Department of Transportation	

