



Murfreesboro 2035 Comp Plan Future Land Use Map and Chapter 4 Update Summary Report (Joint Workshop 02-16-2022)

This report provides an overview of the revisions for the Future Land Use Map and Chapter 4 text of the Murfreesboro 2035 Comprehensive Plan, tasks completed, factors that were considered in helping to determine the proposed changes, and implementation.

2035 Murfreesboro Existing Plan

Purpose and History

The City of Murfreesboro approved a comprehensive plan, Murfreesboro 2035, in 2017. The plan sets forth a 20-year vision for growth and development and establishes a guide for policy, program, and project initiatives. The plan elements include major functions of the City, including transportation, land use, housing and neighborhoods, parks and recreation, public facilities, historic preservation, and economic development with a focus on population growth and infrastructure. This plan has been utilized by City leadership and staff, for the last five years.

Update to Future Land Use Map

As stated in the Executive Summary for the Murfreesboro 2035 Plan:

"The purpose of the Future Land Use Map and associated policies is to guide the judicious use of zoning and other land development regulations, to ensure the efficient and predictable use of land to accommodate growth and development; to protect public and private property investments from incompatible land uses; and to efficiently coordinate land use and infrastructure needs. The Future Land Use Map reinforces a coherent future land use pattern and should be considered along with the City's Appendix A, Zoning, when development is proposed. The Future Land Use Map illustrates how land uses are assigned to each parcel of land in the Planning Area."

As the City has continued to grow and the vision for land use and infrastructure has been re-evaluated, City leadership has come to understand that, although a good starting point, the Future Land Use Map as adopted did not fully capture the vision and needs for the City of Murfreesboro. To better capture the City's current vision, The Future Land Use Map is being updated to allow it to function as a more accurate tool for establishing the City's infrastructure needs and for evaluating potential growth, development, annexation, and rezoning considerations. It has also been determined that it will be beneficial to include the following elements:

1. Service infill line to help facilitate growth and development in an orderly, planned, and sustainable manner. City growth beyond this line could occur if the area undergoes a study and it is determined that it would be beneficial to the city to include it within the city limits.

2. A new general policy to allow for flexibility related to transitions between designated areas on the Future Land Use Map.
3. New land use categories.
4. Revised land use category text for each type to reflect the City's vision of future growth in these areas.

Project Team and Project Approach

Project Team

The City of Murfreesboro has determined the need to update the Future Land Use Map associated with the 2035 Comprehensive Plan as currently adopted and has engaged Ragan-Smith Associates to help coordinate the update process and to provide a final copy of the revised Future Land Use Map to the City. Ragan-Smith has collaborated with the following team of agencies and experts as part of the process:

- City of Murfreesboro Planning Staff and input from Engineering, Transportation, Water Resources, Parks and Recreation, Police, Fire and Rescue, City Schools, and Administration Departments.
- Input from Planning Commissioners and City Council Members
- Input from local civil engineering firms
- Randall Gross Development Economics for projections of land use estimates
- Smith Seckman Reid Inc for coordination on sanitary sewer capacity issues
- Jim Colson, Advisors Community and Jon Froke Urban Planning for economic development – strategic sites

Approach to Future Land Use Updates

A general project approach has been taken that involves the following steps:

- ✓ Inventory of Existing Conditions / Coordination Meetings (task completed)
- ✓ Analysis of Input Factors and Supporting Maps and Documents (task mostly completed)
- ✓ Preliminary Map Revisions
- ✓ City Leadership Input and Focus Group Feedback
- Implementation of Future Land Use Map and Policy Recommended Revisions

It was determined that the following input factors were important considerations to be integrated into the Future Land Use Map revisions.

1. Establish descriptive language that defines the Future Land Use Map to function as a guide for policy regarding land use, zoning and infrastructure decisions but not as a prescriptive zoning or codified document. This policy approach includes allowing for changes to the land use map if there is a municipal benefit(s), such as but not limited to:
 - Fosters or creates economic development.
 - Creates new high-end jobs (e.g., professional, technical, innovative, etc.) in support of economic development.

- Provides investment in public infrastructure that will bring a significant value to the city.
 - Does not negatively impact or increase costs to the provision of city services, including emergency management and response.
 - Creates a better quality of life, including but not limited to a sense of community, healthy neighborhood, etc.
2. Incorporation of rezoning changes that have been approved since the initial 2035 Future Land Use Map adoption;
 3. Update and clarify the Guiding Principles and Land Use Categories used to shape future land use and establish land use areas on the map;
 4. Evaluate existing and projected land use needs related to general residential, office, commercial and industrial growth and encourage an infill vs. unlimited expansion approach related to infrastructure and city services;
 5. Integration of the impact of sanitary sewer capacity considerations as recently measured in the 201 Facilities Plan ongoing update and sanitary sewer capacity basins;
 6. Integration of the recently completed 2040 Major Thoroughfare Plan; and long-range level of service evaluations done for the city's transportation network;
 7. Integration of park and open space considerations relative to the recently completed Park and Recreation Master Plan;
 8. Evaluation of the Potential Economic Job Development - Strategic Sites recently identified within the city;
 9. The Future Land Use Map uses property parcel boundaries, as established by the City of Murfreesboro GIS, to apply land use categories. A transition policy will be established to give flexibility within or between property lines to allow land use policy to be shaped relative to a site's context as well as its designated property boundary. These same considerations could be used to support site specific changes to the Future Land Use Map. Some examples of where transitions or changes might occur include:
 - Land use boundaries at collector and arterial street intersections may support multiple land use options across street rights of way.
 - More than one type of land use category may be suggested to occur within property boundaries, especially on large parcels.
 - More than one property has been consolidated into a proposed land development.
 - Unique geographical, environmental or infrastructure conditions shape development opportunities differently than property line configurations
 - Current land development patterns support the expansion or contraction of a specific land use boundary or a land use change.
 - Benefits the City by providing an opportunity to improve upon existing public services or general infrastructure needs.
 - Adjustments to the Future Land Use Map should generally consider possible improvements to quality-of-life issues, unique development opportunities and or job creations that can improve economic opportunities in the city.

Reasons to allow for transition flexibility between land use or changes to the Future Land Use Map are not limited to these examples. Each proposed transition or change should be evaluated based on a sites specific surrounding context and the current goals of City leadership.

Coordination and Input Meetings to Date

The following coordination and input meetings have been conducted as part of the inventory and analysis phase of the planning and map revision process:

<u>Task</u>	<u>Date</u>
1. Project Kick off meeting with Ragan Smith Associates and City Staff	1.09.20
2. Internal City Staff meetings to evaluate City Needs for Future Land Use	
o Economic Evaluation	1.24.20
o Future Land Use Map Review	1.27.20
o Sanitary Sewer Capacity	1.31.20
o Integration of current Transportation Plan	2.03.20
3. Inventory / Analysis Meetings with City Staff / Depts and Ragan-Smith	
o Future Land Use Map: Discussed revisions to the Land Use Guiding Principles and Goals.	1.27.20
o Economic Evaluation (Included Randall Gross)	1.29.20
o Sanitary Sewer Capacity (Included SSR team)	2.04.20
o Integration of current Transportation Plan	2.10.20
4. Ongoing project team meetings with City Staff and Ragan-Smith	
o Weekly progress meeting to review land use category descriptions and applications	3.31.20 to 4.28.20
o Bi-Weekly meetings (approximate) to review potential economic development – strategic sites and revised support maps	5.05.20 to 8.11.20
5. Draft of Summary Progress Report	8.31.20
6. Update on land use projections with Randall Gross	9.09.20
7. Summary Progress Report updated per city staff comments	9.18.20
8. Additional updates per team meeting review	10.24.20
9. Weekly team meeting with planning staff to review map changes	1.21 to 5.28
10. Review Map changes with economist (Randal Gross)	5.25.21
11. Review Map revisions / feedback with city administration and leadership	6.21 to 12.21
12. Review Map revisions with City Council members, Planning Commissioners, City Departments, and local civil engineering firms	11.21 to 2.22
13. PC/CC Workshop to review plan	2.16.22
14. Community Engagement Meeting	2.23.22
15. Planning Commission Public Hearing	3.16.22

Implementation

Staff will present the proposed revisions on the Future Land Use Map and Chapter 4 text to the City Council and Planning Commission at a joint workshop on February 9, 2022. A community outreach meeting will be conducted in City Hall the evening of February 23, 2022. Staff will recommend the public hearing for the Future Land Use Map and Chapter 4 Update for the March 16, 2022, Planning Commission meeting.

The consultant, Ragan Smith Assoc., will provide the final Future Land Use Map in both hard copy to an accurate scale and in digital pdf and GIS format with associated shape files. This will allow for the map to be distributed, revised, and updated in the future as needed.

Any changes to the Future Land Use Map should be reviewed by the Planning Director and should include staff analysis on why the change is supported or denied by the Planning Director

Any rezoning that requires a Future Land Use Map revision should require action on the proposed change to the land use category on the Future Land Use Map prior to any action taken on the proposed rezoning request. State law requires the Planning Commission to hold a public hearing on the Plan adoption or amendment and that notification of the public hearing be given at least 30 days prior to the hearing.

Guiding Principles (Revised)

Reason for revisions to Guiding Principles: The Guiding Principles for land use and The Future Land Use Map are important because they become the framework for shaping land use categories and land use policy. The Guiding Principles adopted with the original 2035 plan needed further refinement to capture an understanding of some of the unique qualities and characteristics of Murfreesboro. This includes the need to balance, preserve and enhance our specific cultural history, natural assets and infrastructure with the demand for continued growth as a community. The Guiding Principles were also revised to better reflect recently adopted documents like the Murfreesboro Design Guidelines and the planning and zoning documents related to City Core Overlay District.

The Guiding Principles as outlined here have been revised from the 2035 Plan to better capture the anticipated growth patterns and established vision for the City of Murfreesboro

Guiding Principle 1: Inter-jurisdictional Cooperation. At the regional scale, encourage cooperative growth management and coordination of transportation and utility infrastructure to facilitate more contiguous, compact development patterns, which will, in turn, protect farmland and open space from urban sprawl.

Guiding Principle 2: Growth Management. Enhance Murfreesboro's strong sense of community with sustainable growth management policies that balance infill development areas with greenfield development, while stimulating economic development opportunities. Infill development is developing vacant, derelict or under-utilized parcels, surrounded by existing development, which could fit new buildings, infrastructure or amenities. Existing buildings or facilities shall remain as part of the infill development plans. The term infill implies that existing surrounding area is mostly built-out and what is being built is in effect "filling in" the gaps. The key to defining a project as infill is determined by the existence of a strong existing pattern already established by surrounding development on all sides of the project.

Guiding Principle 3: Fiscally Responsible Development. Effectively manage future growth to achieve a compact urban form and a fiscally responsible pattern of development. Preferably, development should first occur on vacant infill areas and/or areas contiguous to existing development and then span sequentially outward as adequate facilities become available.

Guiding Principle 4: Ensure Equity. The goals and policies of this Plan should ensure fairness and equity in providing for the housing, services, health, safety, and livelihood needs of all citizens and groups. Land use, transportation, and urban form decisions should facilitate equitable access and distribution of resources. Encourage land use decisions that reduce existing disparities, minimize burdens, extend benefits, and improve socio-economic opportunities for underserved and under-represented populations.

Guiding Principle 5: Adhere to City's Capacity. Encourage new development and significant redevelopment where adequate public services and utility capacity are already in place or projected for improvement.

Guiding Principle 6: Identify Environmental Constraints. Plan in context with the physical characteristics of the land, including slope, soil types, shallow depth to karst geological formations

and sinkholes, and other environmental characteristics, floodplains, wetlands, and protect habitat.

Guiding Principle 7: Resilience. Encourage land use decisions that improve the ability of individuals, communities, economic systems, and the natural and built environment to recover from natural and human-made disasters, and economic shifts.

Guiding Principle 8: Preserve Cultural, Historical and Natural Resources. Maintain and enhance Murfreesboro's assets of culture, history, heritage and environment to create and maintain a strong sense of place and provide ways to integrate these assets into public space.

Guiding Principle 9: Mix of Uses. Encourage mixed land use at different scales. Locate retail, office, residential, institutional, and recreational uses within walking distance of each other in compact neighborhoods with pedestrian-oriented streets. Land use diversity will: protect existing investments while providing opportunities for individual initiative and choice; promote multi-modal transportation options and increase walkability; encourage safety in commercial areas through around-the-clock presence of people. Provide the greatest variety of housing types and densities.

Guiding Principle 10: Site design and subdivision of land should be master planned, where possible, thereby creating the opportunity to plan for larger scale with individual sites coordinating within the master plan boundary. The Master Plan will ensure transitions, cohesive design, meaningful open spaces, access, and circulation, rolling service delivery, building densities and availability of neighborhood services. This approach to development may require the assemblage of parcels.

Guiding Principle 11: Ensure Adequate Transitions and Compatibility. Encourage development patterns that provide appropriate transitions and/or buffering between differing land use intensities. Proposed development should transition from the existing development pattern in adjacent neighborhoods. Lots on periphery should be sized consistent with the existing lots within adjacent city neighborhoods.

Guiding Principle 12: Provide Housing Choice. Include a variety of housing types and sizes to accommodate the needs of existing and prospective residents. This includes, but is not limited to, youth, college students, single professionals, families, empty nesters, seniors, and those of varying economic ability. Ensure there are options for convenient, affordable, and dignified places to live. New development must create high-quality housing in suitable areas that can accommodate a variety of lifestyles, households, ages, cultures, market offerings and incomes, including aging seniors, empty nesters, multi-generational households, professionals, families, and the local workforce.

Guiding Principle 13: Enhance Community Identity. Enhance by developing and maintaining design guidelines and land use policies that retain, protect, and promote the quality of life, the sense of place and the unique environment that exists in the City of Murfreesboro.

Guiding Principle 14: Enhance Entrances to the City. Establish a sense of identity and arrival through the creation of community entrance enhancements along Murfreesboro's most visible and heavily used corridors.

Guiding Principle 15: Maintain Neighborhood Characteristics. Maintain characteristics in established neighborhoods, recognize, preserve, and protect the quality and characteristics of existing residential neighborhoods as they mature, and as new development occurs nearby.

Land Use Categories (Revised)

Reason for revising Land Use Categories: The Future Land Use Map is intended to shape policy and growth. It is not a tool to implement specific zoning regulations or design criteria. The Land Use Categories as outlined here have been revised from the 2035 Plan to better capture the anticipated growth patterns and vision for the City of Murfreesboro. Some land use categories were added with the goal of creating strategic economic development sites. Specific Land Use Categories that have been added include Employment-Generating Mixed-Use Category (EG), Business / Innovation (BI), Mixed Form Housing (FH) and Future Study Area (FSA) for land that is to be studied in detail at a later date when it might be annexed into the city and developed.

FUTURE STUDY AREA (FSA)

The Future Study Area category consists mostly of lands that are characterized as agricultural, undeveloped, or suburban or exurban areas developed with single family residential. These areas fall outside of the current city limits but within the Urban Growth Boundary. It is important to note that development utilizing County regulations may continue in the Future Study Area without annexation. Typically, public sanitary sewer availability is limited or unavailable. Roads are typically substandard, ditch-section, no sidewalks, and no streetlights. The Future Study Area lies outside the edge of the infill service area, which depicts the area where the City encourages most of the city growth to develop in a fashion that maximizes use of existing road and utility infrastructure.

The land within the Future Study Area classification is not anticipated to be developed within the city limits within the next 14 years. These areas are not excluded from development, but they will require future study to designate an appropriate land use. Planned Infrastructure improvements may open these areas to development in the future. A plan of services and a Small Area Plan that coordinates the physical development of these areas will be required prior to removing these areas from the Future Study Area designation. The boundary of the Small Area Pan shall be determined by the Planning Director and public infrastructure departments.

Development Types:

- Residential homesteads;
- Large lot, single family detached;
- Agricultural uses, storage and support uses, e.g., barns and related outbuildings;
- Agriculture-focused businesses; and
- Rural hamlets or villages.

Characteristics:

- Rural character resulting from wide open landscapes, with minimal sense of enclosure and open views of the surrounding landscape in most places;
- Scattered residential development on relatively large acreages, resulting in very high open space ratios and very low site coverage (sometimes with residential “estate” areas providing a transition from rural to suburban densities, with estate lots typically being one to 5+ acres);
- Typically, no centralized water or sanitary sewer service available; thus, requiring the utilization of on-site septic (STEP) systems. Also, much greater reliance on natural drainage systems, except where is has been altered significantly by agricultural operations;
- Typically ditch section roads without dedicated pedestrian facilities or streetlights;

- Potential for conservation developments that further concentrate the overall development footprint through cluster designs, with increased open space set-aside to maintain the overall rural character and buffer adjacent properties (may also make alternative community wastewater treatment methods feasible to eliminate the need for individual on-site septic [STEP] systems).

Suggested City Zoning Districts:

- Not Applicable

SUBURBAN ESTATE CHARACTER (SE)

Development of suburban character can be found throughout Murfreesboro, and within the Urban Growth Boundary. A Suburban Estate (SE) character exhibits low-density development on larger properties, thereby producing a visual openness. As a result of larger lot sizes, open space and vegetation are intended to be the more dominant views. The buildings remain the most apparent, dominant forms, with the landscape assuming a designed and apparent, yet secondary role. Depending on the size of the home and its percent of coverage and location on the lot, the Suburban Estate character category may more closely resemble a less dense version of the typical suburban character. To achieve a Suburban Estate character, the design of these subdivisions must actively seek to imitate more rural areas through the use of significant open space throughout the development, the use of rural fence types and/or hedgerows to divide properties, the preservation or planting of native vegetation along property boundaries, and generous building setbacks on all sides. Due to natural and topographic conditions, large estate lots are desired (rivers, steep slopes, easements).

As in other cities, Murfreesboro has fringe areas that have developed with residential intensities that are not appropriate to the location or level of public services available, which is why these areas still fall within the Suburban Estate character classification on the *Future Land Use Map*.

Development Types:

- Residential dwellings set back from streets, highways, and roads;
- Outbuildings are for leisure activities (e.g., pool houses, cabanas, barns recreational vehicle and boats storage) and landscape maintenance (lawn mowers).
- Ornamental landscape enhancements and manicured lawn areas;
- Potential agricultural homesteads; and
- Street stubs to adjacent property for future development and connectivity.

Characteristics:

- Planned and coherent residential development on relatively large acreages, resulting in very high open space ratios and very low site coverage (sometimes with residential “estate” areas providing a transition from rural to suburban densities, with estate lots typically being one to three acres).
- The automobile is often required. Garages are attached or detached and situated to the side or rear of the principal dwelling.
- Street trees consistent with surrounding established lots.
- Typical density ranges up to 1.0 dwelling units per acre (DU/ac)

Suggested City Zoning Districts:

- PRD
- PUD

- RS-15
- Public Institutional land uses may occur in any number of underlying zoning districts if they are determined to be compatible with surrounding land uses.

SUBURBAN RESIDENTIAL CHARACTER (SR)

This community character classification varies from the Urban and Auto-Urban (General) residential character categories in that the character type includes small acreages, large lot estate development or may also be smaller lots clustered around common open space. Amenities may be passive recreation integrated into the master plan with an emphasis on bicycle, pedestrian, and greenway facilities.

One means of achieving enhancement of open space and protection of prominent viewsheds is by clustering development, thereby maintaining an equal or higher density while preserving permanent open space. New Cluster development should set aside thirty (30%) protected open space in an effort to protect viewsheds, floodplains, woodlands, or hilltops. The acreage for STEP-systems and detention ponds do not count toward the open space calculation for cluster developments.

Development Types:

- Detached residential dwellings.

Characteristics:

- There is accommodation of the automobile on sites; however, they are not the prominent view. Garages are typically integrated into the front and side of the home facades.
- Development options can be established which allow for smaller lot sizes in exchange for greater open space, with the additional open space devoted to maintaining the Suburban character and buffering adjacent properties and roads as well as enhancing onsite amenities.
- This land use character typically lends itself to larger front yards with increased front setbacks.
- Street trees consistent with surrounding, established lots.
- Owner associations maintains stormwater management elements and open spaces. Typical density ranges from 1.0 to 4.5 (DU/ac).
- Specific densities must be evaluated based on infrastructure and utility capacities and availability.

Suggested City Zoning Districts:

- Single Family Residential Districts:
 - RS-15
 - RS-12
 - RS-10
 - PRD – supports cluster development that complies with the maximum density permitted but allows smaller lot sizes and the remainder is preserved as common areas and open space.
- Public Institutional land uses may occur in any number of underlying zoning districts if they are determined to be compatible with surrounding land uses.

AUTO-URBAN RESIDENTIAL CHARACTER (AUR)

This designation pertains to current and future residential development and includes primarily detached residential dwellings as primary use; and allows attached housing types (subject to compatibility and open space standards, e.g., townhomes, zero-lot line/patio homes, and three-family structures); planned developments (with a potential mix of housing types and varying densities, subject to compatibility and open space standards), etc.

Development Types:

- Detached single-family residential – primary development type.
- Attached single-family residential – limited development type integrated within the overall plan.

Characteristics:

- Less openness and separation between dwellings compared to suburban character areas, due to size of parcel and proportion of building footprint to parcel;
- Automobile significantly influences the design and character of the dwelling.
- Landscape enhancements are relative to urban scale and land use.
- Cluster development where possible to create usable open space and/or protect area of significant natural, cultural, or historic value.
- Strong amenity packages with active recreation areas that serve all age groups including amenities such as playgrounds, pools, multi-modal paths, clubhouses, and neighborhood recreational opportunities.
- Emphasis on connectivity within the development.
- Street trees or front yard trees located near lot line to help integrate new development patterns into established communities.
- Single-family, detached located adjacent to existing neighborhoods with other development types located away from the existing neighborhoods. Lots on periphery sized consistent with the existing lots within of adjacent city neighborhoods.
- Typical density ranges are from 4.0 to 12 (DU/ac.)
- Specific densities must be evaluated based on infrastructure and utility capacities and availability.
- Any densities that exceed the city sanitary sewer allocation ordinance and resolution must be approved by City Staff and City Council.

Suggested City Zoning Districts:

- Single Family Residential Districts:
 - RS-10
 - RS-8
 - RS-6
 - RS-A1 (limited)
 - RS-A3 (limited)
- Duplex Residential District (R-D)
- Planned Residential Development (PRD)
- Planned Unit Development (PUD)
- Public Institutional land uses may occur in any number of underlying zoning districts if they

are determined to be compatible with surrounding land uses.

Criteria for Attached Residential Development in the AUR District

Attached Residential may fit into the AUR land use areas with the following considerations:

- Minimum development lot size of 10 acres or more;
- 20% Maximum of developable area acreage can be dedicated to or designated as attached residential units;
- 40% Maximum of overall unit count can be attached residential units;
- Transitions for unit height and setback must be provided for single family attached development units adjacent to single-family detached residential land uses that limit height to no more than one floor height above existing single-family units and provide perimeter building setbacks 1.5 times the normal requirement;
- Townhome development within the AUR district will require a Planned Development Approach to ensure the subject criteria is met; and
- A PRD or PUD may exceed these criteria if additional benefits are provided through the dedication of public parks, facilities such as public schools, fire stations, libraries, preservation of historic or heritage sites, etc. Development of public infrastructure needed to serve the proposed development may not contribute toward exceeding criteria.

MIXED FORM HOUSING (FH)

The Mixed Form Housing character classification provides the greatest variety of housing options. The Mixed Form Housing areas are residential in character with a mixture of single-family detached and single-family attached two-, three- and four-unit residential buildings that keep in character with the surrounding neighborhood. Commercial, Office, Live/Work, or Institutional uses may be appropriate only at a scale that maintains the traditional residential character and reflect the scale and context of the area. Development in these areas should focus on forms that relate to the public street, provide architectural details for porches windows and awning treatments and transition well with adjacent properties.

Development Types:

- Detached single-family residential
- Attached single-family residential limited up to four-unit buildings
- Live/work units.

Characteristics:

- Maintain traditional residential character and reflect the scale and context of the area.
- Building height, setbacks and scale that relate to adjacent properties
- Architecture that promotes a residential neighborhood feeling with well-conceived entrances and incorporating porches, stoops, bays and dormers
- Emphasis on design detailing of street facing facades. Informal on-street parking combined with on-site parking set back from the front façade of the home or building or at the rear of buildings
- Sidewalks and front landscaping that connects to the public street and existing pedestrian networks. Walkability of streets.
- Infill development designed so that two-family, three-family and four-family residential buildings resemble traditional single-family buildings.

Suggested City Zoning Districts:

- Single Family Residential Districts:
 - RS-10
 - RS-8
 - RS-6
 - RS-A1
 - RS-A2
 - RS-A3
- Duplex Residential District (R-D)
- Planned Residential Development (PRD)
- Planned Unit Development (PUD)

MULTI-FAMILY CHARACTER (MF)

Higher density residential uses such as triplexes, quadplexes, and multiple-family housing. With the higher density provided with multi-family, there is also the requirement to provide on-site amenities and open space designed for public activities.

Development Types:

- High density residential that could allow for rental or condominium (fee simple ownership) opportunities.

Characteristics:

- Designated recreational areas, often with pool house and pool, as well as other upgrades and amenities.
- Multi-family communities may be designed as private, gated neighborhoods or strongly oriented towards urban or public space, but in all cases, they should be designed to fit in visual context of their surroundings and related to public roadways.
- Typical density ranges are up to 16 (DU/ac) or as directed by the Sanitary Sewer Allocation Ordinance.

Suggested City Zoning Districts:

- Residential Multi-family District (RM)
 - RM-12
 - RM-16
- Planned Residential Development (PRD)
- Planned Unit Development (PUD)

NEIGHBORHOOD COMPATIBLE OVERLAY (NC)

The Neighborhood Compatible (NC) overlay designation is applied to established neighborhoods that are largely built-out and stable, and where no significant change in development type or pattern is expected or desired. To implement the intent and policies of Chapter 4, *Land Use and Character*, the current zoning designations for these NC areas may warrant repurposing, and their uses and standards may require recalibration, to achieve certain, desired development outcomes. This recommended approach to the zoning of existing neighborhoods allows for compatible building additions and site improvements, whereas typical zoning designations may cause such positive actions to require variances or worse and reduce “nonconformities.”

As a result, desired reinvestment is promoted while ensuring that existing neighborhood character is maintained even with redevelopment or infill activity (it is possible that changes in stable neighborhoods generally come from incremental expansion and modification of existing homes over time).

Development Types:

- Depending on neighborhood-specific standards;
- Detached residential dwellings;
- Attached residential and multi-family dwellings.

Characteristics:

- Integrity of older, intact neighborhoods protected through customized Neighborhood Compatible land use policies ensure no significant change in the development type or pattern and reinforce existing physical conditions (e.g., lot sizes, building setbacks, etc.).
- Intended to preserve existing housing stock (and avoid excessive nonconformities and variance requests) and parcel sizes, and to guide periodic infill and/or redevelopment activity within a neighborhood to ensure compatibility.

SUBURBAN (NEIGHBORHOOD) COMMERCIAL CHARACTER (NC)

Outside of Murfreesboro's Downtown, there are commercial and office nodes that are automobile-oriented but designed at a neighborhood scale and cater to pedestrians in Neighborhood Commercial configurations. Rather than designing linear strips, these neighborhood commercial centers occupy much smaller building footprints than typical businesses found at significant transportation intersections and provide neighborhood conveniences such as drug stores, professional services, and boutique retail uses. Small food markets are often accompanied by convenience stores and personal service establishments such as banks, dry cleaners, and small-scale drug stores. The Neighborhood Commercial category also includes residences that have been converted into professional offices. Proposed locations include smaller commercial centers adjacent to and surrounded by neighborhoods and at principal intersections of community collector streets.

Development Types:

- Professional offices, convenience stores, dry cleaners, post offices, cafés & coffee shops, drug stores, personal service establishments, banks, and neighborhood retail.

Characteristics:

- Non-residential development should be small-scale, low-intensity land uses, generally about the same scale and intensity level (building size, shape, and footprint) as residential development within the Suburban Estate (SE) or Suburban Residential (SR) character categories; and clustered at intersections of community collector thoroughfares. Parking is often not the dominant view and may be screened by garden walls and ornamental hedges.
- Service vehicles typically are smaller in size (box trucks), than a conventional semi-trailer to accommodate deliveries in confined neighborhood areas.
- Signage is significantly reduced in size.
- Additional buffers and transitions will be important.
- Design of Suburban Neighborhood Commercial should promote a neighborhood scale to the architecture. Uses should be compatible with surrounding residential use and neighborhood character. Roof form is particularly important, height should transition down to the height of contiguous dwellings.
- Neighborhood shopping areas are typically designed to serve a localized trade area within

a community. The neighborhood shopping areas serve a radius about one mile.

- Pedestrian and bicycle facilities integrated into the layout
- Drive-thru are discouraged however they may be allowed if they are integrated into the design to not be prominent.

Suggested City Zoning Districts:

- Commercial Fringe District (CF)
- General Office District (OG)
- Medical District - Commercial (CM)

BUSINESS (OFFICE) PARK CHARACTER (BP)

The purpose of the Business Park [BP] land use classification for this Comprehensive Plan's *Future Land Use Map*, is to foster stability and growth of high-quality office and office/distribution, technology, research and development, and similar industries that are enhanced by access transportation networks and that provide desirable employment opportunities for the general welfare of the community. Business Parks are suburban in character, are typically developed in a campus-style setting that features reduced site coverage and increased open space; and may include offices and associated administrative, executive professional uses, and specified institutional and limited commercial uses.

Development Types:

Many businesses located in an office setting provide professional services. From a land use planning perspective, it is important to distinguish office uses from other commercial activities. The "pure" office uses entail minimal amounts of interaction with customers. Employees are the primary activity generators for offices.

- Primarily office, medical, and technology/research uses; higher-density auto urban (general); Public/institutional; and common green spaces or publicly available parks, greenways, etc.

Characteristics:

- Typically, a minimum Open Space ratio of 20 to 30 percent, which allows for sizable building footprints since most developments involve large sites.
- Extensive landscaping of business park perimeter, and special streetscape and design treatments at entries, key intersections, and internal focal points.
- Development outcomes often controlled by private covenants and restrictions that exceed City ordinances and development standards.
- Intended to create a highly attractive business investment environment.
- Site operations are conducted indoors with no outdoor storage or display.
- Encourage the formation of new unified business park corridors (e.g., Veterans Parkway) or the development of individual parcels as part of business parks by focusing new growth in a more clustered pattern, as opposed to isolated parcels along strips of non-residential land uses lining thoroughfares.
- Sufficient acreage, either on one parcel or through assembling multiple parcels, to ensure that current and future expansion needs are satisfied. The estimated size of business park is 50-250 acres.

- Configuration: Square or rectangular sites are preferred as they offer the greatest flexibility and satisfy most uses.
- Shovel-ready sites: In-place infrastructure (e.g., utilities, accessibility, rail, etc.) increases speed-to-market, decreases construction / implementation costs, and minimizes risk (e.g., a proposed access road or interchange may not be constructed when planned).

Suggested City Zoning Districts:

- General Office District (OG)
- General Office District - Residential (OG-R)
- Medical District - Commercial (CM)
- Planned Commercial District (PCD)
- Planned Institutional District (PND)

(GENERAL) COMMERCIAL CHARACTER (GC)

This designation pertains to commercial development as well as outparcels located on arterial and collector transportation routes.

The primary difference in Urban and Auto-Urban character categories is the role of the automobile in its site design. Rather than buildings oriented to the street, as in an urban setting, such as what is found in downtown, auto-urban environments are characterized by large parking lots surrounding the buildings.

Auto-Urban commercial uses include high intensity commercial businesses that have a trade area outside of Murfreesboro and/or require a large amount of land for their operations. Uses like regional shopping center, grocery, hotels, gas stations, restaurants, and “big box” retailers. Due to the potential for these uses to generate high traffic volumes, their location should be on or with adequate access to arterial roadways.

Development Types:

- Commercial centers along major roadways, with a range of uses, including those on high-profile “pad” sites along the roadway frontage; in addition to outparcel development.
- Automobile service-related enterprises (e.g., gas / service stations, auto parts, car washes).
- Restaurant chains (e.g., fast food, other).
- “Big-box” commercial stores (e.g., grocery, appliances, department/discount stores, clothing, etc.).
- Hotels.

Characteristics:

- Significant portions of development sites devoted to vehicular access drives, circulation routes, surface parking, and loading/delivery areas;
- Includes Formal Open Space;
- Pedestrian connections to public roadway required;
- Joint / shared parking and access between parcels is required.
- Shared plazas and/or seating area located between principal use and outparcels.

Suggested City Zoning Districts:

- Highway Commercial District (CH)
- Planned Commercial District (PCD)

- Planned Unit Development (PUD)
- Planned Institutional District (PND)

MIXED-USE CENTER (MU)

Provides opportunities for residential mixed with commercial, retail, and office, typically with a vertical element of multiple uses in the same building. Mixed use areas can fit along primary transportation routes, nodes of commerce adjoining key intersections or at transition points between traditional commercial areas and residential neighborhoods. Mixed-Use Centers reserve and provide employment sites in the centers with an integrated mix of commercial, retail, office and residential. Mixed-Use centers have a greater concentration of housing types; the highest density is sited closest to transit stops, shopping and services, and places of employment. Mixed-Use Centers are to be master planned.

Murfreesboro's Downtown typifies what is envisioned for the density and intensity of development within the Mixed-Use land use classification. The Downtown retains the historic fabric and design of a traditional mixed-use, central business district. This urban environment is characterized by taller, larger buildings that occupy most if not all the site and are set at the street edge with parking largely on-street and in structures, with reduced common surface parking lots. The North Highland and Historic Bottoms Area Plans are located within the Central Core Overlay District and establish appropriate future land use patterns within the downtown area and shall be utilized to shape land use policies and proposed development within the City Core Overlay areas.

Mixed use areas shall be designed for pedestrians and connectivity to surrounding neighborhoods and places of commerce. Sidewalks are wider and pedestrian uses emphasized rather than automobile use, and buildings should be designed to fit well into the surrounding context. Mixed use areas are Master Planned to establish land use and design elements. Streets are scaled to address multiple forms of access, such as pedestrians, bicycles, and motor vehicles.

Development Types:

- Allows a broad range of commercial, office and high-density residential uses and public spaces serving surrounding neighborhoods, commercial / professional business parks and visitors from nearby communities. Mixed Use developments are required to provide office, commercial and retail spaces in addition to residential uses.

Characteristics:

- Streets and other public spaces framed by buildings with zero/minimal front setbacks, creating "architectural enclosure" with enhanced streetscape design;
- Multi-story structures.
- Amenities integrated into the site design, common areas, streets and open space.
- More conducive for pedestrian activity and interaction with wide sidewalks, includes public plazas and pocket parks providing open space amid an urban environment and a place to gather and host community events.
- First floor has extensive expanses of glass, windows or transparency.
- Promotes regional pedestrian-oriented, mixed-use centers with integrated, complementary uses; with convention/assembly and/or parks and public spaces that draw visitors from surrounding neighborhoods and communities within the region.
- Structured, shared and on-street parking is encouraged. On-site parking is oriented toward the rear or sides.

- Joint access to streets is required.
- Service areas located off of or adjacent to alleys.
- Residential design is encouraged to utilize alley access to maximize the interface along the streetscape. Front entry garages that protrude beyond the front-face of the dwelling unit are prohibited.
- Lots on periphery sized consistent with the existing lots of adjacent city neighborhoods or significant buffers located between Mixed Use Center and existing city neighborhoods.
- Master plan is required for all properties.

Suggested City Zoning Districts:

- Central Business District (CBD)
- Mixed Use District (MU)
- Planned Unit Development (PUD)
- These areas may be appropriate for special area studies.

GENERAL INDUSTRIAL CHARACTER (GI)

Murfreesboro should provide attractive sites for future industrial (light and general) development to provide additional employment opportunities to those who reside in the City as well as for residents who live in the surrounding area. The intent of the General Industrial land use classification is to provide facilities for design, assembly, finishing, packaging, and storing of products or materials that have usually been processed at least once. These activities are characterized as “clean”, since they produce a relatively small amount of environmental outputs, including, but not limited to smoke, gas, odor, dust, noise, vibration of earth, soot or lighting; to a degree that is not offensive when measured at the property line of subject property.

General industries include facilities for administration, research, assembly, storage, warehousing, and shipping. Examples are electronics firms, trucking companies, small textile mills, and auto assembly plants. Characteristic features may include the nature of the buildings, parking and shipping arrangements, the presence of outdoor storage facilities, trailer trucks, loading docks, rail lines, and power sources. Development standards for light industrial industries include the minimum necessary to assure safe, functional, efficient, and environmentally sound development, and may have to conform to certain requirements regarding enclosure, screening and minimum distance from residential districts.

Site with in-place infrastructure is preferred (e.g., utilities, accessibility, rail, etc.) increases speed-to-market, decreases construction / implementation costs, and minimizes risk (e.g., a proposed access road or interchange may not be constructed when planned).

Development Types:

- Light manufacturing and assembly;
- Distribution, and warehousing;
- Uses involving handling, storage, or shipping;
- Laboratories for research and development;
- Food production clusters (e.g., breweries, cookie, cracker and pasta manufacturing); and
- Arts and crafts manufacturing cluster (e.g., commercial screen printing, pottery product manufacturing, ornamental and architectural metalwork manufacturing).

Characteristics:

Predominantly characterized by large parking and storage yards and minimal greenspace. Typically has an office with enhanced façade oriented toward the public rights-of-way. Service

areas are screened with berms or sited away from public view.

Suggested Siting Criteria:

1. Light industrial, warehousing and distribution uses that are well-screened and in buildings with upgraded facade treatments;
2. Ensure adequate truck loading and maneuvering areas within a building or in a side or rear yard, in such a way that all storage, standing and maneuvering of trucks will take place solely on private property and is well-screened from all public thoroughfares.
3. Light industrial land uses, and industrial parks shall be located near freeways with adequate access provided by thoroughfares. Access to rail is desirable where possible.
4. Sufficient street frontage to accommodate structures, parking, and access while in character with adjacent non-industrial properties.

City Zoning Districts:

- Light Industrial (LI)
- General Industrial (GI)
- Planned Industrial District (PID)

HEAVY INDUSTRIAL (HI)

The Industrial use classification combines activities of both light and heavy industry. Uses such as office / warehouse, wholesale, product assembly & distribution, and light manufacturing are included with heavier uses that often include outdoor storage, display, and work activity. Heavier industrial uses include manufacturing and processing of raw materials, outdoor storage and uses that may create impacts relating to odor, noise, air quality, and aesthetics. A Special Use Permit may be required for some uses. This classification is sited based upon the availability of utilities infrastructure, e.g., the ancillary services required in the operation of any production process. Industrial uses should have access to major roadways and rail spurs, and cost-saving infrastructure such as dedicated water supplies, waste systems and electric power systems.

Development Types:

- Heavy and General industrial;
- Office or Commercial uses accessory to a primary industrial use.

Characteristics:

- Outdoor activity and storage, the effects of which should be mitigated for visual impacts to adjacent public and private property and public rights-of-way, this shall include screening;
- Located away from residential uses and districts;
- May involve significant truck traffic from multi-axle trucks or direct rail service;
- May include on-site presence of large-scale moving equipment in some cases;
- Potential for environmental impacts that may affect the proximity and type of adjacent uses, including particulate emissions, noise, vibrations, smells, etc., plus the risk of fire or explosion depending on the materials handled or processed;
- Certain intensive publicly owned uses (e.g., public works facilities, fleet maintenance, treatment plants, fire training) are best suited within Industrial areas.

Suggested Siting Criteria:

1. Availability of Utilities Infrastructure, e.g., the ancillary services required in the operation of any production process.
2. Industrial uses should have access to major roadways and rail spurs, and cost-saving infrastructure such as dedicated water supplies, waste systems and electric power systems.

Suggested City Zoning Districts:

- Heavy Industrial District (H-I)
- Planned Industrial District (PID)

PUBLIC / PRIVATE INSTITUTIONAL (PI)

Institutional land uses include improved parcels and facilities that are held in the public interest. This category encompasses major City, County, or State-owned facilities, plus other public and private buildings and sites with an institutional nature. This classification is also for development that supports municipal / regional special uses and functions, and may include utilities and transportation-related infrastructure; and for uses that may require a special zoning overlay district, such as the Murfreesboro Municipal Airport, which includes Airport Overlay District (AOD) that establishes regulations which will reduce or eliminate hazards to air navigation to minimize or prevent the loss of life, property damage, health and safety hazards, and government expenditures which result from air traffic accidents.

Development Types:

- Municipal and other government buildings;
- Public safety facilities (police, fire);
- Public and private institutional uses (including collages, public or private schools - grades K-12, country clubs, clubs, religious facilities, recreational fields/facilities, historic structures, wetlands, and other resources)
- Hospitals and medical centers;
- Public and private cemeteries;
- Murfreesboro Municipal Airport;
- Wastewater treatment plant and public utility facilities;
- Water Towers;
- Correctional facilities or jails.

Characteristics:

- Most Public / Institutional land uses provide public benefit;
- High degree of visitation and/or pedestrian activity in some cases, with people coming and going throughout the day;
- Institutional functions may require multiple buildings, arranged in a campus-like setting;
- Facilities may have special parking and passenger drop-off requirements;
- Public Institutional land uses usually require careful consideration of transportation patterns and surrounding open space.

City Zoning Districts:

- College and University District (CU)
- Planned Institutional Development (PND)
- Public Institutional land uses may occur in any number of underlying zoning districts if they

are determined to be compatible with surrounding land uses and often times require approval of a Special Use Permit by the Board of Zoning Appeals.

EMPLOYMENT-GENERATING – MIXED USE (EG)

The overall purpose of the Employment-Generating Mixed-Use land use (EG) is to allow and encourage flexibility and creativity in the design and development of comprehensively planned, higher-density, high-amenity mixed-use centers with a priority to create and foster employment generating uses. Areas should be monitored and protected in order to reserve prime sites for future employment growth and business recruitment and not convert the land to residential or commercial uses. The primary land use within the Employment-Generating Mixed-Use category is employment generating activity, primarily office, high-end tech based, sports tourism, etc. Retail, entertainment, open/public space and multi-family residential components are vital, yet supportive elements. The land use by design allows and encourages higher densities, amenities, and a more integrated development pattern. The development of the employment generating component must occur within the first phase of all development. For purposes of this category, Employment generating is defined as uses derived by employers who create office-oriented jobs including headquarters, regional operations centers, research and development, medical, digital arts, tech-based innovation, and other jobs that would be reasonably considered professional, technical and innovative.

Development Types:

- Office parks
- Business innovation and research centers
- Mixed Use Centers that focus on office but can include residential, commercial, park and open space components
- Indoor/ Outdoor sports training facilities and complexes that generate a demand for hospitality-based services and may be considered “sports tourism”
- High density vertical residential development with emphasis on owner-occupied house, with supporting amenities, which may include first floor retail and offices.
- Executive housing.

Characteristics:

- The development of the employment generating component must occur within the first phase of all development. Because residential, retail and other commercial uses are supportive to the Employment Generating land use, they cannot precede development of the Employment Generating use. Intended to create a highly attractive business investment environment.
- Master planning sites is required. Job creation must be in place prior to the development of residential.
- Development that strengthens the City’s economic base and provides proximate linkages between a diversity of employment-generating development, including mid-rise and high-rise buildings, retail, commercial, restaurants, entertainment, open space and high-density/high-amenity multi-family.
- The expectation is these areas will have a higher quality of design, materials, etc.
- Overlay districts to help regulate high quality design, materials, etc. is encouraged.
- Development that creates an active street life, enhances the vitality of businesses, generates a diversity of quality-of-life amenities, and reduces internal vehicular traffic.

- Because employment generating uses shall be developed before residential, supporting commercial or other supporting non-residential uses, these shall be developed in such a manner as to be co-dependent, functionally integrated, and complementary of each other and supportive of employment generating activities.
- Development that encourages orderly, phased development of large-scale, comprehensively planned mixed- use projects.
- To encourage and provide for open space not only for use as setbacks and yards surrounding structures and related walkways, but also conveniently located with respect to points of residential and commercial and/or employment concentration to function for the general benefit of the community and public at large as places for relaxation, recreation, and social activity. It is also intended that open space and amenities be located to achieve the physical and aesthetic integration of the uses and activities within each development.
- Provides linkages between uses to present as an integrated master planned area.
- High intensity uses and/or taller buildings located on periphery and less intensive uses near established neighborhoods.

Suggested City Zoning Districts:

- General Office District (OG)
- Medical District - Commercial (CM)
- Planned Unit Development (PUD)
- Park (P)

Master Planning Concepts and Design Parameters:

- Projects in the EG land use category should take a master plan approach to development
- Submittal of Total Site Master Plan with anticipated phases of development
- Residential must trail employment generating and is limited to less than 30% of overall development area by square feet.
- Employment generating development (office, research and development, technology, sports tourism, etc.) must occur prior to triggering other types of development (retail, entertainment, commercial, residential open space, etc....).
- Because residential, retail, and other commercial uses are supportive to the Employment Generating land use, they cannot precede development of the Employment Generating use.
- Retail and Commercial development support office development. Enhance quality of life and diversity of opportunity.
- Open space and amenities are critical design elements.
- Linkage to regional transportation nodes and multi modal transportation network

BUSINESS / INNOVATION (BI)

The overall purpose of the Business/Innovation category is to encourage and allow for a mixture of higher scale jobs, industrial and advanced manufacturing uses, all within a cohesive setting, on a larger scale than development plans for individual businesses. Industrial arts, workshops, high tech fabrication, processing and assembly, and other industrial uses are permitted in addition to commercial uses. Vocational training, technological learning centers,

medical campuses and research/ development institutions are also appropriate land uses. Emphasis is on business innovation as a primary use and commercial as secondary land uses. New development should be master planned.

Development Types:

- Industrial and manufacturing parks
- Business innovation and research centers
- Advanced manufacturing, research and development, incubator industrial, and office space.
- Industrial Centers primary focus is industry and innovation, but can include commercial, park and open space components.

Characteristics:

- Development that strengthens the City's economic base and provides proximate linkages between a diversity of employment-generating industrial or manufacturing development, may include mid-rise and high-rise buildings.
- Development that creates an active street life, enhances the vitality of businesses, generates a diversity of quality-of-life amenities, and reduces internal vehicular traffic.
- Developments should incorporate multi modal transportation networks that include transit, auto, bicycle and pedestrian accommodations.
- Additional environmental performance standards should be employed for properties designated as Business/Innovation Mixed-Use, such as hours of activity, loading, noise levels and lighting, to ensure that the intensity of the industrially oriented uses is comparable to neighboring uses.
- Development that encourages orderly, staged development of large-scale, comprehensively planned projects.
- Intended to create a highly attractive business investment environment.

Suggested City Zoning Districts:

- Light Industrial (LI)
- General Industrial (GI)
- Planned Industrial District (PID)
- Medical District - Commercial (CM)

PARK / OPEN SPACE (P)

This use category includes all existing city, county, state, or national parks, outdoor recreation areas and open spaces that have been dedicated to public or community enjoyment and recreational pursuits.

Development Types:

- Public parks and open space;
- Public greenways and recreational trails;
- Public recreation areas (e.g., public golf courses, blueways, water course, etc.);
- Public or private lands within floodway;
- Public cemeteries

Characteristics:

- The city's park and recreation master plan should be reference for appropriate areas and design characteristics when considering future development and rezoning.

Suggested City Zoning Districts:

- Park District (P)
- Park land use may occur in any number of underlying zoning districts if it is determined to be compatible and desirable with surrounding land use.

Key Points and Primary Changes in Land Use Categories: Most of the changes in land use categories have been made to reflect terms and conditions that are relative to land use patterns here in Middle Tennessee. Some of the character descriptions previously used were relative to development patterns that better compared to other areas of the country. References to specific zoning standards and criteria were also removed from the land use category descriptions as The Future Land Use Map is intended to shape policy and growth. It is not a tool to implement specific zoning regulations or design criteria.

Land Use Projections

Reasons for Land Use Projections: The Land Use Projections give a general snapshot of how much growth might occur in different categories based on current demographics and growth patterns. This is a broad way to estimate what types of land use might have the greatest future demand translated into rough acreage approximations. Projections were not based on market analysis or a detailed inventory of existing land use conditions.

These tables summarize 2030 land use projections for the City of Murfreesboro for four primary land use categories: Housing, Office, Retail, and Industrial. Each of the projections is expressed in terms of both units (DUs or square feet) and acres.

These land use projections are based on a combination of demographic, economic, and associated at-place employment projections made largely at the county level and disaggregated for Murfreesboro. Demographic and economic data were sourced from the following agencies and organizations:

U.S. Bureau of the Census Economics	U.S. Bureau of Labor Statistics Woods & Poole Claritas, LLC (Environics Analytics) BOMA Moody's Analytics
UT Boyd Center (BER)	NAIOP
TN Dept of Labor & Workforce Dev. Avison Young	Collier's International American Planning Association (APA)
Cushman & Wakefield	LoopNet
Rutherford County Assessor	<i>Suburban Gridlock</i> (Robert Cevero)

Housing is projected on a gross low-medium-high basis through 2050, although there is the opportunity to disaggregate the projections into single- and multi-family typologies. There would need to be some iterative discussions of policy decisions that might impact on the assumptions for multi-family, since these housing projections are based not on market demand but on household projections.

Commercial brokerage inventory data was used as a comparative baseline since local source data was not available. The projections are city-wide and do not reflect policy in any one sub-area within the city. The projections do not account for infrastructure or capacity constraints beyond what is already integrated into demographic and employment projections by State Government and private sources. However, projections at the sub-area level would need to account for such constraints as one basis for differentiation.

OFFICE

Table. OFFICE SPACE PROJECTIONS FOR SELECTED INDUSTRIES, MURFREESBORO, 2020-2030				
Industry	SF/Emp	2020-2025	2025-2030	TOTAL
Finance & Insurance	354	60,483	76,473	136,957
Transport Services	238	30,639	21,323	51,961
Prof/Tech/Bus Svc	382	51,415	44,746	96,161
Mgt of Companies	477	15,362	9,760	25,122
Admin Support	307	69,291	79,138	148,429
Information	307	(552)	(1,763)	(2,315)
Non-Profits/Civic	273	2,041	1,392	3,433
Health Care/Medical	341	58,697	81,748	140,445
Real Estate	296	15,183	11,868	27,051
TOTAL		302,560	324,685	627,245
<i>Per Year</i>		<i>60,512</i>	<i>64,937</i>	<i>62,724</i>
Sources:	BOMA; US Bureau of the Census, Woods & Poole, Moody's Analytics; and Randall Gross / Dev. Economics.			

Table. OFFICE ACRES REQUIRED BY 2030, MURFREESBORO			
Industry	2020-25	2025-30	TOTAL
Finance & Insurance	5.62	7.10	12.72
Transport Services	2.85	1.98	4.83
Prof/Tech/Bus Services	4.78	4.16	8.93
Mgt of Companies	1.43	0.91	2.33
Admin Support	6.44	7.35	13.79
Information	(0.05)	(0.16)	(0.21)
Non-Profits/Civic	0.19	0.13	0.32
Health Care/Medical	5.45	7.59	13.04
Real Estate	1.41	1.10	2.51
TOTAL	28.10	30.16	58.26
<i>Per Year</i>	<i>5.62</i>	<i>6.03</i>	<i>5.83</i>
Sources:	Loopnet, Rutherford County Assessor, APA, and RGDE		

INDUSTRIAL

Table. INDUSTRIAL SPACE PROJECTIONS FOR SELECTED INDUSTRIES, MURFREESBORO, 2020-2030				
Industry	SF/Emp	2020-2025	2025-2030	TOTAL
Ag, Forestry, Fisheries	1,074	32,395	27,769	60,164
Mining (Quarry)	1,074	61	39	100
Utilities	1,074	208,131	91,388	299,519
Construction	369	22,081	10,532	32,614
Manufacturing	707	17,180	21,713	38,892
Wholesale Trade	2,376	123,250	88,762	212,012
Transport & Whse.	2,376	808,804	562,888	1,371,692
Information	369	(1,406)	(4,493)	(5,899)
R&D/Tech	369	30,769	16,529	47,298
Other Services	369	9,661	8,478	18,139
TOTAL		1,228,845	813,072	2,041,917
<i>Per Year</i>		<i>245,769</i>	<i>162,614</i>	<i>204,192</i>
Sources:	BOMA; US Bureau of the Census, Woods & Poole, Moody's Analytics; and Randall Gross / Dev. Economics.			

Table. INDUSTRIAL ACRES REQUIRED BY 2030, MURFREESBORO			
Industry	2020-25	2025-30	TOTAL
Ag, Forestry, Fisheries	4.65	3.99	8.63
Mining (Quarry)	0.01	0.01	0.01
Utilities	29.87	13.12	42.99
Construction	3.17	1.51	4.68
Manufacturing	2.47	3.12	5.58
Wholesale Trade	17.69	12.74	30.43
Transport & Warehouse	116.08	80.79	196.87
Information	(0.20)	(0.64)	(0.85)
R&D/Tech	4.42	2.37	6.79
Other Services	1.39	1.22	2.60
TOTAL	176.37	116.69	293.06
<i>Per Year</i>	<i>35.27</i>	<i>23.34</i>	<i>29.31</i>
Sources:	Suburban Gridlock, Rutherford County Assessor, and RGDE		

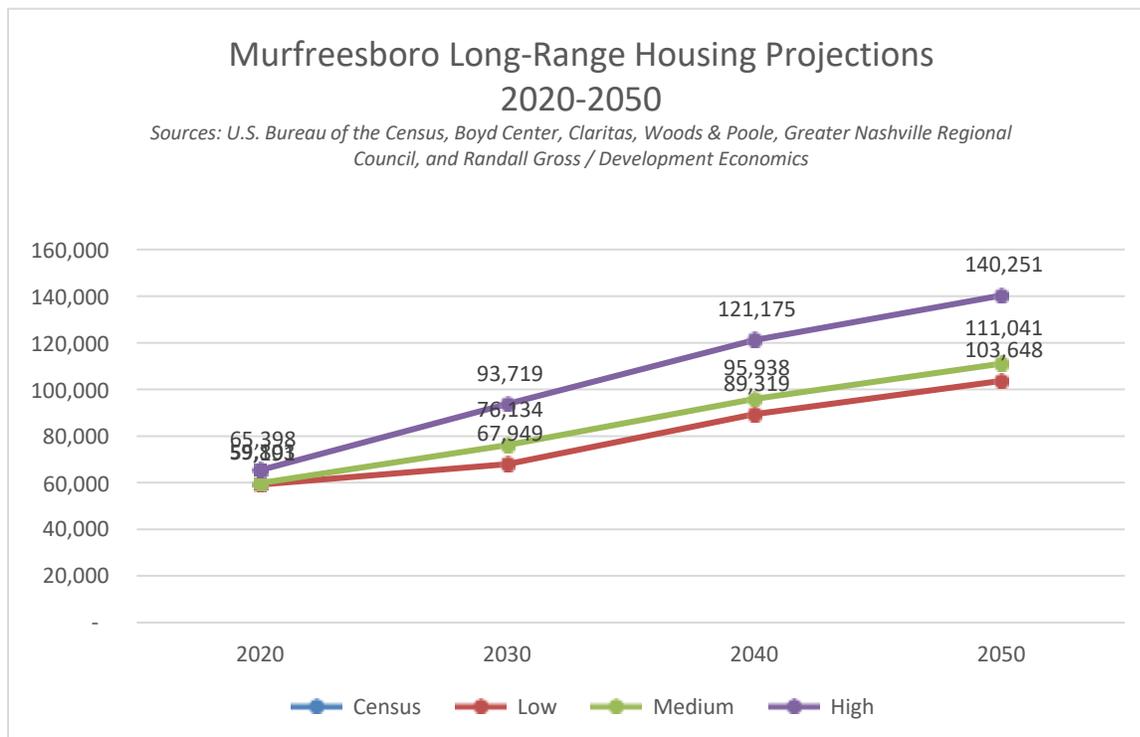
RETAIL

Table. RETAIL SPACE PROJECTIONS FOR SELECTED INDUSTRIES, MURFREESBORO, 2020-2030				
Industry	SF/Emp	2020-2025	2025-2030	TOTAL
Retail Trade	668	653,184	568,835	1,222,019
Foodservice	257	327,345	315,351	642,695
Personal Services	360	6,349	4,950	11,299
Comm. Entertainment	924	1,141	889	2,030
TOTAL		986,877	889,136	1,876,013
<i>Per Year</i>		<i>197,375</i>	<i>177,827</i>	<i>187,601</i>
Sources:	Avison Young; US Bureau of the Census, Woods & Poole, Moody's Analytics; and Randall Gross / Dev. Economics.			

Table. RETAIL ACRES REQUIRED BY 2030, MURFREESBORO			
Industry	2020-25	2025-30	TOTAL
Retail Trade	70.62	61.50	132.12
Foodservice	35.39	34.10	69.49
Personal Services	0.69	0.54	1.22
Comm. Entertainment	0.12	0.10	0.22
TOTAL	106.70	96.13	202.83
<i>Per Year</i>	<i>21.34</i>	<i>19.23</i>	<i>20.28</i>
Sources:	APA, Rutherford County Assessor, LoopNet, and RGDE		

HOUSING

Table.	MURFREESBORO HOUSING PROJECTIONS, 2020-2050			
Horizon Yr	Census	Low	Medium	High
2020	59,191	59,191	59,803	65,398
2030		67,949	76,134	93,719
2040		89,319	95,938	121,175
2050		103,648	111,041	140,251
Notes:	2020 Census is estimated using Linear regression of annual ACS estimates from 2010.			
Sources:	U.S. Bureau of the Census, Boyd Center, Claritas LLC, Woods & Poole, Greater Nashville Regional Council, and Randall Gross / Development Econ.			



Housing acreage projections relied on an estimate of existing developed residential acres as a basis for translating units to acres. Murfreesboro has an estimated total 26,007.6 acres in residential zones and about 59,190 residential units. For residential land use projections an estimate of 66.6% of residentially zoned land was assumed to be built. This resulted in the following acreage projections.

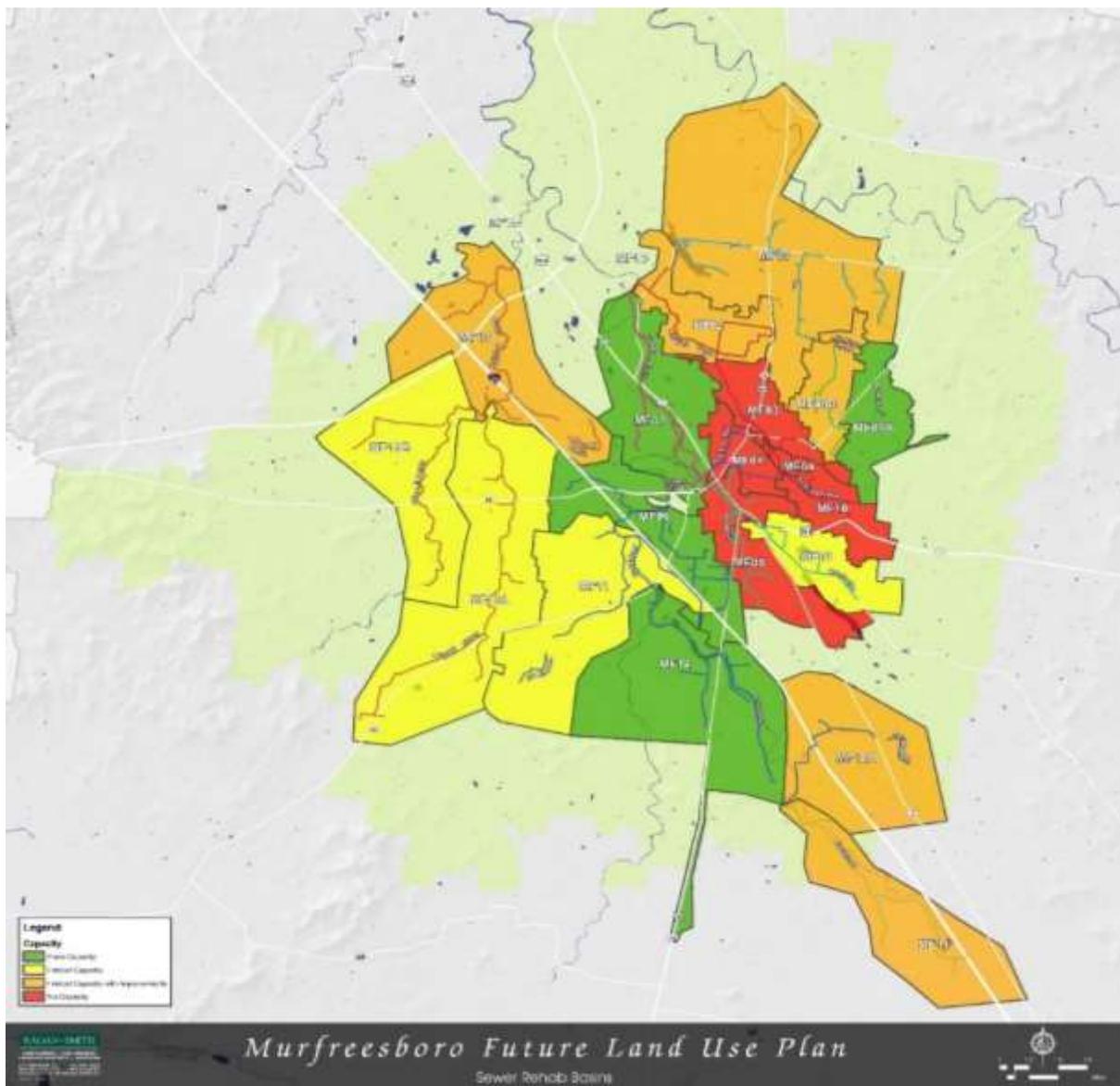
Table. TOTAL MURFREESBORO HOUSING ACREAGE, 2020-2050				
Horizon Yr	Census	Low	Medium	High
2020	17,338	17,338	17,518	19,157
2030		19,904	22,301	27,453
2040		26,163	28,103	35,495
2050		30,361	32,526	41,083
Notes:	Acreage projections assume average 0.29 acres per unit, using total residential acreage & housing units.			
Sources:	U.S. Bureau of the Census, Boyd Center, Claritas, Woods & Poole, Greater Nashville Regional Council, and Randall Gross / Development Econ.			

Key Points relative to Land Use Projections: Based on the estimated land use projections, **residential land use** shall **require the greatest amount** of development area within the infill service area, by a wide margin. **Industrial and commercial / retail land uses** will **require a moderate amount of area**, while **office land use** will **require significantly less** area than the other three categories. These projections can fluctuate greatly as market conditions and economic drivers change.

Sanitary Sewer Capacity (as currently projected)

Sanitary Sewer Capacity relative to Future Land Use: Given that the City anticipates continued population growth and the expansion of economic and land development opportunities; it is important to recognize the increased demands that will be placed on the City’s wastewater treatment capacity relative to future land use. The limitations related to the City’s wastewater treatment system include the infrastructure to collect, transfer, treat and release wastewater and treated effluent. The current update to the 201 Facilities plan has provided a map with basic categories for the sanitary sewer basins identified within the City. These categories include:

- Basins that Have Capacity (Green)
- Basins with Limited Capacity (Yellow)
- Basins that have Limited Capacity with Improvements (Orange)
- Basins with no capacity (Red)



The city has adopted a Sewer Capacity Allocation Ordinance and associated resolution to regulate the allocation of wastewater capacity for development in the city. This ordinance intends to balance the needs and benefits associated with increased growth and development while ensuring that the City’s sewer system capacity remains sufficient to support the health, safety and general welfare of the City’s citizens. With this ordinance maximum daily wastewater generation allowances were established based on land use classification. The ordinance and resolution may be amended if future conditions change.

Land-Use Classification	Included Zoning Classifications	Gallons per Day per Acre (GPD/Acre)	Single-Family-Unit Equivalents (SFUE) per Acre
Commercial	CM-R, CM, CM-RS-8, OG-R, OG, CL, CF, CH, and PCD	650	2.5
Industrial	G-I, H-I, L-I, PID	1,040	4.0
Low-Density Residential	RS-15, RS-12, RS-10, and PRD (if average lot size ≥ 10,000 sq. ft.)	780	3.0
Medium-Density Residential	RS-8, RS-6, RS-4, R-D, and PRD (if average lot size < 10,000 sq. ft.)	1,820	7.0
High-Density Residential	RM-12, RM-16, RS-A, R-MO and CU (dormitories only)	2,340	9.0
Mixed-Use	MU and PUD	1,040	4.0
College and University; Institutional	CU (except dormitories), PND	880	3.4
Parks	P	130	0.5
Central Business District, City Core Overlay, and Gateway Overlay	CBD, CCO, GDO	No Limit	No Limit

Key Points relative Sanitary Sewer Basin: Evaluation of the sanitary sewer capacity basins is an important consideration to be used as the Future Land Use Map is revised. Areas with no capacity or in need of substantial improvements to increase capacity should consider limitations on how much high-density development is envisioned with future growth. Expansion of growth areas at low densities can add operating and maintenance costs that increase city service expenses on a per acre basis. The Revised Land Use Categories in this report include references that consider sanitary sewer capacities when evaluating land use and density

- Specific densities must be evaluated based on infrastructure and utility capacities and availability.
- Any densities that exceed the City sanitary sewer allocation ordinance and resolution must be approved by City Staff and City Council.

Future land use mapping and zoning provide the basis for developing future wastewater flow projections as buildout conditions occur. Land use density primarily affects the collection system (pipes and pumps) designed to convey certain flows to the wastewater treatment plant and the wastewater treatment plant has limited capacity for increased development areas. Sanitary sewer capacity has the potential of being one of the greatest limitations to Murfreesboro’s growth.

Transportation Network Levels of Service

(based on current conditions and completion of committed projects)

Transportation Network relative to the Future Land Use Map: Given that the City anticipates continued population growth and the expansion of economic and land development opportunities; it is important to recognize the increased demands that will be placed on the City's transportation systems relative to future land use. The Major Transportation Plan, projected to year 2040, compares theoretical roadway capacity vs. traffic volumes expected and designates a level of service for the road network system.

Levels of Service and Land Use: The transportation network provides for present and future mobility and for the access needs connected to growth and development. Evaluation of the transportation network needs to be considered as part of Future Land Use Map revisions.

General Considerations:

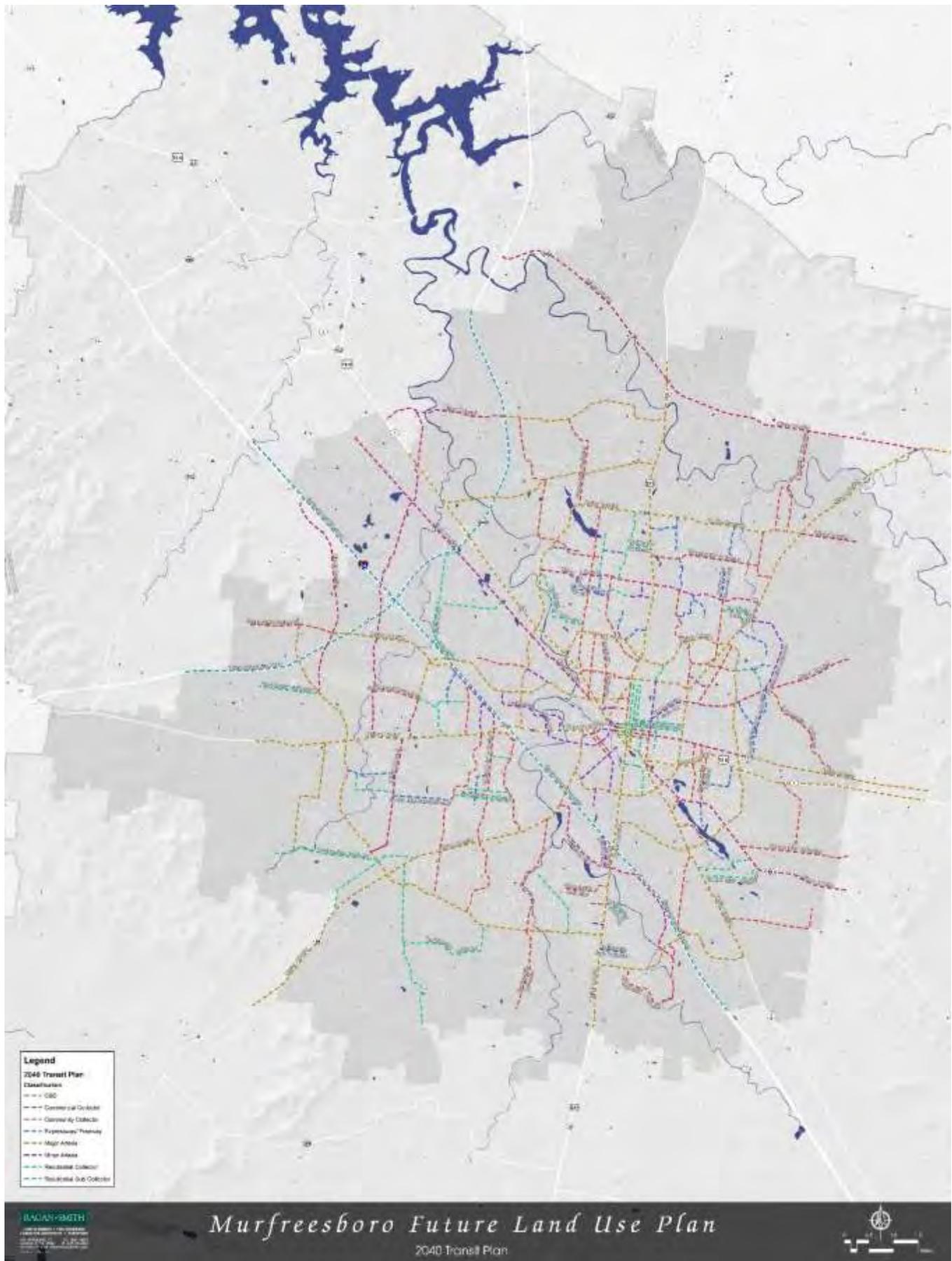
- Areas of high-density residential, commercial, and industrial land use should be well connected to collector and arterial road networks
- The more options and alternative routes that are available in a transportation network the better
- Transportation should consider multi-modal options (e.g., mass transit, automobiles, bicycles and pedestrians)
- Roadways and streets often compose the largest area of dedicated public space in a city. How they are designed and maintained has significant impact on the quality of life for City residents.

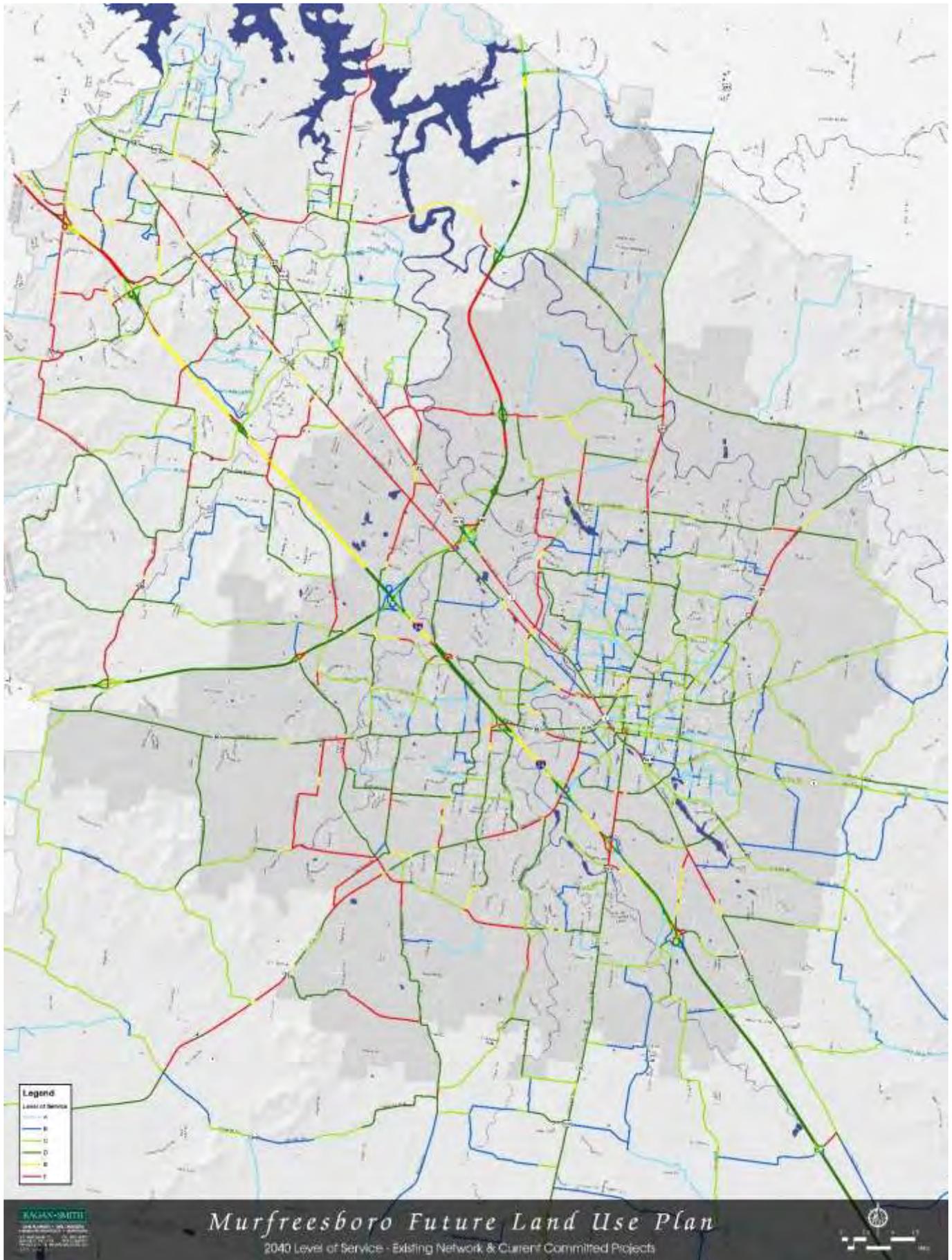
Specific levels of service for the transportation network are shown relative to the existing road network in combination with all the currently committed improvements. Future daily average traffic volumes and vehicle miles traveled were projected up to the year 2040 to evaluate the impact population growth would have on the networks level of service.

- Road Networks showing levels of service at E and F (yellow and red on the map) are typically considered at capacity and approaching having higher demand than capacity
- Land Use type and density evaluations should consider the impact they will have on major road networks
- Capital improvement plans for the City should consider how anticipated transportation levels of service might be affected by future land use considerations.

Key Points relative to Transportation Network: Some of the key recommendations from the Transportation Plan that affect Future Land Use include:

- There is a need to improve connections between NE, SW and Central Murfreesboro. This is a challenge from the SW due to limitations created by the Interstate and Railroad networks.
- There is a need to create additional corridor capacity from SE to NW areas in the City.
- Even with the completion of committed transportation projects, several transportation corridors are anticipated to have a challenge keeping a high level of service given the anticipated increase in traffic.





Economic Development Sites

(Based on planning efforts with Jim Colson, Advisors Community and Jon Froke Urban Planning)

Strategic Economic Development Sites: The City has recently collaborated with a consultant to identify key economic development sites. There are five specific areas identified as having strong potential for economic development and job creation in Murfreesboro. These sites are identified on the current updated Future Land Use Map:

Site No. 1. Veterans Parkway and I-840 (annexed 4/20/2017)

- City-owned, 100-plus acres, identified as very strong site for Employment Generating mixed use.

Site No. 2. Cherry Lane Interchange (I-840, NE of 24) (annexed 10/14/2004)

- City owned. Requires additional annexation considerations. Current Roadway improvements and interchange in progress. Identified as good location for signature or catalyst project and a strong site for Employment Generating mixed use.

Site No. 3. Joe B. Jackson (SE of I-24 Joe B. Jackson Interchange) (annexed 12/5/2019)

- Established industrial center with existing growth capacity. Requires additional annexation considerations. Identified as strong site for Business Innovation.

Site No. 4. Medical Center at Gateway (East of I-24) (annexed 1973 to 2003)

- City-owned suburban greenfield site. Location is entirely in the City Limits. Excellent mixed-use location with national retailers nearby. This site has already been shaped by existing development and has some limitations due to an existing land use pattern. Identified as a strong site for Employment Generating mixed use

Site No. 5. Hoover Site (I-24, E of 10 / 231) (annexed 1973 to 2019)

- Greenfield and redevelopment site. Multiple zoning exists in this area. Rail served site. Identified as strong site for Business Innovation with a strong manufacturing or light industrial component.

Site No. 6. Downtown Mixed-Use Urban Infill

- The historic square, and the downtown City Core Overlay District will continue to be at the heartbeat of economic development and commerce for the City. The downtown is and should continue to be a place to focus economic development.

Key Points relative to Economic Development Sites: The five sites represented are those that are most market-ready and support the optimal targeted industries/companies. This study recognizes that there are certainly other viable properties not mentioned here. The strategic development plan will remain flexible to respond to other opportunities as they develop. Parts of these five sites would be areas where the new categories of Employment Generating - mixed use (EG) and Business / Innovation (BI) land use categories might be applied.

Future Land Use Map Update 2022

The Future Land Use Map amendments are based on the following:

Revised Land Use Categories and Map Revisions: The current Land Use Categories and the associated Future Land Use Map have been revised to shape future land use and establish land use areas based on the City's current vision for growth development and associated City services.

Rezoning changes: The current map has included the rezoning amendments as adopted by the City through January 1, 2022. This presents a more current picture of existing zoning conditions.

Economic Development Sites: The current map has added the six development sites as targeted in the economic development study.

Sanitary Sewer Basin Boundaries: The current map has included the boundary lines of the Sanitary Sewer Capacity Basins as identified in the 201 facilities plan as reference.

