# Clarksville Montgomery County Growth Plan: A Strategy for Balanced Growth

Conducted by: The Clarksville Montgomery County Regional Planning Commission In Coordination with the Clarksville Montgomery County Growth Coordinating Committee

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# **PROLOGUE**

Clarksville-Montgomery County has been experiencing tremendous growth over the past 20 years, more than most cities in Tennessee and even America. With this growth has come new faces, new challenges, and new opportunities. It has been said that, "the city that fails to plan ahead, fails to stay ahead", and Clarksville-Montgomery County is at a pivotal point where many of its current plans are becoming outdated. Decisions by leaders and stakeholders are being made off of plans and concepts that may no longer be relevant.

The local leadership made the decision in 2019 to update the Growth Plan before Clarksville Montgomery County gets too far behind the anticipated growth. In doing so they become the first county in the State of Tennessee to undertake a complete reevaluation and rewrite of their 20-year Growth Plan, first adopted in 1999.

As the late President John F. Kennedy said, "The time to repair the roof is when the sun is shining," likewise, before Clarksville-Montgomery County experiences another growth wave, a Growth Plan ready for the next generation that balances residential, commercial, industrial, and ecological needs was developed.

# **PREFACE**

It is no secret that Clarksville-Montgomery County is a desirable place to live, work, and raise a family. Clarksville and Montgomery County both continually rank as some of the top places in the nation to live, buy a home, raise a family, start a business, and retire. In 2019 alone, Clarksville topped the Nation in cities for millennial homebuyers and was listed as Money Magazine's Best Place to Live – in the country!

Clarksville-Montgomery County is growing, aided by a strong local economy consisting of Fort Campbell, industrial growth from international companies, a quality education system, and a low cost of living; all of which is packed into a Middle Tennessee region that is anchored by one of the country's "boomtowns" right now – Nashville.

Growth can be a matter of pride to some communities, but it also brings challenges such as the additional provision of services, increasingly taxed infrastructure, and a rapid influx of new residents. This Growth Plan is not only designed to keep the anticipated growth well managed but also to allow for flexibility in and around the city limits to provide for homes, retail, and job opportunities for the next 20 years.

Led by the Regional Planning Commission staff and Growth Coordinating Committee, the Growth Plan rewrite marked a six-month accelerated process to evaluate the needs, impacts, and way- forward for growth and development in Montgomery County. This plan is a snapshot in time, it is intended to be a guide, but should be flexible enough to update as changes arise.

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# 1. EXECUTIVE SUMMARY

The Growth Plan for Clarksville and Montgomery County was originally initiated in response to Public Chapter (PC) 1101 of 1998 as adopted by the Tennessee State Legislature. This law mandated a planning process for cities and counties in Tennessee that addresses public service needs of growing residential areas and maintenance of the character of rural areas. The law also requires communities to determine appropriate boundaries for municipal expansion. This plan focuses on residential growth management and density within the City and County. The main implementation tool for the policies of the growth plan is the application of local zoning codes.

The Growth Plan has a 20-year planning horizon. The amount of growth anticipated during this period was established by population projections released by the University of Tennessee Boyd Center for Business and Economic Research. This projection showed Montgomery County is poised to gain 90,455 new residents by 2040 or 43-percent growth. Baseline data with regard to current development patterns and availability of suitable land for growth was developed through the use of parcel data and Geographic Information Systems analysis in order to project the appropriate areas for growth.

Since the passage of PC 707 in 2015, it must be assumed that not all future growth will occur within the existing, or expanded, city limits. The ability of the City of Clarksville to annex as easily as in years past has been curtailed and therefore unincorporated Montgomery County, since about 2010, has been growing at a similar rate as the city. Since not all undeveloped land within the city limits will be developed during the planning period and market forces will continue to drive development to more economically priced property beyond corporate limits, this Growth Plan had to accommodate a reasonable ability to develop near the city limits where proximity to jobs and urban services exists. This premise leads to the conclusion that reasonable accommodation must be made for future development outside of the current Clarksville City Limits. At the same time it is recognized is that not all land in Montgomery County is suitable for future development; there are physical and urban service limitations to development. There is also a need to preserve the rural character of areas of Montgomery County.

The Growth Plan contains three main elements: the Urban Growth Boundary (UGB), Planned Growth Areas (PGAs) and Rural Areas (RAs). The designation of such areas is a mandate of PC 1101.

The UGB is the area where a full complement of urban type services are either presently available or have the potential to be available over the 20-year planning period. It is this area that is set aside for the highest densities of residential development. The ability to annex and potential access to sanitary sewer service are some of the primary factors used in the establishment of this boundary.

PGAs are areas that have a history of low to moderate levels of residential development or are in the path of present and projected growth trends in the County. These areas have little likelihood of receiving a full complement of urban services, specifically sanitary sewer, over the 20-year planning period and therefore cannot adequately support higher densities of residential development.

RAs are areas where the lowest densities of residential development are considered to be most appropriate. These areas tend to have the least amount of urban services and infrastructure available and have the least likelihood of receiving them over the planning period. The RA contains over three-fifths of the county's land and is mostly agricultural land, floodplain areas, wetlands, steep slopes, scenic vistas and natural areas.

The Growth Plan also lays out the regulatory strategies by which it will be implemented. The primary tool is the density permitted through the county zoning resolution. The Growth Plan proposes a graduated availability of high to low residential densities based on the location of land within the UGB, PGAs and the RA.

The Growth Plan acknowledges that many changes can and will occur within the next 20-year planning horizon, and it should be treated as a living document.

The 2019 Growth Plan map is shown in Figure 1 while the original 1999 Growth Plan map is shown for reference in Figure 2. Table 1 shows the breakdown of all the land in the 2019 Growth Plan and the 1999 land breakdown is shown in Table 2. Overall, the Growth Coordinating Committee increased the amount of UGB in 2019 by 1,512 acres, while the PGA was decreased by 17,652 acres. This resulted in adding 13,807 acres back to the RA. One focus of this iteration of the Growth Plan is compact development near urban services and in areas where current development trends indicate a need for growth while avoiding difficult to develop land.



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Oak Grove fayette Fort Campbell Guthrie KENTUCKY South Guthrie ksville Woodlawn Cumberland Heights East **Montgomery** Cunning ham Legend Southside **Growth Plan Area** City Urban Growth Boundary Planned Growth Area Rural Area DICKSON Major Roads Slayden Little Bartons Montgomery County Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS

Figure 1: 2019 Growth Plan

Table 1: 2019 Acres within Growth Plan Areas

AREA*	ACREAGE	DEVELOPABLE ACREAGE
County	347,364	113,565
City	64,080	10,210
UGB	20,047	9,107
PGA - ALL	26,923	9,732
Woodlawn PGA	7,038	3,619
Cumberland Heights PGA	13,421	3,326
East Montgomery PGA	5,873	2,396
South Guthrie PGA	592	391
RA	236,314	84,516

\*Data from Geographic Information System. Developable acreage calculated by removing FEMA flood zones, wetlands, sinkholes, slope >15%, TVA easements, Industrial Development Board-owned properties, cemeteries, road rights-of-way, government owned lands, and all approved subdivisions (preliminary and final).

Oak Grove fayette Fort Campbell Guthrie KENTUCKY PGA-5 PGA-4 Fort Campbell ksville PGA-1 PGA-2 PGA-3 Cunning ham Legend Southside 1999 Growth Plan Area City Urban Growth Boundary Planned Growth Area Rural Area DICKSON Slayden Little Bartons Major Roads Montgomery County Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan METI Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 2: Original 1999 Growth Plan Map

Table 2: 1999 Acres within Growth Plan Areas

AREA*	ACRES
County	347,364
City	61,748
UGB	18,535
PGA – ALL	44,575
PGA #1	13,701
PGA #2	13,182
PGA #3	8,372
PGA #4	8,728
PGA #5	592
RA	222,507

<sup>\*</sup>Data from Geographic Information System. In 2019 total area acreage was used instead of parcel acreage, therefore 1999 acreage may not agree with 2019 acreage.

# 2. GROWTH PLANNING IN TENNESSEE

Tennessee has historically been a magnet for growth. According to the 2000 Census, Tennessee was the 14th fastest growing state in the country. Recognizing that unbridled or unplanned growth would lead to dire circumstances in communities and regions across the state, the General Assembly passed Public Chapter 1101 in 1998, also known as Tennessee's Growth Policy Act Codified at TCA 6-58-102. The Growth Policy Act specifically identified two major goals of the legislation: the curbing of urban sprawl and careful coordination of development with the provision of services. To achieve these goals, PC 1101 mandated a comprehensive growth planning process that required all local officials within non-metropolitan counties to work together to proactively plan for and shape growth statewide through the development of 20-year growth plans. The first step in developing plans under The Growth Policy Act was to create coordinating committees composed of a variety of stakeholders. PC 1101 required communities to identify the following three geographical components:

- An Urban Growth Boundary (UGB), defined as the existing municipality plus contiguous territory, where higher density residential, commercial, and industrial growth is expected to occur over a 20-year horizon and which is available for annexation;
- Planned Growth Areas (PGAs), defined as territory outside of the municipality and the UGB, where low to moderate density residential, commercial, and industrial growth is projected to occur over a 20-year horizon but which is not available for annexation; and
- Rural Area (RA), defined as the remainder of the County that was not included in the UGB or a PGA, where low density residential development, farmland preservation, forest and wildlife management, and recreational opportunities are prioritized.

Before proposing any of the above described boundaries to their county commissions and municipal governing bodies, coordinating committees were charged with reviewing population projections and examining land use trends. These requirements were an effort to link growth plans to existing general city and regional planning under T.C.A. Title 13.

The first round of growth plans had to be developed by each non-metro county by 2003 and were required to have a 20-year planning horizon; thus, most growth plans that have not been updated are rapidly approaching the end of their planning horizon. While the General Assembly has not revisited the original Growth Policy Act, nor has it statutorily required communities to review or amend their growth plans after the initial 20-year planning horizon, growth plans are still an extremely relevant and useful tool for local governments to proactively manage and shape growth both inside and outside of city limits. Additionally, the stated intent and reasoning behind the 1998 legislation still resonates two decades later, as statewide growth continues to exceed national averages and the need for careful, coordinated planning and efficient, compact development is essential to a community's long-term success and viability. Thus, from a planning perspective, it is critical that community leaders reconvene and re-engage in the growth planning process. To be most effective, growth plans need to reflect and evaluate the most recent development patterns and current population projections available. While the Growth Policy Act specifically states that population projections

from the University of Tennessee Boyd Center must be utilized, a variety of data sources are available to inform the rewrite process on a more localized level.

As mentioned earlier, Tennessee, and more notably Middle Tennessee, continues to experience an explosive population boom due to a variety of factors. Clarksville-Montgomery County is no exception. In May 2019, the Tennessee State Data Center reported that 9 of the 10 cities in the state with the largest population gains between July 2017 and July 2018 were in Middle Tennessee, with Murfreesboro and Clarksville being the state's two fastest growing cities in 2018. Meanwhile, Montgomery and Wilson Counties tied for the fastest growing counties in the state, with a three percent annual growth rate from July 2017 - July 2018. Significantly, Montgomery County was one of four Tennessee counties that landed in the top 100 fastest growing counties in the country over that same time period, ranking 59th overall. Moreover, in 2018 Montgomery County ranked 68th in the country's list of fastest growing counties since the 2010 Census, with a 19.5 percent growth rate.

All of these facts, combined with the University of Tennessee population projection for Montgomery County through 2040, provide a clear picture of the recent and anticipated growth trends characterizing the region and signal an urgent need for civic leaders to strategize an appropriate course of action to guide growth and development over the next two decades. Montgomery County and Clarksville leadership recognized the need and will become the first county in Tennessee to rewrite their growth plan to prepare for the next 20 years.

# 2.1 GOALS OF PC 1101 AND PC 707

As stated at TCA 6-58-102, the goals of PC 1101 are to:

- 1) establish a comprehensive growth policy for the state that would eliminate annexation or incorporation out of fear;
- 2) establish incentives to annex or incorporate where appropriate;
- 3) more closely match the timing of development and the provision of public services;
- 4) stabilize each county's education funding base and establish an incentive for each county legislative body to be more interested in education matters; and
- 5) minimize urban sprawl.

Since Clarksville-Montgomery County is unique in that it only has one city and there is little likelihood of additional city incorporation in the future, and that there is one countywide school system; only the third and fifth stated goals really pertain. While PC 1101 mandated that only land contained within the UGB was available for annexation by the city, the eventual passage of PC 707 in 2014 eliminated unilateral, nonconsensual annexation and strengthened the annexation moratorium established by PC 441 in 2013. Since May 2015, the city of Clarksville has the authority to annex property only with the written consent of the owners or by neighborhood referendum. Additionally, the city can annex agricultural land only with the written consent of the owner. Since the original growth plan of 1999, the city of Clarksville has only annexed 2,323 acres of land.

# 2.2 HISTORY OF THE CLARKSVILLE-MONTGOMERY COUNTY GROWTH PLAN

In compliance with the requirements of PC 1101, Clarksville-Montgomery County developed and approved the initial growth plan in November of 1999, one of the earliest in the state to do so. The initial growth plan remained in place with no textual amendments or boundary changes until 2012, when the plan was textually amended to allow multifamily development (as permitted in the R-4 zoning classification) in Planned Growth Area 4. At this time, staff examined the 1999 plan's population projections and compared them to actual population numbers gleaned from the 2010 Census and several years after. Based on that data, the 2020 population projections were amended in the revised growth plan document to reflect the known, recent rates of growth in the city, unincorporated area, and the county overall. Specifically, the city of Clarksville's projected 2020 population was reduced by 23,000 residents, which were shifted to the unincorporated area of Montgomery County. The total number of county residents remained the same at roughly 202,000. The growth plan was again amended in 2018 for a boundary change, which converted approximately 600 acres of land around Rossview Road from Planned Growth Area 4 to UGB to accommodate the annexation of city purchased property.

# 3. GUIDING PLANNING PRINCIPLES AND CONCEPTS

One of the stated goals of PC 1101 was the curbing of urban sprawl. Sprawl puts an excessive strain on already burdened infrastructure systems, further separates centers of population and commerce, and consumes farmland and open space - it is an unhealthy development trend, in both the municipal and environmental sense. As part of the process of delineating new growth boundaries for the Clarksville-Montgomery County 2040 Growth Plan, both the RPC Staff and the Growth Coordinating Committee considered a number of different concepts and planning practices to ensure that the goal of minimizing urban sprawl while accommodating future growth was met.

# 3.1 SMART GROWTH

In the early 1990s, the United States Environmental Protection Agency (EPA) established Ten Principles of Smart Growth, the great majority of which were aimed at reversing the sprawl trend and strengthening neighborhoods and cities through an emphasis on better design and development. Many of these principles, such as mixing land uses, building a range of housing opportunities and choices for a diverse population, creating walkable neighborhoods, fostering distinct communities with a strong sense of place, and providing a variety of transportation options, can be turned into policy statements and objectives as the community moves through the comprehensive planning process. Several other smart growth principles, specifically the promotion of compact design, the preservation of open space and farmland, the protection of environmentally sensitive areas, and the direction of new development toward existing communities, may be directly applied during the growth planning process as potential new boundaries are proposed and evaluated. It is important to note, however, that individual principles cannot be taken alone or out of context and all ten principles together is what makes up Smart Growth.

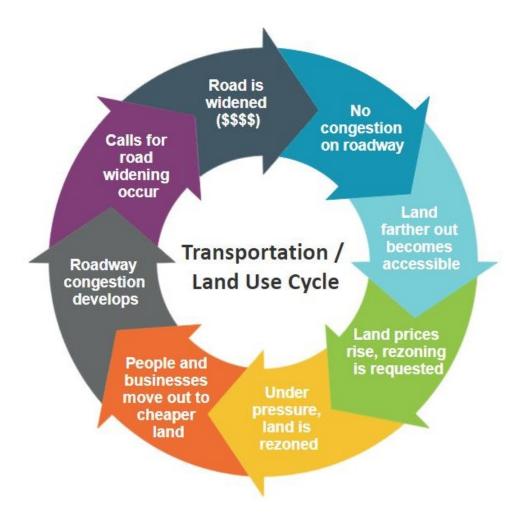
## Ten Principles of Smart Growth

- A Mix of Land Uses;
- Encourage Compact Design and Development;
- Provide a Range of Housing Opportunities and Choices;
- Create Walkable Neighborhoods;
- Foster Attractive, Distinctive Communities With a Strong Sense of Place;
- Preserve Open Space, Farmland, Natural Beauty, and Critical Environmental Areas;
- Strengthen and Direct Development Toward Existing Communities;
- Provide a Variety of Transportation Choices;
- Make Development Decisions Predictable, Fair, and Cost Effective; and
- Encourage Community and Stakeholder Collaboration in Development Decisions.

# 3.2 TRANSPORTATION LAND USE CYCLE

RPC Staff and the Growth Coordinating Committee also focused on the principle of the transportation land use cycle, which concisely describes the relationship between land development and road construction.

Figure 3: Transportation Land Use Cycle



Essentially, as new land on the fringes of the community is developed, more residents end up traveling farther distances and placing additional strain on the already narrow, winding, and insufficient roadways. This circumstance then creates congestion and a call for road widening from the residents, which generally comes at great cost to the community. As political pressure mounts, roadways are widened and congestion temporarily ceases while simultaneously making more land, further out, accessible, until the cycle inevitably repeats itself. This unsustainable sequence of events can be avoided by focusing on development around already improved infrastructure, typically within or near the city limits, and by investing in maintenance, small fixes, and adding connections to existing road networks.

# 3.3 THE RURAL-TO-URBAN TRANSECT

The third planning idea considered is the urban-to-rural transect concept which depicts a system of six main zones that proceed from the most natural environment (T-1) to the densest urban development at the core of the city (T-6). In the transect theory, a community's development should transition in a smooth manner as one travels from the core to the rural areas in order to provide a useful and understandable pattern to both residents and visitors. While no community's development pattern will completely reflect the transect, the closer it replicates it, the more appealing and sensible it will seem. When development "jumps" transects, that smooth transition is lost and this is when rural and suburban residents have the most negative feelings toward new development. Future planning documents should outline the end goal for areas in and around the city to be built to a desired end state and avoid the confusion of transect jumping.

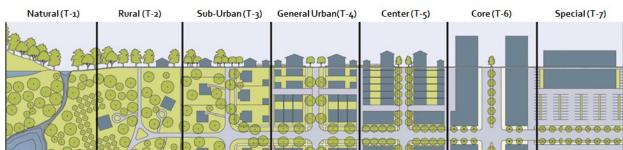


Figure 4: Rural-to-Urban Transect

# 3.4 Density Preserves Farmland

In line with the EPA's smart growth principles of farmland preservation and compact design, the concept of promoting and prioritizing density (both high-density multifamily and compact, single-family design) was also evaluated by the RPC Staff and the Growth Coordinating Committee, with the acute understanding that land in the Clarksville-Montgomery County region is finite and county boundaries cannot be expanded. In conjunction with this fact is the knowledge that once land is developed, it is extremely difficult to increase density or redevelop properties for a very long time.

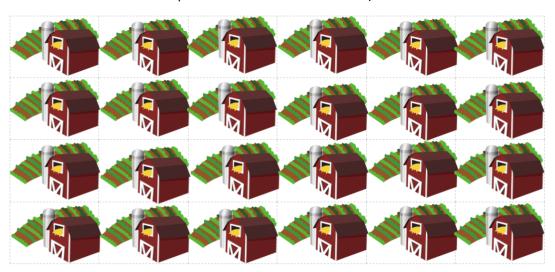
According to the University of Tennessee Agricultural Extension office, Montgomery County lost 20,000 acres of farmland (or a reduction in the total number of farms from 1,100 to about 780) in the ten-year period between 2002 and 2012. That agricultural land cannot be regained or restored. This is an important fact to consider from an economic perspective, because Montgomery County's annual direct agricultural output is estimated at \$370.4 million, with a multiplier effect estimated at \$505 million. From a cultural standpoint, Montgomery County has a strong agricultural heritage and identity that is directly affected by fringe development and loss of farmland. Additionally, every acre of undeveloped property has the potential to be developed as extremely low-density, AG residential lots, on one end of the spectrum to high-density, R-4 multifamily on the other. A comparison of lot yields across zoning districts provides a very sharp picture of the impact of developing with density. For instance, 2,380 acres of AG zoned land developed as single family lots is the equivalent of 24 100-acre farms. This 2,380 acres of AG zoned land yields the same number of dwelling units to accommodate 3,200 residents as 100 acres of R-4 developed land. Likewise, the same 100 acres only yields

284 dwelling units for 766 residents when developed in the R-1A zone compared to 893 dwelling units for 2,411 residents in the R-6 zone. Thus, making wise decisions as to how and where to develop land is crucial to accommodating population growth, reserving land for future development needs, and retaining the county's heritage and economic diversity.

Figure 5: Farmland Preservation Visualized

# Farmland Preservation Visualized:

2,380 Acres of Developed AG Land (Twenty Four 100-Acre Farms)



Yield The Same Number of Dwelling Units for 3,200 Residents as





Figure 6: Density and Acreage Yield

# Density and Acreage Yield Visualized Among Different Zoning Districts







100 Acres of R-IA Yields For 766 Residents 100 Acres of R-6 Yields

100 Acres of R-4 Yields 284 Dwelling Units 893 Dwelling Units 1,190 Dwelling Units For 2,411 Residents For 3,213 Residents

#### 3.5 COST OF HOME CONSTRUCTION

Finally, the RPC Staff and the Growth Coordinating Committee looked at the various costs associated with new home construction, as well as home construction trends compared to consumer desires. It is a fact that land located in a designated UGB is more valuable due to its ability to be developed at a higher density. That being said, the price of raw land only accounts for 20 percent of the total cost to build a house, whereas the price of materials/permits/labor accounts for over 60 percent of the total cost. Thus, while the claim that placing land in a UGB inherently drives up the price of home construction may be true, it is so marginal that it may not need to be weighed when delineating the limits of the new UGB.

An annual consumer preference survey completed by RCLCO Residential Advisors found that in 2018, home construction trends do not mirror consumer preferences (Figure 7). While developers nationwide are generally building large, detached, single-family homes with an average size of 2,500 square feet, the study showed that only 60 percent of consumers want a detached home, while 15 percent prefer an attached home and 16 percent prefer a multifamily unit. Additionally, ten percent were looking for something that also had a separate suite. Meeting the demand instead of offering only a few types of homes will create a more vibrant and economically stable community countywide.

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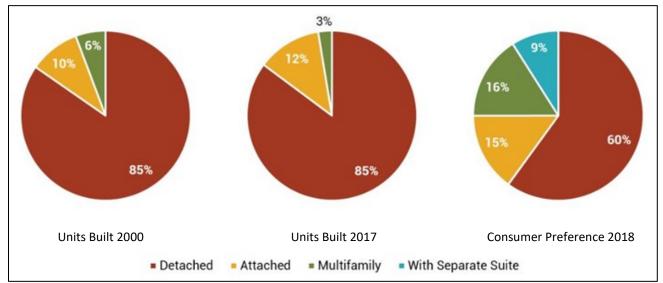
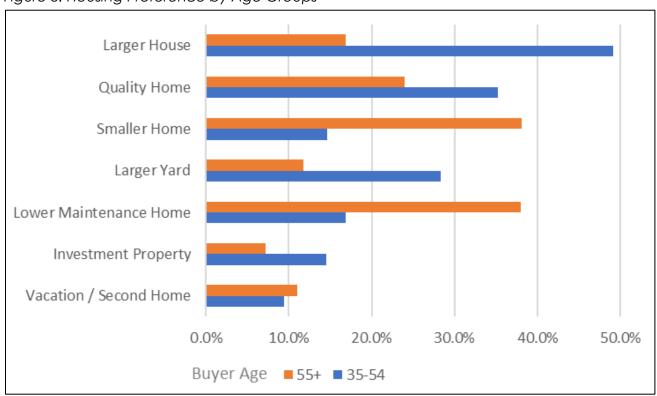


Figure 7: Share of New For-Sale Housing and Consumer Preference by Type

It is interesting to note that, according to the consumer preference study by RCLCO, those preferences drastically vary depending on the age of the buyer. The study shows the national desires of age groups 35-54 and 55+ (See Figure 8). The largest desires of 35-54 year olds were larger homes, with a larger yard, and quality. After 55 years old however, the chart shifts to a desire for a smaller home, with lower maintenance, and quality. The question for the development and home builder community is, "Are we building what needs to be built where it needs to be built?"





# 4. POPULATION PROJECTIONS & ANALYSIS

The RPC Staff, in order to provide guidance to the Growth Coordinating Committee conducted countless models, formulas, and analysis of trends to determine the growth over the past 20 years, how the last Growth Plan operated, and what was needed versus what was projected. From these figures, the RPC Staff created the initial maps with data to back them up. The following chapter is a description of the analysis of multiple trends and data that went into developing the Growth Plan map.

# 4.1 HISTORICAL TRENDS AND ANALYSIS

Per the requirements set forth in PC 1101, the original 1999 Growth Plan analyzed the county's land use at the time and projected what was thought to be enough area to accommodate the anticipated growth within the growth areas. The original growth plan did not have historical data, such as zoning district lot yields, available to inform the future growth projections. The lack of historical data and analysis led to an overestimation of the needed land area to accommodate future growth at that time. It also led to some incorrect assumptions of where and to what degree growth would occur around the county, as land area need projections did not anticipate much unincorporated growth, nor did it account for a more dense development pattern that actually occurred within the city limits and UGB.

The initial 1999 Growth Plan projected the City of Clarksville would grow by approximately 73,000 residents over the 20-year horizon, or at a rate of roughly 69 percent. It also projected that the unincorporated area of Montgomery County would shrink by roughly 3,000 residents over the same time period, losing roughly 11 percent of its year 2000 population, due to the City of Clarksville's annexations. Since the adoption of the original growth plan in 1999, the city has annexed only 2,710 acres, as shown in Figure 9. However, as mentioned in Chapter 2, when the 1999 plan was first revised in 2012, staff examined actual population numbers reported by the 2010 Census against the original projected numbers. This analysis showed that the population growth within the unincorporated area of the county had been grossly underestimated, while the city only grew at a modest rate as compared to earlier expectations. The 2012 analysis examined the population data change from 2000-2010 and found that: the city of Clarksville only grew at a 25 percent rate instead of the projected 30 percent; total county numbers increased by 30 percent instead of the projected 24 percent rate; and, most surprising of all, the unincorporated areas of Montgomery County grew at a rate of 48 percent instead of the projected loss of two percent (Figure 10).

Additionally, according to the Tennessee Advisory Commission on Intergovernmental Relations (TACIR), as of 2010, Montgomery County and 17 other counties in the state had population projections that were under projected by more than 5,000 residents; in reality, Montgomery County was underestimated by 9,000 residents.

Oak Grove ort Campbell KENTUCKY TENNESS Voodlawn Legend Clarksville Boundary Sources: Esri, HERE, Garmin, Intermap, inc FAO, NPS, NRCAN, GeoBase, IGN, Kadast Japan, METI, Esri China (Hong Kong), swis contributors, and the GIS User Community Annexations (2000-2019) Antioch Creek Major Roads

Figure 9: Clarksville Annexations 2000-2019

Final – October 2019

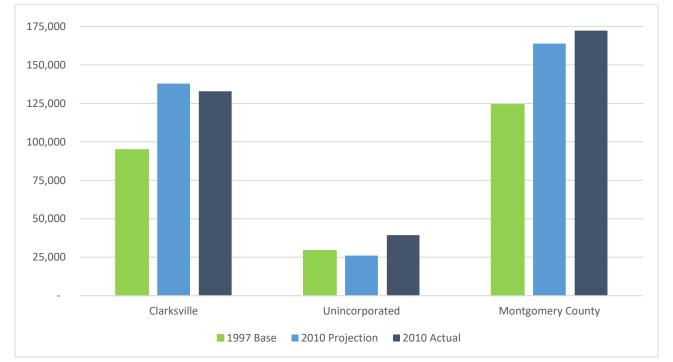


Figure 10: Population Projected Versus Experienced 1997-2010

The 2019 Growth Plan update was able to take into account development patterns spatially and temporally to better inform projections on acreage needs for the anticipated population growth.

The development patterns were discerned through the analysis of various datasets. Past growth trends were identified and then potential growth needs were projected. The first dataset analyzed was the residential building permits over the past 20 years (1998-2018). Density analysis was conducted to illustrate where growth had occurred and relative density over time. By using the building permit data, the population growth was determined within the individual growth areas, which can be seen in Figure 11. Historical permit data illustrated that the total number of issued building permits generally favored the city during the time period until 2017 and 2018, when unincorporated area permits exceeded city permits, mostly due to development in the southern UGB and PGAs 3 and 4. More specifically, building permits issued in the southern UGB greatly outnumbered the other two UGB areas, and PGA 4 actually accounted for the next highest number of permits. In looking forward, this analysis was necessary to account for a more representative area of where growth had occurred within the originally designated growth plan areas and anticipate where it would continue.

Oak Grovefayette Fort Campbell Guthrie KENTUCKY PGA-5 Fort Campbell CITY UGB PGA-3 RURAL AREA Legend 901 - 1,000 2018 Growth Pla 1,001 - 1,100 Major Roads Units per Square Mile 1,101 - 1,200 7-100
101-200
201-300
301-400
401-500
501-600
601-700
701-800
801-900 1,201 - 1,300 1,301 - 1,400 Slayden Little Bartons 1,401 - 1,500 1,501 - 1,600 1,601 - 1,700 Sources: Esri, HERE, Garmin, Inte FAO, NPS, NRCAN, GeoBase, IG Japan METI Esri China (Hong Ko contributors, and the GIS User Co 1,701 - 1,800 1,801 - 1,900

Figure 11: Existing Residential Density Countywide

Final – October 2019

Oak Grovefayette Fort Campbell Guthrie KENTUCKY Fort Campbell UGB PGA-3 RURAL AREA nd Legend Past 20 yrs of growth Units per Square Mile 5.505610447 - 100 700.0000001 - 800 2018 Growth Plan 800.0000001 - 900 Slayden Little Bartons 900.0000001 - 1,000 1,000.000001 - 1,100 100.0000001 - 200 200.0000001 - 300 1,100.000001 - 1,200 300.0000001 - 400 400.0000001 - 500 1,200.000001 - 1,300 1,300.000001 - 1,400 Sources: Esri, HERE, Garmin FAO, NPS, NRCAN, GeoBas
Japan, Merri Esri China (Hor
contributors, and the GIS User Community 500.0000001 - 600 1,400.000001 - 1,500

Figure 12: Residential Growth 1999-2019 Countywide

Final - October 2019

The RPC subdivision and multifamily databases were also queried for the past 20 years to provide a breakdown of the number of lots/units, lot/unit density, and acreage consumed over that time. The dataset was broken down further to determine lot/unit density by zoning district within the existing growth plan areas. The summary tables can be seen in Appendix F. This analysis assisted in determining how many acres of land would be necessary to accommodate the expected growth over the next 20-year period to 2040. Assuming a static growth rate where development across all the zoning districts remained the same moving forward, the RPC staff was able to estimate that approximately 11,006 acres of land countywide would be needed (see Table 3 for the breakdown). It is noted that any major changes to the local housing market, updates to the zoning codes, or a shift in the types or sizes of units built can change this projection.

Table 3: 2040 Projected Growth Need Based on Current Areas and Historic Patterns

Area	2040 Projected Population	2040 Dwelling Units Needed	2040 Acreage Needed	Remaining Developable Acres	Projected Share
City	65,127	24,121	5,718	10,210	73%
Unincorporated	24,422	9,045	5,161	103,355	27%
UGB	13,568	5,025	2,437	9,107	15%
PGAs and RA	11,759	4,355	4,858	94,248	13%
Countywide	90,455	33,502	10,708	113,565	100%

A third analysis was conducted to determine the change in the physical landscape over the past 10 years (2009-2019), as shown in Figure 13. The timeframe was limited to 10 years due to the availability of an electronic parcel database and matching aerial imagery years for comparison. This analysis accomplished two things: first, it showed where overall development had occurred and secondly, it created a spatial layer of undeveloped/developed land for 2009 and 2018. A rate of development within each growth area could then be shown in acres per year or percent increase of area. These results allow for the projection of growth and potential land area requirements.

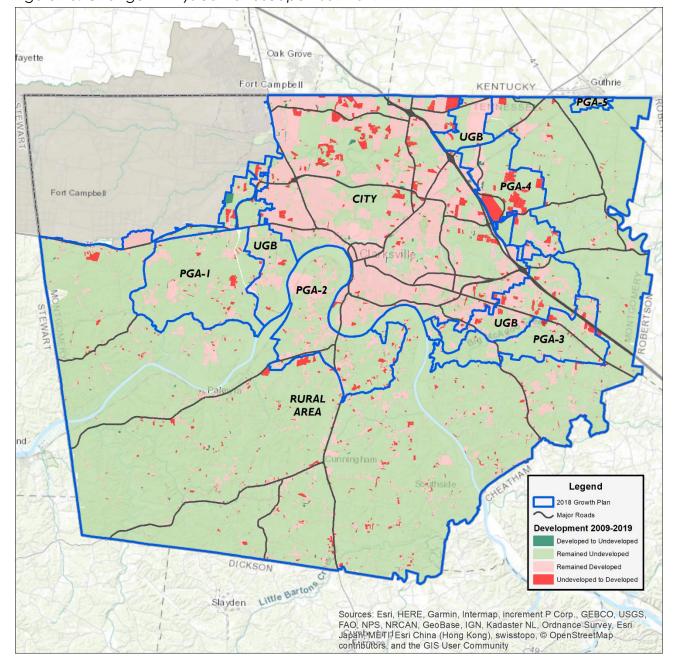


Figure 13: Change in Physical Landscape 2009-2019

The next step was to utilize the undeveloped/developed land layer to ascertain the amount of developable land (Figure 14). The developable land was modelled by removing from the already identified undeveloped land the following: FEMA flood zones, wetlands, sinkholes, lands with slopes greater than 15 percent, TVA easements, Industrial Development Board-owned properties, cemeteries, roads, rights-of-way, government owned lands (local, state, and federal), and all approved subdivisions (preliminary and final). Visually, this provided a clear understanding of the impact of environmentally critical and otherwise encumbered lands. After removing approximately 7,750 preliminary and final subdivision lots, in addition to all of the above described undevelopable land, there are 177.45 square miles (or 113,565 acres) of vacant, developable land remaining out of the total 544 square miles in the county. The large areas of developable land are recognizable in the East County and Woodlawn Areas. The southern part of the county and areas around Highway 12 are constrained by steep slopes and floodplains making larger scale development more expensive.

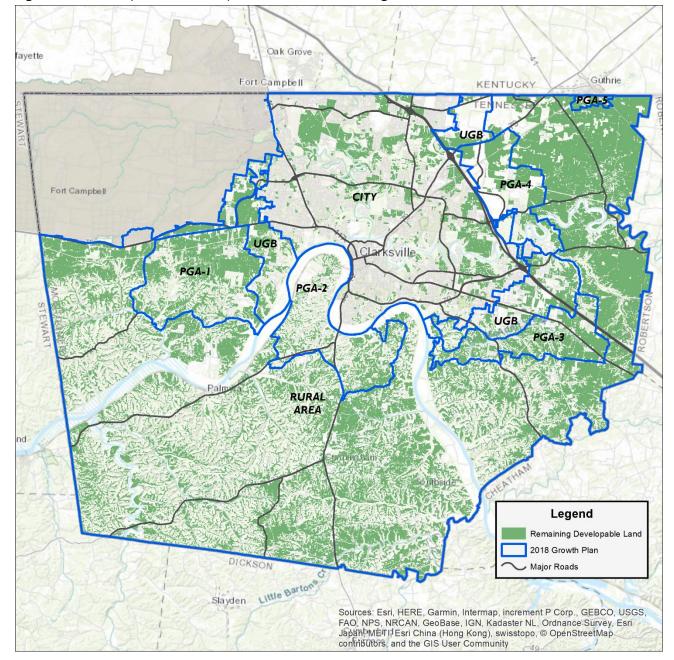


Figure 14: Countywide Developable Land Remaining as of 2019

The last step was to account for the makeup of each growth plan area due to density differences and different compositions of zoning districts. This was accomplished by reviewing the zoning composition of the past 10 years of final subdivisions and multifamily occurrences within each growth area. The zoning district density was broken down by percent total. This was applied to the projected unit need calculated previously for each area which then provided a more accurate projection of needed units and acreage for each area as shown in Appendix F. The modelled developable land was then compared with the needed acreage to determine suitable sizes for the UGB and PGAs.

# 4.2 CURRENT ANALYSIS AND POPULATION PROJECTIONS

The legislation noted in Public Chapter 1101 requires a 20 year planning horizon to accommodate projected population growth. Population projection numbers must be based on the University of Tennessee's Boyd Center for Business and Economic Research projections. Their projections estimate a 2040 population of 298,919 residents in Montgomery County as shown in Table 4 – an increase of 90,455. This averages out to an increase of 4,307 persons per year (see Table 4 for individual year estimates). Using the current U.S. Census estimate of 2.7 persons per household in Montgomery County, this translates to nearly 32,000 new housing units needed by 2040, or roughly 1,600 units annually – it can be a mix of single family homes, duplexes, and multifamily units. Furthermore, based on this total population and existing CMCSS student population rate of 0.173, an additional 15,648 students can be expected in the school system (not including those in private schools or home schools) over the next 20 years.

Table 4: University of Tennessee Population Projections for Montgomery County to 2040

Year	Population	Increase	Year	Population	Increase
2019	208,464	4,228	2030	254,640	4,242
2020	212,678	4,214	2031	258,901	4,261
2021	216,878	4,201	2032	263,183	4,283
2022	221,069	4,191	2033	267,501	4,317
2023	225,250	4,181	2034	271,856	4,355
2024	229,426	4,176	2035	276,252	4,396
2025	233,603	4,177	2036	280,695	4,443
2026	237,782	4,179	2037	285,184	4,489
2027	241,970	4,188	2038	289,716	4,532
2028	246,174	4,204	2039	294,294	4,578
2029	250,398	4,224	2040	298,919	4,625

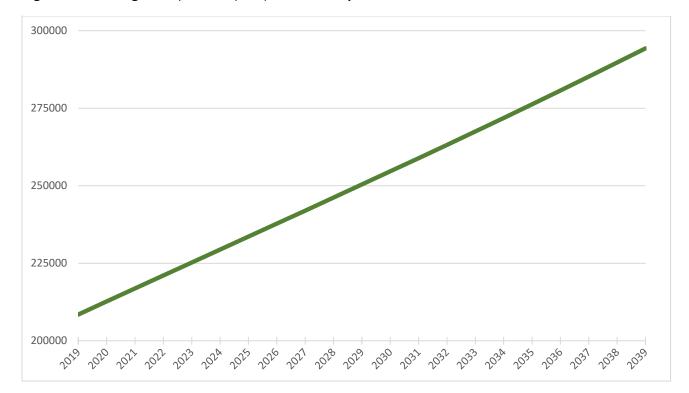


Figure 15: Montgomery County Population Projection 2019-2040

The University of Tennessee population projections are provided for the county as a whole and do not take into account where the population is or will be distributed (i.e. in the city limits or unincorporated area). The most current population figures show that the unincorporated area of Montgomery County accounts for roughly 23.4 percent of the county's total population, with the City of Clarksville accounting for the remaining balance. For those residents on Fort Campbell, they are counted where they live on post, either in the city limits or unincorporated area. In order to project where the future residents will be absorbed, single family and multifamily residential housing permits were analyzed by growth area to understand the distribution over the past 10 years. Each growth area was then broken down by residential zoning composition and historic lot yield trends were applied to calculate units and acreage needed to accommodate the growth projections at current densities. A table showing the breakdown of each growth area can be found in Appendix F.

Once the density and total units were calculated, the needed acreage for a representative growth area was known. The remaining developable land analysis was then used to identify how large the growth areas need to be since portions of the county have already been developed or are unsuitable for development. Knowing these calculations allows for an adequate acreage to provide for development and market flexibility to be put into place while still staying within reason. In areas that were not as highly developable, it allowed for a reduction of the PGA and redistribution of the UGB, as compared to the 1999 Growth Plan.

# 5. PROCESS

In the middle of 2018, the Growth Plan was being updated to convert approximately 650 acres from PGA to UGB along Rossview Road to accommodate the city's newly purchased land and allow them to annex it. During the process, County Mayor Jim Durrett made mention of wanting to look at the whole county, but he did not want to slow down the task at hand at the time.

# 5.1 THE GROWTH COORDINATING COMMITTEE

On July 16, 2018, Montgomery County Mayor Jim Durrett sent correspondence to RPC Director Jeffrey Tyndall, AICP, which stated that, "due to both county and city growth rates exceeding state and national [growth] averages," it was his opinion that the 1999 Growth Plan and maps were in need of an assessment and update. In response, on February 12, 2019, RPC Director Tyndall contacted County Mayor Durrett and newly elected City Mayor Joe Pitts to request an initial meeting to discuss the composition of the Growth Coordinating Committee and the process of revisiting the 1999 growth plan. While PC 1101 mandates the composition of a community's Growth Coordinating Committee via a specific formula, it makes an alternative provision for Montgomery County, which is considered a special-case county, since it only has one central city and no other municipality greater than 1,000 residents. Codified at TCA 6-58-104(a)(H)(9)(A), in this instance, the Regional Planning Commissioners shall act as the Growth Coordinating Committee, and, upon agreement of the county executive and the city mayor, an unlimited number of additional members may be jointly appointed.

On March 14, 2019, both mayors met with RPC Director Tyndall and other staff to choose the makeup of the Growth Coordinating Committee. As a result of that meeting, a new two-pronged committee was formed, composed of a 16-member steering group and a 10-member ex-officio group. While the entire committee was given the right to participate in the process, only the steering group was given the authority to engage in the formal voting process.



The 26-member Growth Coordinating Committee and Ex-Officio members are below. Past Growth Coordinating Committees can be seen in Appendix E:

# **Growth Coordinating Committee Voting Members**

- Richard Swift (Regional Planning Commission)
- Bryce Powers (Regional Planning Commission)
- Bill Kimbrough (Regional Planning Commission, designee of Mayor Jim Durrett)
- Mark Kelly (Regional Planning Commission, designee of Mayor Joe Pitts)
- Larry Rocconi (Regional Planning Commission)
- Richard Garrett (Regional Planning Commission)
- Dr. Amanda Walker (Regional Planning Commission)
- Wade Hadley (Regional Planning Commission)
- Russell Adkins (Regional Planning Commission)
- Brian Taylor (Clarksville Department of Electricity)
- Daniel Kimbell (Clarksville Department of Electricity)
- Norm Brumblay (Clarksville Montgomery County School System)
- Mark Riggins (Clarksville Gas and Water)
- Garth Branch (Clarksville Gas and Water)
- Jeff Truitt (Economic Development Council)
- Connie Cooper (County Resident)
- Philip Hagewood (County Resident)
- Cumberland Electric Membership Cooperative (one vote)
  - o Jonathan Fielder Electric (Cumberland Electric Membership Corporation)
  - o Mark Cook Broadband (Cumberland Electric Membership Corporation)

# **Growth Coordinating Committee Ex-Officio Members**

- Chris Brown (Fort Campbell, Department of Public Works)
- David Draper (Fort Campbell, Department of Plans, Training, Mobilization, and Security)
- Joe Smith (Montgomery County Commission)
- Valerie Guzman (Clarksville City Council)
- Frank Tate (Industrial Development Board)
- Rex Hawkins (Montgomery County Home Builders Association)
- Christian Black (Clarksville Association of Realtors)
- Grayson Smith (DBS Engineering)
- Vernon Weakley (Weakley Brothers)
- Cal Burchett (McKay and Burchett)

# 5.2 TIMELINE AND SYNOPSIS OF MEETINGS

Before the 2040 Growth Coordinating Committee was ever formed, the RPC Staff began gathering data and running models since the entire process must be completed within six months from the first meeting and when it is voted on and sent to the city and county. As part of the research, the RPC Staff visited all of the local water utilities to learn more about their service area, exchange ideas and data, and talk about the potential to accommodate future growth.

On April 29, 2019, the 2040 Growth Coordinating Committee convened with a quorum at the Montgomery County Courthouse Chambers for an initial kick-off meeting. RPC Director Tyndall introduced the committee members, went over the governing procedure, covered what voting members and ex-officio members may and may not participate in, and gave a lengthy presentation on the growth planning process, including the legislative mandate, history of the 1999 Clarksville Montgomery County Growth Plan, population projections, and best planning practices and concepts to consider moving forward. The committee nominated Commissioner Larry Rocconi to act as chairman of the Growth Coordinating Committee and Mark Kelly to serve as vice-chairman. Committee members were given a survey with several questions contained within their packet regarding their personal opinions on the expected future growth.

On May 30, 2019, the 2040 Growth Coordinating Committee convened with a quorum at William O. Beach Civic Hall for its second meeting. This meeting focused on delineating the UGB. RPC Director Tyndall briefly discussed the survey responses received from committee members and gave a quick overview of PC 1101, as well as the purposes and requirements of the UGB. He gave a presentation on historic growth and development trends in Montgomery County, including locations, rates, and types of growth, as well as the current availability of servicing utilities. He also explained the general methodology used to determine available developable land (vacant land unencumbered by environmental constraints and not already slated for subdivision development). He presented a map showing a rough draft of the UGB based on RPC Staff's input, after which committee members were broken into four groups to examine and make revisions to the map.

After this meeting the RPC Staff compared the comments and findings on each of the four maps. The RPC Staff determined there were several areas that should be expanded or contracted based on those maps. From these maps, new maps were created for the next meeting.

On June 25, 2019, the 2040 Growth Coordinating Committee convened with a quorum at William O. Beach Civic Hall for its third meeting, which focused on a second round of the UGB and establishing the PGAs. RPC Director Tyndall discussed the outcomes of the group mapping exercise from the prior meeting and explained that staff examined each of the four maps after the May work session. He noted that each group had drawn the Woodlawn UGB and Southeast UGB lines similarly, but they differed significantly on the Eastern UGB. RPC Staff made the unanimous decision to convert PGA 4 to UGB since it has essentially functioned as one in the recent past. Based on conversations with the IDB, areas around the industrial park were converted from UGB to RA to serve as a future buffer. RPC Director Tyndall presented a revised map showing these changes to the UGB,

as well as staff's first cut of the PGAs. Committee members were again broken into four groups and asked to examine and make revisions to the map.

After this meeting the RPC Staff compared the comments and findings on each of the four maps. From these maps, new maps were created for the next meeting.

**On July 18, 2019**, the 2040 Growth Coordinating Committee convened with a quorum at William O. Beach Civic Hall for its fourth meeting, which focused on regional utility providers and infrastructure. Representatives from Clarksville Gas and Water, Cunningham Utility District, Cumberland Heights Utility District, East Montgomery Utility District, Woodlawn Utility District, the Clarksville City Street Department, and the Montgomery County Highway Department were present to meet with committee members, discuss current availability and planned extensions of services, and answer questions pertaining to future growth and development as it pertained to their department.

Prior to the group engaging with utility representatives, RPC Director Tyndall suggested that the committee take a vote on setting the East UGB line. He presented a map that showed the UGB as staff recommended it, with the eastern boundary set at Kirkwood Road. The map also showed three other areas that the committee had included on several iterations of the group maps. Mr. Bryce Powers made a motion to add a fifth area to the map, which extended the UGB line out to Hayes Lane, south to the Red River, west to the existing UGB at Killebrew Road, and north to Rossview Road. The motion was seconded and approved unanimously to add the area to the map. Mr. Bryce Powers made a motion to include all five areas to the UGB, which was seconded and approved unanimously. After the vote, the committee met with utility representatives in small groups and recorded comments.

**On August 13, 2019**, the 2040 Growth Coordinating Committee convened with a quorum at William O. Beach Civic Hall for its fifth meeting, which focused on education and public safety. Representatives from the Clarksville Montgomery County School System, Montgomery County EMA, Montgomery County Sheriff's Department, and Montgomery County Fire were present to meet with committee members, discuss existing services and strains and challenges, consider growth and development scenarios, examine the impact to services and response times, and answer any additional questions.

**On September 19, 2019**, the 2040 Growth Coordinating Committee convened with a quorum at William O. Beach Civic Hall to review the draft document and boundary map. RPC Director Tyndall gave an overview of each chapter and asked for any additional comments or questions. A final vote was taken to amend the growth map based on RPC staff noticing an area where the lines should have moved slightly to the west of Purple Heart Parkway to accommodate anticipated future growth. A motion was made by Mark Kelly to approve the document and map, which was seconded by Richard Garrett and passed unanimously.

**On October 25, 2019**, the 2040 Growth Coordinating Committee Meeting convened at the Regional Planning Commission office at 329 Main Street at 8:30AM for a final vote on the recommended growth plan.

# 5.3 Public Hearings and Public Meetings

Pursuant to TCA 6-58-106(a) (E) (3), the Growth Coordinating Committee held two (2) public hearings, each given at least 15 days' notice in a newspaper of general circulation in Clarksville-Montgomery County (Leaf Chronicle), before formally proposing the UGB. These public hearings were scheduled and held as follows:

- July 25, 2019, at 4:30 p.m., City Council Chambers, 106 Public Square
- August 1, 2019, at 7:00 p.m., City Council Chambers, 106 Public Square

Pursuant to TCA 6-58-106(b)(E)(3), the Growth Coordinating Committee held two (2) public hearings, each given at least 15 days' notice in a newspaper of general circulation in Clarksville-Montgomery County before formally proposing its PGA and RA. These public hearings were scheduled and held as follows:

- August 5, 2019, at 6:00 p.m., County Commission Chambers, 1 Millennium Plaza
- August 12, 2019, at 6:00 p.m., County Commission Chambers, 1 Millennium Plaza

Pursuant to TCA 6-58-104(H)(3), the Growth Coordinating Committee held two (2) public hearings, each given at least 15 days' notice in a newspaper of general circulation in Clarksville-Montgomery County, before finalization of the recommended growth plan. These public hearings were scheduled and held as follows:

- September 30, 2019, at Rossview Elementary School Gym, 6:00 p.m. 8:00 p.m.; and
- October 1, 2019, at William O. Beach Civic Hall, 6:00 p.m. 8:00 p.m.

**On October 10, 2019**, a notice of public hearing was published in the newspaper for Final Growth Committee Meeting.

**On October 25, 2019**, the 2040 Growth Coordinating Committee Meeting convened at the Regional Planning Commission office at 329 Main Street for a final vote on the recommended growth plan. A copy of the Growth Coordinating Committee resolution can be found in Appendix C.

Pursuant to 6-58-104(H)(4), the Growth Coordinating Committee submitted its recommended growth plan for ratification by the Montgomery County Commission and the Clarksville City Council. These public meetings were scheduled and held as follows:

- October 31, 2019 Clarksville City Council informal session;
- November 7, 2019 Clarksville City Council formal meeting; and
- December 2, 2019 & January 6, 2020 Montgomery Co. Commission informal session;
- January 13, 2020 Montgomery County Commission formal meeting.

Copies of the City and County resolutions of approval can be found in Appendix C.

Pursuant to TCA 6-58-104(c)(1)(A), the growth plan recommended by the Growth Coordinating Committee and ratified by the Montgomery County Commission and the Clarksville City Council was submitted to and approved by the Tennessee Local Government Planning Advisory Council (LGPAC) at their January 22, 2020 meeting.

A copy of the LGPAC approval can be found in Appendix C.

# 6. THE GROWTH AREAS

The Growth Coordinating Committee, with the assistance of the RPC Staff, established criteria for the delineation of the required planning areas. The Growth Plan Map shows the recommended areas for the Urban Growth Boundaries (UGB), Planned Growth Areas (PGA), and all Rural Areas (RA) located within Montgomery County, Tennessee. All rezoning decisions shall be consistent with the Growth Plan map and policies contained herein. The determination of these boundaries was based on the availability of infrastructure, floodways/wetlands, natural barriers, and topography.

## 6.1 ADMINISTRATION IN THE GROWTH AREAS

The Clarksville Montgomery County Growth Plan determines what zoning and densities are available to be requested for a parcel of land. Though care was taken during the development of the Growth Plan to avoid splitting parcels or create confusing boundaries, over time there may be instances where interpretation is needed.

### 6.1.1 EXISTING ZONING DISTRICTS GIVEN STANDING

Existing zone districts in effect as of the date of adoption of this Growth Plan shall be allowed to develop utilizing standards applicable to these zone districts as prescribed in the Montgomery County Zoning Resolution. For example, if an R-1 single-family residential tract of 35 acres was in existence, as of the planned date of adoption, in the RA. Per the Growth Plan R-1 districts cannot be created in the RA, but because it had legal standing before the plan, this tract can be developed under the applicable R-1 provisions at the time of development.

# 6.1.2 TRACTS LOCATED IN MULTIPLE GROWTH PLAN AREAS

In the delineation of the boundaries of the growth plan areas, the Growth Coordinating Committee took extensive efforts to use definitive geographic features in their descriptions wherever possible. This was done in order to avoid potential problems in determining a parcel's location in regard to its applicable growth plan area. However, given that Montgomery County contains over 80,000 parcels, it is possible that some parcels located on or near a boundary line of a growth area boundary may need interpretation as to its exact location.

There is a special situation in the defining of South Guthrie PGA in that it is nearly exclusively defined by private property boundary lines. This was due to its current development pattern as a suburb of the City of Guthrie.

The determination of a tract's location in regard to its applicable growth area shall be made by the RPC Staff. If the owner and/or the agent making the rezoning request disagree with the findings of the staff, he or she may present evidence and request an appeal of the staff's findings before the RPC.

Generally, if a property is split by a growth boundary, only the area within the growth boundary will be allowed to rezone per the table of permitted zoning classifications.

### 6.2 THE URBAN GROWTH AREAS

A primary element in the formulation of this Growth Plan involves the division of the County into three types of growth areas; Urban Growth Boundary (UGB), Planned Growth Area (PGA), and Rural Area (RA). The types of areas are described as follows:

#### 6.2.1 THE URBAN GROWTH BOUNDARY

The UGB encompasses that area outside the City Limits where the highest density of residential development should take place. The majority of urban type services are in place or within proximity of the UGB. Public Chapter 1101 states that a city can use any of the annexation methods provided in T.C.A. Title 6, Chapter 51 for the areas included within the UGB. This includes annexation by ordinance and by referendum, as modified by this Chapter. Being located within a UGB is equal to being put on notice that future city annexations may be forthcoming, but this is not a certainty.

In order to geographically define the UGB, utility providers were consulted to obtain information as to the areas that they presently serve and where future expansions were planned. Particular attention was given to the City Engineer's data concerning CGW's expectations of where public sewer could reasonably be extended over the next 20 years. The City of Clarksville is the only public entity in Montgomery County to own and operate a sanitary sewer system, which is the main driver of higher density development. The Tennessee Division of Groundwater Protection has authority in determining developmental densities through the regulation of septic site size - any site to be improved must be of sufficient size to support an on-site septic system if no sewer is available. The Montgomery County Zoning Resolution requires a minimum lot size for consideration for an on-site septic system of 20,000 square feet or approximately 0.45 acres. The City of Clarksville's Zoning Ordinance requires a minimum lot size also affected by the provisions of Groundwater Protection, but no specific minimum size requirement is listed. The only stipulation is that the site is large enough to accommodate the disposal requirements of the proposed improvement.

During the utility planning and review process, it was noted that the Cumberland River is a physical barrier, particularly to the extension of sewer service. As of the date of this report, no public sewer disposal system exists south of the Cumberland River, and there are no plans in place to extend service into that area from the north primarily because of the expense factor. Therefore, until this situation changes, the density of development in all areas south of the Cumberland River should be low to moderate.

The Growth Coordinating Committee focused on residential growth and projected population and dwelling units needed to accommodate that projection. Other major land use categories, including commercial and industrial, were also carefully reviewed. It was determined that these land use categories had minimal impact on the overall land use pattern outside the City. In reviewing the existing land use map maintained by the RPC Staff, the vast majority of these uses are situated within the urbanized area where sufficient quantities of infrastructure are more readily available. One notable exception is the Pasminco Zinc Plant located south of the Cumberland River in the Cumberland Heights neighborhood. Accordingly, based on the consensus of the Growth Coordinating Committee, future creations or expansions of commercial and/or

industrial districts should be reviewed and evaluated based upon their individual circumstances without regard to their growth plan area location(s).

Other factors considered in the delineation of the UGB were physically oriented factors including flood-prone areas, karst topography, known wetlands, soil bearing capacities, areas with excessive slope, areas with unique natural features, wildlife preservation areas as well as agriculturally oriented areas. These factors are considered to be detrimental to development (and perhaps vice versa) at any density and the UGB was steered away from these areas where it was possible. All of these features were examined on a macro scale basis only. Any tract or site proposed for a specific development within the UGB would still need an individual investigation to determine if these factors would come into consideration during the development process.

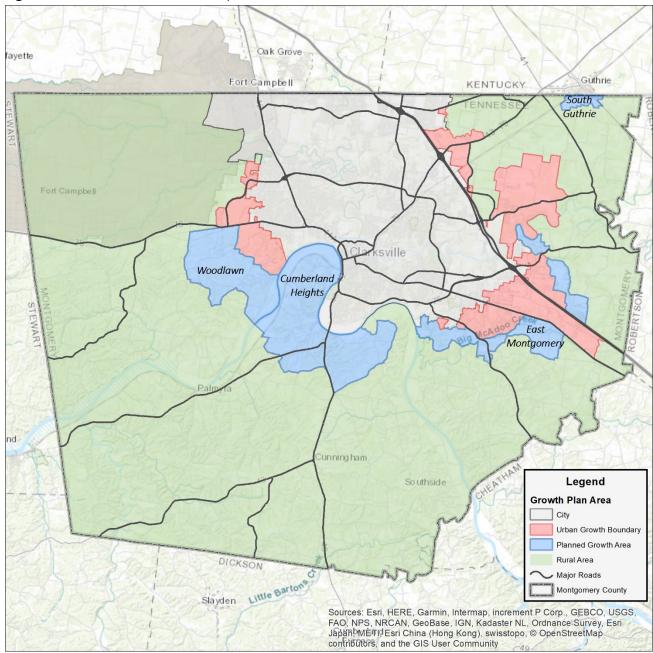
The UGB is adjacent to the city limits and contiguous areas where higher-density residential, commercial, and industrial growth is expected to take place or has taken place in order to promote the expansion of Clarksville and Montgomery County's economies. It is an attempt to control urban sprawl into rural areas. The UGB is set to offer a wide range of housing choices and work in coordination with the public and private sectors in regard to road/street infrastructure, utilities, schools, drainage, and other public services and facilities. The 2019 Growth Plan reduced the amount of UGB in the entire county as compared to the 1999 Growth Plan. The current UGB targets areas with highly developable lands, near utilities and infrastructure, and following recent residential growth trends. Table 5 shows the total area of the UGB, projected need, and developable acres. Figure 16 through Figure 19 show the overall 2019 Growth Plan map and a zoom of each area around the city.

Table 5: UGB Projected Acreage Needs

Urban Growth Boundary Projected Needs		
Total Acres	20,047	
UGB Population Projection	13,568	
UGB Dwelling Units Needed	5,025	
UGB Projected Acres Needed	2,437	
Developable Acres*	9,107	

<sup>\*</sup>Areas do not include FEMA flood zones, wetlands, sinkholes, lands with slopes greater than 15 percent, TVA easements, Industrial Development Board-owned properties, cemeteries, roads, rights-of-way, government owned lands (local, state, and federal), and all approved subdivisions (preliminary and final).

Figure 16: 2019 Growth Plan Map



Moncre 2 101st Airborne Division Pkwy Purple Heart Pkwy Lafayette Rd Cunningham Ln Appleton Dr S Lexington Dr nistead Dr Date Ter Domnado 2 sedom d Inver Ln **3utts Dr** NASS ON DE Dover Rd S Liberty Church Rd N Providence Darnell St Power St 5 Noodlawn Old Dover Rd Oak n Of iver Rd Wooten Oghun Chapel Rd Martin Rd Legend **Growth Plan Area** City Urban Growth Boundary Fis Smith Rd Planned Growth Area Rural Area Rawlings Rd Major Roads Montgomery County Sources: Esri HERE, Garmin, Intermap, increment Pcorp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordhance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 17: 2019 Growth Plan West County View

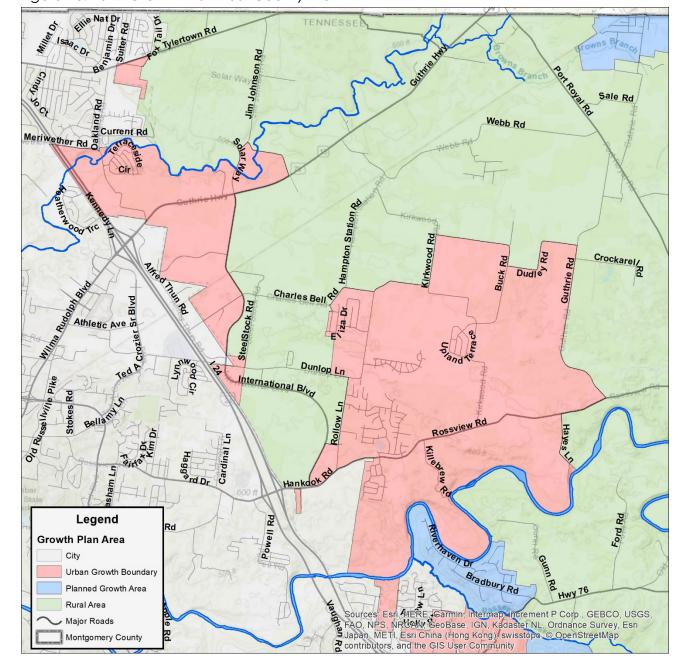


Figure 18: 2019 Growth Plan East County View

Old Johnstille Spyfiel Dunbar Cave Rd River Market Stradbury Rd Holly Memorial Dr Post Ross Drake Rd Madison St Sila Wilson Ro ne's po Trough Springs Rd Trelawny O O Lac Sango Rd Old Sango Rd E Old Signal Cid Rev DC. Banga Mobley Rd Pickering Ro dge Tri Pace Rd Albright Rd Legend m Evans Rd hnson Rd **Growth Plan Area** City Urban Growth Boundary Old Clarksville Pike Planned Growth Area Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, @ OpenStreetMap of Pone Crontributors, and the GIS User Community Rural Area Major Roads Montgomery County

Figure 19: 2019 Growth Plan Southeast County View

#### 6.2.2 CRITERIA FOR DEFINING THE UGB

T.C.A. §6-58-106 (a) outlines the criteria used in defining the UGB:

- Must develop and report population growth projections in conjunction with the University of Tennessee;
- Must determine and report the present and projected costs of core infrastructure, urban services, and public facilities necessary to fully develop the resources within the municipality's current boundaries, as well as the cost of expanding these into the territory proposed within the UGB over the planning period;
- Must determine and report on the need for additional land suitable for high-density residential, commercial and industrial development, after taking into account areas within the current municipal boundaries that can be used, reused, or redeveloped to meet such needs;
- Must examine and report on agricultural, forest, recreational and wildlife management areas under consideration for inclusion in the UGB, and on the likely long-term impact of urban expansion in such areas
- Before formally proposing urban growth boundaries to the coordinating committee, the municipality shall develop and report population growth projections; such projections shall be developed in conjunction with the University of Tennessee. The municipality shall also determine and report the current costs and the projected costs of core infrastructure, urban services and public facilities necessary to facilitate the full development of resources within the current boundaries of the municipality and to expand such infrastructure, services and facilities throughout the territory under consideration for inclusion within the urban growth boundaries.

#### 6.2.3 FACTORS CONSIDERED IN DEVELOPING THE UGB

According to state guidance, the UGB should reflect the municipality's duty to facilitate the full development of resources within the current boundaries of the municipality and to manage and control urban expansion outside of such current boundaries, taking into account the impact to agricultural lands, forests, recreational areas and wildlife management areas.

The municipality shall also determine and report on the need for additional land suitable for high density, industrial, commercial and residential development, after taking into account all areas within the municipality's current boundaries that can be used, reused or redeveloped to meet such needs. The municipality shall examine and report on agricultural lands, forests, recreational areas and wildlife management areas within the territory under consideration for inclusion within the urban growth boundaries and shall examine and report on the likely long-term effects of urban expansion on such agricultural lands, forests, recreational areas and wildlife management areas.

#### 6.2.4 REZONING REQUEST PROCEDURES WITHIN THE UGB

The UGB is rated to have the capacity to handle the highest densities of development outside the city limits. Applications for rezonings will be accepted by the RPC for all districts listed in the County Zoning Resolution, including those involving commercial and industrial classifications. All requests must undergo the normal review process by the RPC and County Commission which will include the analysis of physical characteristics of the site, as well as the compatibility of the proposed use with all existing land uses in the area. The Zoning Districts outlined in Table 6 are allowed to be requested by properties, or the portion of properties, within the UGB at the time of its enactment.

If zones are permitted within Table 6 but not permitted under the County Zoning Resolution at any point, the County Zoning Resolution shall take precedent.

Table 6: Allowable Residential Zoning Districts within the UGB

Zone District	Land Use Type
AG	Agricultural/Residential
E-1	Residential – Single Family (Conventional Built)
EM-1	Residential – Single Family / Mobile Home
EM-1A	Residential – Single Family / Mobile Home
E-1A	Residential – Single Family (Conventional Built)
R-1	Residential – Single Family (Conventional Built)
R-1A	Residential – Single Family (Conventional Built)
R-2	Residential – Single Family (Conventional Built)
R-2D	Residential – Multi-Family (Conventional Built)
RM-1	Residential – Mobile Home Only
RM-2	Residential – Mobile Home Parks
R-3	Residential – Multi-Family (Conventional Built)
R-4	Residential – Multi-Family (Conventional Built)
0-1	Residential – Multi-Family (Conventional Built)
O-P	Residential – Single Family (Related to Business)

#### 6.2.5 PROCEDURES FOR ANNEXING PARCELS WITHIN THE UGB

Montgomery County is one of only two counties in the state made unique by the fact that there is only one city, Clarksville, within its borders. This eliminates the potential for friction between competing cities over annexation rights and streamlines the provision of urban services from the city into county territory.

The UGB covers a considerable area, 20,047 acres. Prior to April 15, 2013, the City of Clarksville was selective in exercising its annexation powers, limiting itself to areas where realistic economic returns could be expected within a reasonable time schedule. Since the state's adoption of Public Chapter 707 "prohibits any annexation by ordinance that is not both operative and effective prior to May 16, 2015", each annexation conducted by the city since May 16, 2015 has been done via resolution. Each annexation is studied by the RPC and codified in the Plan of Service (Per T.C.A. 6-51-107 & 108) with input from city and county departments and utilities that are affected directly or indirectly by an annexation request. The Plan of Service is done on a case by case basis and takes into account the needs of city and county departments to serve the existing and potential population and businesses within the proposed annexation. The City Council may choose to not annex an area if they deem it to be unnecessary or non-beneficial to the city fiscally or mutually beneficial to them and the property owner(s).

Per T.C.A. §6-58-111; A municipality possesses exclusive authority to annex territory located within its approved UGB.

#### 6.2.5.1 **By Owner Consent Generally**

Per T.C.A. §6-51-104: A municipality, when petitioned by interested persons, or upon its own initiative, by resolution, may propose an extension of its corporate limits by the annexation of territory adjoining to its existing boundaries; provided, however, no such resolution shall propose annexation of any property being used primarily for agricultural purposes. Notwithstanding this part or any other law to the contrary, property being used primarily for agricultural purposes shall be annexed only with the written consent of the property owner or owners.

A referendum is not required to effectuate annexation of territory if:

- (A) All of the property owners within the territory proposed for annexation consent in writing; or
  - (B) (i) [Effective until January 1, 2023.]
- (a) Two-thirds (2/3) of the property owners within the territory proposed for annexation consent in writing;
- (b) The total area of the property owned by the owners consenting to annexation under subdivision (a)(2)(B)(i) is more than one-half (1/2) of the territory proposed for annexation; and
- (c) The proposed annexation consists of nine (9) or fewer parcels;

#### 6.2.5.2 By Referendum Generally

At the request of a neighborhood or multiple property owners or by the city's own recognition; a resolution shall be passed by the City Council. A copy of the resolution, along with a plan of service shall be mailed to all property owners within 14 days of the hearing. The resolution and plan of service shall also be available in at least three locations for review.

After the resolution has passed, T.C.A. 6-51-105 shall be followed regarding the voting process.

- (a) At least thirty (30) days and not more than sixty (60) days after the last of such publications, the proposed annexation of territory shall be submitted by the county election commission in an election held on the request and at the expense of the proposing municipality, for approval or disapproval of the qualified voters who reside in or own property in the territory proposed for annexation; provided, that not more than two (2) persons are entitled to vote based upon ownership of an individual tract of property, regardless of the number of owners of such property.
- (b) The legislative body of the municipality affected may also at its option submit the questions involved to a referendum of the people residing within the municipality.
- (c) In the election or elections to be held, the questions submitted to the qualified voters shall be "For Annexation" and "Against Annexation."
- (d) The county election commission shall promptly certify the results of the election or elections to the municipality. Upon receiving the certification from the county election commission, the municipality shall forward a copy of the certification to the county mayor in whose county the territory being annexed is located.
- (e) If a majority of all the qualified voters voting thereon in the territory proposed to be annexed, or in the event of two (2) elections as provided for in subsections (a) and (b), a majority of the voters voting thereon in the territory to be annexed and a majority of the voters voting thereon in the municipality approve the resolution, annexation as provided therein shall become effective thirty (30) days after the certification of the election or elections.

#### 6.2.6 REPORT ON PROJECTED COSTS WITHIN THE UGB

The Growth Plan does not identify specific geographic areas identified for annexation as part of this plan, no specific plan of services can be proposed. As is the custom of the City of Clarksville, in order to meet legal requirements, a unique Plan of Services is generated for each annexation request based upon its individual needs at that time. Therefore, determining the projected cost to the city for the entire UGB is both unrealistic and would not be an effective tool in steering the future growth of the city in the UGB.

Annexation involving some or all of the UGB will undoubtedly occur over the span of this 20-year planning period. Projecting costs tied to a plan of services can only be realistically undertaken after the review of several factors, including, but not limited to, the size of the area, infrastructure in place, adequate roadway linkages to existing police and fire stations, surface drainage patterns, and any number of other factors depending upon the area chosen. Due to the many variables involved, projecting a meaningful

cost to the plan of services for this 19,876 acre area is more accurately accomplished as Plans of Service are considered individually.

The following is a generalization of the steps typically taken in newly annexed areas to supply and implement a Plan of Services and what should be expected, department by department, for areas within the UGB.

## **Police**

The City of Clarksville police department has a 20-year plan that strives to supply 2.10 officers per 1,000 citizens. The current hiring plan recommends an increase in hiring until 2023 when the city should reach the 2.10 officer or greater per 1,000 ratio. After 2023 the department will enter maintenance and grow naturally with population growth at a rate of five to six new officers per year.

As additional land is considered to be annexed into the city, depending on the size and land use, additional officers may be needed. Individual plans of service will lay out these specific needs as necessary.

### <u>Fire</u>

As the City of Clarksville agrees to annex UGB parcels, fire protection is analyzed. Stations 2 and 12 have the capacity to accept additional coverage area relatively easy due to the lower call volume compared to other stations and the proximity of these stations to the city limits already. Additional annexations off Highway 12 and Dover Road, for instance, will need to be more closely scrutinized due to the locations of existing fire departments and response times to farther out areas.

The City of Clarksville Fire Rescue is an ISO 2 rated department which is in the top tier. In a 2018 survey by MTAS, 323 fire departments (paid and volunteer and city and county) responded with their ISO rating. Only four departments statewide are rated ISO 1 and 20 departments as ISO 2. The Clarksville Fire Rescue ISO is in the top 7.5 percent of all fire departments (surveyed) in the state, and top two-percent of fire departments in the country. A low ISO rating translates to lower home insurance ratings for homes and businesses.

As additional land is considered to be annexed into the city, depending on the location, land use, and size, additional personnel, equipment, or stations may be needed. Individual plans of service will layout individual needs as necessary.

# **Solid Waste Disposal**

Current policies of the Bi-County Solid Waste Management System for areas within the city limits of Clarksville will extend into the newly annexed areas upon the effective date of annexation. Since Bi-County serves the city and county equally, the projected growth countywide will be taken into account in any future needs at the landfill or their recycling services.

# Water

The Clarksville Water System is one of the largest in Tennessee and serves approximately 150,000 people. The water distribution system is comprised of 17 water tanks, four water booster stations (not including the water plant), and nearly 1,000-miles of water mains. In order to operate and maintain this system, Clarksville Gas and Water (CGW) staffs a total of 40 employees to maintain this system with disciplines including water construction (for repair and in-house replacement of water lines, etc.), water tank and water booster pump station maintenance, cross connection control, water line flushing, and management. State certification is required of all designated staff once they are qualified to sit for the state examination.

CGW serves households and users within its service area. Some portions of the UGB are served by other water utilities such as East Montgomery Utility District or Woodlawn Utility District. In person interviews were conducted with each rural water utility prior to beginning the Growth Plan and each indicated the availability of current capacity to meet any anticipated growth within their district. All rural utilities were running at 50 percent or lower capacity as of Spring 2019.

Any new development that requires extending, or upgrading, water lines is done at the expense of the property owner requesting it. Once the new infrastructure is installed and certified, CGW, or the utility district, will take ownership and maintenance responsibilities. Any incidental costs incurred by CGW, or the utility districts, to operate and maintain these new facilities, such as utility location, valve maintenance, meter reading, or main repair, would generally be offset by revenue generated by the new customer base.

#### **Sewer - Wastewater**

Clarksville Gas and Water (CGW) is the only public wastewater utility in the county. Agreements with rural water utilities are needed in order for CGW to extend sewer lines into their service areas.

The wastewater collection system is comprised of 790 miles of gravity mains, 230 lift stations, 177 miles of force mains, and 18,678 manholes. In order to operate and maintain this complex system, CGW staffs a total of 35 employees.

Any new development that requires extending sewer lines is done at the expense of the property owner requesting it once approved by the city council if it is outside of the city limits. Once the new infrastructure is installed and certified CGW will take ownership and maintenance responsibilities. Any incidental costs incurred by CGW to operate and maintain these new facilities, such as utility location, valve maintenance, meter reading, or main repair, would generally be offset by revenue generated from the new customer base.

# **Street Department**

When an area or street is proposed to be annexed the Clarksville City Street Department will analyze the condition of the street first. Some streets may need upgrade or repair immediately and others will not. Once an area or existing street is accepted into the city limits, the City of Clarksville Street Department will begin enforcing its regulations on the effective date of the annexation.

- Any future improvements will be the responsibility of the developer(s) and/or property owner(s).
- Construction of streets, installation of storm drain facilities, construction of curb and gutters, and other such major improvements will be accomplished under City policies.
- Routine maintenance, on a daily basis, will begin once the streets are dedicated to the public.
- Emergency maintenance of streets (repair of hazardous potholes and measures necessary for traffic flow) will begin once streets are dedicated to the public.
- Streetlights will be installed under current city standards and based upon the availability of electrical power along the established right-of-way.
- Any additional personnel and equipment will be provided through the plan of services that shall be prepared through the annexation process.
- Street name signs where needed will be replaced or installed after the effective date of annexation, as determined within the plan of service.

# **Electrical Services**

<u>Clarksville Department of Electricity:</u> The Clarksville Department of Electricity would apply an established procedure that allows for the orderly transition of all electrical service facilities and equipment from the unincorporated county's electrical supplier, Cumberland Electric Membership Corporation (CEMC). T.C.A. 6-51-112 lays out the procedure for transfer of electrical services between a municipal service (CDE) and an electrical member coop (CEMC).

During each annexation, if there are existing CEMC customers and/or CEMC infrastructure contained in the annexation area, CDE and CEMC leadership come to an agreement within a specified time (typically 6-18 months) on the transfer of infrastructure and a payment schedule for loss of ratepayers over a period of time.

<u>Cumberland Electric Member Corporation</u>: CEMC serves all properties outside the Clarksville City limits. The infrastructure of the corporation is capable of handling the anticipated growth outside the city limits and future improvements are updated annually. Any annexation of the UGB would reduce their rate payers and load needed through their system, potentially freeing up resources to provide for another area of growth in their service area. Services are extended at the cost of the end users generally.

# **Building and Codes Inspection Services**

On the effective date of annexation the Building and Codes Department will provide the following:

- Construction and Sign Permits, Administration, and Inspections; City Building and Codes staff will issue building permits associated with Residential and Commercial construction. Inspection services will be provided to the respective trades of the construction industry to include; building, plumbing, water and sewer, mechanical, and electrical.
- Code Enforcement, Property Maintenance and Abatement; Code Enforcement Division will patrol and enforce property maintenance violations as necessary.
   Department will continue to enforce applicable codes and ordinances dealing with environmental issues.
- Zoning; the Building & Codes office will continue to regulate the Zoning Ordinance and shall be interpreted and administered by the building official of the City.

Typically these services can be absorbed with existing staff.

# **Planning and Zoning**

The Planning and Zoning services for the City of Clarksville and Montgomery County are performed by the Regional Planning Commission. Any growth in the county, whether inside the city limits or not, is handled by the RPC. Therefore, any growth, regardless of its location, is already captured by the staff of the RPC and its four year plan.

Areas and territories annexed into the City of Clarksville retain the zoning classifications assigned to these areas originally set by the Montgomery County Commission. Rezoning may be requested during annexation and will be evaluated by the RPC and City Council prior to adoption.

# **Parks and Recreation**

The City of Clarksville Parks and Recreation Master Plan assessed each city ward and applied the standard National Recreation and Park Association (NRPA) standard of 10 acres of parkland per 1,000 residents as a baseline. The Master Plan projected ward populations in 2027 and evaluated the current acreage of parks against the recommended acreage. Of the 12 city wards, four (4) come close or exceed the standard, while six (6) need to add some acres and two have 0 acres. Overall, for the City of Clarksville to meet NRPA baselines it would need 1502.4 acres of parks in 2027. Existing Parkland totals 1,194.4 acres in 2019.

As additional land is considered to be annexed into the city, depending on the size and land use, additional officers may be needed. Individual plans of service will layout these specific needs as necessary.

# **Transit**

The Clarksville Transit System (CTS) is the sole provider of public transportation for the Clarksville Urbanized Area which includes the city of Clarksville, TN, the city of Oak Grove, KY, and the Ft Campbell military post. CTS's service area is approximately 109 square miles with a population of more than 140,000 people.

The mission of CTS is to plan, implement, maintain and manage a public transportation system that allows for maximum mobility for the community with an emphasis on safety, quality and efficiency.

As areas are added through annexation into the city, which are in the urbanized area, CTS will evaluate the need and likelihood of service. Areas outside the urbanized area cannot, at this time, be serviced by CTS given the current Federal, State, and local funding.

### 6.2.7 LIST OF UTILITY / SERVICE PROVIDERS IN THE UGB

The following is a list of public utility and service providers within the UGB:

# **Public Safety:**

- Montgomery County Sheriff
- Montgomery County EMS
- Montgomery County Volunteer Fire Service

#### **Public Water:**

- Clarksville Gas and Water
- East Montgomery Utility District
- Woodlawn Utility District

### **Sanitary Sewer:**

Clarksville Gas and Water

#### **Natural Gas Service:**

Clarksville Gas and Water

## **Electricity:**

Cumberland Electric Membership Corporation

The City of Clarksville, through CGW, is the primary utility provider for water, gas, and sewer within the city limits and the majority of the UGB. East Montgomery Utility District and Woodlawn Utility District provide water to some of the UGB. Service agreements between CGW and the rural water utilities are required in order to extend sanitary sewer into the UGB or PGA, along with City Council approval.

#### 6.3 THE PLANNED GROWTH AREAS

The purpose of the Planned Growth Area (PGA) designation is to identify a compact, yet sufficiently large enough, area to accommodate residential and non-residential growth projected to occur during the next 20 years. PGA boundaries are intended to offer a wide range of housing choices while working in coordination with both public and private sectors with regards to road/street infrastructure, utilities, schools, drainage and other public facilities. These territories are outside the municipality and the UGB where high or moderate density residential, commercial and industrial growth is projected over the next 20 years based on historical experience, economic trends, population growth patterns, and topographical characteristics. (T.C.A. 6-58-106 b (1) (A) & (C))

The PGAs within Montgomery County were significantly reduced in the 2019 Growth Plan as compared to the 1999 Growth Plan. Several factors went into this decision by the Growth Coordinating Committee. First, the expansion of the industrial park and the fact that the industrial users do not need or desire to be in a UGB or PGA to avoid encroachment into their operations or to encroach into neighborhoods existing or proposed. Second, the PGA does not necessarily promote the most efficient use of land when it comes to residential density. As outlined in Chapter 3, more dense development, supplied by urban services, can actually slow the loss of farmland. The large lot sizes, and often lack of sanitary sewer within the PGAs, means more acreage is needed for the same amount of residents as in the UGB.

The PGA boundaries were carefully selected for areas that may see residential growth in the next 20 years, but provide enough land so there is market flexibility. Areas that are not likely to get sanitary sewer, but have access to potable water, were included adjacent to the UGB where logical. The PGA should maintain a rural character and be a transition to the Rural Area for many years to come.

There are four general sub-areas of PGA broken down into the following categories:

- Woodlawn PGA
- Cumberland Heights PGA
- East Montgomery PGA
- South Guthrie PGA

Table 7 shows the total area, projections, and developable acres of all the PGA areas. Calculating the individual needs of PGA Sub-Areas is very difficult due to the unique characteristics of each one. Table 8 shows the PGA total and individual breakdown of acres by each PGA Sub-Area. Figure 20 through Figure 23 show the boundaries of each PGA Sub-Area.

Table 7: PGA Projected Acreage Needed

Total Acres	26,923
PGA Population Projection	3,618
PGA Dwelling Units Needed	1,340
PGA Projected Needed Acres	1,495
Developable Acres*	9,732

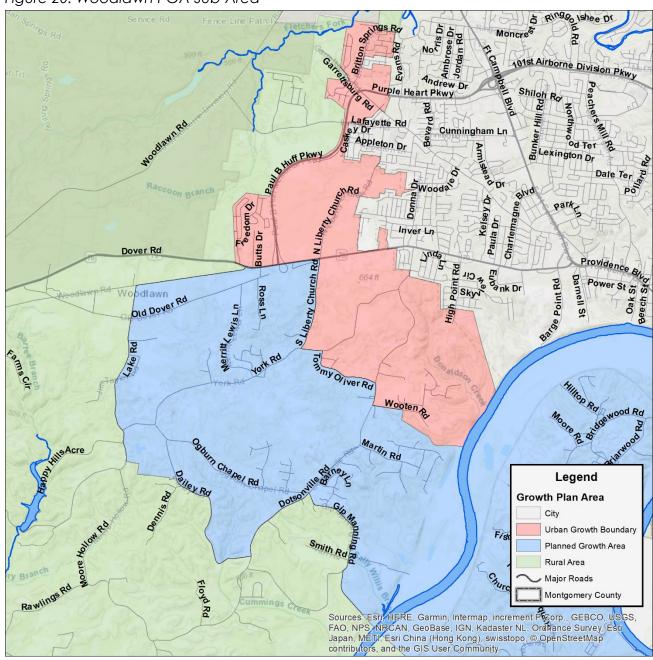
<sup>\*</sup>Areas do not include FEMA flood zones, wetlands, sinkholes, lands with slopes greater than 15 percent, TVA easements, Industrial Development Board-owned properties, cemeteries, roads, rights-of-way, government owned lands (local, state, and federal), and all approved subdivisions (preliminary and final).

Table 8: PGA Projected Acreage Needs by PGA Sub-Areas

	PGA Total	Woodlawn	Cumberland Heights	East Montgomery	South Guthrie
Total Acres	26,923	7,038	13,421	5,873	592
Developable Acres*	9,732	3,619	3,326	2,396	391

<sup>\*</sup>Areas do not include FEMA flood zones, wetlands, sinkholes, lands with slopes greater than 15 percent, TVA easements, Industrial Development Board-owned properties, cemeteries, roads, rights-of-way, government owned lands (local, state, and federal), and all approved subdivisions (preliminary and final).

Figure 20: Woodlawn PGA Sub-Area



York Rd on my Ojiver Rd Main St Franklin Commerce St Wooten Ro To PE OF BE WOOD Rd Union 5 5 Crossland Ave Martin Rd Paragise Still Rd Zinc Plant Rd Ashland City Rd Fish Rd Smith Rd 2 Mogue Rd Hawkins Church Rd Dean Ro Steer 50rings Rd apply Ford Rd Ussery Rd S Salem Rd Min Belmont Rd almyra Rd Coke Rd Ussery Hwy 149 Hus gins Re New Rg Antioch Church Rd Dirt Rd Rob Rd Debra Dr Legend Salem Ridge Rd Fasted Moody Rd **Growth Plan Area** Antioch Rd City Urban Growth Boundary Planned Growth Area Sources: Esri HERE, Garmin, Intermap, increment P Corp.: GEBCORUSGS, Rural Area Major Roads FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community Montgomery County

Figure 21: Cumberland Heights PGA Sub-Area

Old Johnstille Spyfiel Dunbar Cave Rd Bue Have Dr Stradbury Rd Holly Memorial Dr Post Ross Drake Rd Madison St SII3 Wilson Ro ne's po Trough Springs Rd Trelawny O O Lac Sango Rd Old Sango Rd E Old Signal Cid Rev D'Cit Banga Mobley Rd Pickering Ro dge Tri Pace Rd Albright Rd Legend m Evans Rd hnson Rd **Growth Plan Area** City Urban Growth Boundary Old Clarksville Pike Planned Growth Area Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, @ OpenStreetMap of Pone Crontributors, and the GIS User Community Rural Area Major Roads Montgomery County

Figure 22: East Montgomery PGA Sub-Area

Fairground Rd Johnson St Sale Rd Pineywoods Rd Webb Rd Ironnorse Way Mimms Dudley Crockarell Rd Unnamed Street Legend Head Rd **Growth Plan Area** City Urban Growth Boundary Planned Growth Area Rossview Rd Rural Area Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community Major Roads Montgomery County

Figure 23: South Guthrie PGA Sub-Area

#### 6.3.1 CRITERIA FOR DEFINING THE PGAS

T.C.A. § 6-58-106 (b) outlines the criteria used in defining the PGAs:

- Identify territory that is reasonably compact yet sufficiently large to accommodate residential and nonresidential growth projected to occur during the next twenty (20) years
- Identify territory that is not within the existing boundaries of any municipality;
- Identify territory that a reasonable and prudent person would project as the likely site of high or moderate density commercial, industrial and/or residential growth over the next twenty (20) years based on historical experience, economic trends, population growth patterns and topographical characteristics; (if available, professional planning, engineering and/or economic studies may also be considered);
- Identify territory that is not contained within urban growth boundaries; and,
- Reflect the county's duty to manage natural resources and to manage and control urban growth, taking into account the impact to agricultural lands, forests, recreational areas and wildlife management areas
- Before formally proposing any PGA to the coordinating committee, the county shall develop and report population growth projections; such projections shall be developed in conjunction with the University of Tennessee. The county shall also determine and report the projected costs of providing urban type core infrastructure, urban services and public facilities throughout the territory under consideration for inclusion within the PGA as well as the feasibility of recouping such costs by imposition of fees or taxes within the PGA.

#### 6.3.2 FACTORS CONSIDERED IN DEFINING THE PGAS

The county shall also determine and report on the need for additional land suitable for high density industrial, commercial and residential development after taking into account all areas within the current boundaries of municipalities that can be used, reused or redeveloped to meet such needs. The county shall also determine and report on the likelihood that the territory under consideration for inclusion within the PGA will eventually incorporate as a new municipality or be annexed. The county shall also examine and report on agricultural lands, forests, recreational areas and wildlife management areas within the territory under consideration for inclusion within the PGA and shall examine and report on the likely long-term effects of urban expansion on such agricultural lands, forests, recreational areas and wildlife management areas.

# 6.3.3 REZONING REQUEST PROCEDURES FOR THE PGA'S

The PGA's are rated to have the capacity to handle low to moderate densities of development. Applications for rezonings will be accepted for the six zone districts listed below in Table 9 and all those involving commercial and industrial classifications. All requests must undergo the normal review process by the RPC and County Commission which will include the analysis of physical characteristics of the site, as well as the compatibility of the proposed use with all existing land uses in the area. The Zoning Districts outlined in Table 9 are allowed to be requested by properties, or the portion of properties, within the PGA at the time of its enactment.

If zones are permitted within Table 9 but not permitted under the County Zoning Resolution at any point, the County Zoning Resolution shall take precedent.

Table	9: A	llowable	Resid	dentia	l Zoning	Districts	within	the PGA
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Zone District	Land Use Type
AG	Agricultural/Residential
E-1	Residential – Single Family (Conventional Built)
EM-1	Residential – Single Family / Mobile Home
EM-1A	Residential – Single Family / Mobile Home
E-1A	Residential – Single Family (Conventional Built)
R-1	Residential – Single Family (Conventional Built)

#### 6.3.4 PROCEDURES FOR ANNEXING PARCELS WITHIN THE PGA

Normally, parcels in the PGA will not border the city limits and therefore cannot be annexed. However, per T.C.A. § 6-58-118 a municipality may expand its UGB to annex a tract of land without reconvening the coordinating committee or gaining approval from the county if:

- (1) The tract is contiguous to a tract of land that has the same owner and has already been annexed by the municipality;
- (2) The tract is being provided water and sewer services; AND
- (3) The owner of the tract, by notarized petition, consents to being included within the urban growth boundaries of the municipality.

#### 6.3.5 REPORT ON PROJECTED COSTS WITHIN THE PGA

The PGAs cover a considerable area, estimated at 26,930 acres, not including water acres of rivers and creeks or road rights of way.

The PGAs are in places where sewer infrastructure is not available or likely to not be available in the next 20 years, therefore the density is not expected to be greater than that which septic systems can support. Annual growth in the PGA should remain relatively level according to trends and expectations. The inability to zone residential land higher than R-1 means the land will not develop as fast as the UGB.

The following is a generalization of the costs, planned costs, or expenses by city or county department in order to expand services in the PGA. As with all services, local taxes are the primary method of funding them. Additional state or federal grants or aid may be available from time to time but should not be relied on.

# **Sheriff**

<u>Patrol:</u> To address the deficient and projected growth in Patrol the Sheriff Staffing Plan requests eight deputies per year for Fiscal Year 20, 21, and 22. The county commission granted eight deputies for FY20. For FY 23 and beyond, additional deputies will be added based on projected growth. Projected growth is based on call volume, not population. Over the last six years call volume (which is tied to population growth) increased 10 percent year over year.

**Jail:** A CTAS study completed in 2018 revealed a shortage of 42 deputies at the jail. The county commission granted six new deputies for FY 19 leaving a shortage of 36. For FY 20, 21, and 22 the plan is to request 12 a year to close the gap over a three-year period. The Commission granted eight for FY 20, which leaves the jail 28 short. Staffing in the jail is based on required positions that must be filled to meet state standards.

# <u>Fire</u>

Montgomery County unincorporated areas are protected by five volunteer fire departments; Cunningham, Palmyra, Woodlawn, St. Bethlehem, and East Montgomery and assisted by Montgomery County Rescue Squad. Each of these departments has a headquarters and several have substations in order to achieve the most coverage within a five-mile radius.

As the unincorporated county grows, the need for additional substations will be needed in areas of the county. Each fire department is independent of the county government and is responsible for finding land, building a station and then, via a standing agreement with the county commission, they will furnish the station with equipment.

The average cost for a new two-bay substation with bathroom facility on two acres (assuming septic) would cost approximately \$125,000 - \$250,000 in 2019 dollars depending on the location. A fire engine is up to \$300,000 & a tanker \$200,000.

The fire departments maintain an ISO 6 rating and if a home or business was outside of 5 miles from a department it is an ISO 10. The departments, with county support, strive to have the majority of the residents covered within five miles within budgetary limitations.

# **Water**

The PGAs are served by various water utilities. The Clarksville Water System is one of the largest followed by East Montgomery, Cunningham, Woodlawn, and Cumberland Heights Utility Districts. All rural utilities were running at 50 percent or lower capacity while CGW is at 65 percent capacity.

Any new development that requires extending, or upgrading, water lines is done at the expense of the property owner requesting it. Once the new infrastructure is installed and certified CGW, or the utility district, will take ownership and maintenance responsibilities. Any incidental costs incurred to operate and maintain these new facilities, such as utility location, valve maintenance, meter reading, or main repair, would generally be offset by revenue generated by the new customer base.

# Sewer - Wastewater

CGW is the only public wastewater utility in the county. Sewer lines extend through the majority of the UGB but most of the PGA lacks sewer lines, and there is no public sewer south of the Cumberland River in the Cumberland Heights and Cunningham Utility Districts. Agreements with rural water utilities are needed in order for CGW to extend sewer lines into their service areas. Any new development that requires extending sewer lines (force or gravity) is done at the expense of the property owner requesting it with City Council approval. Once the new infrastructure is installed and certified CGW will take ownership and maintenance responsibilities. Any incidental costs to operate and maintain these new facilities, such as utility location, valve maintenance, meter reading, or main repair, would generally be offset by revenue generated by the new customer base.

# **Solid Waste Disposal**

Current policies of the Bi-County Solid Waste Management System for all of Montgomery County able to meet projected growth will be taken into account in any future needs at the landfill or their recycling services.

# **County Highway Department**

The goal of the Highway Department is to provide the citizens with a safe, cost-effective transportation system that ensures the mobility of people and products and promotes economic prosperity and preserves the quality of the environment. The Highway Department is dedicated to meeting the public's need for access and freedom of movement through designing, coordinating, building and maintaining transportation systems that are safe, efficient, effective, and financially responsible.

It is the responsibility of the Highway Department to construct, maintain, and repair all of the county-owned roads and bridges encompassing the 758 miles that make up the county road system.

The most recent practices of the Highway Department do not include the construction of new highway infrastructure and are instead focused mainly on emergency repair and routine maintenance.

The Highway Department is a full-service facility equipped with a vehicle maintenance facility, sign shop, road striping, paving, mowing, and construction equipment. The Highway Department has a wide range of responsibilities including mowing all county rights-of-way, snow and debris removal, bridge and road construction, striping, etc.

Any future roads built in the county and accepted by the County Highway Department and County Commission will then become part of the public road system. Annual tax dollars set aside for the Highway Department go towards maintenance.

# **Cumberland Electric Member Corporation:**

CEMC serves all properties outside the Clarksville City limits. The infrastructure of the corporation is capable of handling the anticipated growth outside the city limits. Services are extended at the cost of the end users generally.

# **Building and Codes Inspection Services**

Currently the County Building and Codes Department volume is about equal to Clarksville Building and Codes in terms of single family permits annually processed. The Building and Codes Department is funded by the county while recouping most costs through permit application fees.

# **Planning and Zoning**

The Planning and Zoning services for the City of Clarksville and Montgomery County are performed by the RPC. Any growth in the county, whether inside the city limits or not, is handled by the RPC. Therefore, any growth, regardless of its location, is already captured by the staff of the RPC and its four year plan.

# **Parks and Recreation**

The purpose of the Montgomery County Parks & Recreation Department is to develop and maintain quality parks and facilities; preserve open space and natural areas; protect environmental resources; promote healthy lifestyles; and provide recreational opportunities for all visitors and residents of Montgomery County. They maintain six local parks throughout the county and each offers a wide variety of recreational options. Parks and Recreation projects are currently evaluated on a case by case basis against funding sources available.

#### **Transit**

Clarksville Transit Services does not serve any areas outside the city limits at this time.

Mid-Cumberland Public Transit is general public provides serving all 12 Middle Tennessee counties with curb-to-curb rural transportation system with flexible schedules to meet the needs of its passengers. Rides are scheduled on a first-come, first-served basis, with priority given to medical appointments.

# **Schools:**

CMCSS produces a 10-Year Facility Construction Plan to address future facility needs based on growth factors (subdivision, permits, and rezonings). The 10-Year Facility Construction Plan is updated annually when the school census is taken on the 40th day. Funding for facilities is achieved through a combination of County Commission appropriations, Adequate Facilities Tax, and Wheel Tax.

## 6.3.6 LIST OF UTILITY / SERVICE PROVIDERS IN THE PGA

The following is a list of utility providers specific to each PGA Sub-Area:

	Woodlawn PGA	Cumberland Heights PGA	East Montgomery PGA	South Guthrie PGA
Public Safety:	<ul><li>Sheriff's Department</li></ul>	Sheriff's Department	Sheriff's Department	Sheriff's Department
	<ul><li>Woodlawn</li><li>Volunteer Fire</li><li>Department</li></ul>	<ul><li>Cunningham Volunteer Fire Department</li></ul>	<ul><li>St. Bethlehem Volunteer Fire Department</li></ul>	<ul><li>St. Bethlehem Volunteer Fire Department</li></ul>
		<ul><li>Palmyra</li><li>Volunteer Fire</li><li>Department</li></ul>	<ul><li>East Montgomery Volunteer Fire Department</li></ul>	
Water:	<ul><li>Woodlawn Utility District</li><li>CGW</li></ul>	<ul><li>Cumberland Heights Utility District</li></ul>	<ul><li>East     Montgomery     Utility District</li><li>CGW</li></ul>	<ul> <li>Guthrie Utility         Department         Guthrie, KY     </li> </ul>
Sanitary Sewer:	■ CGW	■ Not Available	■ CGW	<ul><li>Guthrie, KY (Not yet established)</li></ul>
Natural Gas:	■ CGW	■ Dickson Gas	• CGW	■ CGW
Electricity:	■ CEMC	■ CEMC	■ CEMC	■ CEMC

### 6.4 RURAL AREAS

The Rural Area (RA) is the territory remaining in the County that is not included in a UGB or a PGA. Based on growth expectations, it does not exhibit a need for moderate or high density development within the planning period delineated by this report. This area's development will be governed by the land use control ordinances established and maintained by the County.

The RA is the largest area delineated in this plan containing 236,314 acres or 369.24 square miles (Table 10). Portions of the RA may at first glance seem unusual in that they border the city limits of Clarksville. Even though proximity to the city limits comes the potential for the extension of a full complement of urban services and utilities; it was deemed important by the Growth Coordinating Committee to maintain a lower level of residential development in the areas surrounding Fort Campbell to minimize encroachment on Sabre Field and other operations from moderate or high density residential which can bring noise complaints and light pollution. The preservation of the training missions is a high priority to the leadership of Clarksville and Montgomery County. There are several reasons for this support, not the least of which is the Post's positive economic influence on the local economy. Another area of RA that borders the city limits is an area east of Interstate 24 along International Boulevard. This area represents the Industrial Park, a \$26 Million investment by the city and county, and similarly to Fort Campbell the Growth Coordinating Committee decided to buffer the UGB to avoid encroachment to and from future industrial development in this area by keeping it in the RA for now. Future versions of the Growth Plan may decide to bring back growth areas around the industrial park depending on how developed it becomes.

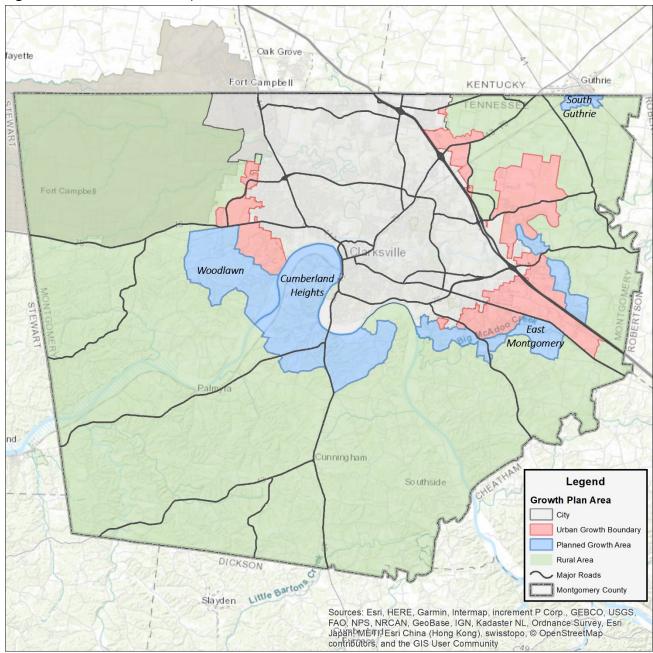
The total acres and projections are shown in Table 10 and a map of the entire RA is shown in Figure 24. The RA is generally described as the area encircling the urban areas beginning in the west at Stewart County and Fort Campbell, then continuing south to Houston and Dickson County, and continuing east to the Cheatham and Robertson Counties. The Kentucky-Tennessee state line is the northern boundary of the RA.

Table 10: RA Land Table

Total Acres (RA)	236,314
RA Population Projection	10,854
RA Dwelling Units Needed	4,020
RA Projected Needed Acres	8,444
Developable Acres*	84,516

<sup>\*</sup>Areas do not include FEMA flood zones, wetlands, sinkholes, lands with slopes greater than 15 percent, TVA easements, Industrial Development Board-owned properties, cemeteries, roads, rights-of-way, government owned lands (local, state, and federal), and all approved subdivisions (preliminary and final).

Figure 24: Growth Plan Map



#### 6.4.1 CRITERIA FOR DEFINING RAS

T.C.A. § 6-58-106 (c) outlines the criteria used in defining the RA:

- Identify areas that are not within the Urban Growth Boundaries or Planned Growth Areas;
- Identify territory that, over the next twenty (20) years, is to be preserved as agricultural lands, forests, recreational areas, wildlife management areas or for uses other than high density commercial, industrial or residential development;
- These areas shall reflect the county's duty to manage growth and natural resources in a manner that reasonably minimizes detrimental impact to agricultural lands, forests, recreation areas and wildlife management areas.

### 6.4.2 REZONING REQUEST PROCEDURES FOR THE RURAL AREA

The RA only has the capacity to handle low densities of development at this time, led by the rural character of the area and lack of sanitary sewer. Applications for rezonings will be accepted for the three zone districts listed below in Table 11 as well as those involving commercial and industrial classifications that can meet their septic needs. All requests must undergo the normal review process by the RPC and County Commission which will include the analysis of physical characteristics of the site, as well as the compatibility of the proposed use with all existing land uses in the area.

The Zoning Districts outlined in Table 11 are allowed to be requested by properties, or the portion of properties, within the RA at the time of its enactment.

Table 11: Allowable Residential Zoning Districts within the RA

Zone District	Land Use Type
AG	Agricultural/Residential
E-1	Residential – Single Family (Conventional Built)
EM-1	Residential – Single Family / Mobile Home

## 6.4.3 LIST OF UTILITY / SERVICE PROVIDERS IN THE RURAL AREA:

# **Public Safety:**

- Sheriff's Department
- Cunningham Volunteer Fire Department
- East Montgomery Volunteer Fire Department
- Palmyra Volunteer Fire Department
- St. Bethlehem Volunteer Fire Department
- Woodlawn Volunteer Fire Department

# Water:

- Clarksville Gas and Water
- Cumberland Heights Utility District
- Cunningham Utility District
- East Montgomery Utility District
- Guthrie Municipal Utility District
- Woodlawn Utility District

# **Sanitary Sewer:**

Clarksville Gas and Water (where available)

## **Natural Gas:**

- Clarksville Gas and Water
- Greater Dickson Gas Authority

# **Electricity:**

Cumberland Electric Membership Corporation

## 7. LOOKING FORWARD

The Clarksville-Montgomery County Growth Plan covers a planning period of 20 years, 2020-2040. The information presented in this plan is to be used as a guide to growth, while taking into account available public services and infrastructure, the preservation of agricultural land, recreational areas, floodways and wetlands. The plan is designed to give public and private decision makers a guide for future development for Clarksville-Montgomery County's growth.

Since the adoption of the original plan, two amendments were made to the document between 1999 and the present. As we move forward looking to the next 20 years, we acknowledge that amendments will need to be made to this manual and the growth plan map as trends change. The growth plan is a living document and shall be used and amended as determined by the County Mayor or state mandated requirements. The City Mayor, RPC, or other elected officials may request the County Mayor consider updating the growth plan but the request lies completely with that office.

Considering that the Growth Plan should be treated as a living document the RPC Staff compiled a series of events that may trigger the need to update the Growth Plan. Factors that could drive the need to update the Growth Plan include:

# **CHANGES TO FORT CAMPBELL**

What makes Clarksville-Montgomery County unique from other cities in the state is the presence of Fort Campbell. The 106,700 acre installation possesses the capability to deploy mission-ready contingency forces by air, rail, highway, and inland waterway. The post is located within both Tennessee and Kentucky and currently includes 26,615 active military and an additional 39,649 dependents, of which two-thirds live off post. There is family housing on post, with 5,933 units in Tennessee and 9,215 units in Kentucky. In addition, the barracks have 4,205 rooms in Tennessee and 6,028 in Kentucky. Any major change to the mission, a gain or loss of units, or a major deployment will impact Clarksville and Montgomery County, both economically and to the growth and population projections. Any significant change to Fort Campbell that would speed up or slow down the population projections should trigger an adjustment to the Growth Plan at that time.

## **2030 DECENNIAL CENSUS**

It could be argued that the previous Growth Plan should have been reassessed after the 2010 census. If the growth trends used in this Growth Plan do not align with what the 2030 census reports, there may be a need to amend the Growth Plan to keep development and the provision of services on track after the 2030 census.

## **MAJOR INDUSTRIAL DEVELOPMENTS**

Clarksville-Montgomery County is home to some very large industrial companies such as Hankook Tire, LG, Google, Bridgestone Metalpha, Florium USA, Hendrickson Trailer Suspension, and Trane, to mention just a few. As the Clarksville-Montgomery County Industrial Development Board continues its recruitment efforts, additional industrial land may be needed to accommodate future industrial growth. It is important to mention that future industrial areas should be protected from high and medium density residential

growth. Should the need for additional industrial land arise in the future, an update to the current growth plan may be required to both provide for and protect future industrial land uses. Similarly, the announcement of a major industrial "super site," one employing well over 2,000 individuals, would drastically affect population growth and increase the need for dwelling units, both of which would thus require revisiting the Growth Plan and adjusting projections and needs accordingly.

# **UTILITY DISTRICTS AND SANITARY SEWER AGREEMENTS**

Currently Clarksville Gas, Water and Sewer is the only provider for sanitary sewer within Montgomery County. However, the East Montgomery Utility District in 2019 has reached an agreement to work with CGW to allow sanitary sewer within their utility district again, while East Montgomery Utility District will continue to hold the rights to provide water service in their respective district. All other utility districts will continue to provide only water service in their districts. An amendment to the plan could be necessary if a utility district started providing sanitary sewer to their customers independently or with CGW.

#### TRANSPORTATION AND FUTURE ROADS

Traffic congestion has been a major complaint of residents as new growth and development occurs, regardless of its location. To ease congestion and add capacity, the city and county continue to work with the State of Tennessee to increase right-of-way widths along major arterials, add lanes, and provide new connections, such as the State Route 374 extension, which TDOT is currently in the process of approving. Those plans would extend State Route 374 from the intersection with Highway 79 (Dover Road) across the Cumberland River to Highway 48/13. There is also a need for a new interchange along I-24, which would have a pretty significant impact on transportation and the completion of state route 374 will reshape the way the citizens get around. As growth trends tend to follow major rights-of-ways the improvements to state route 374 could lead to new growth along this route, thus necessitating the need to amend.

#### **EDUCATION**

As with all growth, the need for new public schools is a must. Montgomery County has only one public school system and currently has 24 elementary schools, eight middle schools and nine high schools. It is estimated that several schools are needed over the next 20 years to accommodate Clarksville-Montgomery County's public school needs. Similar to roads, new developments tend to follow the locations of new schools. Depending on the need for additional schools and the future location of those institutions, there could be a need to revisit the growth plan.

The Clarksville-Montgomery County Growth Plan contains the policies where new growth is anticipated over the next 20 years, but this is a "living document" which will need to be revisited on a case by case basis as determined by examples above within this chapter. As we continue to protect areas that should not be developed, such as prime agricultural land, wetlands, floodways, and wildlife areas, it is important that we continue to look for areas where low to high density growth should be encouraged.

# APPENDIX A. GLOSSARY OF TERMS

Annexation – The addition of previously unincorporated territory into the municipal boundaries, the process of which is initiated by written property owner consent or neighborhood referendum.

Density – This term is not well defined by Public Chapter 1101, but as it relates to land development, refers to the numbers of persons, structures, or housing units within a specified area. Highest densities would be found in urban areas and continuing toward the UGB. Low to moderate densities would be found in the PGAs of the County and low densities only would be found in the Rural Area(s).

The City-County Geographic Information System has data that shows the average single-family residential density within the City of Clarksville is just over two houses per acre or one per 0.48 acre. Multi-family residential density averages 10 units per acre within the City, or 0.10 acre per unit. The same data source shows the average single-family residential density in the County outside the city limits ranges from one house per 1.60 acres to farmsteads setting on an average of 9.06 acres. There is such a small sample of multi-family developments in the County that no reliable density level could be determined.

Growth Plan–the plan required by TCA 6-58-107 which covers a 20 year planning period and which includes documents describing and depicting municipal corporate limits, as well as urban growth boundaries, planned growth areas, and rural areas.

Growth Plan Coordinating Committee – Pursuant to TCA 6-58-104(a)(9), the regional planning commission, plus any additional members jointly appointed by the county and city mayors, shall serve as the growth plan coordinating committee, whose duty is to develop a recommended growth plan and submit such plan for ratification by the county legislative body and the municipal legislative body.

Land Use – The technique of identifying and categorizing the purpose for which land is being used. In this report, land use will include residential uses of varying densities. Other major categories reviewed and considered in the preparation of this plan were industrial, commercial/office, public and semi-public (to include governmental, recreational, natural, churches and schools, cemeteries, utilities and transportation facilities).

Local Government Planning Advisory Committee (LGPAC) – Codified at TCA 4-3-727 by the General Assembly, this body is composed of seven (7) officers of local governments, appointed by the governor, and has the duty to exercise the powers over regional planning commissions provided for in TCA 13-3-101 and 13-2-102.

Lots of Record –A lot that exists as shown or described on a plat or deed in the records of the local registry of deeds.

Planned Growth Area (PGA) - territory outside of the existing boundaries of the municipality and not contained within the urban growth boundary and which is reasonably compact yet sufficiently large to accommodate residential and nonresidential growth projected to occur during the next twenty (20) years.

Population Projection – The technique of forecasting population counts into the future. For purposes of this report, the projections as prepared by the University of Tennessee were received, reviewed and accepted for inclusion in this report. They were used in conjunction with an existing land use inventory to forecast future growth needs.

Public Chapter 707 – Enacted in April 2014, this legislation repealed cities' authority for unilateral, nonconsensual annexation. As of May 15, 2015, cities can annex property only with written owner consent or by referendum and can annex certain agricultural land only with written owner consent.

Public Chapter 1101 – Also known as Tennessee's Growth Policy Act, this legislation created a growth planning process for local governments

Public Services Associated with a city's Plan of Services for Annexed Areas – Typical urban services to include police and fire protection, water and wastewater services, electrical, road and street construction and maintenance, recreation facilities, street lighting, and planning, zoning and building permitting services.

Rural Area (RA) – All remaining unincorporated territory that is not contained within either an urban growth boundary or planned growth area and which, over the next 20 years, is to be preserved as agricultural lands, forests, recreational areas, wildlife management areas or for uses other than high density commercial, industrial, or residential development.

Urban Growth Boundary (UGB) - territory that is reasonably compact yet sufficiently large to accommodate residential and nonresidential growth projected to occur during the next twenty (20) years, which is contiguous to the existing boundaries of the municipality and the likely site of high density commercial, industrial, and residential development.

# APPENDIX B. LIST OF ACRONYMS

CDE - Clarksville Department of Electricity

CEMC - Cumberland Electric Membership Corporation

CGW - Clarksville Gas and Water

CMCSS - Clarksville Montgomery County School System

CTAS - County Technical Advisory Service

CTS - Clarksville Transit System

**EPA - Environmental Protection Agency** 

FEMA - Federal Emergency Management Agency

IDB - Industrial Development Board

LGPAC - Local Government Planning Advisory Council

MTAS - Municipal Technical Advisory Service

NRPA - National Recreation and Park Association

PC - 1101 Public Chapter 1101

PC - 707 Public Chapter 707

PGA - Planned Growth Area

RA - Rural Area

RCLCO - Robert Charles LeSer & Co., LLC, Real Estate Advisors

RPC - Regional Planning Commission

TACIR - Tennessee Advisory Council on Intergovernmental Relations

TCA - Tennessee Code Annotated

TDOT - Tennessee Department of Transportation

TVA - Tennessee Valley Authority

UGB - Urban Growth Boundary

#### APPENDIX C. RESOLUTIONS OF APPROVAL

#### C.1 Growth Coordinating Committee Resolution:

Figure 25: Growth Coordinating Committee Resolution of Approval

A RESOLUTION BY THE CLARKSVILLE-MONTGOMERY GROWTH COORDINATING COMMITTEE APPROVING THE CLARKSVILLE-MONTGOMERY COUNTY 2040 GROWTH PLAN AND FORWARDING IT TO THE CITY OF CLARKSVILLE AND MONTGOMERY COUNTY FOR CONSIDERATION

WHEREAS, Tennessee Public Chapter 1101 of 1998 (T.C.A. 6-28-101 through 118), developed a comprehensive growth policy for cities and counties in Tennessee; and

WHEREAS, Part of Public Chapter 1101 required the adoption of a 20-year growth plan which

was originally adopted by the state in 2000; and

WHEREAS, The County Mayor requested that the Regional Planning Commission examine the Clarksville-Montgomery County Growth Plan for updating as the initial 20-years of the plan was, "overdue for a county-wide assessment and overall update"; and

WHEREAS, Pursuant to the requirements of Public Chapter 1101, a Growth Coordinating

Committee was established by the City and County Mayors; and

WHEREAS, The Regional Planning Commission Staff assisted the jointly formed Clarksville-Montgomery County Growth Coordinating Committee and led the development of a new Growth Plan to guide the county through 2040, anticipating the land-use and growth management needs of 90,455 projected new residents; and

WHEREAS, The Growth Coordinating Committee conducted multiple workshops and required public hearings per T.C.A. 6-58-104, between April 29, 2019 and October 25, 2019;

WHEREAS, This process required the establishment of an Urban Growth Boundary (UGB) for the City of Clarksville which contains the corporate limits of the city and the adjoining territory where growth is expected; and

WHEREAS, This process required the establishment of a Planned Growth Area (PGA) and Rural Area (RA) for Montgomery County where low to moderate levels of residential development may occur.

NOW THEREFORE, BE IT RESOLVED BY THE CLARKSVILLE-MONTGOMERY COUNTY GROWTH COORDINATING COMMITTEE:

The Growth Coordinating Committee recommends the adoption of the Clarksville-Montgomery County 2040 Growth Plan and forwards the Growth Plan onto the City of Clarksville and Montgomery County-for consideration

Mr. Larry Rocconi, Chairman Growth Coordinating Committee

Mr. Mark Kelly, Vice-Chairman - Growth Coordinating Committee

Growth Coordinating Committee Action of Committee:

ADOPTED: October 25, 2019

Final - October 2019

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#### C.2 CITY OF CLARKSVILLE RESOLUTION OF APPROVAL:

Figure 26: City of Clarksville Resolution of Approval

#### **RESOLUTION 26 2019-20**

A RESOLUTION BY THE CITY COUNCIL OF CLARKSVILLE TENNESSEE RATIFYING THE CLARKSVILLE-MONTGOMERY COUNTY 2040 GROWTH PLAN AND FORWARDING IT TO THE TENNESSEE LOCAL GOVERNMENT PLANNING ADVISORY COMMITTEE FOR CONSIDERATION

- WHEREAS, Public Chapter 1101 of 1998, T.C.A. 6-28-101 through 108, requires development of a comprehensive growth policy for cities and counties in Tennessee; and
- WHEREAS, Part of Public Chapter 1101 required the adoption of a 20-year growth plan which was originally adopted by the state in 2000 and amended through 2018; and
- WHEREAS In October 2018, the County Mayor requested that the Regional Planning Commission examine the Clarksville-Montgomery County Growth Plan for updating as the initial 20-year plan was, "overdue for a county-wide assessment and overall update;" and
- WHEREAS, Pursuant to the requirements of Public Chapter 1101, a Growth Coordinating Committee was established by the City and County Mayors; and
- WHEREAS, The Regional Planning Commission Staff assisted the jointly formed Clarksville Montgomery County Growth Coordinating Committee and led the development of a new Growth Plan to guide the county through 2040, anticipating the land-use and growth management needs of 90,455 projected new residents in Montgomery County; and
- WHEREAS, This process requires the establishment of an Urban Growth Boundary (UGB) for the City of Clarksville which contains the corporate limits of the city and the adjoining territory where growth is expected; and
- WHEREAS, This process requires the establishment of a Planned Growth Area (PGA) and Rural Area (RA) for Montgomery County where low to moderate levels of residential development may occur; and
- WHEREAS, The Growth Coordinating Committee conducted multiple workshops and required public hearings per T.C.A. 6-58-2014, between April 29, 2019 and October 25, 2019.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF CLARKSVILLE, TENNESSEE:

Per T.C.A 6-58-104, The Clarksville City Council ratifies the updated Clarksville-Montgomery County 2040 Growth Plan and forwards the plan onto the Tennessee Local Government Planning Advisory Committee (LGPAC) for approval.

Mayor

PUBLIC HEARING: November 7, 2019 ADOPTED: November 7, 2019

#### C.2 MONTGOMERY COUNTY RESOLUTION OF APPROVAL

Figure 27: Montgomery County Resolution of Approval

19-12-9

A RESOLUTION BY THE MONTGOMERY COUNTY TENNESSEE COMMISSION RATIFYING THE CLARKSVILLE-MONTGOMERY COUNTY 2040 GROWTH PLAN AND FORWARDING IT TO THE TENNESSEE LOCAL GOVERNMENT PLANNING ADVISORY COMMITTEE FOR CONSIDERATION

WHEREAS, Public Chapter 1101 of 1998, T.C.A. 6-28-101 through 108, requires development of a comprehensive growth policy for cities and counties in Tennessee; and

**WHEREAS**, Part of Public Chapter 1101 required the adoption of a 20-year growth plan which was originally adopted by the state in 2000 and amended through 2018; and

**WHEREAS**, In October 2018, the County Mayor requested that the Regional Planning Commission examine the Clarksville-Montgomery County Growth Plan for updating as the initial 20-year plan was, "overdue for a county-wide assessment and overall update"; and

WHEREAS, Pursuant to the requirements of Public Chapter 1101, a Growth Coordinating Committee was established by the City and County Mayors; and

**WHEREAS,** The Regional Planning Commission Staff assisted the jointly formed Clarksville Montgomery County Growth Coordinating Committee and led the development of a new Growth Plan to guide the county through 2040, anticipating the land-use and growth management needs of 90,455 projected new residents in Montgomery County; and

**WHEREAS,** This process requires the establishment of an Urban Growth Boundary (UGB) for the City of Clarksville which contains the corporate limits of the city and the adjoining territory where growth is expected; and

**WHEREAS**, This process requires the establishment of a Planned Growth Area (PGA) and Rural Area (RA) for Montgomery County where low to moderate levels of residential development may occur; and

**WHEREAS**, The Growth Coordinating Committee conducted multiple workshops and required public hearings per T.C.A. 6-58-2014, between April 29, 2019 and October 25, 2019.

**NOW, THEREFORE, BE IT RESOLVED** by the Montgomery County Board of Commissioners assembled in regular business session on this 13<sup>th</sup> day of January 2020.

Per T.C.A 6-58-104, The Montgomery County Commission ratifies the updated Clarksville-Montgomery County 2040 Growth Plan and forwards the plan onto the Tennessee Local Government Planning Advisory Committee (LGPAC) for approval.

Duly passed and approved this 13th day of January 202

Attested \

Commissioner

Sponsor

Approved

County Mayor

#### C.3 LGPAC RESOLUTION OF APPROVAL

Figure 28: LGPAC Resolution of Approval

# LOCAL GOVERNMENT PLANNING ADVISORY COMMITTEE RESOLUTION APPROVING THE CLARKSVILLE-MONTGOMERY COUNTY GROWTH PLAN

WHEREAS, Public Chapter 1101 of the Public Acts of 1998 requires development of a comprehensive growth policy for cities and counties in Tennessee; and

WHEREAS, this process requires the establishment of an Urban Growth Boundary ("UGB") for Clarksville-Montgomery County; and

WEHEREAS, this process required the establishment of boundaries for Planned Growth Areas and Rural Areas in Montgomery County which indicate where growth is expected outside of the UGB and where the rural character of Montgomery County should be preserved; and

WHEREAS, the Clarksville-Montgomery County Growth Coordinating Committee, by way of a resolution duly passed and approved and dated October 25, 2019, approved the Clarksville-Montgomery County 2040 Growth Plan and forwarded it to the City of Clarksville and County of Montgomery for consideration; and

WHEREAS, the City Council of Clarksville, Tennessee, by way of a resolution duly passed and approved and dated November 7, 2019, ratified the Clarksville-Montgomery County 2040 Growth Plan; and

WHEREAS, the Montgomery County Commission, by way of a resolution duly passed and approved and dated January 13, 2020, ratified the Clarksville-Montgomery County 2040 Growth Plan.

NOW, THEREFORE BE IT RESOLVED by the Local Government Planning Advisory Committee that the Clarksville-Montgomery County 2040 Growth Plan is approved.

BE IT FURTHER RESOLVED that this change shall be effective January 22, 2020.

Adopted: 1/22/2020

Michael Matteson, Chair

Local Government Planning Advisory Committee

Department of Economic & Community Development

## APPENDIX D. PAST GROWTH PLAN MAPS

Figure 29: 1999 Original Growth Plan Map

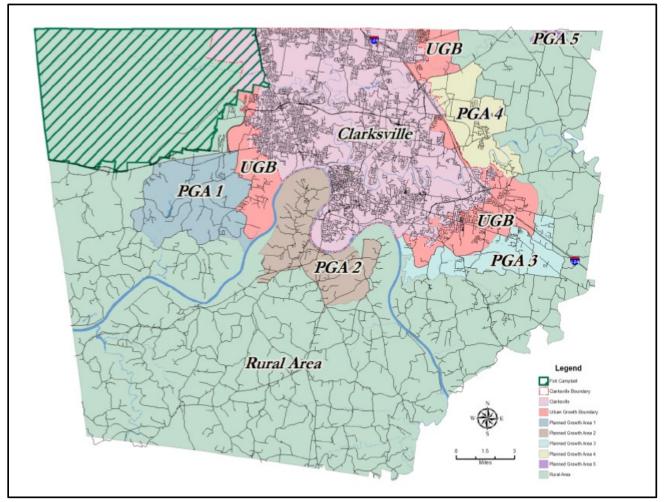
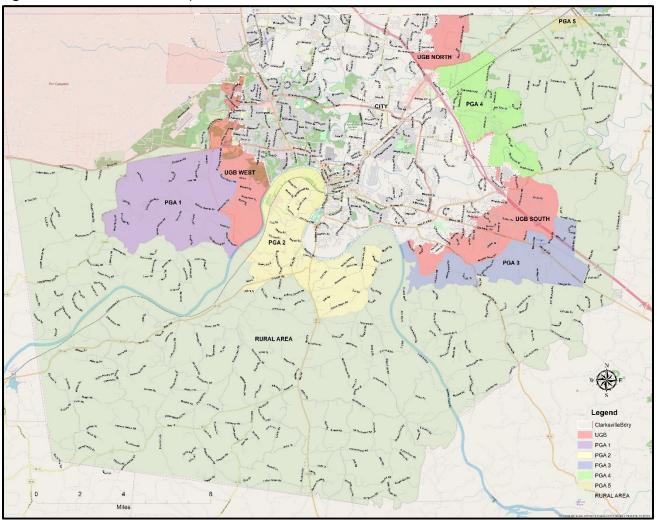


Figure 30: 2018 Growth Map – as Amended



#### APPENDIX E. PAST GROWTH COORDINATING COMMITTEES

#### **The 1998 Growth Coordinating Committee**

- Joe Creek Chairman
- Morrell Boyd Vice Chair.
- Moninda Biggers
- Mayor Johnny Piper
- Benny Skinner
- Lane Lyle
- Gary Norris
- Ken Spradlin
- Barbara Ratchford
- Carl Wilson
- Denzil Biter
- James Trotter
- George Marks
- Loretta Bryant

#### **The 2012 Growth Coordinating Committee**

- Mark Kelly Chairman
- Robert Nichols Vice Chairman
- Mike Harrison
- Mabel Larson
- Bryce Powers
- Geno Grubbs
- John Laida
- Russell Adkins
- Pat Hickey (Mark Riggins)
- Norm Brumblay
- Jim Coode
- Brian Taylor
- Joe Creek
- Ed Baggett
- Mike Evans

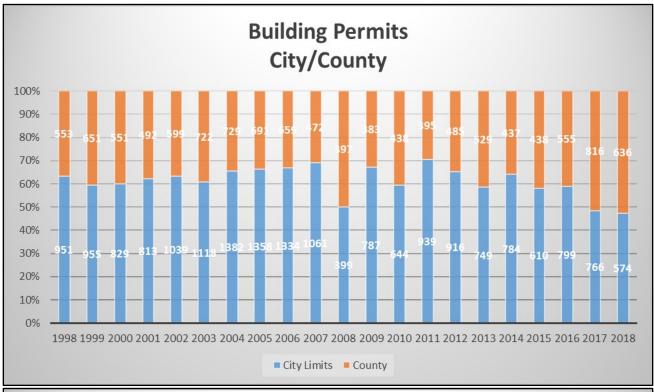
## **The 2018 Growth Coordinating Committee**

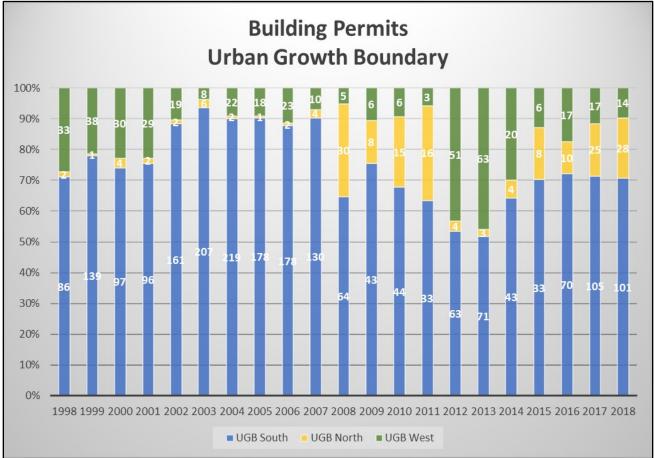
- Richard Swift Chairman
- Bryce Powers Vice Chairman
- Russell Adkins
- Geno Grubbs
- Wade Hadley
- Mark Kelly
- Bill Kimbrough
- Robert Nichols
- Dr. Amanda Walker

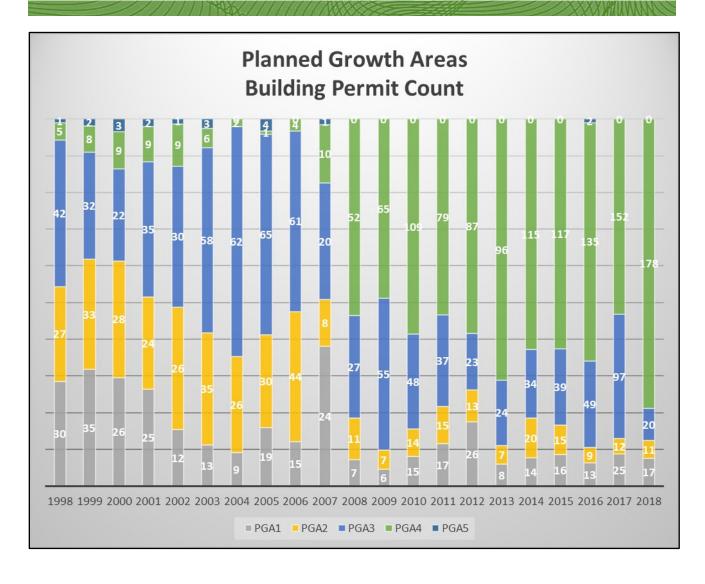
## APPENDIX F. ANCILLARY DATA

Table 12: Building Permits by Year

YEAR	Total	City Limits	UGB Total	UGB South	UGB North	UGB West	PGA1	PGA2	PGA3	PGA4	PGA5	RA	Unincorporated County
1998	1385	951	121	86	2	33	30	27	42	5	1	206	432
1999	1430	955	178	139	1	38	35	33	32	8	2	185	473
2000	1249	829	131	97	4	30	26	28	22	9	3	201	420
2001	1178	813	127	96	2	29	25	24	35	9	2	143	365
2002	1457	1039	182	161	2	19	12	26	30	9	1	157	417
2003	1619	1118	221	207	6	8	13	35	58	6	3	165	501
2004	1868	1382	243	219	2	22	9	26	62	2	0	144	486
2005	1852	1358	197	178	1	18	19	30	65	1	4	178	494
2006	1792	1334	203	178	2	23	15	44	61	4	0	129	456
2007	1386	1061	144	130	4	10	24	8	20	10	1	121	328
2008	702	399	99	64	30	5	7	11	27	52	0	102	298
2009	1113	787	57	43	8	6	6	7	55	65	0	136	326
2010	1017	644	65	44	15	6	15	14	48	109	0	122	373
2011	1283	939	52	33	16	3	17	15	37	79	0	143	343
2012	1285	916	118	63	4	51	26	13	23	87	0	100	367
2013	1140	749	137	71	3	63	8	7	24	96	0	120	392
2014	1155	784	67	43	4	20	14	20	34	115	0	120	370
2015	1000	610	47	33	8	6	16	15	39	117	0	157	391
2016	1258	799	67	70	10	17	13	9	49	135	2	183	488
2017	1439	766	147	105	25	17	25	12	97	152	0	236	669
2018	1067	574	143	101	28	14	17	11	20	178	0	124	493
Total	27,675	18,807	2,746	2,161	177	438	372	415	880	1,248	19	3,172	8,882
Per Household	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
Persons	74,723	50,779	7,414	5,835	478	1,183	1,004	1,121	2,376	3,370	51	8,564	23,981







## F.1 HISTORIC LOT YIELDS BY GEOGRAPHIC AREA

## **Countywide**

									2040	2040	Developable Land
									Need	Need	Remaining
	Historic	2009	-2018		1	1	1		Units	Acreage	(2018)
						% of	% of				
	Lot	SD	Lots or	Lot	Acres	Total	Total				
	Yield	Acreage	units	Yield	per lot	Acreage	Lots		33,502		
AG	0.51	250	129	0.52	1.94	5.12%	0.84%		283	548	
E-1	0.64	171	121	0.71	1.41	3.50%	0.79%		265	375	
R-1	1.9	1769	3157	1.78	0.56	36.24%	20.67%		6,926	3,881	
R-1A	2.9	331	955	2.89	0.35	6.78%	6.25%		2,095	726	
R-2	2.8	1590	4534	2.85	0.35	32.58%	29.69%		9,947	3,488	
R-2A	3.2	145	467	3.22	0.31	2.97%	3.06%		1,025	318	
R-4 SD	2.1	25	47	1.88	0.53	0.51%	0.31%		103	55	
R-6	11.9	1	12	12.00	0.08	0.02%	0.08%		26	2	
Multifamily	12	599	5849	9.76	0.10	12.27%	38.30%		12,832	1,314	
Totals		4881	15,271	3.13	0.32	100.00%	100.00%		33,502	10,708	113,565
		•	•	•			•	Population	90,455		
								Acres/Dersen	0.12		

Acres/Person 0.12

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# <u>City</u>

											Developable
									2040	2040	Land
									Need	Need	Remaining
	Historic	1999	-2018			T		T	Units	Acreage	(2018)
						% of	% of				
	Lot	SD	Lots or	Lot	Acres	Total	Total				
	Yield	Acreage	units	Yield	per lot	Acreage	Lots		24,121		
AG	0.51	6	4	0.67	1.50	0.22%	0.03%		8	12	
E-1	0.64	8	4	0.50	2.00	0.29%	0.03%		8	16	
R-1	1.9	334	835	2.50	0.40	12.02%	7.13%		1,719	688	
R-1A	2.9	184	585	3.18	0.31	6.62%	4.99%		1,204	379	
R-2	2.8	1574	4490	2.85	0.35	56.66%	38.32%		9,242	3,240	
R-2A	3.2	144	467	3.24	0.31	5.18%	3.99%		961	296	
R-6	11.9	1	12	12.00	0.08	0.04%	0.10%		25	2	
Multifamily	12	527	5321	10.10	0.10	18.97%	45.41%		10,953	1,085	
Totals		2778	11,718	4.22	0.24	100.00%	100.00%		24,121	5,718	10,210
								Population	65,127		
								Acres/Person	0.09		

## **County (Unincorporated)**

									2040	2040	Developable Land
									Need	Need	Remaining
	Historic	2009	-2018						Units	Acreage	(2018)
						% of	% of				
	Lot	SD	Lots or	Lot	Acres	Total	Total				
	Yield	Acreage	units	Yield	per lot	Acreage	Lots		9,045		
AG	0.51	245	125	0.51	1.96	12.34%	3.59%		325	637	
E-1	0.64	163	117	0.72	1.39	8.21%	3.36%		304	424	
R-1	1.9	1316	2248	1.71	0.59	66.29%	64.62%		5,845	3,421	
R-1A	2.9	148	370	2.50	0.40	7.46%	10.64%		962	385	
R-2	2.8	16	44	2.77	0.36	0.80%	1.26%		114	41	
R-4 SD	2.1	25	47	1.87	0.54	1.27%	1.35%		122	65	
Multifamily	12	72	528	7.33	0.14	3.63%	15.18%		1,373	187	
Totals		1985.09	3,479	1.75	0.57	100.00%	100.00%		9,045	5,161	103,355
								Danielatian	24 422		

Population 24,422 Acres/Person 0.21

## **UGB (UGB and PGA4)**

Historic  Lot Yield  AG 0.51  E-1 0.64  R-1 1.9  R-1A 2.9  R-2 2.8	SD Acreage	Lots or units	Lot Yield 0.38	Acres per lot	% of Total Acreage	% of Total Lots	Need Units 5,025	Need Acreage	Remaining (2018)
Yield       AG     0.51       E-1     0.64       R-1     1.9       R-1A     2.9	Acreage	units	Yield	per lot	Total	Total	5 025		
Yield       AG     0.51       E-1     0.64       R-1     1.9       R-1A     2.9	Acreage	units	Yield	per lot			5 025		
AG 0.51 E-1 0.64 R-1 1.9 R-1A 2.9				<u> </u>	Acreage	Lots	5 025		
E-1 0.64 R-1 1.9 R-1A 2.9	69	26	0.20	2.65			3,023		
R-1 1.9 R-1A 2.9			0.56	2.65	5.47%	1.00%	50	133	
R-1A 2.9	44	41	0.93	1.07	3.49%	1.58%	79	85	
	709	1665	2.35	0.43	56.24%	64.04%	3,218	1,370	
R-2 2.8	349	288	0.83	1.21	27.68%	11.08%	557	675	
	5	15	3.33	0.30	0.36%	0.58%	29	9	
R-4 SD 2.1	13	37	2.80	0.36	1.05%	1.42%	72	26	
Multifamily 12	72	528	7.33	0.14	5.71%	20.31%	1,020	139	
Totals		2,600	2.06	0.48	100.00%	100.00%	5,025	2,437	9,107

Population 13,568
Acres/Person 0.18

## <u>PGA</u>

									2040 Need	2040 Need	Developable Land Remaining
	Historic	2009-	-2018						Units	Acreage	(2018)
						% of	% of				
	Lot	SD	Lots or	Lot	Acres	Total	Total				
	Yield	Acreage	units	Yield	per lot	Acreage	Lots		1,340		
AG	0.51	892	352	0.39	2.53	53.70%	23.64%		317	803	
E-1	0.64	320	225	0.70	1.42	19.27%	15.11%		202	288	
R-1	1.9	449	912	2.03	0.49	27.03%	61.25%		821	404	
Totals		1661	1,489	0.90	1.12	100.00%	100.00%		1,340	1,495	9,732
		•		•				Population	3,618		
								Acres/Person	0.41		

<u>RA</u>

									2040	2040	Developable Land
									Need	Need	Remaining
	Historic	2009	-2018						Units	Acreage	(2018)
						% of	% of				
	Lot	SD	Lots or	Lot	Acres	Total	Total				
	Yield	Acreage	units	Yield	per lot	Acreage	Lots		4,020		
AG	0.51	892	352	0.39	2.53	73.60%	61.01%		2,452	6,215	
E-1	0.64	320	225	0.70	1.42	26.40%	38.99%		1,568	2,229	
Totals		1212	577	0.48	2.10	100.00%	100.00%		4,020	8,444	84,516
								Population	10,854		
								Acres/Person	0.78		