

Council Proposed Draft Thrive Montgomery 2050



October 25, 2022

Please note: This Draft does not include the entirety of the photographs, graphs and tables contained in the Planning Board Draft – all photographs, graphs and tables will be reviewed for relevance to the adopted text and will be updated accordingly.

CONTENTS

INTRODUCTION.....2

ECONOMIC COMPETITIVENESS.....15

RACIAL EQUITY AND SOCIAL JUSTICE.....21

ENVIRONMENTAL HEALTH AND RESILIENCE31

COMPACT GROWTH: CORRIDOR-FOCUSED DEVELOPMENT.....38

COMPLETE COMMUNITIES: MIX OF USES AND FORMS.....51

DESIGN, ARTS, AND CULTURE: INVESTING AND BUILDING COMMUNITY.....59

TRANSPORTATION AND COMMUNICATION NETWORKS:
CONNECTING PEOPLE, PLACES, AND IDEAS.....68

HOUSING FOR ALL: MORE OF EVERYTHING.....80

PARKS AND RECREATION FOR AN INCREASINGLY URBAN AND DIVERSE COMMUNITY:
ACTIVE AND SOCIAL.....97

CONCLUSION.....105

APPENDICES.....112

INTRODUCTION

When Montgomery County adopted its first general plan, known as the “Wedges and Corridors Plan”, in 1964, much of our land was undeveloped. The 1964 plan – as modified by “refinements” adopted in 1969 and 1993 - embraced many of the principles and ideas that are still of value today, such as an emphasis on the preservation of the Agricultural Reserve, development of physically concentrated centers of all sizes, and encouragement of land use patterns that could be effectively served by a multi-modal transportation system. These plans helped to make the County one of the most desirable places to live and work in the United States. Our success has been built on an award-winning park system, high-quality schools, preserving our agricultural and natural resources, fostering the emergence of urban centers and mass transit, and shaping the design of attractive suburban subdivisions.

The Wedges and Corridors Plan was visionary, and its refinements were largely effective in adapting its principles and ideas to the needs of a growing population; however, today we find ourselves facing new challenges and changing circumstances. We have evolved from a bedroom community to a complex jurisdiction with major employment centers and mature residential neighborhoods. As a group, our residents are older, more diverse, and less likely to live in traditional family arrangements. We have a highly educated workforce, proximity to the nation’s capital, and a culture of openness to newcomers, but we also are struggling to attract businesses and house our residents, grappling with a legacy of racial and economic inequality, and facing the effects of climate change.

In addition, we now see that not all of the changes in our approach to planning were beneficial. The 1993 refinement established the residential wedge, identified as an area for “maintaining a low-density residential character” and directed most growth to the “urban ring” and I-270 corridor. However, the removal of the eastern portion of the County as a location suitable for corridor-focused development discouraged public and private investment in this area. The establishment of the residential wedge consigned more than one-third of the County to zoning exclusively for single family homes, leaving many of our neighborhoods reliant on automobiles and disconnected from many amenities and services. These decisions, in conjunction with discriminatory land use and planning-related practices such as redlining and restrictive covenants (both created by the real estate and financial industries and then adopted by government agencies), established inequitable patterns of development that must be recognized and addressed in ways that do not compound the issues caused by displacement and gentrification.

Today the combination of rapid social, environmental, technological, demographic, and economic shifts at the national and global levels along with our new context requires us to take a clear-eyed look at our strengths and weaknesses. We have tremendous assets, but if we hope to continue to thrive, we must be prepared to make difficult decisions and take bold steps to prepare for the future. Thrive Montgomery 2050 is the vehicle for assessing the implications of these shifts for land use, transportation and public infrastructure and adapting our approach to planning and growth for the next 30 years.

WHAT IS A GENERAL PLAN?

A general plan is a long-range guide for the development of a community. Every jurisdiction must adopt some form of general or “comprehensive” plan as a legal predicate for the exercise of the government’s land use and zoning powers. The purpose of a 30-year plan is not to predict and respond to a single future, but to provide broad guidance for land use decisions as we face multiple, unpredictable future opportunities and challenges that influence growth and development such as disruptions brought about by climate change, pandemics, or terrorist attacks as well as the consequences of innovations such as autonomous vehicles and micro transit.

Thrive Montgomery 2050 is the county’s update to our general plan. It is a framework for future plans and development that defines the basic land use policies and context for all public and private development in the county. It provides direction for decisions about land use, transportation, and related issues under local government influence, but it does not by itself change zoning or other detailed land use regulations although implementation of its recommendations may require such changes. Its recommendations also touch on the objectives and actions of other public and private entities that are responsible for implementing and providing land use related services and amenities. However, while the general plan provides guidance to the entire county, that guidance is not binding upon those municipalities that have independent planning, zoning, and subdivision authority¹.

Thrive Montgomery 2050 does not abandon or reject the Wedges and Corridors concept but instead modernizes it to remain relevant. Area master plans, sector plans, and countywide functional plans will remain valid until modified pursuant to the guidance provided by this plan. Like the previous general plan its broad policy recommendations pave the way for future actions, such as amendments to other plans, policies, and development rules.

Thrive Montgomery 2050 has a 30-year time horizon, but it is designed to be flexible and adaptable to changing circumstances. It is designed to provide long-term guiding principles and objectives that can deal with a constantly changing economic, social, and environmental landscape.

To that end, Thrive Montgomery 2050 will inform future master and functional plans. Master plans (or area master plans or sector plans) are long-term planning documents for a specific place or geographic area of the county. All master plans are amendments to the General Plan. They provide detailed land use and zoning recommendations for specific areas of the county. They also address transportation, the natural environment, urban design, historic resources, affordable housing, economic development, public facilities, and implementation techniques. Many of Thrive Montgomery 2050’s recommendations cannot be implemented with a one-size- fits-all approach. Area master plans will help refine Thrive Montgomery 2050 recommendations and implement them at a scale tailored to specific neighborhoods.

¹ This includes the Cities of Rockville and Gaithersburg, and the municipalities of Barnesville, Brookeville, Laytonsville, Poolesville, and Washington Grove.

Functional plans are master plans addressing a system, such as traffic circulation or green infrastructure, or a policy, such as agricultural preservation or housing. A functional master plan amends the General Plan and may include recommendations on land use and zoning. The Master Plan of Highways and Transitways, the Energized Public Spaces Functional Master Plan, and the Master Plan for Historic Preservation are functional plans that do not include land use or zoning recommendations; however, the Preservation of Agriculture & Rural Open Space Functional Master Plan does. New and revised functional master plans can help refine and implement Thrive Montgomery 2050 recommendations that affect county-wide systems and/or policies.

A BLUEPRINT FOR THE FUTURE

Thrive Montgomery 2050 is about addressing historic inequities, embracing new realities, and shifting the way we think about how the county should grow. Montgomery County has many assets and advantages. Our strengths will enable us to continue to thrive, but we must also take a hard look at where we have been, where we are going, and how we want to get there.

Montgomery County is growing more slowly than in past decades, but our population is still projected by the Metropolitan Washington Council of Governments to increase by about 200,000 people over the next 30 years. We have little undeveloped land left to accommodate this growth, even if new construction is compact. With 85 percent of our land already developed or otherwise constrained, accommodating even the modest growth expected over the life of this plan is an ambitious undertaking. The way we think about growth needs to change. We need to reconsider sites previously considered unsuitable for development, such as parking lots or the air rights over existing buildings, and find ways to use land more efficiently.

Thrive Montgomery 2050 offers a blueprint for new approaches that are needed immediately and will extend over a period of decades. These strategies aim to accommodate growth in ways that make room for new residents and also improve the quality of life for the people who already live here. The plan anticipates a county that will become more urban, more diverse, and more interconnected. It guides us to leverage growth and redevelopment to create places that are more economically competitive, foster a stronger sense of trust and inclusiveness among people from different backgrounds, and improve environmental quality and public health in the process.

Plan Framework and Overarching Objectives

Thrive Montgomery 2050 aims to create communities that offer equitable access to jobs, more housing, transportation, parks, and public spaces. Just as importantly, it can help guide the design of the built environment to strengthen the social and physical health of our residents, supporting active lifestyles and encouraging interaction and engagement. This framework embraces and builds on the Wedges and Corridors plan, with a greater emphasis on the development of compact, complete communities and the role of major corridors as places to grow. It also supports greater conservation and expanded protection of our natural resources and recognizes the importance of integrating arts and culture in our communities.

The ideas and recommendations in this plan are organized to achieve three overarching

objectives: economic competitiveness, racial and social equity, and environmental sustainability.

Economic Performance and Competitiveness

Opportunities and Challenges

The county has significant concentrations in two private industry sectors: hospitality and life sciences, in addition to a strong Federal presence of offices and laboratories. These elements form a strong foundation to produce higher wage jobs and spur economic growth. Montgomery County is home to companies representing half of the market capitalization of the entire hospitality sector, and the Washington area is consistently ranked as one of the nation's top life science clusters, with I-270 as its epicenter. Local institutions such as the University of Maryland are leading ground-breaking research in emerging fields such as quantum computing.

We are also part of a dynamic regional economy with a rich mix of public institutions and private companies. Many residents of the Washington region travel to, from or through Montgomery County to reach jobs or homes in other jurisdictions within the region. The effects of decisions about housing, environmental stewardship, economic development, and other issues in any DC-area jurisdiction are felt by its neighbors. We enjoy many benefits from cooperation with our neighbors but also compete against them for opportunities, and consensus on how to address regional problems is often elusive. We need to think about Montgomery County as a part of the larger region and find ways to work more effectively with other area governments on policies and projects that will help make us all stronger.

As we work to fortify the county's economic performance, we must simultaneously bolster our dominance in existing sectors, diversify our job base, improve connections to centers of employment and innovation throughout the region, and provide the kinds of infrastructure, services, and amenities that can strengthen our ability to compete effectively in the future. Our quality of life depends on the ability to attract and retain employers and the employees they need.

We continue to benefit from our proximity to the nation's capital, which draws highly skilled, educated, and motivated people from all over the world, but we must also recognize that some key measures of Montgomery County's economic performance have been stagnant since the Great Recession of 2008. The total number of jobs in the county grew by five percent from 2004 to 2019, while 20 similarly sized counties across the country grew by an average of 21 percent. In addition, household income growth in the county has lagged the national average (-2 percent vs. 10 percent) and was the slowest in the region during this period. Montgomery County added jobs, albeit slowly, but growth came largely in lower-wage sectors of the economy.

How Thrive Montgomery 2050 addresses economic health

Thrive Montgomery 2050 can play an important role in strengthening our economic competitiveness by fostering the creation of places where people with diverse choices want to live and work. Its recommendations for land use, transportation, parks, and other

public and private infrastructure lay the groundwork for economic development initiatives undertaken by other entities. For example, the county's Capital Improvement Program (CIP) should be aligned with Thrive Montgomery 2050's recommendations to make our neighborhoods more attractive for private development by providing high quality transit, sidewalks and a walkable grid of streets, great urban parks, and high-performing and racially integrated schools. The combination of these kinds of investments is a reliable long-term strategy for attracting workers to well-designed and planned complete communities, which in turn will entice businesses and employers to locate here.

Thrive Montgomery emphasizes that the county should support a diverse array of work environments. Re-energizing the county's commercial centers is a major goal of the plan, but so is the recognition that small offices or storefronts in Complete Communities and even home offices are likely to be common workplaces in the 21st century. Different skill and education levels and linguistic, racial, ethnic, and cultural backgrounds infuse the local economy with the varied pool of skills, experiences, and perspectives necessary to solve problems and innovate. The Plan's compact land use pattern and walkable communities supported by an efficient transit network will connect the county's diverse population to economic opportunities.

Racial Equity and Social Justice

Opportunities and challenges

Diversity and inclusion are essential to our economic success as well as to our ability to produce more equitable outcomes for all our residents, who deserve high quality housing, education, jobs, transportation, and recreational opportunities. The county's population has grown more diverse as a result of a steady influx of foreign-born immigrants. Montgomery County is home to some of the most culturally diverse places in the United States, including Silver Spring, Rockville, Gaithersburg, and Germantown.

But past patterns of discrimination – some intentional, some unintentional – have left many communities geographically, economically, and socially isolated. After the Civil War and the end of slavery, African Americans suffered from pervasive discrimination and exploitation in the provision of economic and educational opportunities, housing, health care, and basic public services. The resulting alienation led to the creation of self-reliant kinship communities in many parts of Montgomery County in the late 19th century. Over time, these communities suffered from lack of public investment in infrastructure such as new roads, sewer and water, schools, health clinics, and other public amenities and services. Some communities were hurt by the urban renewal policies of the 1960s. Others faced pressure to sell their houses or farms to developers for new subdivisions.

Planning decisions and real estate development practices aggravated these injustices for most of the 20th century. Redlining and restrictive racial covenants created geographic and economic divisions that have left a legacy of injustice, that not only separated people by neighborhood or community, but also barred Black Americans from building wealth (the type of wealth used to invest in higher education, start businesses, and pass to heirs). The effects of these efforts to separate people by race and class continue to be felt today. More recently, disinvestment from and abandonment of neighborhoods previously considered highly desirable, combined with the

suburbanization of poverty, have created new geographic divisions and barriers to equity and inclusion. The 1993 Refinement of Wedges and Corridor plan's focus on the I-270 corridor and related planning decisions exacerbated this problem by discouraging growth in the East County, focusing public and private investment to the west.

Impacts of Past Practices

Today communities with high concentrations of racial and ethnic minorities also show lagging median household incomes, not because of their race or ethnicity but because financial precarity due to low wage jobs, high rates of being uninsured, declining business starts and lack of housing are experienced to a greater degree as a result of past and institutionalized discriminatory practices. Not surprising is the resulting gaps in quality-of-life indicators seen among too many Black, Hispanic, and Asian residents.

This separation of neighborhoods along lines defined by race and income has important consequences for access to educational opportunities and the life prospects of our county's children. In 2019, three-quarters of Black, Hispanic, and English-learning students in Montgomery County Public Schools – along with more than 80 percent of all low-income students in the system – were enrolled in high-poverty-focus schools. By comparison, more than two-thirds of all white, Asian, and multi-racial students were enrolled in low- poverty schools.

As we seek a future that is more equitable and inclusive, improved access to infrastructure and amenities in racially, socially, and economically isolated areas will not be enough. We also must facilitate the integration of neighborhoods by race and income, across all ages. Increasing the share of racially and economically mixed neighborhoods and schools across all parts of the county is critical to ensure that the inequities of the past will not be perpetuated in the future. To this end, planning must establish working, on-going relationships with communities that prioritize participatory planning and must bring the voices of vulnerable communities forward.

In parallel with steps to reduce inequity in the geographic distribution of resources and opportunities, Montgomery County must work to build a shared sense of purpose that can help strengthen efforts to promote respect for diversity, demonstrate the value of inclusion, and build a foundation for greater trust. This concept, often described by academics under the umbrella term “social capital,” can pay dividends not only in sustaining support for racial and social justice but in bolstering civic capacity more broadly.

How Thrive Montgomery 2050 addresses racial equity and inclusion

In this regard, decisions about land use, transportation, and public infrastructure can play an important role in building a sense of community. Different measures of social capital, including trust in public and private institutions, the planning process, political participation, whether neighbors know each other, and other indicia of connection and cohesion are influenced by qualities of the built environment. The design of our communities can greatly influence levels of community cohesion and social interaction. Creating social capital requires the built environment to encourage and make it easier for people to meet others and engage in activities. For this reason, Thrive Montgomery 2050 emphasizes the roles streets, parks, and public spaces play in creating a physical environment where a sense of community can flourish.

Advancing racial equity through just planning policies and public investments in underserved communities, promoting the racial and economic integration of neighborhoods, and focusing on the potential for the design of communities to help build social trust and inclusion while encouraging civic participation and participation in the planning process are among the most significant elements of Thrive Montgomery 2050. Thrive Montgomery 2050 strives to create racially integrated and just communities. Like economic competitiveness and environmental sustainability, policies designed to advance racial and social equity are integrated into every part of this Plan.

Environmental Resilience

Opportunities and challenges

The Wedges and Corridors Plan laid the groundwork for the adoption of forward-thinking policies that emphasized land preservation for resource conservation and agriculture, protection of our streams, forests, and trees and reduction of greenhouse gas emissions. One-third of the county's land is now protected within the Agricultural Reserve and another 13.8 percent is under the stewardship of the Parks Department. Along with improved stormwater and forest conservation regulations, these efforts have established a strong framework for the protection of natural resources.

Despite these policies, however, additional work is still needed in these areas, including increased attention to localized flooding and loss of mature tree canopy. The county cannot avoid the impact of global climate change. Precipitation in northeastern United States increased by 55 percent between 1958 and 2016. This trend has meant more frequent violent weather events like the flash flooding that occurred in July 2019, when the D.C. region received a month's worth of rain in a single day, causing streams to rise 10 feet in less than an hour, inundating vehicles, businesses, roads and closing the Metrorail system. The past decade has also been the hottest 10-year period in the region's recorded history, with rising hospitalizations due to extreme heat impacts. Public health issues are exacerbated by climate change and intertwined with the quality of the built and natural environment. Where possible, these and other effects of climate change must be addressed in our land use policies. The adverse effects of a changing climate will be felt most acutely by low-income residents and people of color, who are likely to suffer a disproportionate share of the damage to real property and personal health due to past and current patterns of discrimination.

Montgomery County has made progress in reducing its greenhouse gas emissions, a key contributor to climate change, but has much farther to go to meet its goal of eliminating these emissions by 2035. It will require significant changes in both the transportation and building sectors of the County. For transportation, the County should contemplate policies to facilitate a transition to zero-emissions vehicles (or other zero-emissions technologies). For buildings (both existing and new construction), the County should consider a combination of energy conservation measures and clean energy generation (such as rooftop solar PhotoVoltaic). Together, buildings and transportation are responsible for more than 90 percent of our county's greenhouse gas emissions, making reduced reliance on driving and more energy-efficient buildings and compact development patterns essential to meeting our climate objectives.

How Thrive Montgomery 2050 addresses environmental resilience

Thrive Montgomery's focus on a compact form of development with a mix of uses supported by transportation systems that make alternatives to driving practical and attractive are essential pieces of any comprehensive strategy to fight climate change. A stronger focus on walking, biking, and transit infrastructure will be crucial, but the significance of mixed uses and compact development in reducing driving is equally important. The environmental benefits of dense, walkable neighborhoods dovetail with the increasing preference across age groups to live in walkable places served by a mix of uses and amenities.

Of course, not even the most sustainable transportation planning and growth strategies will be able to resolve every environmental challenge facing the county. Thrive Montgomery 2050 builds on the tradition of robust conservation and protection of the natural environment. It prioritizes the equitable distribution and expansion of green infrastructure throughout the County. It supports alternative clean energy generation, distributed energy, grid modernization, improved composting and food waste recovery, and advances in other circular economy initiatives. And it proposes a series of strategies to mitigate the effects of climate change and minimize pollution. The plan also anticipates the need for public and private infrastructure to be made more resilient to withstand more severe weather and protect us from the effects of environmental degradation from sources that are beyond our ability to control.

Thrive Montgomery 2050 was drafted in coordination with the county's Climate Action Plan (CAP). While Thrive Montgomery 2050 is a high-level land use document that focuses on long-range planning and policies to guide the physical development of the county, the CAP recommends specific actions to be taken in the near-term to achieve the goal of eliminating greenhouse gas emissions by 2035 and to mitigate or adapt to the effects of increased heat and flooding, high winds, and drought. Thrive Montgomery 2050 incorporates a wide range of recommendations related to climate change and its connection to land use, transportation, and parks. To effectively reduce greenhouse gas emissions and slow the effects of climate change will require "greening" of our electricity grid through a significant increase in clean energy generation in the County, likely employing both large-scale solar PV projects where feasible and smaller distributed solar PV installations. The Planning and Parks Departments also will implement recommendations in the CAP that are within the scope of the M-NCPPC's responsibilities. Together these plans strive to create a comprehensive approach to climate change at the local level.

Other Important Objectives

The plan also addresses other important goals that complement the three overarching objectives discussed above.

Improving Public Health and Encouraging Active Lifestyles

The length and quality of human life are strongly influenced by both the natural and built environment. In 2018, more than three-fifths of adults in Montgomery County were overweight

or obese. Five of the seven zip codes in the county with household incomes in the lowest quartile are also among the zip codes with the lowest average life spans. And even though low-income residents and people of color are more likely to suffer from negative health outcomes for several reasons, all residents can benefit from a more active lifestyle supported by an emphasis on transit, walking, and biking, and easy access to parks, recreational opportunities, and nature. The importance of healthy living for seniors and the disabled will also remain a significant area of focus as our ageing population continues to grow. Active lifestyles supported by improved housing choices in compact, complete communities can serve to improve public health for all, while simultaneously reducing the ecological footprint of human activity.

Elevating Quality of Design and Highlighting Role of Arts and Culture

The Wedges and Corridors Plan envisioned a variety of living environments and encouraged “imaginative urban design” to avoid sterile suburban sprawl. Nonetheless, like every plan, that plan was a product of its time. It relied on design approaches that were typical of the 1960s, emphasizing the convenience of driving and rigid separation of land uses.

Good design is not a luxury but a critical economic development tool. Businesses and workers today prefer walkable, accessible, amenity rich, mixed-use places that facilitate the interaction and exchange of ideas that feed innovation. A greater share of residents, across all ages, prefer walkable, transit-rich neighborhoods too. Combined with the lack of undeveloped land far from transit, these forces indicate the need for a shift toward redevelopment and infill that converts “parking lots to places” near existing or planned transit lines and incorporating walkable form.

Our arts and culture sector, taken as a whole, would be the county’s sixth-largest employer. The sector taps into creative, social, and economic networks, and its practitioners have developed tools to share stories, encourage empathy, and empower creative exchange. Supporting a healthy and diverse arts and culture ecosystem will not only enrich the lives of our residents and bring us closer together but can also help attract talent and spur innovation.

URBANISM AS ORGANIZING PRINCIPLE

Thrive Montgomery 2050 applies the principles of urbanism – a term this plan uses as shorthand for a set of ideas about what makes human settlements successful – to guide their future growth. Urbanism draws on the lessons of thousands of years of experimentation and evolution in the design and development of villages, towns, and cities to apply the ideas that have proven to endure as the foundation for adaptable and resilient communities everywhere. An urbanism-focused approach to the development of land and related infrastructure (such as roadways, transit systems, and parks) emphasizes the value of: (1) a compact form of development; (2) diverse uses and building types; and (3) transportation networks that take advantage of and complement these two land use strategies, at all densities and scales.

This approach calls for focusing growth in a limited number of locations rather than dispersing it, avoiding “sprawl.” It means encouraging in appropriate areas the agglomeration of different uses

such as retail, housing, and office space as well as diversity within each type of use. For example, a variety of housing sizes and types near employment and retail can help to ensure that people of diverse income levels can live and work in proximity to each other. This over time can produce more racially and socioeconomically integrated neighborhoods and schools, and more equitable access to economic opportunities, public services, and amenities. It also emphasizes the importance of walking, biking and transit and reduces reliance on cars.

Of course, other factors – particularly quality and thoughtfulness in the design of buildings, streets, neighborhoods, public spaces, and the incorporation of nature into urban areas – are also essential. Combined with the fundamentals of urbanism, design excellence and biophilic design² can help create a sense of place, facilitate social interaction, encourage active lifestyles, and contribute to environmental resiliency. Compact development can also provide other advantages including efficient use of scarce land, more natural areas for recreation and preservation, and reduced expense for building and maintaining infrastructure.

These principles of urbanism benefit rural, suburban, and urban areas. In fact, the preservation of land for agriculture in a place like Montgomery County depends on concentrating development in urban centers instead of permitting sprawl, and even suburban and rural areas benefit from a mix of uses and housing types – at appropriately calibrated intensity and scale – to serve their needs.

With attention to both the functional and aesthetic aspects of design, urbanism is not only consistent with a commitment to maintaining the best of what has made Montgomery County attractive in the past but is necessary to preserve and build on these qualities while addressing the challenges of auto-centric planning and its effects on the environment, racial equity, and social cohesion.

² Biophilic Design is the practice of connecting people and nature within our built environments and communities.

HOW THRIVE MONTGOMEY 2050 WAS DEVELOPED

Organization of the Plan

Related to the three primary objectives of economic competitiveness, racial and social equity, and environmental sustainability, the plan is organized into nine chapters:

- Economic Competitiveness
- Racial Equity and Social Justice
- Environmental Health and Resilience
- Compact Growth: Corridor-Focused Development
- Complete Communities: Mix of Uses and Form
- Design, Arts, and Culture: Investing and Building Community
- Transportation and Communication Networks: Connecting People, Places, and Ideas
- Housing for All: More of Everything
- Parks and Recreation for an Increasingly Urban and Diverse Community: Active and Social

The first three chapters, following the introduction, each address one of the three overarching objectives of the Plan. As such, they “set the stage” for the policies and practices recommended in the chapters that follow. The ideas in each of the following six chapters are intended to complement each other and outline approaches calibrated for varying scales of planning. The

fourth, fifth and sixth chapters move from the countywide scale (Compact Growth) to the community and neighborhood scale (Complete Communities) and finally to the details of individual blocks and buildings (Design, Arts, and Culture). The chapter on Compact Growth describes a countywide approach that aims to concentrate development along corridors to maximize the efficiency of infrastructure, preserve land, and focus investment. The Complete Communities chapter covers strategies for individual neighborhoods and districts that build on the foundation of a compact footprint for growth by incorporating a mix of uses, building types, and lot sizes to create livable places that are accessible and inviting to people with a variety of income levels, household sizes, and lifestyles. The Design, Arts and Culture chapter discusses the finer-grained analysis of design concepts applicable to blocks and individual development sites, the architecture of public and private buildings, the landscape of plazas and public spaces, and elements of street design.

These concepts are reinforced and supported by the remaining three chapters, which address specific topics related to development and public infrastructure. The Housing for All chapter recommendations are intended to diversify our housing stock across incomes, building types and geography. The Transportation and Communication Networks chapter outlines the multi-modal and digital infrastructure required to support compact growth and the creation of walkable, well-designed complete communities as well as the communication networks in the county. The Parks and Recreation chapter describes the role of public and privately-owned parks and gathering spaces in encouraging social interaction, promoting a healthy lifestyle through physical activity, and mitigating the effects of climate change through environmental stewardship. Each chapter explains how its recommendations serve the broader objectives of Thrive Montgomery 2050 and provides suggested measures to gauge progress in implementing the chapter's ideas. No plan that is designed to provide guidance over a period of decades can anticipate every difficult problem, attractive opportunity, or useful idea that may emerge, so these metrics should be used to assess new proposals as well as to measure the success or failure of the plan's recommendations over time.

A Plan Based on Community Input

This Plan is the result of community feedback and collaboration over more than two years of extensive outreach by Montgomery Planning. Planners reached out to a wide spectrum of stakeholders including students; homeowners and civic associations; non-profit advocacy groups and community-based organizations; and representatives of large and small businesses. The outreach effort was designed to emphasize engagement with residents who will live longest with the recommendations made in this plan – Millennials and Gen Xers and high school and college students— as well as members of racial and ethnic groups who historically have been left out of land use and planning processes.

Thrive Montgomery 2050's community engagement activities were implemented through four phases beginning in summer 2019. Each of these phases—Excite, Educate, Engage, and Endorse—included specific objectives and communication and engagement strategies.

Equitable Communications and Community Outreach

For historically underrepresented audiences – such as Latinos, African Americans, foreign born residents, renters, and small business owners-- outreach focused on connecting with community influencers who have established trust within their communities. This included co-hosting listening sessions and events, providing content for events and communications, and engaging their organizations with educational tools.

From June 2019 through April 2021, Montgomery Planning organized multiple in-person and virtual engagement activities to imagine what life in Montgomery County will be like in 2050 and what will be needed to ensure that we thrive in the decades to come. Planners participated in more than 180 meetings with community members and organizations; created and distributed a “Meeting-in-a-Box” for residents and organizations to host their own discussions about Thrive Montgomery 2050 and the county’s future; created an online quiz soliciting feedback on values and priorities for the plan; built a dedicated website (accessible both in English and in Spanish), with a wealth of materials in multiple languages, and distributed tens of thousands of postcards and e-newsletters to reach community members across the county. The outreach effort was challenging because of the onset of the COVID-19 pandemic nine months into the planning process; however, the outreach work responded to this challenge with innovative new tools – including successful virtual meetings, social media campaigns, and outdoor pop-up events. More detailed information about this award-winning equitable engagement strategy is included in the Outreach Appendix.

For a typical master or sector plan, one public hearing is held by the County Council. For plans that encompass a large area or contain recommendations for a large number of properties, the Council will hold two public hearings. For Thrive Montgomery 2050, the Council held two public hearings in June 2021.

Recognizing the interest in the Plan and hoping to receive input from as diverse a group of County residents and business-owners as possible, the Council created additional opportunities for community members to weigh in. Following completion of the Committee Draft, the Council held two Community Listening Sessions, encouraging participation focused on the overarching goals of the Plan and the updates made by the Committee. In early 2022 at the request of the Council President, the Citizen Advisory Board of the County’s five Regional Service Centers hosted a discussion of the Draft Plan, providing yet another opportunity to gather diverse thoughts on the updated Plan from residents across the County.

During this time of extended outreach, the Council also requested the Office of Legislative Oversight (OLO) conduct a racial equity and social justice review of the Plan. The primary finding from this review was that meaningful input on plan recommendations from Black, Indigenous, and People of Color as well as other under-represented residents would require more targeted outreach best handled by a consultant with expertise in this area. In response, a consultant team with extensive experience engaging under-represented communities on a variety of topics, including land use planning, transportation, economic development, and housing were hired. In executing their work, the consultant team spent three months gathering input from communities of color and other under-represented groups within the County; specifically engaging these

community members on the policies and practices recommended in the Committee Draft. As a result, the consultant team produced a report that includes recommended revisions based on input aimed at advancing racial equity and social justice, detailed information on targeted community engagement, a description of the community engagement process and the methodologies used to gather feedback, and recommendations applicable to any future outreach efforts. The consultant team also provided a draft chapter on racial equity and social justice, which is the basis of the chapter in this Plan.

ECONOMIC COMPETITIVENESS

Montgomery County is in the 99th percentile of all counties in the United States in terms of household income, household net worth and educational attainment, and the county's gross economic output exceeds \$81 billion a year - more than 13 states. These statistics, however, do not tell the whole story. The County's economic performance has been mixed at best since the Great Recession of 2008. Job growth over the past two decades has been slow and household incomes have been flat. These trends, if unaddressed, threaten Montgomery County's future success. The county has several mechanisms to address these issues. Thrive Montgomery 2050 complements economic development initiatives developed by other organizations, such as the Economic Development Strategic Plan developed by Montgomery County Economic Development Corporation (MCEDC)³ and business-supportive legislation adopted by the Montgomery County Council.

Thrive Montgomery 2050 is primarily focused on land use, so it addresses only the aspects of economic development with a strong connection to real estate and public infrastructure. Thrive's recommendations are designed to strengthen the County's ability to compete for economic opportunities by creating great places. Employers want to locate and expand in places where their employees want to live and work. Well-designed "complete" communities that include a mix of uses and forms with safe and attractive walking and biking infrastructure along with public amenities such as parks and recreational facilities are essential to ensuring the quality of life that employers want and that residents deserve. Quality of place is not a comprehensive economic strategy, but it is a solid foundation for success.

Thrive Montgomery 2050 emphasizes quality of place, amenities, and infrastructure instead of focusing on policies to attract specific types of employers or development designed to accommodate certain employment uses. There is limited value in trying to predict how factors such as technological change or a pandemic, might impact the demand for office space or other aspects of land use and transportation planning. The county has an excess of office space in existing buildings, and flexible zoning already in place in major business districts to accommodate just about any demand that may emerge for development or redevelopment of office buildings in the near to intermediate term. This puts the County in a position to respond and adapt to market changes.

It is also vital to recognize that housing is a critical form of infrastructure that supports efforts to attract and retain the workforce that employers need. Thrive Montgomery 2050 recognizes the importance of abundant housing choices and convenient regional transportation options to maintaining a competitive workforce and workforce development has been recognized as key to

³ The Montgomery County Economic Development Strategic Plan aligns its vision and priorities with the four pillars of the County's Economic Development Platform in its four strategic priorities: (1) Accelerate innovation, economic drivers, and entrepreneurship; (2) Provide greater workforce and educational opportunities; (3) Build livable communities that connect residents to jobs; and (4) Create an inclusive economy for shared prosperity. The plan is slated to be updated every two years.

making Montgomery County economically strong. By providing attractive housing options that are physically and economically accessible to people with a wide range of incomes, skills, and preferences, we can help ensure that the workers that employers need will find housing that they find appealing, convenient, and affordable. In addition, by investing in transportation and communications networks, we can help our residents take advantage of all of the economic and educational opportunities the county and region have to offer.

Montgomery County's Economic Performance: the Good, the Bad, and the Future

Montgomery County continues to benefit from proximity to the nation's capital, which draws skilled, educated, and motivated people from all over the world, but the total number of jobs in Montgomery County grew by only five percent between 2004 to 2019 even as 20 similarly sized counties grew their employment base by an average of 21 percent.

Household incomes in Montgomery County grew by 14% from 2009 to 2019, a slower rate than the rest of the region. Despite a median household income of \$111,812, more than one-fifth of households make less than \$50,000 and almost two-fifths of public school students qualify for free or reduced meals.

This weak growth in household incomes and the number of high-paying jobs shrinks the County's tax base, limiting the County's ability to provide and maintain high quality infrastructure, amenities, and services. It also limits the ability of many county residents to buy homes, a key tool for building household wealth and investing in the community. This is particularly the case for younger households and households earning less than the median household income, who struggle to afford a home and put down roots. Montgomery County is capturing a smaller share of young adults than similar jurisdictions across the country.

The Aging of the Workforce and Implications for the Tax Base

All of this is happening at a time when large numbers of residents are reaching retirement age, creating the region's highest elder-adult dependency ratio. Unless the County can attract and retain more young adults, the aging of the workforce will put pressure on the tax base as the proportion of Montgomery County residents in retirement grows and the percentage of residents in their peaking earning years shrinks.

This demographic shift means that the county's economic performance will have to get better just to maintain current levels of tax revenue and the services it funds, thus making economic competitiveness an even more pressing concern.

Strength in Hospitality and Life Sciences

Despite our challenges, Montgomery County retains significant assets that will help us compete for economic opportunities in the future. For example, Montgomery County is home to companies representing 50 percent of the market capitalization of the entire national hospitality sector, and the Washington area is consistently ranked as one of the top life science clusters in

the nation, with bio-health businesses located in the Great Seneca Science Corridor and in several transit-oriented downtowns throughout the County.

Our strength in pharmaceutical research and related fields has sparked a wave of investment in vaccine development. The University of Maryland is leading ground-breaking research in emerging fields such as quantum computing, the National Institutes of Health and Food and Drug Administration are overseeing development of new drugs and medical devices, and several local companies stand to benefit from a focus on testing, prevention, and treatment of infectious disease.

Human Capital: Montgomery County's Ace in the Hole

Perhaps even more important than Montgomery County's strengths in any particular sector is our diverse workforce. Montgomery County has a highly educated workforce. Among adults in the county age 25 and over, 58% of people have a bachelor's degree, compared to 41% in Maryland, and only 31% in the United States overall in 2019. The County also has residents who work in service industries that support all kinds of businesses and residents, from restaurant workers and landscapers to laboratory and clerical staff. The future of employment and the prospects for growth in any particular field are difficult to predict, so the availability of people with a wide range of knowledge and skills may prove to be our most valuable asset of all.

Thrive Montgomery Establishes the Building Blocks for Places that Prosper

How can a land use plan support economic competitiveness? Thrive focuses on three specific areas: quality of place; transportation; and housing.

Great Places are Magnets for People, Businesses, and Jobs

People are instinctively drawn to vibrant centers of activity that have a sense of place with lots of things to do. They enjoy living and working in places that facilitate social interaction and where walking and biking feels safe and appealing and where travel between their homes and other destinations is accessible and easy - be it by car, bike, or transit. Employers making decisions about where to locate are increasingly responsive to these preferences, giving communities that can satisfy them a crucial competitive edge.

Developing neighborhoods and districts with the features and qualities that support the emergence of more vibrant communities is easier said than done. Even the most progressive policies on land use, transportation, housing, and public amenities are likely to fall short unless they are integrated into a cohesive framework. That's why Thrive Montgomery 2050 recommends strategies that reinforce each other, using compact form as the foundation, "complete communities" and 15-minute living as basic orienting objectives, attention to the aesthetic and functional aspects of design, and the importance of increased housing and transportation options as important criteria for implementation. Each of these topics is discussed at length in the policy chapters of Thrive Montgomery 2050.

In addition, Thrive considers parks to be infrastructure for economic development. *World-class* places require world-class parks, recreation, and cultural amenities. Look to Central Park in New York, Golden Gate Park in San Francisco, Millennium Park in Chicago, or Hyde Park in London and the significance of great urban parks becomes clear. In fact, parks and related amenities are regularly cited as among the most important factors influencing business decisions about where to relocate or expand. Multiple studies have shown that parks increase adjacent property values by 5 percent to 20 percent, providing incentives for property owners to contribute to the creation of public parks or to build privately-owned, publicly-accessible spaces for recreation and gathering. Likewise, taxpayer-funded investment in parks and related programming and amenities delivers strong economic returns to the public. These topics are discussed in greater detail in Thrive’s chapter on Parks and Recreation.

Finally, the forms of growth and the creation of quality places promoted by Thrive are economically sustainable. The intuition that compact development leads to efficient use of infrastructure—and has the potential to reduce both private household and infrastructure costs—has been supported by decades of research. Almost all high-quality studies comparing the infrastructure and service costs of spread out development to those of compact communities have shown that compact urbanism reduces cost burdens on the public sector. For example, a study comparing infrastructure expenditures of 283 counties over a ten-year period found that counties with compact growth patterns spent less than less densely developed counties (controlling for size and property values) on total direct infrastructure costs and capital facilities, as well as several subcategories of infrastructure and services including roads, trash collection, police, fire, parks and recreation, education, and libraries.⁴ In addition to lowering costs, compact development also tends to increase municipal revenues,⁵ strengthening the case for focusing growth in nodes and along corridors.

Walkable, Bikeable, Transit-Connected Places Expand Economic Opportunity

Just about any other form of daily transportation—walking, biking, or riding a bus or train—is potentially less expensive (monetarily) than driving a single-occupancy vehicle, both on a personal basis and in terms of public spending. The two comprehensive reviews of the voluminous literature on the relationship between the built environment and travel behavior conducted in the past decade agree that features of compact development such as household density, job accessibility, and intersection and street network density, reduce driving.⁶

In addition, better transit connections to job centers make the County a more attractive choice for employers by making it easier for their current and future employees to get to work. With drive times and pass-through automobile traffic predicted to continue growing, investments in transit can significantly increase our “commute shed” and avoid ever-longer drives to and from work, which makes Montgomery County economically competitive.

⁴ Carruthers, J. I., & Ulfarsson, G. F. (2003). Urban sprawl and the cost of public services. *Environment and Planning B: Planning and Design*, 30(4), 503-522.

⁵ Litman, T. (2021). *Understanding smart growth savings*. Victoria Transport Policy Institute. https://www.vtpi.org/sg_save.pdf

A higher priority for investments in transit, walking, rolling, and bicycling infrastructure is critical to building complete communities that have the amenities, sense of place, and level of activity that more and more people of all backgrounds and ages seek. Transit improvements exert a kind of gravitational pull on real estate development by creating incentives and opportunities to locate a variety of uses, services, and activities close to station locations – and to each other.

Housing for the Workforce Needed for a Strong Economy

Increasing the supply of new housing near transit, jobs, and amenities may help to improve the quality of life for everyone in the county while helping to attract and retain the broadly skilled workforce that employers need, making the county more economically competitive. The increased demand for walkable neighborhoods with a mix of uses – especially near transit – is well documented. Housing in “Walkable Urban Places (WalkUPs)”, command prices 71 percent higher per square foot than other locations in the Washington area, reflecting both the desirability and relative shortage of these kinds of places. By concentrating more housing of different sizes and types near high-quality transit corridors, we can provide housing that will help keep the most productive workers in the county, curb escalating prices in the most desirable locations, and improve accessibility of jobs, transportation, and services while being mindful not to displace current residents.

Conversely, if we don’t have enough housing, workers will continue bidding up the cost of existing residences until only the very affluent will be able to afford decent housing in convenient locations. Lower-and middle-income residents will either be priced out entirely or face crowded, substandard housing conditions in remote locations with long and difficult commutes. Without affordable and attainable housing dispersed throughout the county, we will never be able to attract and retain the broadly skilled workforce needed to effectively run businesses, regardless of their scale or economic sector.

The Role of Regionalism in Strengthening and Diversifying Our Job Base

Even as we focus on bolstering our competitive position in sectors such as hospitality and life sciences, we also need to diversify our job base, and improve connections to centers of employment and innovation throughout the region. Montgomery County is part of a dynamic regional economy with a rich mix of public institutions and private companies.

Many residents of the Washington region travel to, from or through Montgomery County to reach jobs or homes in other jurisdictions within the region. The effects of decisions about housing, environmental stewardship, economic development, and other issues in any DC-area jurisdiction are felt by its neighbors. We enjoy many benefits from cooperation with our neighbors, but also compete against them for opportunities, and consensus on how to address regional problems is often elusive. Montgomery County is an integral part of the larger region and must find ways to work more effectively with other area governments to make us all stronger.

Conclusion: Great Places as a Common Denominator for Economic Performance

Thrive Montgomery 2050 is a comprehensive land use plan, not a comprehensive economic development plan, so it focuses on ways to help create the kind of places where people with diverse choices want to live and work rather than workforce development, financial incentives for business relocation and retention, or other important topics related to economic competitiveness. *It is not intended as a substitute for the county's broader economic programs, policies and plans, but in an era with limited demand for new office construction and a strong market preference for locating businesses in high-quality, mixed-use, walkable, and transit-oriented areas, it is one of the best strategies available to local government for growing our work force and our tax base.*

In making decisions about how to allocate scarce resources available for subsidies, incentives and workforce development, the tension between reinforcing existing strengths and looking for ways to diversify into new sectors often presents difficult choices. Fortunately, the kinds of infrastructure, services and amenities that make a place appealing to employees and employers are generally not sector-specific. Put another way, the things that will make Montgomery County attractive to people working in life sciences or hospitality are the same things that draw people in other fields and at a variety of skill-levels.

The recommendations in the following chapters lay the groundwork for economic development initiatives undertaken by other entities. For example, the County's Capital Improvement Program (CIP) should be aligned with Thrive Montgomery 2050's recommendations to make our neighborhoods more attractive for private development by providing high quality transportation networks, sidewalks and a walkable grid of streets, great urban parks, and high-performing and racially integrated schools. In addition, communities designed with sufficient affordable and accessible housing options integrated into our neighborhoods to limit displacement will ensure existing and new community members benefit from these improvements. The combination of these kinds of investments is a reliable long-term method for attracting and retaining workers and their employers to well-designed and planned complete communities.

The purpose of the various policy recommendations in this plan is less about identifying new locations for large government or corporate tenants and more about making parts of the county that already have been developed or planned more attractive and accessible to all residents and workers across all fields, which in turn will help attract employers.

Racial Equity and Social Justice

Planning for Racial Equity and Social Justice

The modern planning profession was born out of social movements like the 'Tenement House Reform' movement which broadly exposed substandard living conditions endured by immigrant and working-class residents in New York City in the late 19th century. The resulting Tenement House Act of 1901 established one of the first laws governing how buildings should be constructed and regulated to account for human health and safety. Since that time, countless academics, organizers, politicians, and agitators alike have contributed to establishing urban planning as the 'epistemological field of study' which informs how so many of the decisions that impact our lives are made. Planning is the tool that the state wields when exercising its 'police power' to regulate and govern the development of land and infrastructure through plans, codes, and ordinances, and their associated administrative processes. As such, planning decisions have significant and cross-cutting impacts; how and where things are built (or not built) directly correlates to the physical quality of place and the quality of life for inhabitants. It is precisely because of the tremendous importance of planning why who gets to participate in the planning process matters so much in determining future outcomes.

Historically, there has frequently been an atmosphere of distrust around planning because there are often limited opportunities for everyday citizens to participate and truly be empowered in making the important decisions regarding the future growth and development of their communities. This dynamic is compounded by a legacy of exclusion reinforced through racism and classism. Generally speaking, power and decision-making authority in planning has been reserved for those with either direct political access, or those with privileges associated with wealth, education, race, and/or social status. This imbalance has contributed to a dynamic where the interests of 'capital' have often trumped the interest of the public good. While capitalism's market theory has its merits, one of its flaws is that there is no mechanism by which externalities (like pollution) get paid for. Planning's prescriptions are designed to correct for market failure when the market is not able to correct itself. As such, planning is one of the primary tools available to us to deal with the problems of racial inequities and social injustices, which most often show up in the form of segregation, poverty, and its associated impacts.

Survey before Plan

Foundational to planning theory is the work of Patrick Geddes, a planning pioneer, who theorized that you must 'survey before you plan'. The underlying idea is that before you can apply a prescription, you must thoroughly understand and diagnose the issues. Meaningful public engagement is the prerequisite to building the transparency, trust, and collaborative relationships with communities that are needed to establish the two-way learning process which supports holistic planning solutions. Without careful consultation with the community, it is unlikely that a comprehensive understanding of place can be achieved. John Forester, preeminent urban planning professor who writes on participatory planning processes

emphasizes that the ears are the practitioners most useful tool, and that listening the most important planning exercise.

Two Americas

During the Civil Rights Movement, Dr. Martin Luther King, Jr. gave a speech about the “Two Americas” which highlighted the legacy of racial and economic oppression and the plight of poor people and how their lived experiences juxtapose with the promise of America as the land of opportunity, life, liberty, and the pursuit of happiness. Unfortunately, for the decades since this speech was given there are still significant swaths of the black, indigenous and other people of color (BIPOC) communities that continue to be 'stuck' in cyclical poverty. The persistent challenges of social and economic mobility is clearly highlighted in the land use and economic patterns observed in Montgomery County, today.

In 2022, across America, we are still seeing communities of color disproportionately dealing with eroding infrastructure, substandard living conditions, and environmental justice issues like unsafe drinking water. These neighborhoods across the United States do not exist by coincidence, they were 'carved out' on the map, years ago, by people who wielded planning power. Too often, when these communities are finally paid attention, the original residents are displaced and unable to benefit. The cycle of divestment and real estate speculation in communities of color nationwide has been well documented over time, making 'Gentrification' one of the hottest issues impacting urban America today.

According to the 2022 Neighborhood Change in the Washington DC Area study by Montgomery Planning, while displacement and poverty concentration both take place in Montgomery County, poverty concentration affects more people and more neighborhoods than displacement. Neighborhoods seeing increasing poverty concentration face the risk of further disinvestment and deprivation of opportunities for their residents. Thrive Montgomery 2050 and Planning's Equity Agenda emphasize that County resources should be prioritized in these areas to spur investment. While the Neighborhood Change study shows that areas in Montgomery County that saw sufficient new housing construction avoided both displacement and concentration of poverty while experiencing inclusive socio-economic growth, continued evaluation of these dynamics is essential to racial equity and social justice in the County.

Educational Attainment

This map depicts Educational Attainment by showing, at the census tract level, the percent of the population 25 years and over who has at least obtained a bachelor's degree.

Census tracts with the low proportions (20 to 36 percent) of those holding a bachelor's degree or higher are concentrated in tracts within Germantown, Montgomery Village, and Gaithersburg. The Rock Creek, Wheaton, and Oakview communities have tracts with the lowest proportion (1.4 to 20 percent) of the population holding a bachelor's degree or higher. The tracts with lowest concentrations of educational attainment are also those that overlay the primary and secondary target areas with high concentrations of BIPOC and LMI residents.

As the county becomes more racially and ethnically diverse, our neighborhoods are still largely separated along income and racial lines. This geographic separation has important consequences for access to educational opportunities and the life prospects of our county's children. There are differences in the quality of education across K-12 public schools and the achievement gaps among different racial groups. In 2019, three-quarters of Black, Hispanic, and English-learning students in Montgomery County Public Schools – along with more than 80 percent of all low-income students in the system – were enrolled in high-poverty-focus schools. By comparison, more than two-thirds of all white, Asian, and multi-racial students were enrolled in low-poverty schools.

As we seek a future that is more equitable and inclusive, access to quality education will continue to be an important driver of equitable development. Improved access to infrastructure and amenities in racially, socially, and economically isolated areas will not be enough – we also must facilitate the integration of neighborhoods, and our schools, by race and income – through increasing opportunities for employment and housing in all areas of our County. The growth of online learning is also changing post-secondary education, creating more opportunities for people to access courses online and reducing opportunities for formal and informal interactions on campuses. Increasing the share of racially and economically mixed neighborhoods and schools across all parts of the county is critical to ensure that the inequities of the past will not be perpetuated in the future.

Racial Equity

Racial equity work seeks to heal; implementation of its ideals requires an honest and careful examination of history to inform deliberate actions aimed at repairing past injustices which have disproportionately impacted black and indigenous communities in America. The legacy of racist policies, and the land-uses they influenced reverberate throughout the entire spectrum of communities of color with Latin/x, Asian, and other BIPOC communities experiencing different, but familiar challenges as their predecessors. Addressing racial equity requires an honest look at root causes of social problems and recognizing that some form of restitution is required to fix them.

To make planning more equitable we have to acknowledge the systems of racial discrimination and privilege which reinforce disparate outcomes for Montgomery County households. Planning alone cannot end racism and segregation or prevent the erosion of cultural communities that wish to remain intact, it can however be an important tool to begin the work of dismantling long-established systems of privilege.

Social Justice

In a planning sense, wealth affords you the opportunity for exclusion: to live in an environment where you do not have to interact with poor people. However, due to the time value of money, the compound nature of wealth creation, and other factors the wealth gap between 'haves' and 'have-nots' is growing. This imbalance creates a strain on society which makes it unstable.

Social justice is a process by which working class people begin to access the privileges only enjoyed by the historically privileged class, to afford healthy lifestyles and to experience education and built environments which inspire them to lead happier and more productive lives. In modern times, this is becoming increasingly important as more and more people are finding it hard to thrive economically. Montgomery County has at times taken forward-thinking steps to address inequality, such as adoption of the nation's first – and to this day, most successful – inclusionary zoning law, the Moderately Priced Dwelling Unit (MPDU) program, which guarantees that income-restricted housing will be built in every part of county as part of market-rate development projects. The County has also prioritized using its own resources to help build affordable housing by both co-locating housing with other public uses and disposing of excess public land in exchange for the creation of more affordable housing. In addition to these housing related programs, Montgomery County, through its Department of Health and Human Services, has created a robust set of social service to address health and other wrap-around service needs of County residents. As the County plans for the future, it should continue to find ways to address the specific needs of the vulnerable populations impacted by the hidden costs of poverty and determine more ways to design communities to reduce problems associated with public health, crime, housing instability, food insecurity, and segregation.

Justice in Planning

A Right to the City?

The right to the city is far more than the individual liberty to access urban resources: it is a right to change ourselves by changing the city. It is, moreover, a common rather than an individual right since this transformation inevitably depends upon the exercise of a collective power to reshape the processes of urbanization. The freedom to make and remake our cities and ourselves is, I want to argue, one of the most precious yet most neglected of our human rights (Harvey 23).

Property and Pacification

Quality of urban life has become a commodity, as has the city itself, in a world where consumerism, tourism, cultural and knowledge-based industries have become major aspects of the urban political economy. The postmodernist penchant for encouraging the formation of market niches— in both consumer habits and cultural forms—surrounds the contemporary urban experience with an aura of freedom of choice, provided you have the money. (Source: David Harvey, *Rebel Cities*)

Examining History

After the Civil War, African Americans suffered from all forms of discrimination (social, housing, education, employment, commerce, health, etc.). The resulting alienation led to the creation of self-reliant kinship communities in many parts of Montgomery County in the late 19th century. A significant part of the history of racial injustice and discrimination suffered by African

Americans includes the formation and subsequent decline (in some cases, destruction) of kinship communities in the early 20th century.

Over time, these communities suffered from lack of public investment in infrastructure such as new roads, sewer and water, schools, health clinics, and other public amenities and services needed to be viable places to live. Some communities suffered the devastating impacts of urban renewal policies of the 1960s. Others faced pressure to sell their houses or farms to developers for housing subdivisions. These communities declined because of an accumulation of racially motivated actions paired with social, political, and economic circumstances. The very few of these communities that survived in some way include Ken-Gar in Kensington, Lyttonsville in Silver Spring, River Road in Bethesda, Scotland in Potomac, Stewartown in Gaithersburg, and Tobytown in Travilah.

From the 1890s to the 1920s, the first suburban subdivisions in Silver Spring and Chevy Chase used racial covenants prohibiting African Americans and other racial and religious groups from purchasing land or homes. Well into the mid- 20th century, these types of covenants were placed in the land records. Even after the passage of the Fair Housing Act of 1968 and the Community Reinvestment Act of 1977 to end these practices, a development pattern of segregation continued. Injustices were evident in unfair banking and lending practices; federal immigration policies; unequal public investment in schools, parks and other public facilities; and siting a disproportionately high number of undesirable uses, such as landfills, near communities of color.

In Montgomery County, the legacy of such discriminatory policies and the exclusionary zoning and other land use controls led to neighborhoods defined by income, race, and housing types. As a result of these practices and other societal factors, a significant quality of life gaps exist for various racial and ethnic groups in the county.

On Wedges and Corridors

Thrive seeks to "modernize" the old Wedges and Corridors Plan. While it is prudent to not throw the proverbial "baby out with the bathwater," the Wedges and Corridor plan created "land use patterns... which left neighborhoods disconnected and reinforced segregation along racial and economic lines." If the old had plan adverse outcomes for historically disadvantaged groups, how do we address/mitigate its failures? What does "modernization" of the Wedges and Corridors Plan look like?

To address segregation and economic inequality established in past zoning/land use planning, deliberate mechanisms need to be introduced to create racially and economically inclusive communities. Planning needs to consider social and economic consequences of efforts to integrate. Communities that face historic challenges need special attention paid to community development and stabilization to ensure that existing social networks and institutions are strengthened so that it is not harder for the existing community to survive in the reimagined one, but they feel a central part of it. Conversely, established areas need to create opportunities for

less privileged to access the schools, jobs, natural resources, and other benefits through housing opportunity and improved physical access.

Housing

Thrive's housing prescriptions to address racial equity and social justice largely center on a strategy to significantly increase housing production, striving to increase housing density along major corridors and in Complete Communities across the County. This includes more housing for every income level, with particular attention to providing more income-restricted housing, housing for the very low-income, and permanent supportive housing.

To promote racial equity and economic diversity in housing in every neighborhood, the Plan recommends targeted strategies be developed to minimize gentrification and displacement while promoting integration and avoiding concentrations of poverty. The idea of development without displacement is an exciting one, but these ideas, in practice are often acting in direct opposition of each other. Development without deliberate community and neighborhood conservation efforts will almost certainly result in some displacement. So, instead of ignoring this possibility, let's determine where people can go.

Identifying and promoting safeguards against the potential loss of naturally occurring affordable housing continues to be a priority for the County. The County has made recent strides in preserving naturally occurring affordable housing by using a variety of financial and land use tools. For example, the county has increased funding for the Housing Initiative Fund to help preserve naturally occurring affordable housing. Through recent master plans, the county has also allowed for increased density in exchange for no net loss of affordable housing in the event of redevelopment. Understanding that these naturally occurring affordable housing units are important housing resources to the county, more work is needed to understand the risk factors associated with losing these units, as well as the best strategies to preserve these units. If housing affordability continues to decline, it is quite feasible that Montgomery County could require even more commuters from outside the region to staff its businesses. This dynamic would be in opposition to both the Equity and Sustainability goals of Thrive Montgomery 2050.

Undoubtedly, many residents who currently occupy a community where they have historical, cultural, spiritual, and other ties (kindship) will want to remain in their home community. However, there will be some residents who may like to move to a more affluent area. Traditionally, planning documents are written to support Housing Choice as a strategic goal for future outcomes. When we juxtapose this idea with regional housing markets, it would seem that in order to balance the integration of low-income neighborhoods, some accommodation for rebalancing should be made to ensure that economic benefits begin to reach historically disadvantaged populations. As such, integration should be a two-way process, by which there should be a parallel strategy of making accommodation for low-income housing in areas which are already wealthy and thus providing new residents who want the choice of living somewhere

else to achieve immediate access to communities that have close proximity to jobs, good education, etc. If we are going to promote development in the growth areas with new market-rate housing, there should also be provision of new low-income housing in high income areas to allow for housing choice in different markets.

The justification for this strategy is doubled when you consider that to support economic competitiveness and sustainability Thrive's number one transportation priority is connecting low-income communities to job areas, but the housing strategy should also seek to provide workforce housing locally. Consequently, areas of high wealth and business activity such as Bethesda should also include sufficient workforce and low-income housing to support housing choices for people who work in the area. Future planning should conduct detailed market analysis of labor markets and determine thresholds by which area plans should promote low-income, workforce, and middle-class housing options to support a truly local community where commuting is "optional" because the mathematical possibility of the local workforce is reflected in the housing availability.

Attention should be paid to tenants as well as homeowners. Currently, about 1 in 3 households are renter households in Montgomery County. Almost 50 percent of renter households in the county are cost-burdened, spending more than 30 percent of their income on housing costs. Renter households are also more likely to be people of color. While 75 percent of white householders own their own homes in the county, this number declines to 53 percent for householders of color. To address these disparities between renters and homeowners and to ensure housing stability for renters in the county, the county should aim to strengthen its protections for its renters. This requires investments in rental housing quality and code enforcement, as well as increasing access to affordable, safe, stable, and decent housing. In addition, the county should pursue policies that protect and increase tenants' rights and ensure that renters' contributions to the community are emphasized and valued.

There are plenty of challenging stories about housing experiences. It is clear that many of the mechanisms put in place to help are being offset by personal bias (racism) in the system or by individual actors. The County will need to be vigilant to seek accountabilities for all actors. Successfully addressing racism in housing will require deliberate action and systems of checks and balances.

Compact Growth

Encouraging growth in already developed areas, has ripple effects. Density brings economic opportunity as well as increased diversity of population and housing opportunities, social capital, and promotion of social justice, but it can also strain existing infrastructure, impacting the quality of natural resources, parks, schools, and neighborhoods. If new development occurs areas where existing naturally occurring affordable housing exists, the County must continue its progressive policies and programs and create new mechanisms and infrastructure to ensure that as the population density increases, residents maintain equitable access to parks, recreation, natural resources, and high-quality places which influence quality of life. Additionally, as density

increases, increased consideration needs to be made towards maintenance and operations of public spaces and institutions to ensure that effective stewardship is achieved and maintained.

Environmental Justice

As the County grows, special attention will need to be paid to Environmental Justice issues. New residents may strain existing infrastructure and suggesting the need for sustainable practices to ensure that the County is able to maintain good air and water quality, preserve urban tree canopy, manage stormwater, and invest in renewable sources of energy. Analysis of environmental quality shows that residents of the Target Areas where the majority of BIPOC and Low-Income residents live are more likely to be exposed to poor environmental conditions and live next to polluting land uses. As we look towards the future, and grapple with issues like climate change we need to be deliberate in protecting the County's vulnerable residents to ensure they do not have their life challenges compounded by disproportionate exposure to environmental threats.

Transportation

The plight of the working class and many BIPOC people we talked to felt that the needs of working class families were not considered in the planning themes of Thrive. They felt that many of the “progressive” policies did not consider their current status in life and expressed how proposed changes would adversely impact their quality of life. Some people showed great resistance to the idea of '15-minute living' because they relied on their work vehicles to take them to different parts of the county where they had access to jobs. Many expressed that they rely on vehicle miles and parking availability to make a living. For some, getting a vehicle represented the possibility of financial independence. To others, the idea of riding a bike for leisure or to commute was seen as a luxury that comes with a level of economic empowerment they did not have yet. These sentiments are compounded by the long commutes even more traditional workers faced while using locally available transit options. There was a general sentiment that root issues needed to be addressed before new ideas could be successfully implemented.

Instead of welcoming these ideas as positive, they are often seen as a harbinger for gentrification and displacement. Ideas such as congestion pricing and reduced parking requirements that promote “good urbanism” are sometimes outside of the reality for working class people. There is a concern that shifting to this new way of life will make it harder for them to live in the county. Such programs and requirements could impact service providers such as building contractors, landscape services, plumbers, etc., and their workforce, and they can also impact the range of services provided by these contractors. As stated in the Transportation chapter, such policies should be evaluated to ensure equitable outcomes for business and workers who rely on vehicles for their livelihood and provide essential support services for the county residents.

Social Capital

In order for a shared sense of purpose to exist, it is not a one- way process. Communities where wealthy white residents are the norm also have to achieve integration and inclusivity. It could be

argued that it is in fact more important for these communities to begin to see their communities as having a shared sense of purpose instead of only addressing racial and economic inequality at the "problem" side of the spectrum. Part of the inequality equation is the exclusivity of the wealthy, some of these doors need to start being opened to truly create a shared sense of purpose and belonging for ALL County residents. Exclusivity reinforces the racial and class divides within society.

Cultural Competence

It is vital to have practitioners who can relate to the communities they serve. In executing planning in communities of color, practitioners must lead with deference. Being able to understand cultural cues and nuance plays a large role in comprehension and meaningful engagement. If communities feel that they are not being respected or understood, real conversations will not occur.

Community Development

The County has a tremendous opportunity, with Thrive, to develop partnerships with its communities that it can leverage to rebuild trust, strengthen relationships, and celebrate everything that is great about the region. Montgomery County has had success with diversifying by implementing inclusionary zoning in the 70's and 80's. Now, it is important to do the work to protect the existing communities. Planning should seek to leverage and strengthen the existing social networks and identify opportunities to empower local actors to be directly involved in the work of community development.

Economic Empowerment

Throughout the public engagement process, it was clear that displacement is a big fear for residents with less means, as they are witnessing escalating prices. The vast majority of working class people expressed that they want access to better education and economic opportunity. Most people who struggle to make 'ends meet' prioritize economic advancement as their number one priority and planning for their communities should reflect that reality.

Neighborhood Change and Displacement Risk

The Montgomery County Planning Department is engaged in important work to understand the displacement risk in the County. These types of analysis need to be leveraged to understand how to protect neighborhoods and encourage Inclusive Growth. Across the board, low-income and BIPOC residents are very worried about displacement as a result of new development.

More work needs to be put into understanding how to preserve naturally occurring affordable housing and establishing new affordable housing to ensure that Montgomery County doesn't lose the rich diversity, both racial and economic, to make it a complete community. If housing conditions continue on their trajectory, it is quite feasible that Montgomery County could require even more commuters from outside the region to staff its businesses. This dynamic would be in opposition to both the Equity and Sustainability goals of Thrive.

Conclusion

Racial equity and social inclusion are essential to our economic success as well as to our ability to produce more equitable outcomes for all our residents. Thrive Montgomery 2050 provides an

assessment of the challenges that stand in our way and proposes policies and practices that can help remove these obstacles. As the demographics of our community change rapidly along dimensions of age, race and ethnicity, income and wealth, culture and language, the need to confront inequity is urgent.

ENVIRONMENTAL HEALTH AND RESILIENCE

Montgomery County has been a leader in the adoption of forward-thinking policies that emphasize land preservation for resource conservation and agriculture, protection of our streams, forests, specimen trees, wetlands, and reduction of greenhouse gas emissions.

Much of our success has resulted from the long-range vision cast in our General Plan. The “Wedges and Corridors” concept of development has focused most development along our major transportation corridors and created the large Agricultural Reserve that provides critical environmental services, such as watershed protection, habitat preservation, biodiversity conservation, and the protection of forests and open spaces that filter air and water pollution and sequester and store carbon.

However, climate change has exacerbated existing environmental challenges, and it requires us to refocus our planning framework on sustainability and resilience. This is all the more important because communities with larger populations of people of color and low-income communities are more vulnerable to the worst impacts of climate change due to past and present patterns of discrimination.

Building Resiliency and Sustainability

Thrive Montgomery builds on the “Wedges and Corridors” concept and refines and updates the corridor growth strategy to reflect Montgomery County’s status as a mature, 21st century jurisdiction. This pattern of growth is the primary way that Montgomery County can effectively address climate change.

Thrive supports the well-established “smart growth” strategy of creating dense, compact development with mixed uses, served by transportation infrastructure and design approaches that encourage walking and biking and transit use, concentrated in areas where existing infrastructure can support additional development while minimizing environmental impacts. This land use pattern can reduce driving, which will reduce emissions from the operation of internal combustion engines now and reduce demand on the power grid in the future as more of our power for both building use and transportation will be supplied by clean, renewable energy sources. These kinds of compact, mixed-use communities are also becoming more desirable places for people to live and creation of these types of communities strengthens our economic competitiveness.

Of course, not even the most forward-thinking transportation planning and growth strategies will be able to resolve every environmental challenge facing the county. Thrive Montgomery 2050 builds on the tradition of robust conservation and protection of the natural environment, continuing to prioritize protection of air and water quality and preservation of the County’s biological diversity as key elements of its environmental vision. Climate change adds new concerns to be addressed in each of these areas. In response to our growing understanding of human impacts on the environment and the role of our history in creating an inequitable society, Thrive Montgomery 2050 emphasizes three aspects of environmental stewardship and

performance: mitigating and adapting to climate change, focusing on environmental justice, and protecting and improving human health.

- Climate change: Thrive Montgomery's recommendations are designed to reduce greenhouse gas emissions, help the County adapt to the effects of climate change impacts that are already evident and growing worse, and improve the County's ability to bounce back from major disruptions. The most significant proposals to address climate change include:
 - Air Quality: Most air pollution in Montgomery County is produced by the burning of fossil fuels. Rising temperatures can exacerbate the effect of this pollution by increasing ground-level ozone generation, among other things. Strategies for reducing air pollution and improving air quality overlap with Thrive's recommendations on climate change mitigation, adaptation, and resilience.
 - Water Quality, Flooding, and Drinking Water Supply: Climate change adds new concerns around water quality, flooding, and the supply of potable water. More severe storms interspersed with more frequent droughts make management of Montgomery County's watersheds imperative both to reduce flooding and to protect our water supply. Most of the drinking water for Montgomery County comes from the Potomac and Patuxent Rivers, with the Potomac River supplying a larger amount. Some properties, especially in the northern and western portions of the county, are served instead by private wells instead of public water. Protection of these water supplies depends on protecting and managing the watersheds that sustain them and the streams that drain the watersheds. Thrive Montgomery 2050's recommendations to preserve and protect the Agricultural Reserve and implement Smart Growth recommendations help to protect large watersheds to the north and west that drain to the Potomac and Patuxent Rivers and Little Seneca Lake, which serves as an emergency water reservoir when the flow in the Potomac River is low. Stormwater management and sediment and erosion control systems are especially important for managing flooding and protecting and improving water quality in the developed and developing areas of the County, especially as our climate continues to change. Due to future regional water supply uncertainties that may result from contamination events, and the potential impacts from climate change, additional off-river water supply projects are currently being studied by the Interstate Commission on the Potomac River Basin and the Metropolitan Washington Council of Governments in coordination with the Washington Suburban Sanitary Commission and the County.

More distant regional water resources such as the Chesapeake Bay are also affected by land use in our County. Runoff from the County's land eventually makes its way downstream to the Chesapeake Bay, which is a priceless natural resource of national significance. The Chesapeake Bay is the largest estuary in the United States, and has tremendous economic, environmental, and recreational value. In 1983, the Chesapeake Bay Program was founded to plan and implement programs and policies to restore Bay

functions that have been impaired due to human activities throughout the Bay's watershed. The Chesapeake Bay Watershed Agreement, signed in 2014 and amended in 2020, establishes goals and desired outcomes for restoration of the Bay and management of the watersheds that drain to it. Montgomery County is also subject to Total Maximum Daily Load limits for certain pollutants to bring surface water bodies into compliance with State water quality standards. These standards were created under requirements established in the Clean Water Act and are administered by the United States Environmental Protection Agency. The same Thrive Montgomery 2050 recommendations for protecting and enhancing watersheds, streams and aquifers that supply our vital natural ecosystems, maintain our local water quality, and supply our drinking water will also contribute to meeting the goals and outcomes for restoration of the Chesapeake Bay.

- Biological diversity: Worldwide concern is growing over the continuing loss of biological diversity, with most species extinctions resulting from habitat damage. The decline of species diversity is exacerbated by the changing climate. Most of Montgomery County's critical habitats are either within existing parks or in the Agricultural Reserve. Thrive Montgomery 2050 focuses new growth in existing areas of development and corridors, preserving habitat in stream valley parks, regional parks, and outlying areas of the County. Recommendations for parks and forests renew our commitment to environmental stewardship, including support for biodiversity through habitat management practices such as the control of invasive species.
- Environmental justice: Thrive Montgomery 2050 recommends examining land use decisions to identify vulnerable communities that have become receiving areas for unwanted and potentially harmful land uses, and that have not received equitable investments in environmentally beneficial green infrastructure.
- Human health: Thrive Montgomery 2050 promotes policies that reflect the growing body of research demonstrating the physical and mental health benefits of reducing air pollution and extreme heat and providing facilities and opportunities for walking and biking. In addition, stronger support for active recreation can facilitate social interaction and community-building while improving physical health.

To address these issues, Thrive Montgomery prioritizes policies and practices that address climate mitigation, adaptation, and creation of community resilience. It facilitates the transition to renewable energy generation, distributed energy systems, modernization of the power grid, and energy conservation. It recommends incorporating green infrastructure into our urban areas, paying particular attention to our equity focus areas. It supports improvements in our organic waste management systems, including food waste composting and other natural solutions to address climate change. The plan also anticipates the need to improve the resilience of public and private infrastructure to withstand more severe weather and protect us from the effects of environmental degradation. These recommendations appear throughout the plan and are consistent with the County's Climate Action Plan.

Some environmental policies which will need to be considered in the context of future master planning efforts and other County land-use decisions should include: minimizing imperviousness in new development and redevelopment and removing unnecessary impervious surfaces where feasible, protecting, enhancing, and increasing the coverage, connectivity, and health of natural habitats such as forests, non-forest tree canopy, wetlands, and meadows through land acquisition, easements, habitat restoration, and ecosystem management, and protecting watersheds and aquifers and improving water quality and stream conditions through enhancements and retrofits such as green streets, increased tree canopy, and green stormwater management.

Key Aspects of Thrive’s Focus on Environmental Resilience

Reducing sprawl, which degrades air and water quality, is a central theme of Thrive. The chart below compares the environmental impact of different development patterns: (1) the least compact – low density sprawl, (2) a more compact footprint (typically mixed-use) and (3) the most compact form, usually associated with large cities. The data shows that a starting point for improving the environmental performance of the built environment is compact form – that is, keeping our growth footprint from spreading outward.

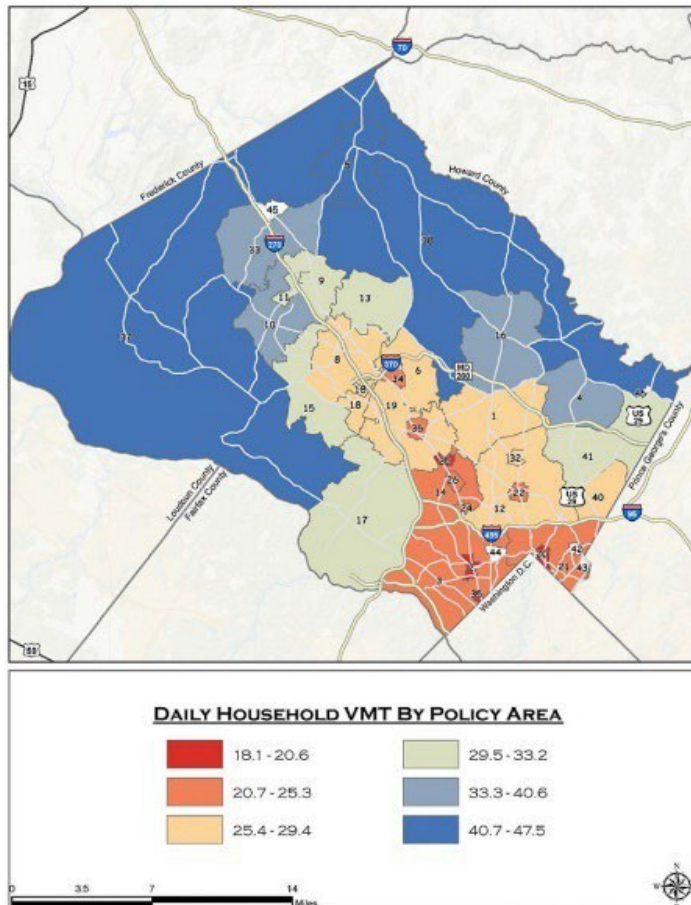
Comparing neighborhoods

	Urban High density - public access	Compact Mixed use - multifamily	Sprawl Low density - single family
Annual Carbon Emissions Average for a household's transportation and heating in Bay area.	6 metric tons	10 metric tons	21 metric tons
Land Consumption Net area for 100 units of housing.	2 acres	7 acres	30 acres
Household VMT Average per house based on odometer readings.	7,300 miles/year	12,200 miles/year	30,000 miles/year
Walk Score Measures walkable proximity of local commercial destinations. 100 points represents best access.	98	74	46

Source: Peter Calthorpe, "Urbanism in the Age of Climate Change," 2013 • [Get the data](#) • Created with [Datawrapper](#)

Thrive urges a reorientation of public and private investment around walkable, bikeable, transit-oriented development. Focused growth and a mix of uses reduces driving even in places not served by high quality transit. As shown in the chart below, people who live closest to Metrorail stations drive much less than people who live farther away. These areas, shown in dark red, are within walking distance to high-quality transit service as well as numerous services and

establishments. More surprisingly, perhaps, is the fact that households in the orange areas inside the Beltway and up the I-270 corridor also generate relatively low vehicle miles traveled (VMT), even though they are not in a central business district or located next to a Metro station. People who live in these areas are not within walking distance of Metrorail and most are unlikely to feel that they can give up their cars – but most of their daily needs are just a short drive away because of a robust mix of uses in these communities. As a result, people in these areas drive more than people who live within walking distance of Metrorail but far less than people who live farther away from major centers of activity.



The intended result of Thrive’s focus on compact growth and complete communities is to reduce vehicle miles traveled (VMT) and to meet environmental goals. Even with conversions to electric cars, driving puts strains on our infrastructure and potentially on our electric grid – which will need to accommodate more building energy use as structures move away from using natural gas.

Other environmental resilience recommendations in Thrive flow from this focus on compact growth and complete communities. For example, new compact development along corridors that provides modern stormwater management allows for a continued emphasis on open space preservation elsewhere in the County. This combination of improved stormwater management through redevelopment with green infrastructure and public investment along with continued

protection of stream valleys and larger watersheds in our parks and in the Agricultural Reserve creates a comprehensive approach to protecting the County's water resources. Thrive also includes urban design recommendations that will promote site and building energy efficiency and adaptations for combatting urban heat island effect.

As noted above, parks serve an environmental function through protection of open space and natural resources. They also contribute to physical and mental health by providing facilities and opportunities for walking, biking and other forms of active recreation. Stronger support for active recreation can facilitate social interaction and community-building while improving physical health.

Relationship Between the Climate Action Plan and Thrive Montgomery 2050

Thrive Montgomery 2050 was drafted in parallel with the county's 2021 Climate Action Plan (CAP). Thrive Montgomery 2050 is a high-level land use document that focuses on long-range planning and policies to guide the physical development of the county, while the CAP recommends specific near-term actions to eliminate greenhouse gas emissions by 2035 as called for in Council Resolution 18-974 "Emergency Climate Mobilization" adopted in December 2017, and to mitigate or adapt to the effects of increased heat and flooding, high winds, and drought. Thrive Montgomery 2050 incorporates a wide range of recommendations related to climate change and its connection to land use, transportation, and parks. The Planning and Parks Departments will implement recommendations in the CAP that are within the scope of the M-NCPPC's responsibilities. Together these plans constitute a comprehensive approach to climate change at the local level. Specific strategies, recommendations, and performance measures to implement the sustainability and resilience goals of Thrive Montgomery are contained in each chapter.

Conclusion: A Comprehensive and Coordinated Approach to a Sustainable Future

The environmental challenges facing our county are driven by many factors, some local and some that stretch far beyond our borders and control. Thrive Montgomery 2050 is a land use document and is clear eyed about what this discipline can do to mitigate the effects of climate change. Accommodating growth in compact, transit-served developments, using redevelopment and infill to upgrade the environmental performance of buildings and sites, and mixing and collocating uses in Complete Communities along with increased support for walking, biking, and transit are among the most powerful strategies at our disposal.

The approach recommended by this plan also will enable the county to preserve parks and large tracts of land in the Agricultural Reserve that provide critical environmental services, including habitat preservation, watershed and water supply protection, air and water quality improvement, and carbon sequestration and storage. This pattern of development, first established in the original "Wedges and Corridors" plan, continues to provide a strong framework for addressing climate change and fostering environmental resilience.

The interconnection of land use, transportation, climate change/sustainability, and equity require us to develop a comprehensive and coordinated approach to growth instead of the more compartmentalized way of approaching each topic. The nature of the severe and changing climate impacts that are becoming more prevalent and may grow worse will require a shared understanding among all decisionmakers of the overlap between land use, transportation, housing, parks, and the environment that is necessary for a comprehensive and well-coordinated approach to achieving our environmental sustainability and resilience goals.

COMPACT GROWTH: Corridor-Focused Development

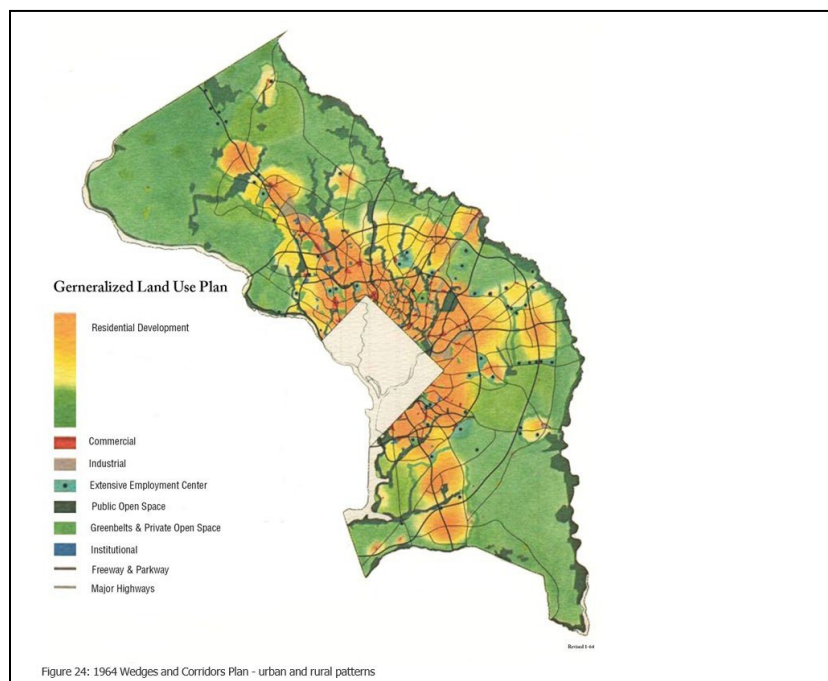
Introduction: Compact Footprints along Multiple Corridors are Central to Future Growth

When the Wedges and Corridors Plan was adopted much of Montgomery County was undeveloped. The plan recognized, however, that what seemed to be abundant available land must be used wisely:

“Land should be treated as one of our most precious possessions, using efficiently what we need for accommodating expected urban growth, and conserving the rest for the unforeseeable future. Land is too valuable an asset to be heedlessly wasted by allowing it to be developed aimlessly in a scattered pattern.”

Accordingly, the Wedges and Corridors Plan recommended two distinct patterns of growth: the urban pattern and the rural pattern. The urban pattern was envisioned as a compact form of urban development, concentrated in the existing urban ring and proposed corridor cities along significant transportation corridors within the region, including the I-95/Route 29 corridor as well as the I-270/Route 355 corridor. The rural pattern, by contrast, was envisioned as serving four broad purposes:

“1) to help mold the urban pattern into an efficient and pleasant one; 2) to provide and protect large open spaces for the “change of pace” and recreational opportunities needed by present and future generations; 3) to provide a favorable rural environment in which farming, mineral extraction, hunting, fishing and other natural resource activities can be

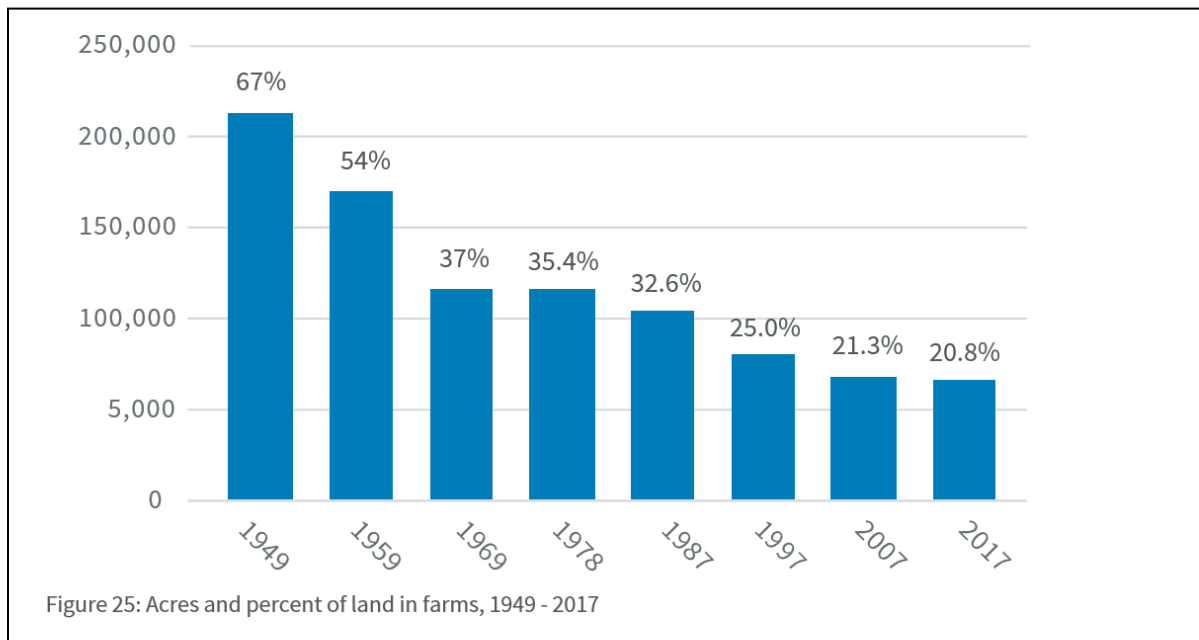


carried on without disruption; and 4) to conserve natural resources and protect the public water supply.”

What is the problem we are trying to solve? Focusing Growth, Connecting Communities, and Reinvigorating East County

While the Wedges and Corridors Plan was visionary in recognizing the consequences of sprawl and the value of land preservation, subsequent land use and transportation planning decisions did not always adhere to the 1964 plan’s guidance, illustrating the political economy of sprawl. On one hand, resistance to the kinds of dense infill and development in areas within the growth footprint identified by the 1964 plan left the urban form unrealized in many areas, with – for example – only a few Metrorail station areas developed with high density. On the other hand, the desire of property owners to maximize the value of their land in some cases led to more development in outlying areas than contemplated in 1964, with a proliferation of garden apartments and townhouses in places like Aspen Hill. The absence of tighter limits allowed development to disperse, consuming large amounts of land and increasing the cost of roads, water, sewer, and other public infrastructure by limiting economies of scale. This pattern of development also limited opportunities to offer cost-effective transit service.

Conversely, the 1964 plan envisioned corridor cities along I-270, I-95, and Route 29, yet subsequent planning decisions, including the 1993 Refinement, disregarded and ultimately removed the growth corridor along Route 29 and I-95 in the eastern portion of the county. The excision of the Route 29 corridor contributed to effectively directing new public and private investment away from the East County and toward the established urban ring and I-270 corridor. As a result, the I-270 corridor has benefited from successive cycles of investment and reinvestment, even as other corridors – including Georgia Avenue, where Metrorail’s Red Line



was built – were largely left behind. This recurring pattern aggravated the racial and economic disparities between the eastern and western parts of the county that remain today.

Moreover, the Wedges and Corridors plan did not fully articulate how the broader public should expect to benefit from maintaining a rural pattern over much of the county's land area⁷. The plan explained that land preservation is important to recreation, agriculture and conservation of natural resources but did not describe how people living in urban parts of the county would access these opportunities. The result is that many people who live outside what became the Agricultural Reserve are unfamiliar with it and do not take full advantage of opportunities to visit, enjoy and develop an appreciation for the value of continued preservation of land for farming, recreation, and environmental stewardship. Awareness of -- and access to -- the Agricultural Reserve should be improved by providing ways for people throughout the county to experience and take full advantage of this unique resource. Our residents and visitors should not miss out on opportunities to learn about the county's rural heritage, eat and drink locally produced food and beverages, and participate in outdoor activities such as hiking, biking, camping, and fishing.

If we fail to make efficient use of land, the available space for growth, outdoor recreation, agriculture and natural resource conservation will diminish. The cost of building and maintaining water and sewer infrastructure, roads, and public services will become harder to manage. Problems such as traffic congestion and climate change will be exacerbated.

What policies will solve the problem? Refining – and Recommitting to a Compact Footprint

Thrive Montgomery 2050 proposes redoubling and refining efforts to concentrate context-sensitive growth in centers of activity. Centers of activity range from large downtowns to medium-sized town centers, to rural villages and neighborhoods. The Plan also makes a new commitment to promoting growth along major transportation corridors to maximize the efficient use of land and create Complete Communities. These corridors create a web, connecting residents to existing and future centers of activity and Complete Communities. These corridors also either have robust transit service in place or planned or are located close to existing concentrations of jobs, services, and infrastructure in ways that lend themselves to supporting more intensive development to produce the kinds of Complete Communities described later in this plan.

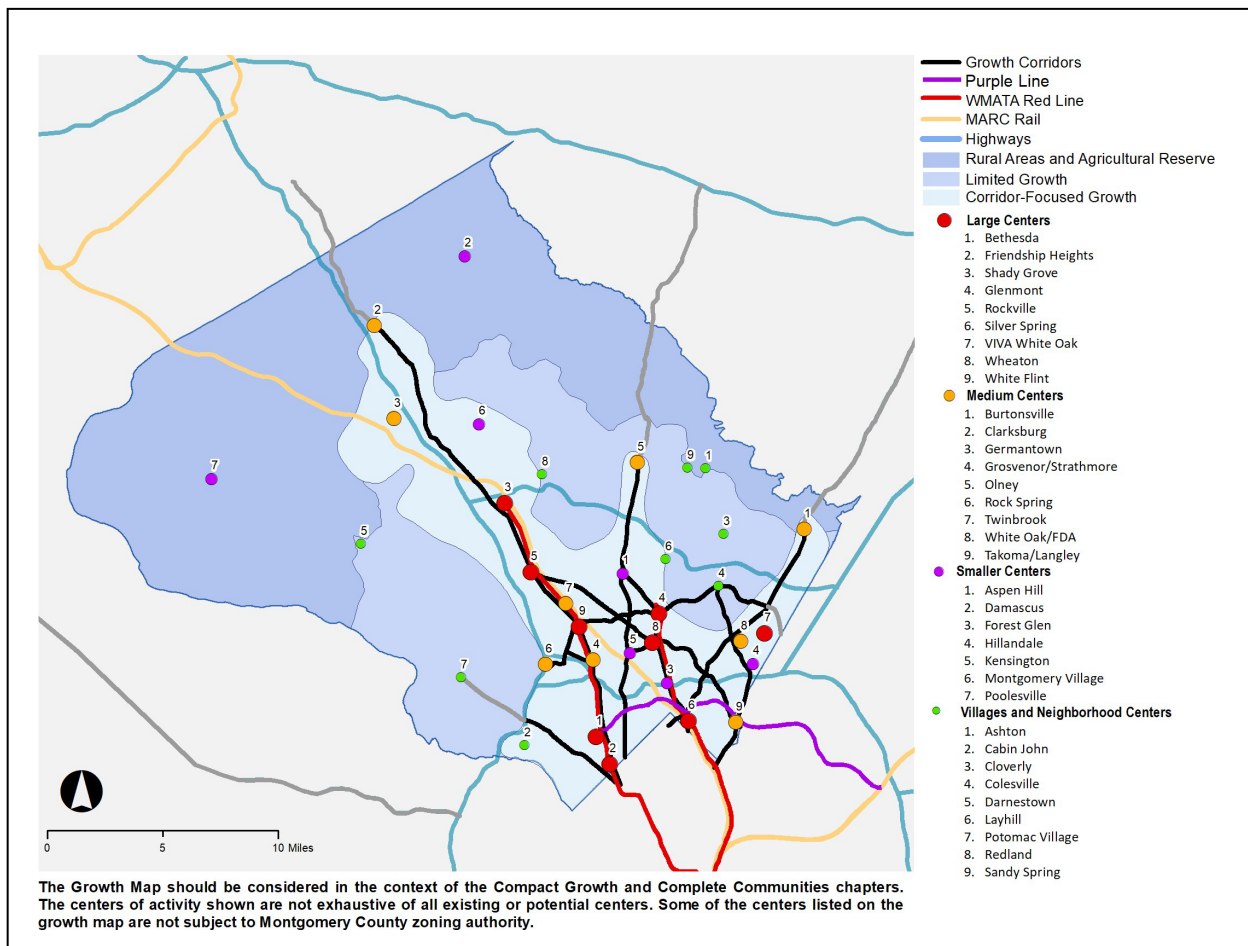
The intensity of development along these corridors should be aligned with the urban, suburban, and rural context of the surrounding area and calibrated to account for existing or planned transit and other transportation infrastructure. Detailed analysis of each area will come through future planning efforts that includes extensive public engagement. Some corridors, such as Rockville

⁷ Approximately 1/3 of Montgomery County makes up the Agricultural Reserve.

Pike, even now connect several centers of activity, making these corridors appropriate for more intensive development. Other corridors will have less intensive development due to their context and level of transit service.

Outside of these corridors, limited, organic growth should be allowed to meet localized needs for services and provide a balanced, diverse, and appropriate range of housing choices; increase racial and socioeconomic integration; and achieve more Complete Communities in all parts of the county. This limited development must be managed in ways that help to form more Complete Communities without expanding established development footprints or encouraging significant intensification of land uses outside of Complete Communities. Preservation of land for recreation, agriculture and environmental management must be ensured for the benefit of the entire county.

The concept of corridor-focused growth is a fundamental organizing element for Thrive Montgomery 2050, as it recognizes not only that intensively developed centers of activity and preservation of land both play a vital role in our quality of life but that neither pattern can exist without the other. By describing the types of places where context-sensitive growth should be encouraged, this chapter aims to establish the foundation for Complete Communities, which depend on a compact footprint to give them the coherence, focus, and mix of activities necessary to succeed. The scale of development, building types, and diversity of uses envisioned within this footprint are discussed in greater detail in the Complete Communities chapter. In turn, the design elements that complement and reinforce Complete Communities are discussed in the Design, Arts, and Culture chapter.



The Corridor-Focused Growth area (lightest blue) should have the largest share of new growth. It encompasses the most developed part of the county with highest-density population and employment centers, and the infrastructure to support existing and new development.

The Limited Growth area (medium blue) contains the mainly suburban residential communities where limited, organic growth is envisioned to meet localized needs for services, provide a diverse range of housing choices, and increase racial and socioeconomic integration to achieve Complete Communities.

Rural Areas and the Agricultural Reserve* (in dark blue) will continue to be dedicated primarily to agriculture, rural open space, and environmental preservation. It can absorb some growth as agriculture evolves and existing residential communities' needs change over time.

The Growth Map identifies several existing and potential centers of activity at a variety of scales, including Large, Medium, and Small as well as Villages and Neighborhood Centers. The centers identified are not exhaustive of all existing or potential centers, but rather are included to demonstrate that centers of activity, where existing and future compact growth should be concentrated, occur within the county's urban, suburban, and rural areas. While future growth should occur in these centers, the amount of growth and intensity of development should be commensurate with the center's location and context.

The Growth Map reflects current land use and is representative of the location and types of growth expected through 2050; however, the corridors and centers shown on the map or fitting the descriptions provided below may evolve over time through future approved and adopted master plans and functional master plans.

Large Centers are envisioned as the highest intensity areas generally characterized by significant residential and/or commercial density either existing or planned and are typically close to high quality transit. They include the county's Central Business Districts, existing and future employment centers, the municipalities of Gaithersburg and Rockville, and most of the Metrorail stations which provide an opportunity for significant redevelopment.

Medium Centers would be less intense and cover a smaller geography than Large Centers. The Medium Centers could include significant clusters of existing or planned residential density, as well as clusters of commercial density, including large shopping centers and office campuses. Medium Centers are likely to be close to transit.

Smaller Centers are generally characterized by low- to medium-density residential neighborhoods, with clusters of commercial activity, including shopping centers and neighborhood-serving retail.

Villages and Neighborhood Centers are the lowest intensity centers containing a small number of neighborhood-serving uses and located in rural areas and low-density residential neighborhoods.

* The Rural Areas and Agricultural Reserve are areas of the county substantially zoned for rural or agricultural land use under the Rural, Rural Cluster, Rural Neighborhood Cluster, or Agricultural Reserve zone.

More specifically, the following policies and practices should be adopted in order to maximize the efficiency of land use and public investment and establish the building blocks for development of vibrant centers of activity while preserving land for recreation, resource conservation, and agriculture:

Concentrate growth in centers of activity and along corridors through compact, infill development and redevelopment to maximize efficient use of land.

- Focus future land use and public infrastructure planning in activity centers and on growth corridors so as to direct development in ways that facilitate the emergence of Complete

Communities. Evaluate appropriate land uses, transportation facilities, and community design that will encourage and enable full use of centers of activity and creation of Complete Communities. (Ec, Env, Eq)

- Amend land use, design, and zoning regulations, including the Zoning Ordinance and Subdivision Regulations, to support corridor-focused compact development. Appropriate densities will vary but should be sufficient to support, at a minimum, the efficient provision of transit service along these corridors. (Ec, Env, Eq)
- Improve the environmental sustainability of growth by encouraging infill and redevelopment to curb sprawl and bring areas built out in an era with little or no environmental regulations up to robust standards for stormwater management and other state-of-the-practice environmental standards. (Env)

Promote and prioritize public investment in infrastructure in activity centers and along growth corridors and leverage it to attract future private investment in a compact form.

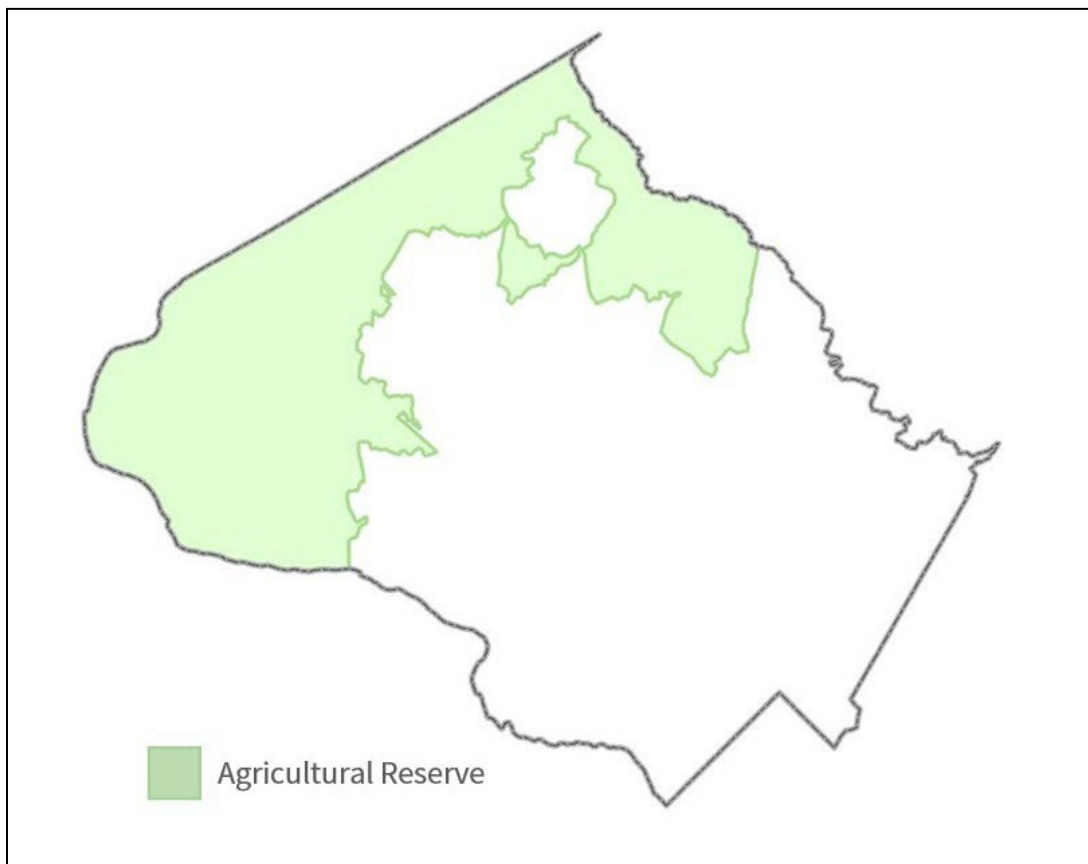
- Consider new methods of financing public infrastructure, such as value capture, tax increment financing, and other mechanisms to facilitate investment and provision of appropriate infrastructure in areas identified as appropriate for more intensive development. (Ec)
- Establish high-quality transit infrastructure along growth corridors through capital investment and ensure reliable, frequent service through operational investment. (Ec, Env, Eq)
- Leverage federal, state, and local incentive programs, publicly owned land and land investment opportunities for infill development and redevelopment in activity centers and along corridors. (Ec, Env, Eq)
- Develop a policy framework to ensure that businesses owned or operated by Black, Indigenous or People of Color are accessing opportunities in new development and in redevelopment. (Ec,Eq)

Limit growth beyond corridors to compact, infill development and redevelopment in Complete Communities to prevent sprawl. Apply principles of urbanism at an appropriate scale along a rural-to-urban transect as outlined in the Complete Communities chapter.

- Sustainably manage land outside growth corridors and Complete Communities to increase biodiversity, improve the health of natural habitats, preserve privately owned forests, protect watersheds and aquifers, and improve water quality while providing expanded opportunities for outdoor recreation, including vigorous physical activity. (Env, Eq)
- Support alternative clean energy generation, distributed energy, battery storage and grid modernization; and better facilitate composting/food waste recovery and other circular economy initiatives. (Env, Eq)

Preserve and enhance the Agricultural Reserve and manage it to maintain a rural pattern of development for the benefit of the entire county.

- Maintain agriculture as the primary land use in the Agricultural Reserve through policies, regulations, easements, and incentives, including those that maintain a critical mass of contiguous farmland. (Ec, Env)
- Maximize the benefits of the Agricultural Reserve through policies designed to ensure the continued viability of farming as an economically productive and sustainable activity, discourage sprawl, facilitate a broad range of outdoor recreation and tourism activities, conserve land and natural resources, and promote practices that advance environmental quality. (Ec, Env)
- Improve awareness of and multi-modal access to the Agricultural Reserve for the public to experience and directly benefit from this valuable resource for locally grown food, outdoor recreation, and tourism. (Ec, Eq)



How will these policies further the key objectives of Thrive Montgomery 2050?

Compact Development to Support Vibrant, Diverse, and Sustainable Places

Montgomery County's population is projected to grow by approximately 200,000 people over the next 30 years, and these policies and practices are critical to not only accommodating this

growth but also to achieving Thrive Montgomery 2050's key objectives, including combating and adapting to climate change. Nearly 85 percent of the county's land is already developed or otherwise constrained. If we fail to maintain effective barriers to sprawl, we will likely paint ourselves into a corner where space for farming, recreation, and resource management is exhausted along with space for additional growth.

We must encourage compact, infill development and redevelopment to accommodate anticipated population growth in a way that supports appropriately dense, vibrant, energized communities. The strategy of concentrating context-sensitive growth within centers of activity and along corridors will direct population and employment to locations served by infrastructure, services, and amenities – including transit – and create focused centers of activity. This focus should in turn reduce the cost of public infrastructure and deliver more favorable returns on both public and private investment. Compact, infill development and redevelopment also align with the increasing desire of residents, businesses and employers seeking walkable, transit-oriented communities, as demonstrated by transit-oriented areas across the region and country.

Economic Health: Compact Form as the Foundation for More Appealing Places

Keeping the county's development footprint and growth in a compact form along corridors will help to create the kind of places that are attractive to employers and attract new investment. Studies of trends in office development show that major employers are looking for amenity-rich, walkable areas near transit. Traditional, low-density office parks are no longer in favor. The related ideas of Compact Form, Complete Communities and Design Excellence will encourage the development of places that attract both businesses and residents.

Compact development footprint is an important tool in creating the kind of centers that support a strong economy. The lack of large tracts of vacant, unconstrained land does not mean that Montgomery County cannot grow its economy. However, we need to think differently about where growth happens and compactly developing areas that have not been considered in the past, such as surface parking lots and colocation of facilities. Even though the county is running out of greenfields to accommodate campus-like employment centers or new residential neighborhoods, this plan does not recommend expanding our development footprint well beyond the Corridor-Focused Growth area. Instead, it emphasizes that the current supply of redevelopable land – if developed compactly and creatively – is sufficient to attract and retain a variety of employers, especially advanced knowledge-based industries looking for vibrant centers and a highly trained, diverse workforce. It is important to note that form alone will not create more jobs. Increased density, great transit options and a regulatory environment that supports investment are all required. Other changes are needed in terms of financial incentives, tax reform and investment in infrastructure.

Racial Equity and Rebalancing the Geographic Distribution of Opportunity

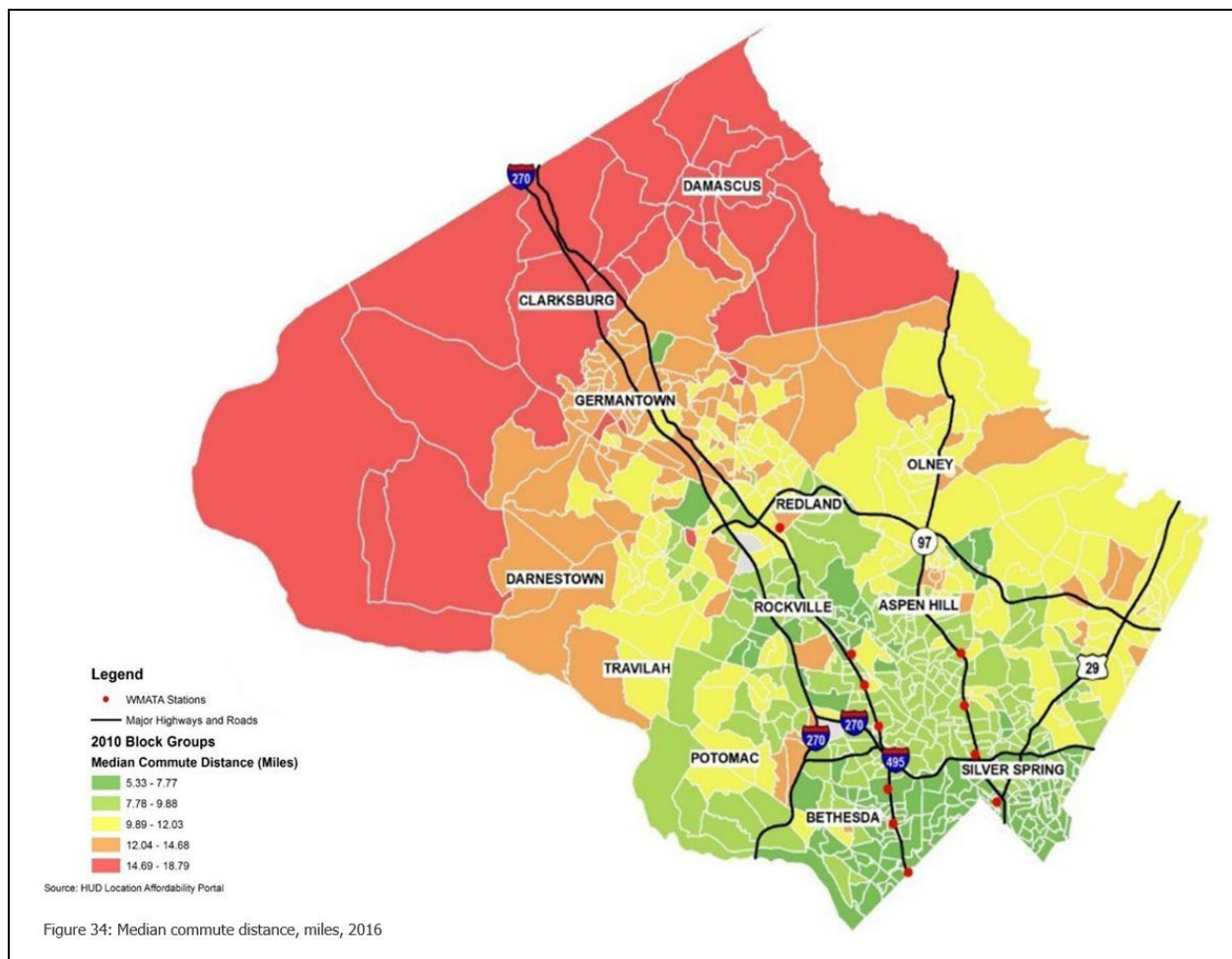
The identification of growth corridors in the East County – particularly along Route 29 and the Georgia Avenue corridor along Metrorail’s Red Line – is vital to reversing decades of no growth and ensuring that the benefits of growth are more equitably distributed across lines of geography, class, and race. These areas also offer the opportunity for greater return on investment, financially and in terms of Thrive Montgomery 2050’s goals. Previous political opposition to development in the East County – most clearly expressed by the removal of the I-95/Route 29 corridor in the 1993 Refinement of the Wedges and Corridors Plan from the areas identified as appropriate for growth – pushed public and private investment to the west. Subsequent public and private investment was focused along the I-270 corridor because this area appeared to offer the best prospects for growth and success. Meanwhile, the East County became relatively less attractive for employers and residents, feeding a cycle of stagnation.

This pattern is consistent with what real estate developer and scholar Christopher B. Leinberger has described as the phenomenon of the “favored quarter.” Leinberger observes that in many metropolitan areas, decisions about the geographic allocation of resources made decades in the past are reinforced and repeated. Once an area receives resources and attention from the government and private sector, Leinberger argues, future investment tends to follow in the same location, reinforcing its head start and leaving other areas farther behind.

The evolution of the I-270 corridor as the “favored quarter” and accompanying limits on development in the East County were not the sole – or even the most important – cause of the racial and economic divide between the eastern and western part of the county. The logic of the favored quarter, however, was and is a significant factor in reinforcing disparities in access to investment, infrastructure, and services as well as the concentration of poverty and diminished access to opportunity. While the potential for displacement must always be considered – and monitoring and addressing dislocation caused by rising real estate values must be part of this plan– by the same token public and private investment are essential to expanding economic opportunity for people and communities that have been left behind or economically and socially isolated. By focusing investment and encouraging development along corridors in the East County, this plan will help to establish the foundation for Complete Communities and create a more prosperous and equitable future in all parts of the county.

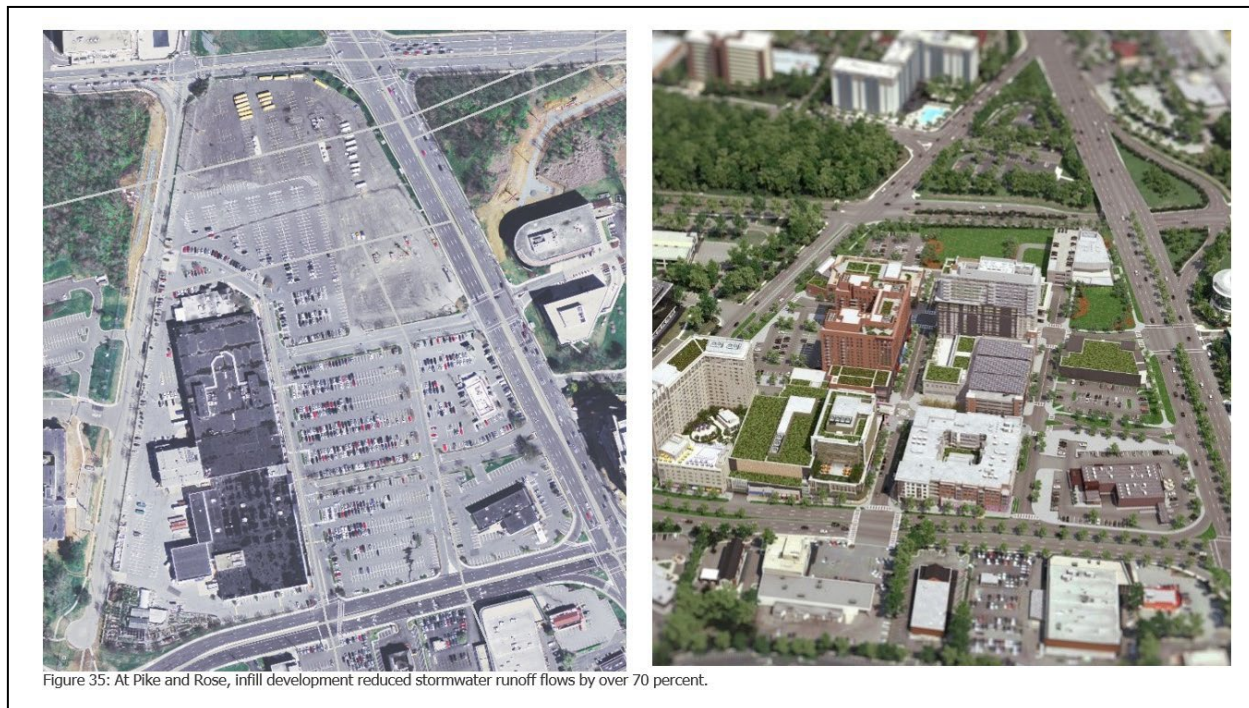
Compact Growth and Environmental Performance: Improved Air and Water Quality with More Efficient Use of Land

Among the most clear-cut benefits of the efficient use of land, including compact corridor-focused growth together with reinforcement of the rural pattern outside of the corridors, is to make development more environmentally sustainable in general and to reduce greenhouse gas emissions in particular. By concentrating development in a limited footprint, corridor-centered growth can facilitate walking, biking, and transit use and reduce emissions from motor vehicles. A compact form of development reduces driving even among people who continue to rely on cars, because trip distances are likely to decline as a wider range of needs can be met within a short distance, reducing vehicle miles traveled.



Compact growth can also improve the environmental performance of both sites and buildings, as it allows the redevelopment of areas developed prior to the adoption of modern stormwater controls and often characterized by high proportions of impervious surface cover. A compact form of infill development or redevelopment can reduce stormwater runoff and heat island effect by using green infrastructure, green roofs, and other green cover, as well as building design and orientation to reduce urban temperatures.

Finally, compact, corridor-focused development is essential to the continued protection of the Agricultural Reserve and preservation of land for environmental stewardship and recreation. As our population grows and the region continues to develop, pressure on rural areas and natural systems will increase. The preservation of the Agricultural Reserve reinforces the concentration of growth and maximizes the land available for farming, recreation and natural resource conservation.



While farming should remain the primary use in the Agricultural Reserve, the area set aside for the rural pattern also provides opportunities for recreation, tourism and natural resource conservation, uses that must be acknowledged and supported. The Agricultural Reserve improves the attractiveness and livability of the county because it provides opportunities for locally grown food, outdoor recreation, education, and tourism. The continued preservation of the Agricultural Reserve, along with the county's park system, also protects the county's forests, wetlands, meadows, and streams, supports biodiversity and natural habitats, and protects watersheds, aquifers, and water quality.

How will we evaluate progress?

In assessing future plans, projects, and proposals related to the efficient use of land and measuring the success or failure of the approaches recommended in this plan, relevant measures may include:

- Amount of infill development/redevelopment in activity centers and along major corridors.
- Proportion of new population, employment and housing within a mile (or half-mile) of activity centers and priority corridors.
- Non-auto driver mode share (walking, biking, transit use) and corresponding reduction in VMT.
- Amount of public and private investment in infrastructure, services, and amenities in activity centers and along corridors, overall and by area of county.

- Acres of farmland, natural habitats, forests and environmentally sensitive areas protected.
- Economic productivity of farming.
- Amount of space for outdoor recreation and variety of activities supported.
- Percentage increase in environmental performance of buildings and sites, overall and by area of county.
- Number of visitors from outside the Agricultural Reserve for recreation, commerce, and tourism.
- Maintenance and improvement in measures of stream water quality.
- Reduction in impervious cover and increase in area of impervious cover treated.
- Increase in tree canopy
- Increase in alternative clean energy generation and composting/food waste recovery.

COMPLETE COMMUNITIES: Mix of Uses and Forms

Wedges and Corridors and the Separation of Uses – and People

While the Wedges and Corridors Plan was extraordinarily progressive in advocating a transit-oriented, compact form of development, it rejected the idea of mixed commercial and residential uses. The plan said the spaces designated for different uses should ultimately work together to achieve a “pleasant and economically feasible whole” but that these uses should be physically separated. It recommended Euclidean zoning, with areas set aside for multifamily, townhouse, and single-family housing along with isolated commercial and industrial zones, saying:

“[C]ommercial and industrial zones should exclude residences both because good residential neighborhoods cannot be maintained in such areas, and because business and industry can function more effectively where space allotted them is uninterrupted by housing.”

In addition to a rigid separation of uses, the plan insisted on the desirability of barriers, buffers and transitions between land uses to achieve harmony and compatibility:

“[L]ong established commercial centers expand into nearby residential neighborhoods, causing more transitional problems. The end result is a disease known as urban blight. This disease is contagious and is almost sure to spread where preventative measures are not taken.”

What is the problem we are trying to solve? A Mixed Record with Mixed Use

While the polycentric urbanism embodied by the 1964 plan’s corridor cities concept was fundamentally sound, its approach to the separation of uses and emphasis on transitions and buffers was at best not entirely successful in producing pleasant and economically vibrant commercial districts and at worst served to justify land use decisions that reinforced racial and socioeconomic segregation. Other shortcomings have become increasingly obvious, namely:

- The separate-and-buffer approach failed to anticipate – much less meet – the demand for housing in mixed-use centers of activity. For the most part, the corridor cities neither achieved the densities nor provided for the variety of uses, building types and services necessary to maximize their value in attracting residents and workers looking for more vibrant and appealing places to both live and work.
- A handful of locations in Montgomery County have attracted investment in office, retail, and residential uses, but most lack the combination of elements – including a compact form with diverse housing types, commercial uses, transit, and a walkable public realm – that support the kinds of human interaction common to the most successful places. Meanwhile, the areas surrounding our most eclectic centers of activity largely remain characterized by a separation of land uses and uniform lot sizes, lot coverage, and building forms.

The separation of uses and associated homogeneity in lot sizes, development standards and building forms, coupled with the commitment to barriers, buffers and transitions had the effect – whether intentional or not – of discouraging connections among people and places and sharpening racial, social and economic divisions between neighborhoods and parts of the county.

The implementation of these approaches also made access to the full range of economic, educational and cultural opportunities (as well as services, amenities, and infrastructure) far too dependent on access to cars. By separating uses and investing heavily in roads, we have historically made driving the only practical way for many residents and workers to meet their daily needs – including trips that should be feasible on foot, on a bicycle, or on a train or bus, including for those with disabilities and those with young children.

The preservation and protection of neighborhoods dedicated exclusively to detached single-family houses has left residents disconnected from retail and other services, encouraged the construction of stand-alone public facilities, and perpetuated the inefficient use of land. Our land use policies have evolved in recent years to reflect a changing social and demographic context as well as changing preferences and planning approaches. The county also has evolved from a bedroom community to the District of Columbia to a county with several distinct employment centers. These changes have coincided with the emergence of increasingly strong market preferences for transit-oriented, mixed-use communities with a unique sense of place.

Our plans have been responsive to these trends, but implementation of transit-oriented, mixed-use development has been limited due to economic and regulatory constraints. The basic underlying pattern persists in much of the county despite the 1993 refinement's endorsement of mixed uses and subsequent changes to the zoning code. Of course, some suburban and rural areas may not achieve the mix of uses or support the kinds of transit service that should be expected in more urban areas. Thrive Montgomery 2050 envisions increasing the variety of uses and achieving a people-oriented public realm within the corridor-focused growth areas and centers discussed in the Compact Growth chapter at scales appropriate to their context, so as to provide people in all parts of the county access to a wider range of services and amenities in closer proximity to their homes and workplaces.

Beyond Transit-Oriented Development: Complete Communities and 15-Minute Living

Thrive Montgomery 2050 recognizes the benefits of transit-oriented development, which often uses mixed use zoning as a complement to high-quality transit service, but it updates and recalibrates ideas about the role of mixed uses by adding “complete communities” and “15-minute living” as organizing principles for thinking about planning of neighborhoods and districts.

Complete Communities are places that include the range of land uses, infrastructure, services and amenities that allow them to meet a wide range of needs for a variety of people. They include housing suitable for different household types, income levels, and preferences, helping to

support racial and socioeconomic integration. The specific mix of uses, amenities, parks, public facilities, and building types in Complete Communities vary depending on factors such as the size and location of the neighborhood or community; proximity to transit, variation in physical features such as topography and environmental resources; and other factors unique to the history and context of each place.

The related concept of “15-minute living” has emerged as a way of reimagining existing communities to maximize their attractiveness and efficiency by mixing housing, offices, and retail uses so services, infrastructure, facilities, and amenities to serve the daily needs of people who live or work there are within walking distance. While a literal or rigid application of 15-minute living may not be practical outside of the corridor focused growth areas and centers, the concept is a useful way to generate concrete recommendations to make communities more complete and help them succeed.

Different Ingredients for Different Communities

The combination of strategies that can help create a more Complete Community in any particular place depends heavily on context. The scale (village vs. town center vs. downtown), location (inside vs. outside the growth footprint, within one of the State’s four growth tiers⁸) and type (e.g. office park vs. central business district vs. residential neighborhood vs. suburban shopping center) all influence which elements should be incorporated and how they should be tailored. Despite the varying needs and conditions of different parts of the county, however, the concept of encouraging more diversity of use and form is relevant in almost every location. For example:

- Existing suburban office parks in locations such as Rock Spring or Clarksburg’s COMSAT site have large existing buildings that can accommodate employment but lack the integration of uses, services, and amenities necessary to succeed in an increasingly competitive office market. Complete community strategies can help reposition these employment centers through infill and redevelopment to incorporate a variety of housing, restaurants, retail, public facilities, and parks and public spaces along with better transit service, making them more attractive to both residents and employers.
- Likewise, for places the county hopes to see emerge as important centers for office employment, such as White Flint, White Oak, or Germantown, the integration of additional housing options can help to encourage activity beyond regular business hours, creating the sense of energy and activity during the evening and on weekends.

Centers of activity in suburban and rural areas, which range from large retail shopping centers such as Aspen Hill, to clusters of commercial and neighborhood serving retail uses like the shopping areas in Potomac Village or Four Corners, offer convenience retail for surrounding subdivisions but often lack safe pedestrian accommodations, good transit connections, or high-quality parks and public spaces. In some places, new kinds of commercial development, such as

⁸ As defined by The Sustainable Growth and Agricultural Preservation Act of 2012, Senate Bill 236.

medical offices, will be viable even where office space or other employment-related uses are difficult to attract. The recommendations in this chapter and elsewhere in the plan can help make these developing centers of activity more walkable and livable.

The Connection Between Complete Communities and Corridor-Focused Growth

As explained in the chapter on Compact Growth, development of new or substantially expanded centers of activity should be focused along growth corridors to avoid sprawl and achieve the critical mass required for each center to be economically sustainable. Limited, organic development beyond the corridors and defined growth areas should be allowed to increase the diversity of housing types in existing residential neighborhoods and make these areas more complete, particularly near existing centers of activity or development. Opportunities for increased housing diversity outside the defined growth areas will allow neighborhoods to evolve over time to address current and future housing needs and become more racially and socioeconomically integrated.

Implementation will be organic and incremental, through infill and redevelopment within centers of activity along corridors as well as within existing downtowns, town centers and rural villages. This implementation will be primarily market driven, using the development review process to funnel contributions from private developers to streetscape improvements, dedication and construction of parks and public spaces, and the addition of bicycle and pedestrian infrastructure. Specific strategies will be needed to recognize and minimize the negative impacts of gentrification on communities and businesses at risk of displacement, including the recommendations described in the chapter on housing together with policies outside the scope of this plan, such as direct assistance to small and minority-owned businesses, Community Benefit Agreements, and housing subsidies. Specific strategies also will be needed to ensure that the infill and redevelopment does not have negative environmental consequences such as expanding urban heat islands and increasing stormwater run-off problems.

What policies will solve the problem?

To ensure that demand for future development in Montgomery County is harnessed to embrace Complete Communities and 15-minute living – both by building new centers of activity along corridors and by making existing ones more complete – the county should pursue a number of policies, which must be suitable for all areas of the county. The specific policies and practices recommended to further Complete Communities and 15-minute living include:

Identify and integrate elements needed to complete centers of housing, retail, and office development and plan to make 15-minute living a reality for as many people as possible.

- Promote zoning allocations and standards to encourage the integration of varied uses, building types and lot sizes. (Ec, Env, Eq)

- Apply flexible approaches to accommodate infill and redevelopment that improve access to amenities, active transportation, parks, and open spaces, and a broader range of housing types at the neighborhood scale. (Ec, Env, Eq)
- Prioritize neighborhood-level land use planning as a tool to enhance overall quality of community life and avoid reinforcing outdated land use patterns, with particular attention to preventing displacement. (Eq)
- Support the creation of neighborhood stabilization strategies for communities of color. (Eq)
- Allow sufficient densities to make a wide range of uses economically viable in Complete Communities. Encourage densities sufficient to support convenience retail and other local-serving amenities at the neighborhood level. Provide guidance for accommodating additional density in a context-sensitive manner. (Ec, Env, Eq)
- Ensure that Complete Communities are integrated into their surroundings and supported by a public realm that encourages walking, biking and rolling, accessible for all, as well as social interaction through the configuration of sidewalks, paths, landmarks, parks, and gathering spaces. (Ec, Env, Eq)
- Adopt planning approaches that prioritize providing more Complete Communities in service to improving the quality of community life throughout the county. (Eq)
- Develop strategies to ensure that the infill and redevelopment does not result in negative environmental consequences such as increased stormwater run-off, loss of tree canopy, and the expansion of heat islands. (En)

Encourage co-location and adjacency of all essential and public services, especially along growth corridors and in Complete Communities.

- Maximize the accessibility and utility of public facilities by locating them in places that promote integration with other public and private uses and infrastructure. (Env, Eq)
- Promote active transportation improvements that prioritize walking, biking, rolling, and transit use to enhance public access to these co-located facilities, including access for seniors and those with disabilities. (Env, Eq)
- Develop standards for colocation of public facilities that promote mixing of uses or services and compact development strategies. Encourage public-private partnerships and ensure they promote social interaction and physical activity. (Ec, Env, Eq)

Retrofit centers of activity and large-scale older facilities such as shopping centers, abandoned federal campuses, office parks, and other single-use developments to include a mixture of uses and diversity of housing types and to provide a critical mass of housing, jobs, services, and amenities necessary for vibrant, dynamic Complete Communities.

- Ensure employment uses in economic clusters develop in a mixed-use format along with housing, retail, amenities, parks and public spaces, and transit, and ensure they are integrated into the surrounding communities in a context sensitive manner. (Ec, Env, Eq)
- Allow creation of co-located housing, discussed further in the Housing for All: More of Everything chapter, including for industries that employ large numbers of employees (permanent or seasonal). (Ec, Env, Eq)

- Encourage higher density economic and housing cooperatives (live/work areas such as home occupations, artist villages, farmers' market/villages, tech/life-science startup incubators). (Ec, Env, Eq)

How will these policies further the key objectives of Thrive Montgomery 2050?

Economic Health: Complete Communities as Magnets for a Variety of People, Businesses, and Jobs

Montgomery County has reached a stage where greenfield opportunities largely have been exhausted and the general locations of business districts, residential neighborhoods, and farmland have been established, or are at least planned. For example, the downtowns of Silver Spring and Bethesda; the new life sciences hubs anticipated in the Great Seneca Science Corridor and White Oak; and the emerging town centers in Germantown and White Flint have zoning capacity as well as physical space for tens of millions of square feet of development.

The task of this plan, therefore, is less about identifying new locations for large government or corporate tenants and more about making parts of the county that already have been developed or planned more attractive to residents and workers, which in turn will help attract employers. The central premise is that making centers of activity, regardless of scale more complete is among the most effective ways to accomplish this goal. Combined with a compact development footprint, clear standards to ensure quality of design; complementary transportation infrastructure to support walking, rolling, and riding; and appealing parks and recreation offerings for active lifestyles; more complete communities are essential to our competitiveness.

Planning for Complete Communities, with a true integration of uses, diversity of building types, and variety of lot sizes, represents a departure from the automobile-oriented land use planning of the last several decades and the embrace of a planning paradigm that is far more likely to help attract employers, workers, and residents by offering convenience, walkability and a quality of place only available when the needs of people are considered ahead of the needs of cars.

As previously explained, the creation of vibrant, dynamic Complete Communities that include housing, a diversity of jobs, services, amenities, parks and public spaces, and opportunities for social gathering and interaction are likely to attract employment, advancing our economic performance and competitiveness. This approach will not be sufficient standing alone and it is not intended as a substitute for other elements of a comprehensive economic development strategy. In an era with limited demand for new office construction and a strong market preference for locating businesses in high-quality, mixed- use, walkable and transit-oriented areas, however, it is currently considered one of the best strategies available to local government to attract and retain employers.

“Completeness” and Equity: Diverse Places to Support Diverse People

In addition, flexible use and development standards that allow variety in lot sizes, building types, and building placement offer an opportunity to increase commercial and residential diversity within neighborhoods. A broad assortment of retail, office, and live-work spaces designed to fit the needs of individual businesses can support different kinds of work and employment arrangements. The diversity of housing and employment types provides a means for renters, first-time homebuyers, or new business owners to access and participate in competitive markets. Diversity in development is especially important to producing housing that matches the needs of our future. The integration of accessory dwelling units, duplexes, and multi-family buildings within the same community supports a broader range of households and incomes, reduces the concentration of poverty, and increases racial and economic equity. A mixture of housing types – coupled with strategies to use the built environment to encourage social interaction – can help create integrated communities where people across the ethnic, racial, social, and economic spectrum not only live and work together but develop a sense of shared purpose and community. These elements also create opportunities for housing suitable to every stage of life, allowing residents to stay in the same neighborhoods as they age.

The Role of Complete Communities in Environmental Resilience: Community Gap-Filling as Sustainability Strategy

Finally, Complete Communities have the potential to create long-term sustainability for both human and environmental health. A mixture of uses and forms, together with a built environment that facilitates active lifestyles, allows more trips to be completed by walking, biking, rolling, and transit, reducing vehicle miles traveled and dependence on cars while increasing physical fitness and opportunities for social interaction. Establishing Complete Communities in the corridor-focused growth areas and within centers throughout the county reduces the distance that people, particularly those within suburban and rural areas, must drive to meet their daily needs, further reducing vehicle miles traveled and greenhouse gas emissions. Likewise, the mixture of uses, co-location and adjacency of public services and amenities can improve sustainability by reducing building footprints and cutting energy use. Co-location can also help to maximize community use and social interaction.

How will we evaluate progress?

In assessing proposals related to the creation of Complete Communities and measuring the success or failure of the approaches recommended in this plan relevant measures may include:

- Population density in centers of activity along corridors as well as within existing downtowns, town centers and rural villages
- Diversity of uses and structures
- Racial, ethnic, and income diversity
- Median age/life stages concentration

- Percentage of employment growth overall and by area of the county
- Car ownership levels
- Transit usage for inter-county travel
- Weekend transit usage
- Numbers of co-located facilities/amenities
- Public investment ratios for walking, biking, rolling, transit, and automobile
- Median vehicular expense per county household
- Median housing expense per county household
- Emergence of key population and mixed-use centers
- Increasing commercial activity in otherwise residential neighborhoods

DESIGN, ARTS & CULTURE: Investing and Building Community

Introduction: Why Design Matters

Design of the built environment can strongly influence our quality of life. The pattern of development across a city, county, and region; the configuration of neighborhoods and districts; and the architecture of individual buildings collectively shape our perception of places and shape how we choose to travel, recreate and socialize. Arts and cultural practices touch every corner of life and are among the most visible indicators of the social values and diversity of a place. Public art and cultural institutions highlight new perspectives, preserve local history and traditions, deepen our understanding of others, and expand our imaginations.

Design serves functional and aesthetic purposes. Functional considerations dictate where structures are placed and how they connect to the sidewalks, streets and spaces around them to facilitate movement, social interaction, and physical activity. Aesthetic aspects of design, along with the integration of arts and cultural elements, influence how streets, buildings and spaces look and feel to create beauty and a sense of place and inclusion.

As we strive to enhance the quality of life in Montgomery County for all of our residents and strengthen the appeal of our community as a place to live and work, both the functional and aesthetic aspects of design are more important than ever. For example, adding sidewalks and bicycling infrastructure can help make alternatives to driving safer, but detailed attention to the relationship between buildings and streets, the placement of street trees and quality of landscaping, and the cultivation of a sense of place are essential to making walking, biking, and transit attractive – and these are the same elements that make a neighborhood or business district inviting and inclusive.

Montgomery County has evolved into one of the most diverse jurisdictions in the nation and our arts and culture sector is impressive in its scope and depth. Public art and cultural institutions contribute significantly to the county's economy by attracting talent and spurring innovation through exchange of ideas. Taken as a whole, the sector would be the sixth-largest employer in the county. Arts and cultural practices touch every corner of life and are among the most visible indicators of the social values and diversity of a place. The arts and culture sector helps to foster the growth of creative, social, and economic ecosystems, and its practitioners have developed tools that can share untold stories, encourage empathy, and empower civic voices, fostering dialogue and building connections among people with different backgrounds and perspectives. This chapter focuses on the urban design principles applicable to blocks and individual development sites, the architecture of public and private buildings, the landscape of plazas and public spaces, and elements of street design. And it emphasizes the importance of a healthy arts and culture ecosystem that can highlight new perspectives, preserve local history and traditions, deepen our understanding of others, and expand our imaginations.

What is the problem we are trying to solve?

The Wedges and Corridors Plan envisioned a variety of living environments and encouraged “imaginative urban design” to avoid sterile suburban sprawl. Unfortunately, design approaches intended to serve a range of functional objectives and aesthetic aspirations took a backseat to the convenience of driving and the assumption that different land uses, building types, and even lot sizes should be separated. Over time, these priorities produced automobile-centered design approaches that compromised quality of place at the expense of lasting economic and social value. The shift to mixed-use development in the last two decades has created more vibrant and walkable places around major transit hubs but the legacy of automobile-oriented development is evident even in our most walkable neighborhoods and districts.

Greenfield Regulatory Tools in a Post-Greenfield County

When the subdivision of farmland was the primary strategy for accommodating growth, the focus of land use regulation was on the entitlement process, which allocates development rights and responsibility for the provision of basic infrastructure such as roads and sewer pipes. The form and orientation of buildings to each other and to the public realm were a subsidiary consideration.

Entitlement-centered rules are well-suited to standardized subdivisions but poorly adapted to enable the design of distinctive projects that respond to local geography, history and culture and address the needs of increasingly constrained development sites. We should prioritize whenever possible the attributes of neighborhood and site design that strongly influence perceptions of the quality and potential of a place. Dispersed buildings and sprawling parking lots lead to underbuilt sites that are poorly suited to repositioning, infill, and redevelopment and reduce the utility of investment in parks, transit, and other public amenities and infrastructure.

In addition, a future focus on form-based rules will allow for a more equitable process and outcome. The process is more equitable in that all stakeholders – the property owner, the community, the reviewers – understand the parameters governing the review of a development application and can address community concerns about growth. The outcome is more equitable because it may facilitate the implementation of diverse housing types and neighborhood-serving retail, which will lead to more mixed income neighborhoods with essential services within walking distance.

Design for Cars at the Expense of People – and Adaptability

Automobile-oriented design led to the provision of abundant and visually prominent surface parking, with buildings placed in the middle of large asphalt lots or entrances and front doors obscured by driveways and garages. Buildings were disconnected from public spaces and set back from streets. Streets were widened, pushing buildings farther apart and preventing a sense of enclosure, which discouraged walking by making it less convenient and comfortable. Space for sidewalks, seating, and greenery was sacrificed to make more space for parking and roads,

shrinking the size and utility of public spaces. Other elements of street design such as lighting and signage were enlarged to make them more visible to passing motorists, making streetscapes less engaging to pedestrians and degrading the quality of the public realm.

Commercial buildings designed to accommodate single uses, while less expensive when considered in isolation, are inflexible and costly to reuse. Malls, office parks, and other large, single-use buildings are often difficult to repurpose and the high cost of adapting their layouts to meet new spatial needs due to technological shifts, demographic changes, and market preferences shrinks their useful lives and makes them less sustainable. The consequences of the limited adaptability of our building stock are evident in persistently elevated office vacancy rates accompanied by an acute shortage of housing. In the future, flexible design should allow for adaptive reuse with floor-to-ceiling heights and floor plates that can accommodate a variety of uses and changing needs.

These problems are every bit as evident in the design of public buildings as in private development. Typical parcel size standards for public buildings such as schools are too large to fit most available sites, limiting the location of new facilities. The shortage of “adequate” sites along with a growing student population leads to a tear-down-and-rebuild approach with larger and larger numbers of students in bigger and bigger buildings. Boundary areas draw students from farther away, leading to the allocation of more space for parking, less walking and bicycling, longer bus rides and drives for parents as well as longer commutes for staff.

Recalibrate Investments in Arts and Culture with Equity in mind

Placemaking and public art are essential in building great and inclusive communities. However, while the county makes significant investments in arts and culture, these investments are not always equitably distributed. Emerging organizations that support underserved communities often lack the funding and base of support enjoyed by some of their more established counterparts. Artists and arts organizations cite the lack of affordable living, working, and sales spaces as a major challenge. The field of public art has been expanding to embrace a wider range of approaches including civic and placemaking practices, but the county’s art programs lag in its ability to apply these approaches. Making countywide investments in public art and placemaking will educate, connect, and build communities that thrive into the future.

What policies will solve the problem? Better design and more reliance on form-based tools to provide clear direction and build great places

In order to maximize the contributions of design – along with arts and culture - toward creating strong communities with lasting value, the county should pursue the following policies and practices:

Use design-based tools to create attractive places with lasting value that encourage social interaction and reinforce a sense of place and inclusion.

- Consider changes to codes, design guidelines, and regulatory tools as well as broader use of form-based zoning that focuses on the physical forms of buildings, streets, and spaces to ensure development across the county satisfies the following:
 - Ensure that all architecture and landscape designs physically define streets and public spaces as places of shared use that engage the pedestrian and are configured to encourage social interaction. (Eq)
 - Encourage investment in urban design and architecture that promotes safe communities and civic pride. (Eq)
 - Link individual architectural projects seamlessly to their surroundings irrespective of style, discouraging walls and buffers that can separate and disconnect communities. Civic buildings and public gathering places should be treated as important sites whose design reinforces community identity and a culture of inclusion and democracy. (Eq)
 - Design buildings, streets, and parking to prioritize the pedestrian scale and encourage walking and bicycling through smaller blocks, narrower streets, buffered bike lanes and sidewalks. Slow vehicle speeds and minimize surface parking while adequately accommodating automobiles. (Eq, Env)
 - Accommodate new development with a context sensitive approach to architecture and landscape design that acknowledges neighboring structures, local climate, and topography. (Env)
 - Physically integrate government and private development sites into their surrounding neighborhoods such that they welcome the public and support economic development by facilitating movement and fostering interaction between people and the transfer of ideas and innovation. (Ec, Env)
 - Examine the use of Crime Prevention Through Environmental Design (CPTED) or other standards in the development of Design Guidelines to encourage safe/welcoming public spaces. (Ec,Eq)
 - Preserve, renew, and reuse existing and historic buildings, districts, and landscapes to affirm the continuity and evolution of communities while celebrating local culture and identity. (Eq)
- Support the development of housing by replacing concepts such as “compatibility” with clear standards for form, site layout, setbacks, architecture, and the location of parking.
 - Examine options for allowing a wider variety of housing types such as tiny houses, cottages, courtyard clusters, duplexes, multiplexes, small apartment buildings; shared housing, co-housing and accessory dwelling units (ADUs). (Eq, Env)
 - Determine what changes may be needed to land-use, design, and zoning regulations, including the Zoning Ordinance and Subdivision Regulations, to remove regulatory barriers and facilitate development of range of housing types. (Eq, Env)
- Consider updating the zoning code to include basic form-based elements for all zones. Adopt context-sensitive design guidance for all master planning efforts.

Promote design strategies and retrofits to make new and existing buildings more sustainable and resilient to disruption and change.

- Encourage state-of-the-practice sustainability features such as net-zero/carbon-positive buildings, biophilic design and on-site energy generation for new public buildings and large private developments on sites across the county. (Env)
- Promote cost-effective infill and adaptive reuse design strategies to retrofit single-use commercial sites such as retail strips, malls, and office parks into mixed use developments. (Ec, Env)
- Incentivize the reuse of historic buildings and existing structures to accommodate the evolution of communities, maintain building diversity, preserve naturally occurring affordable space, and retain embodied energy of structures. (Eq, Env)
- Establish standards for public facilities that align with infill and redevelopment strategies and acknowledge the county's limited land supply and ambitious climate-action goals. (Env)
- Implement policies to ensure that new buildings and parking structures are adaptable to changing technologies and market preferences and are able to mitigate effects of climate change over time. (Env)

Support arts and cultural institutions and programming to educate, connect and build communities that celebrate our diversity and strengthen pride of place.

- Promote an inclusive arts-and-culture environment by establishing a refreshed vision that sets goals, criteria, and priorities to support the county's arts-and-culture sector. (Ec, Eq)
- Promote public art, cultural spaces, and cultural hubs along corridors and in Complete Communities, leveraging the County's rich cultural and socio-economic diversity. (Ec, Eq)
- Promote the celebration of "Diversity Hubs" as places to reinforce inclusion. (Eq)
- Eliminate regulatory barriers to live-work spaces, home studios, galleries, and other small-scale art-making and creative businesses to improve access for artists and arts groups to affordable living, working, and presentation spaces with a focus on economic, geographic, and cultural equity. (Eq)
- Enable all residents to experience public art daily by incorporating it into the design of buildings, streets, infrastructure, and public spaces. (Eq)
- Use new public facilities to demonstrate principles of architecture as civic art and broader cultural representation. (Eq)
- Encourage property owners, non-profit organizations, and government agencies to maximize use of parks and public spaces for artistic and cultural programming, activation, and placemaking.
- Partner with agencies to strengthen data collection about investments so as to ensure that arts-and-culture related policies align with Thrive Montgomery 2050's goals of economic competitiveness, social equity and environmental resilience. (Ec, Eq, Env)

How will these policies further the key objectives of Thrive Montgomery 2050?

Great Design Creates Great Places that Draw People and Businesses

Well-designed places attract all kinds of residents and businesses. Workers in creative or knowledge-intensive occupations are particularly focused on quality of place, which includes an open and tolerant attitude toward different people, cultures, and lifestyles along with attention to the built and natural environment and excellent public services.

Design and public art, through their contribution to the built environment, help to create economically successful communities. Design-based tools help to create attractive buildings, streets, and public spaces that are likely to retain greater economic value over time. The thoughtful arrangement of these elements can create places that become destinations for commerce and social activity and add value to their surroundings, encouraging neighboring owners to reinvest in their own properties to match and take advantage of adjacencies. Places designed with pedestrians in mind will lead to more healthy physical activity as well as human interaction, facilitating the exchange of ideas, attracting innovative companies and creative professionals. Comfortable, tree-lined streets will meet market demand for walkable places.

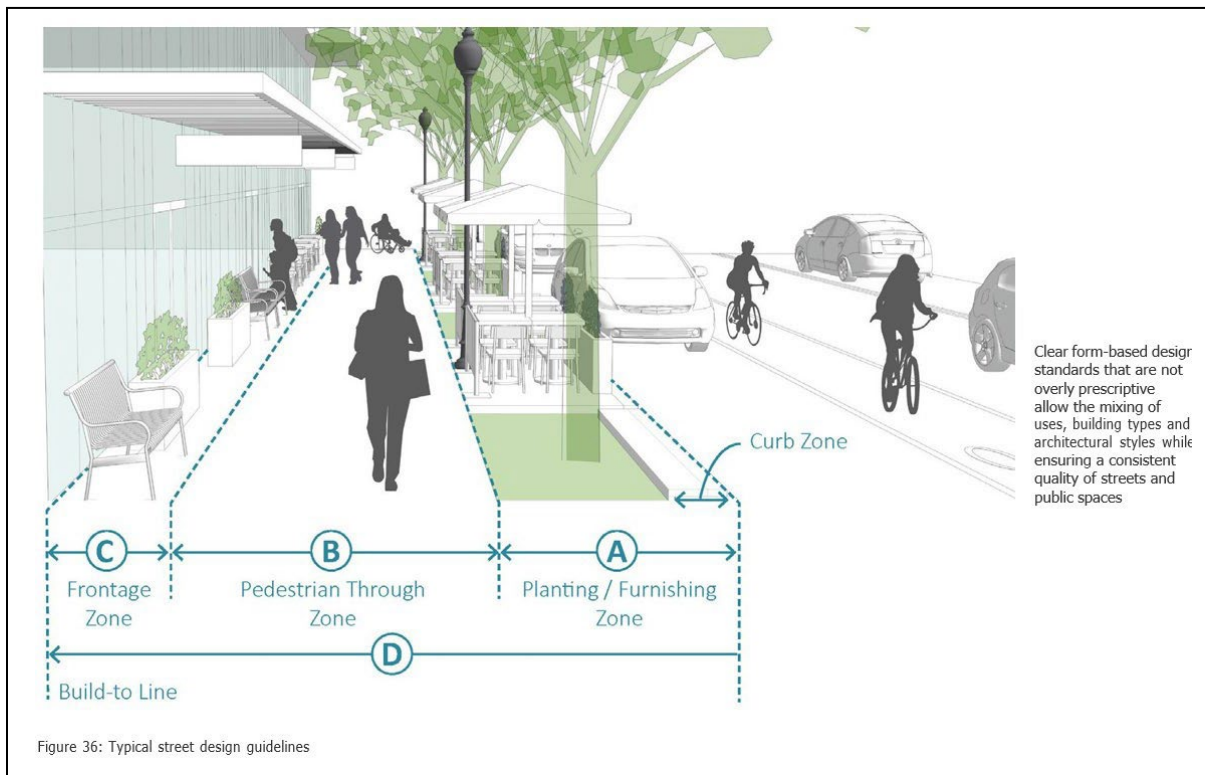
In addition to contributing to the built environment, the entire arts-and-culture sector generates energy and creativity that spur economic growth. Affordable living, administrative, working, and presentation spaces for artists can help to showcase our diversity and attract and retain cultural uses and arts-related businesses. Strategic investments in these kinds of spaces can increase the economic contribution of arts and culture over the long run by reinforcing the role of the sector in building centers for social gathering and cultural events which may in turn attract other business and investment.

Better Design Strengthens Community and Highlights the Benefits of Cultural Diversity

A desire for human interaction cuts across lines of age, race and ethnicity, and class and is critical to the happiness of individuals as well as the collective well-being of a community. Public spaces that encourage different kinds of people to interact is important to building a sense of community with shared interests and values. Arts and culture spaces and programming can help us better understand and appreciate each other, strengthening support for diversity and inclusion and building trust.

Design codes that are well thought out, developed with community input, and based on physical form can serve as more predictable guides for change, address community concerns about accommodating growth, and illustrate hard-to-define concepts such as “character” and “compatibility.” A shift away from vague and subjective standards will help make regulatory decisions more equitable by applying more objective criteria in evaluating development proposals and their relationship to their surroundings. Clear standards governing acceptable form may, depending on market conditions, encourage the introduction of

different housing types and neighborhood- serving retail, facilitating the creation of mixed income neighborhoods where essential services are within walking distance of most residences.



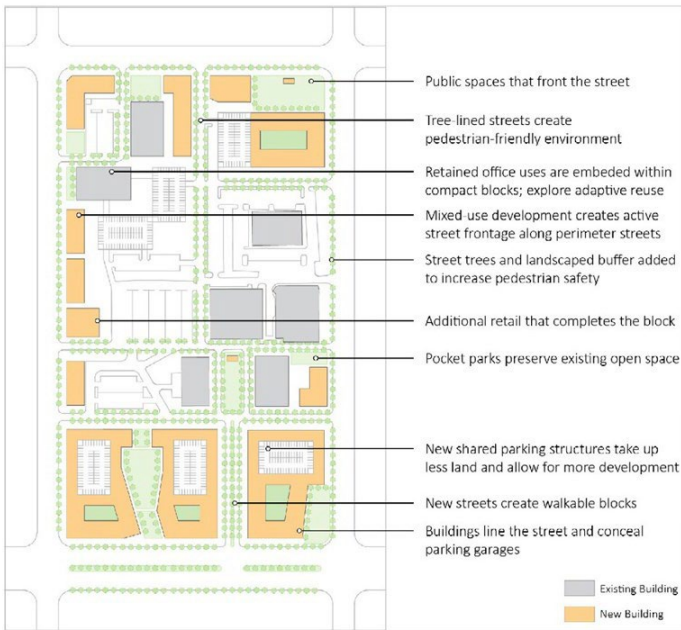


Figure 37: Potential redevelopment of a typical suburban office park.

Diagram shows potential infill, adaptive reuse, and partial redevelopment of a typical office park that creates smaller development blocks connected by a complete street network and varying open spaces.

By focusing investments in public art, cultural spaces, and cultural hubs along corridors and in Complete Communities we can make these places welcoming and attractive to people from different backgrounds. Support for arts and culture can educate and provide creative tools to share untold stories, encourage empathy, give voice to diverse points of view, and foster civic dialogue and participation.

Design Plays a Critical Role in Environmental Performance

Sustainable design strategies for new construction and retrofits will enhance the environmental performance of buildings and neighborhoods. Promoting sustainability features in new public and private buildings will restrain and may reduce the ecological impact of growth. Strategies for onsite energy generation, new tree plantings in redeveloped parking lots and along streets, and state-of-the-practice stormwater management will help increase the resilience of the power grid and mitigate the negative effects of flooding and excessive heat, resulting in more adaptable development in the face of a changing climate.

Encouraging adaptive reuse of existing buildings and incentivizing cost-effective retrofits of single-use sites into mixed-use projects will help reduce energy consumption and greenhouse-gas emissions. Compact site standards and colocation of public facilities along with state-of-the-practice sustainability features will help achieve ambitious climate action goals and make more efficient use of public land.

A focus on form and adaptability rather than use and density in regulatory systems will provide flexibility to respond to changing market conditions and demographic trends and help us take advantage of disruptive technological and cope with environmental change. Designing buildings and parking with adaptability in mind will prolong the useful life of structures and reduce scrape-and-replace development practices, conserving energy embodied in existing structures.

How will we evaluate progress?

In assessing proposals related to design, arts, and culture and measuring the success or failure of the approaches recommended in this plan, relevant measures may include:

- Types and amounts of publicly- and privately-owned public-use space
- Pedestrian traffic in downtowns and suburban activity centers
- Visitation and time spent in urban, suburban, and rural gathering places
- Number and spatial distribution of public art installations, temporary and permanent
- Number and spatial distribution of publicly and privately funded community events such as festivals, street fairs, sporting tournaments, etc.
- Number, use type, square footage, and economic activity generated by businesses classified in cultural categories by the North American Industry Classification System (NAICS) or its successor
- Average rent, total square footage, and spatial distribution of available art/creative/maker-space
- Retention and growth of arts- and culture-related businesses
- Number and spatial distribution of cultural heritage and historic designations
- Number of adaptively reused, retrofitted, and repositioned structures and structures designed with flexibility for future uses and/or adaptability in mind
- Number of environmentally certified buildings (e.g. Leadership in Energy and Environmental Design, LEED) in the county
- Amount of tree canopy in the county

TRANSPORTATION AND COMMUNICATION NETWORKS: Connecting People, Places, and Ideas

The interdependence of transportation and land use

No land use plan can be successful without a complementary transportation plan, because even the most forward-thinking land use policies will fail if they are not supported by transportation infrastructure and services that reinforce – or at least avoid undermining – their objectives. As the Wedges and Corridors Plan recognized more than half a century ago:

“An efficient system of transportation must include rapid transit designed to meet a major part of the critical rush-hour need. Without rapid transit, highways and parking garages will consume the downtown areas; the advantages of central locations will decrease; the city will become fragmented and unworkable. The mental frustrations of congested highway travel will take its toll, not to mention the extra costs of second cars and soaring insurance rate. In Los Angeles where an automobile dominated transportation system reigns supreme, there is still a commuter problem even though approximately two-thirds of the downtown section is given over to streets and parking and loading facilities. There is no future in permitting the Regional District to drift into such a ‘solution.’”

Despite this prescient warning, we remain heavily dependent on automobiles, with more than two-thirds of workers in the county driving alone to and from work. Montgomery County communities outside the Beltway have low percentages of commuters who walk, pedal, roll, or ride transit, and our transportation system is currently a major contributor to greenhouse gas emissions.

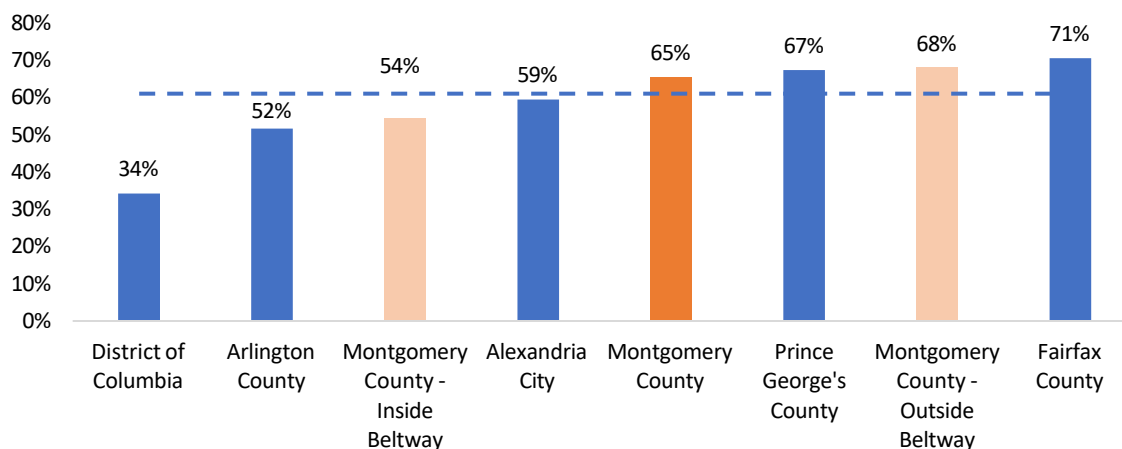
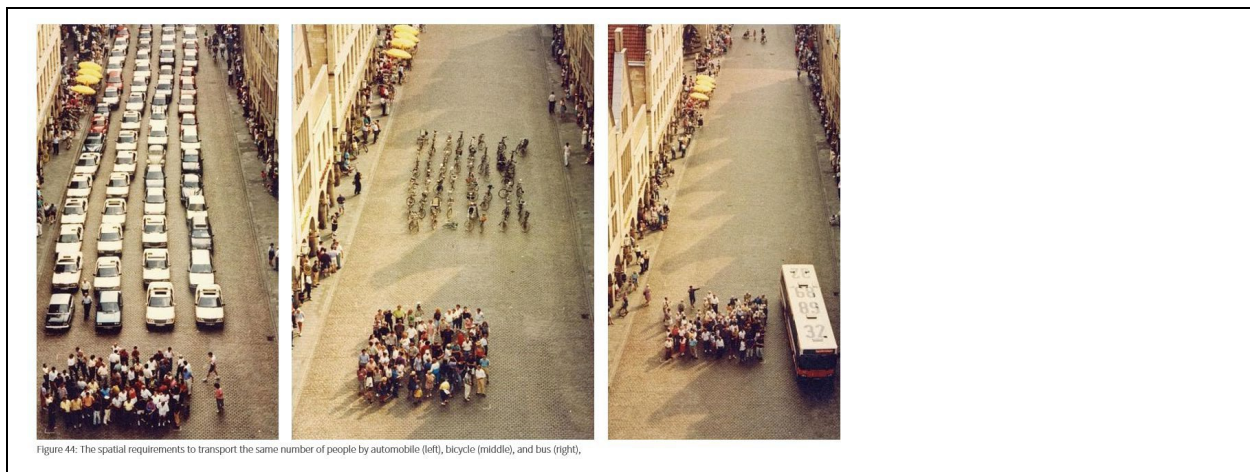


Figure 38: Percent of commuters who drive alone, by jurisdiction, 2019.

Thrive Montgomery's 2050's focus on compact growth and infill – along with the limited availability of land for expanding rights-of-way – makes it essential that over the 30 years of the plan we work to make walking, rolling, bicycling, and transit the most practical, safe and attractive ways of getting from one place to another. Cars – even cars equipped with autonomous driving technology - require much more space per passenger than buses and trains, and walking, rolling, and bicycling are the most spatially efficient forms of travel of all. Market preferences have shifted in recent decades to favor locations with transit, bike and pedestrian access over place oriented around automobile travel, and the importance of reduced reliance on driving to meet our greenhouse gas emissions goals is obvious. However, we must keep in mind the importance of roads for the delivery of goods and services, including police, fire, and emergency services, as well as the fact that until other forms of transit are more fully developed, adequate roads that are also safe for walking, rolling, and biking are necessary. In addition, roads in Montgomery County serve as evacuation routes during natural disasters and national security events, including Continuity of Government plans.

Particular characteristics of the currently planned roadway network - new highways, wide roads, and high-speed access ramps – in some locations are fundamentally at odds with efforts to design neighborhoods and districts to encourage human interaction and foster a sense of place. This makes it imperative to embrace the long-term economic, environmental, and social benefits of walkable, bikeable, and transit- oriented neighborhoods and districts and avoid undercutting our land use goals with auto- dominated road design and transportation infrastructure.



What is the problem we are trying to solve? Successive generations of investment in automobility have created a vicious cycle

Our dependence on driving is rooted in part in generations of efforts to facilitate the movement of as many automobiles as quickly as possible while funneling traffic to a handful of north-south arterial roadways that tie otherwise disconnected subdivisions to job and retail centers. Successive widenings to these roads have added more and more lanes for vehicles at the expense of space for pedestrians, bicycles, dedicated lanes for transit vehicles, street trees and anything else that might slow cars. This makes alternatives to driving less practical and appealing, which leads to more driving and in turn generates demand for wider roads.

Reinforcing this vicious cycle is the fact that optimizing major arterials for cars has made these corridors unattractive and unsafe, discouraging private investment and compact, transit-oriented development even where high-quality transit infrastructure is already in place (as evidenced by several large, underutilized properties along corridors near Metrorail stations).

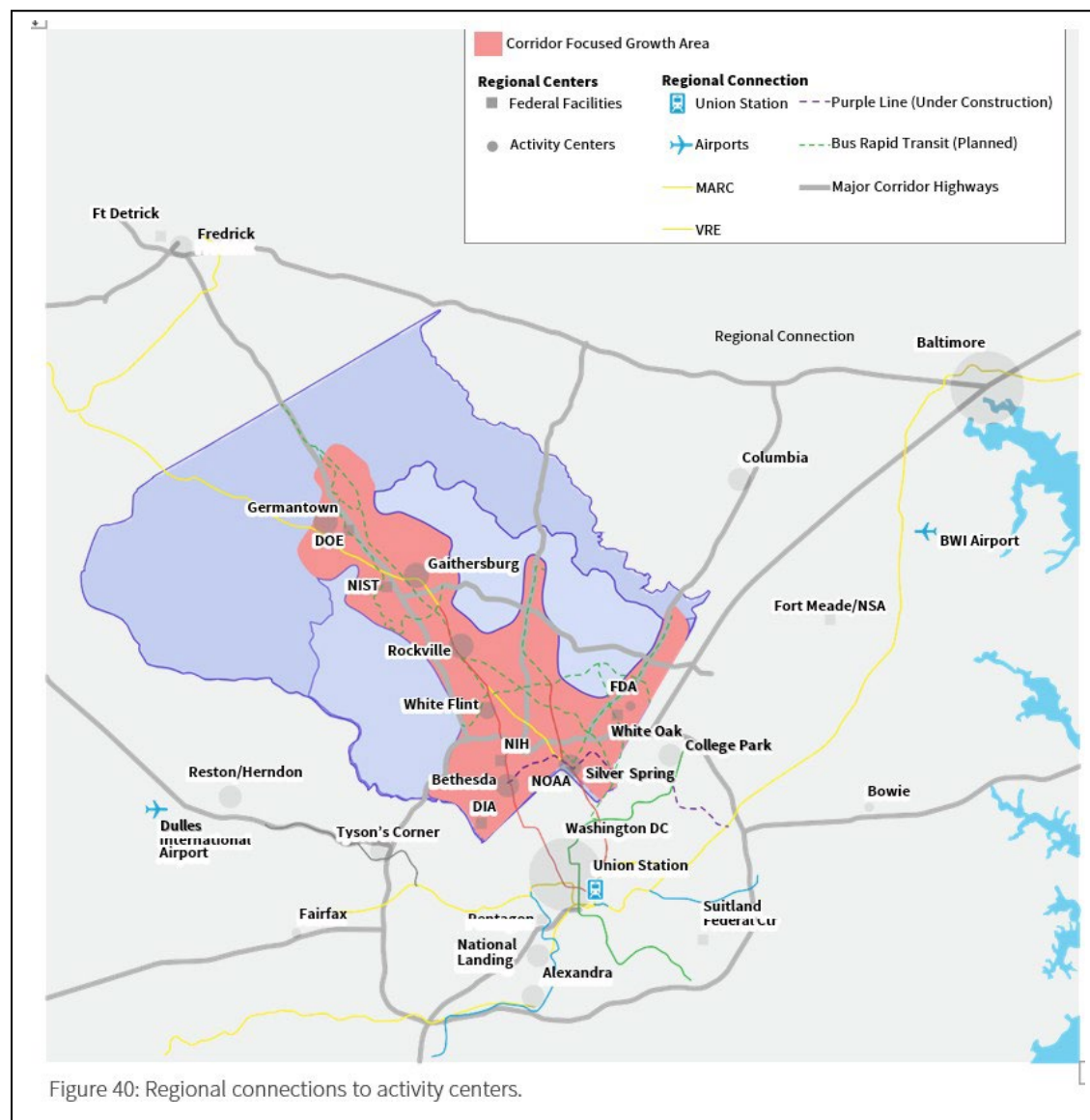
Excessive dependence on cars threatens safety, erodes quality of life and reduces resilience

The most obviously and acutely damaging consequence of this dynamic is that pedestrians, bicyclists, and drivers are killed or seriously injured with disturbing frequency. Somewhat more subtle is the effect that automobile-oriented design has on the vitality and appeal of neighborhoods and commercial districts alike. Safe, attractive streets encourage people to get out and walk, pedal, or roll, whether simply to get some exercise, to run an errand, to go to work or school, or to reach an intermediate destination such as a bus stop or rail station. This kind of activity supports physical and mental health and facilitates the casual social interaction that build a sense of place and community. Some roadways can be barriers that degrade the quality of life of everyone who lives and works near them, even if they are never involved in a traffic collision.

Although Montgomery County's investment in transit has contributed to a slight decline in vehicle miles travelled (VMT) per capita, due to population growth overall VMT has continued increasing, which has a huge impact on the county's efforts to reduce its greenhouse gas emissions. In 2018, 42 percent of the County's greenhouse gas (GHG) emissions were generated by the transportation sector (on-road transportation, aviation, rail, and off-road vehicles). Motor vehicles accounted for 36 percent of emissions in 2018. Private cars accounted for approximately 75 percent of all trips taken in the county followed by buses at 10 percent, rail with 5 percent, walking at 2 percent, taxi/ride hailing services (such as Uber and Lyft) with 1 percent, and biking at less than 1 percent. Until a majority of the current fleet transitions to electric and other zero-emission power sources, the current pattern will continue to increase our transportation-related greenhouse gas emissions and other forms of pollution.

The 1964 hub-and-spoke model of arterial corridors radiating from Washington limited infrastructure to support alternatives to driving, and the absence of street grid connections also make our transportation network less adaptable and resilient. The radial pattern of road corridors was a logical way to link suburban enclaves to jobs in and around the District of Columbia, but other important centers of activity have emerged since then. Our prosperity depends on access

to Frederick, Prince George's, Howard, and Baltimore as well as Arlington, Fairfax, and Loudoun. The lack of efficient transit connections to schools, businesses, laboratories, and other important centers of economic, intellectual, and social activity in these jurisdictions leaves us unable to take full advantage of our presence in one of the most dynamic regions in the country, if not the world. In addition to the existing Metrorail and MARC services to the District of Columbia, master plans call for new transitway connections to Prince George's County (the Purple Line and University Boulevard BRT) and the District of Columbia (the New Hampshire Avenue BRT). However, there is a growing need to provide transitway connections to Howard and Frederick Counties, and to Northern Virginia as well.



Even for travel within Montgomery County, our legacy road network has serious shortcomings. Our central business districts and major suburban corridors generally lack the grid of streets that create the building blocks of a thriving community, with frequent intersections and narrower

vehicle lanes to facilitate slower speeds and safer crossings to make walking, rolling and bicycling more practical and attractive and to provide access points and routing options for automobiles. More and more residents and workers prefer transit and other alternatives to driving alone – and a significant number do not have access to a car – but most jobs in the county are not located near high-quality transit, and many of our neighborhoods lack even sidewalks. Combined with the absence of efficient east-west connections, especially for transit riders, this pattern limits access to jobs and opportunity, particularly for low-income residents who are more likely to depend on transit and makes our transportation system less adaptable and resilient.



The failure to provide robust alternatives to driving and the inability to provide additional space for roads – in combination with low rates of housing construction – leaves more commuters stuck in traffic and pushes jobs as well as people to other jurisdictions. The result is that the county loses residents, jobs, and tax revenue while simultaneously increasing traffic congestion as more people drive through the county on the way to jobs and homes in other places. Meanwhile, the importance of virtual connections, including the deployment of high-speed wireless networks and fiber optic cable, continues to grow.

What policies will solve the problem?

Successful mixed-use centers require a transportation scheme that supports modes of travel appropriate to the trips users need to make to meet their needs. For example, a rail-based transit line may serve to connect jobs to housing in different parts of the county or region, while sidewalks and bikeways connect offices to shops, restaurants, transit stations, or apartment buildings in a town center or between a downtown and the residential neighborhoods surrounding it. The point of this plan's emphasis on supporting alternatives to automobile travel is not to eliminate driving, but to make short trips around town by bicycle or bus safe and

appealing. A quick trip to the grocery should be manageable on foot, while a visit to another town might require a trip by car, train, or even airplane. The most desirable places to live and work are the ones that offer a menu of choices that make all sorts of travel effortless and delightful while supporting best practices in land use rather than relying on a single mode of travel at the expense of every other consideration.

Recent and ongoing advances in technologies and travel modes may have a dramatic impact on the nature of travel demand. These include—but are not limited to—the introduction of or expansion in electric and other zero-emission vehicles, connected and automated vehicles, delivery drones, ridehailing, bikesharing, dockless bikes and scooters, and telecommuting.

Finally, robust investment in the county’s digital infrastructure is needed to connect residents to online job opportunities, encourage continued teleworking to reduce commuting trips, dilute rush-hour traffic, enhance worker productivity and improve quality of life, increasing the county’s overall attractiveness and competitiveness.

The county will base its efforts to improve connectivity on the following policies and practices:

Develop a safe, comfortable and appealing network for walking, biking, and rolling.

- Expand the street grid in downtowns, town centers, transit corridors, and suburban centers of activity to create shorter blocks. (Ec, Env)
- Stop proposing new 4+ lane roads in master plans. (Env)
- Give a lower priority to construction of new 4+ lane roads, grade-separated interchanges, or major road widenings. (Env)
- Convert existing traffic lanes and on-street parking to create space for walkways, bikeways, and street buffers with landscaping and street trees, in a manner consistent with other County policies. (Env)
- Prioritize the provision of safe, comfortable, and attractive sidewalks, bikeways, roadway crossings, micromobility infrastructure and services, and other improvements to support walking, bicycling, micromobility, and transit usage in capital budgets, development approvals and mandatory referrals. (Env)
- Transform the road network by incorporating complete streets design principles with the goal of eliminating all transportation-related roadway fatalities and severe injuries and supporting the emergence of more livable communities. (Eq,)

Build a frequent, fast, convenient, reliable safe, and accessible transit system.

- Build a network of rail, bus rapid transit, and local bus infrastructure and services—including demand-responsive transit service—that make transit the fastest, most convenient and most reliable way to travel to centers of economic, social and educational activity and opportunity, both within and beyond Montgomery County. (Ec, Eq, Env)
- Convert existing general purpose traffic lanes to dedicated transit lanes, in a manner consistent with other County policies. (Ec, Eq, Env)
- Improve travel times and travel costs of transit services to achieve greater parity with automotive travel. (Eq)
- Connect historically disadvantaged people and parts of the county to jobs, amenities, and services by prioritizing investments in increasing access to frequent and reliable morning to late night transit service. (Eq, Env)

- Ensure safe and comfortable access to transit stations via walking, rolling, and bicycling. (Eq, Env)
- In rural areas with sufficient density and along freeways and major highways consider Park & Rides, microtransit, micromobility, and bikeways to connect large geographic areas to the transit network. (Eq, Env)
- Provide for transit needs associated with transit related facilities, including but not limited to depots, substantial layover areas, zero-emission bus infrastructure and charging/power requirements, Park & Ride and similar facilities, and road design. (Eq,Env)
- Support efforts to increase Amtrak and MARC access, services, and utilization, including additional trains and infrastructure, off-peak service, and bidirectional service. (Ec, Eq, Env)

Adapt policies to reflect the economic and environmental costs of driving alone, recognizing car-dependent residents and industries will remain. (Eq, Env)

- Employ pricing mechanisms, such as congestion pricing or the collection and allocation of tolls, equitably, to support walking, rolling, bicycling, micromobility and transit. (Eq,Env)
- Manage parking efficiently and equitably by charging market rates and reducing the supply of public and private parking where appropriate. (Ec, Env)
- Encourage increasing the share of zero-emission vehicles by requiring appropriate transportation, charging, and power infrastructure, as well as upgrading government fleets. (Env)
- Consider exemptions for policies such as congestion pricing and reduced parking for low-income individuals. (Eq,)
- Expand and intensify transportation demand management efforts beyond the existing Transportation Management Districts (TMD). (Ec, Env).

Develop and extend advanced communications networks

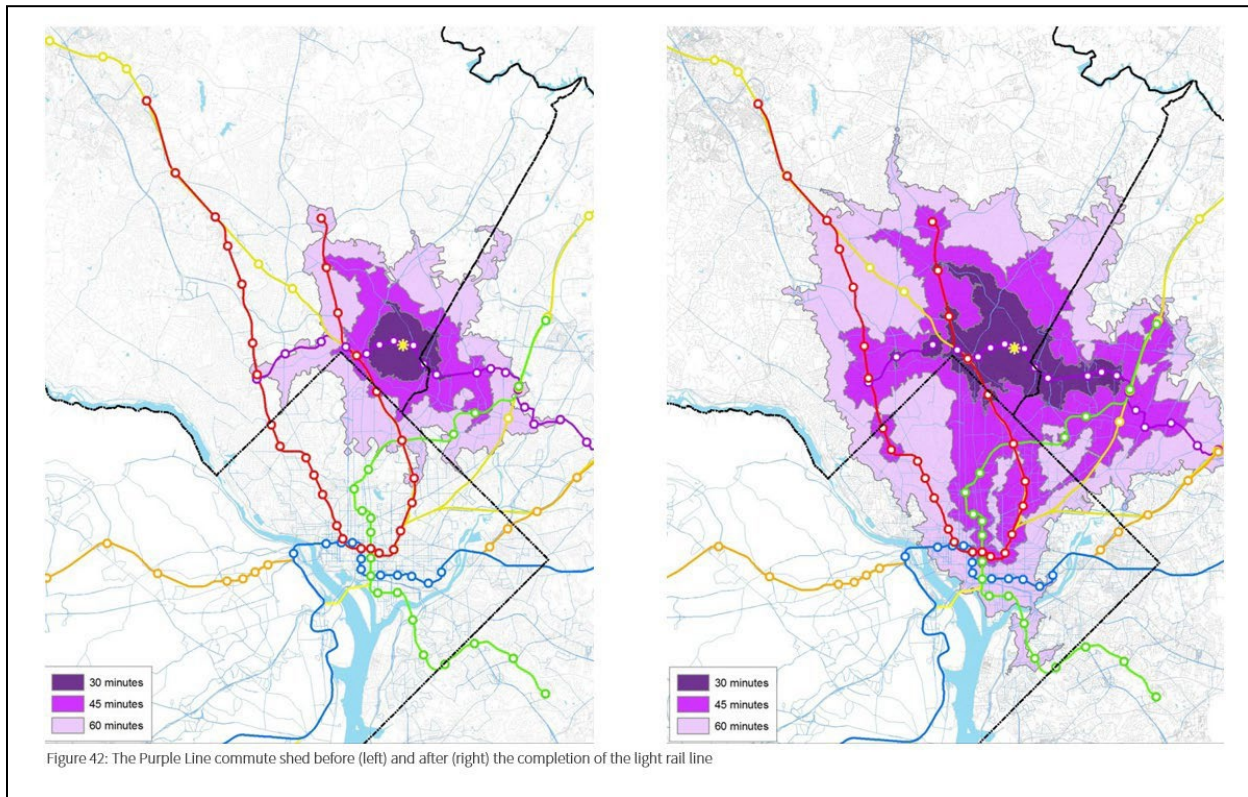
- Facilitate construction of high-speed fiber optic and wireless infrastructure and other information and communication technology to supplement transportation links with improved virtual connections. (Ec, Eq,)
- Focus investment in communications infrastructure and services to connect people and parts of the county that lack convenient access to jobs and educational opportunities. (Eq)
- Support teleworking by accelerating deployment of information and communications technology and making working from home easier by facilitating Complete Communities. (Ec, Env)
- Support strategies and partnerships to address the “digital divide” and bring network resources to vulnerable communities. (Eq)

These proposed transportation and communication policies should be evaluated to ensure equitable impacts from policies affecting certain types of vehicles users – like congestion pricing on minorities with high auto ownership.

How will these policies further the key objectives of Thrive Montgomery 2050?

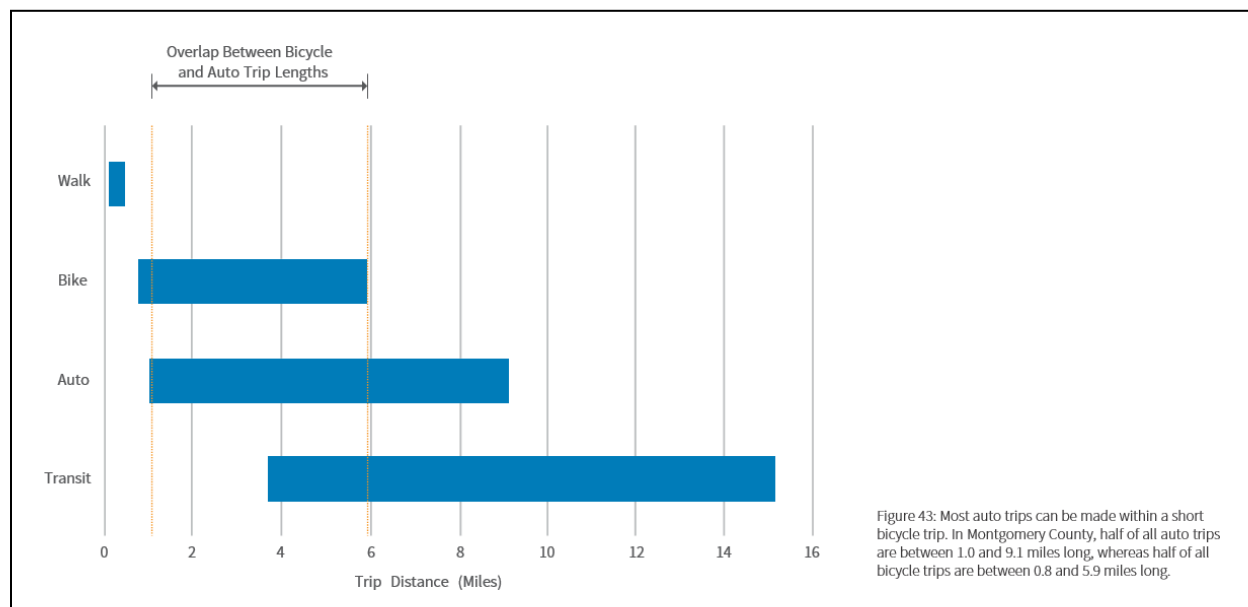
Walkable, bikeable, transit-connected neighborhoods and commercial districts support economic vitality

These policies are not enough by themselves to ensure the county's economic success, but they are significant building blocks for stronger economic performance. Better transit connections to job centers, for example, will help make the county a more attractive choice for employers by making it easier for their current and future employees to get to work. The total number of jobs within a 30-minute commute is a common measure of an area's suitability for investment. With drive times and pass-through automobile traffic predicted to continue growing, investments in transit can significantly increase our "commute shed" and help to avoid ever-longer drives to and from work.



A higher priority for investments in transit, walking, rolling, and bicycling infrastructure is also critical to building Complete Communities that have the amenities, sense of place, and level of activity that more and more people of all backgrounds and ages are seeking. This can create incentives and opportunities to locate a variety of uses, services, and activities near station locations – and to each other.

Another essential building block of economic competitiveness is information and communications technology and telecommunications networks. Montgomery County should continue to prioritize advancing new technologies and making deployment of high-speed wireless networks and fiber optic cable – or other new communication systems – an important part of infrastructure planning.



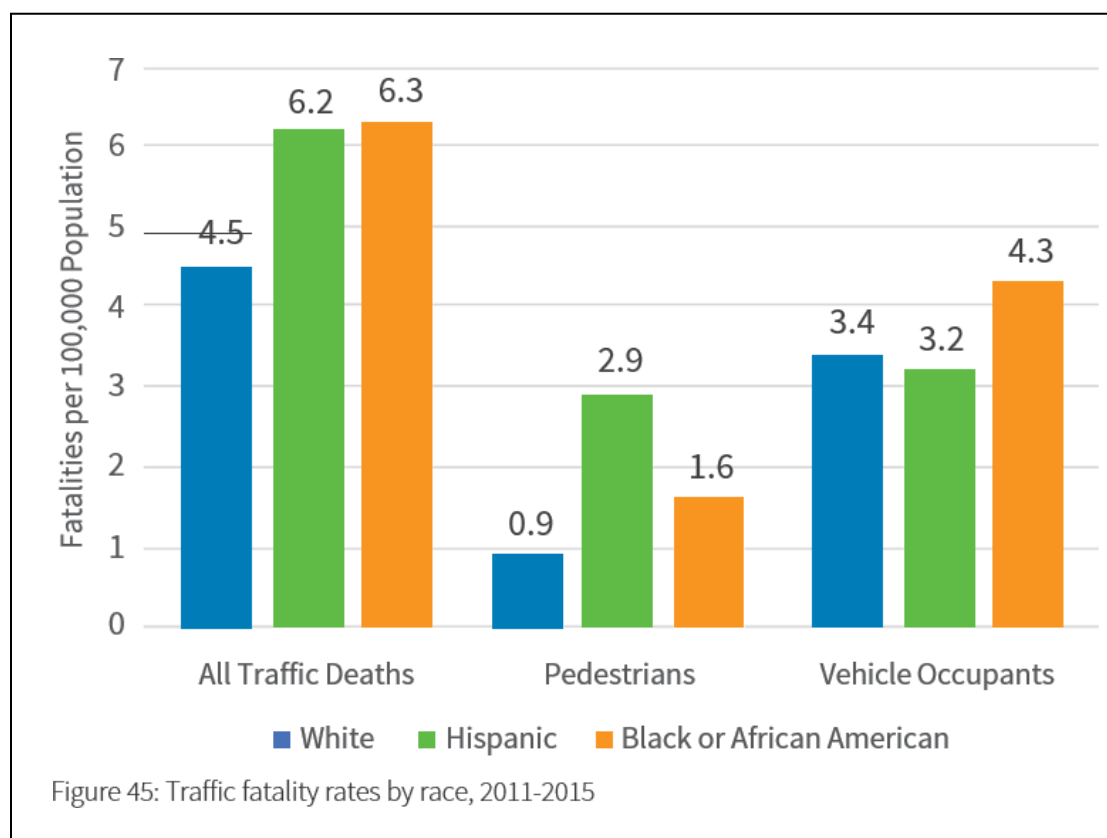
Expanding alternatives to driving helps build more equitable communities

A transit-focused approach that facilitates walking, rolling, and bicycling also promises to serve our residents more equitably. Enhanced access to jobs via transit, walking, rolling and bicycling will help mitigate inequities for people of color and low wage earners who are more likely to live in areas without adequate infrastructure to meet their mobility needs without an automobile. People in these communities are less likely to own a car and lack access to high-quality transit service that operates frequently, reliably, and at an accessible cost throughout the day and into the evening. Expanded transit service also serves as an affordable and attainable housing tool by connecting areas where housing is relatively inexpensive to jobs, schools, and amenities without subjecting residents to high transportation expenses or impractically long commutes.

The transportation priorities in this plan will help meet the county’s goal of eliminating all traffic-related fatalities and severe injuries by 2030, which is especially important in making transportation more equitable because people of color are more likely to be hurt or killed in crashes. Streets that go beyond safety to make walking, rolling, and bicycling preferred ways of getting around can enhance human interaction and build social capital. Pedestrian- friendly rural, suburban, and urban centers can build a stronger sense

of place where the conditions for high levels of civic participation and a feeling of community are far easier to create and maintain.

As part of the focus on equity for all communities in the county, it is also important to prioritize providing high-speed internet access to all parts of the county. Future communication infrastructure and technologies should be deployed equitably throughout the county, especially among low-income residents.



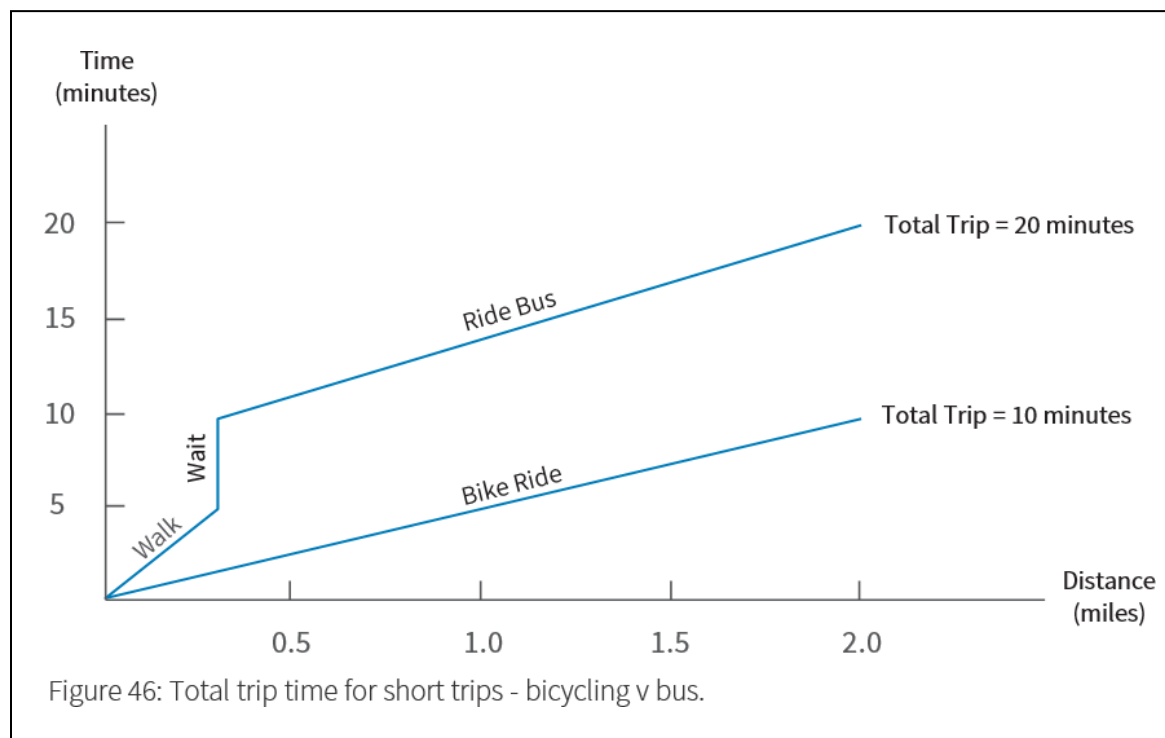
Land use and transportation strategies that encourage walking, biking and transit use improve environmental performance

The evolution of corridors originally planned for the convenience of drivers into multimodal streets where transportation and land use are harmonized to support development of a compact mix of uses and building types will reduce driving and make our transportation system more sustainable and resilient. In particular, filling in missing connections between streets and breaking up large blocks to create a finer-grained network of streets along our suburban corridors will be challenging. A more connected street grid is perhaps the single most important step to make our streets safer, more attractive for walking, biking and rolling, and to reconnect communities divided by highways. An interconnected grid system will increase choice of modes, provide multiple routes for travel, and be better equipped to handle extreme weather

and other disruptions. For this reason, the addition of local street connections should be a top priority in both capital budgets and development review.

Investing in pedestrian, bicycling, and transit infrastructure will make active transportation a viable alternative to many vehicle trips and should also be a high priority in capital budgets. For many, bicycling has especially strong potential as a substitute for automobile trips of less than 3 miles, which comprise about half of all trips taken in the region. Survey research demonstrates that bicyclists are much more likely to say they enjoy their commute than people who use other modes to get to work. Integrating pedestrian and bicycling infrastructure in parks and open spaces will extend the transportation network and expose more residents to nature on a daily basis, boosting mental and physical health. In addition, funding for frequent and reliable transit service should be a priority in annual operating budgets.

As indicated in the introductory chapter of this plan, Montgomery County has made progress in reducing its greenhouse gas emissions but has much farther to go to meet its goal of eliminating them by 2035. In addition to transitioning from carbon-based fuels to renewable energy sources, reducing vehicular travel is critical.



Reducing the supply of parking – and the amount of land allocated to parking spaces – over time will increase the amount of space available for economically productive activity, reduce the cost of development, and relieve pressure on undeveloped land, all of which will enhance the county’s economic and environmental performance. Shared parking strategies and eliminating minimum parking requirements for new developments promote mixed-use development, improve

pedestrian-friendly design, and encourage social interaction, while redevelopment of parking lots into higher and better uses improves environmental sustainability by creating opportunities to add tree cover, incorporate infrastructure for stormwater management, and create more landscaped areas that provide habitat for local pollinators, birds, and animals.

How will we evaluate progress?

In assessing proposals related to transportation and communications and measuring the success or failure of the approaches recommended in this plan, relevant measures may include:

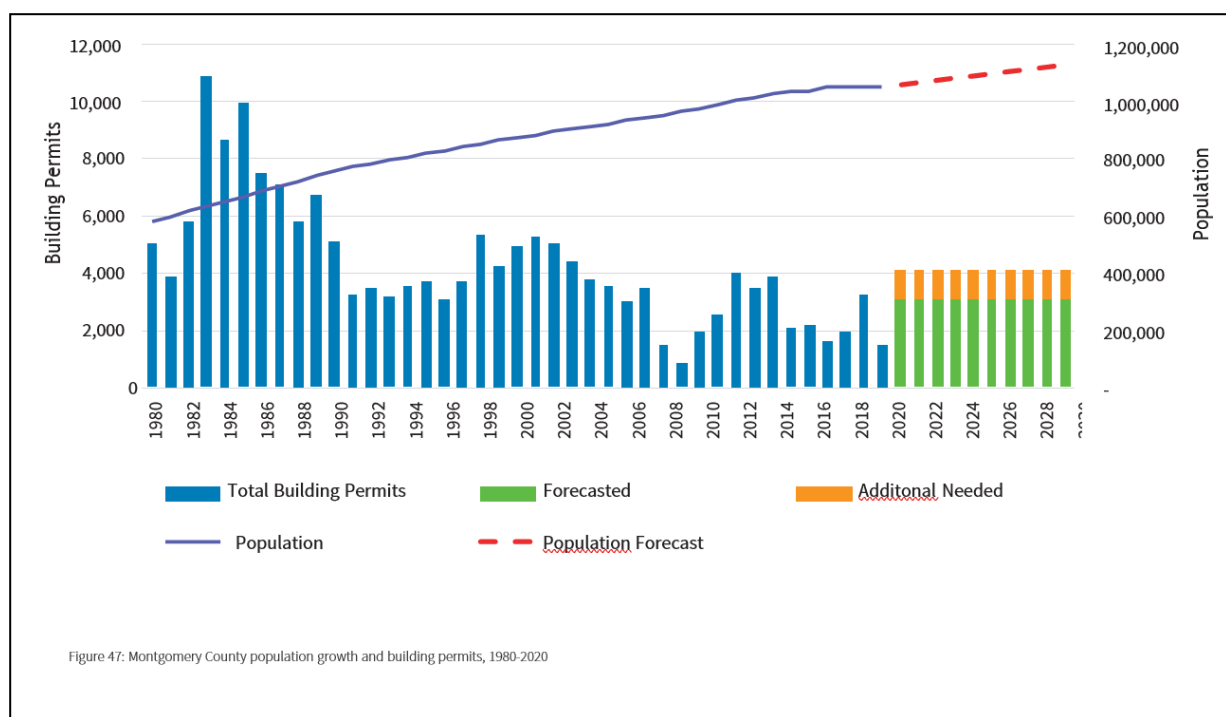
- Vehicle Miles Traveled (VMT)
- Non-Auto Driver Mode Share (NADMS)
- Average commute time, by mode
- Difference between average commute time by car and transit
- Person Trip accessibility for pedestrians and bicyclists
- Accessibility by all modes and especially via transit to jobs and amenities
- Number of traffic-related severe injuries and fatalities
- Transportation system's greenhouse gas emissions
- Miles of auto travel lanes per capita
- Teleworking
- Motor vehicle parking per unit of development
- Access to high-speed wireless networks

Note that many of these metrics have an equity component and should be evaluated through an equity lens.

HOUSING FOR ALL: More of Everything

Introduction: Housing Lags Population and Job Growth

The Washington region has experienced slow but steady growth in recent decades, even as many parts of the country have struggled to attract residents and economic opportunities. Unfortunately, the region (including Montgomery County and most neighboring jurisdictions) has not generated enough new housing – particularly housing that matches the incomes and needs of the workforce – to match this relatively moderate pace of population and job growth. From 1980 to 2018, the average number of dwellings built each year in Montgomery County has steadily declined, both in absolute terms and relative to the rest of the region. Building permits have lagged well behind the 4,200 a year average that the Metropolitan Washington Council of Governments (MWCOC) has estimated are needed to address inadequate housing production and supply.

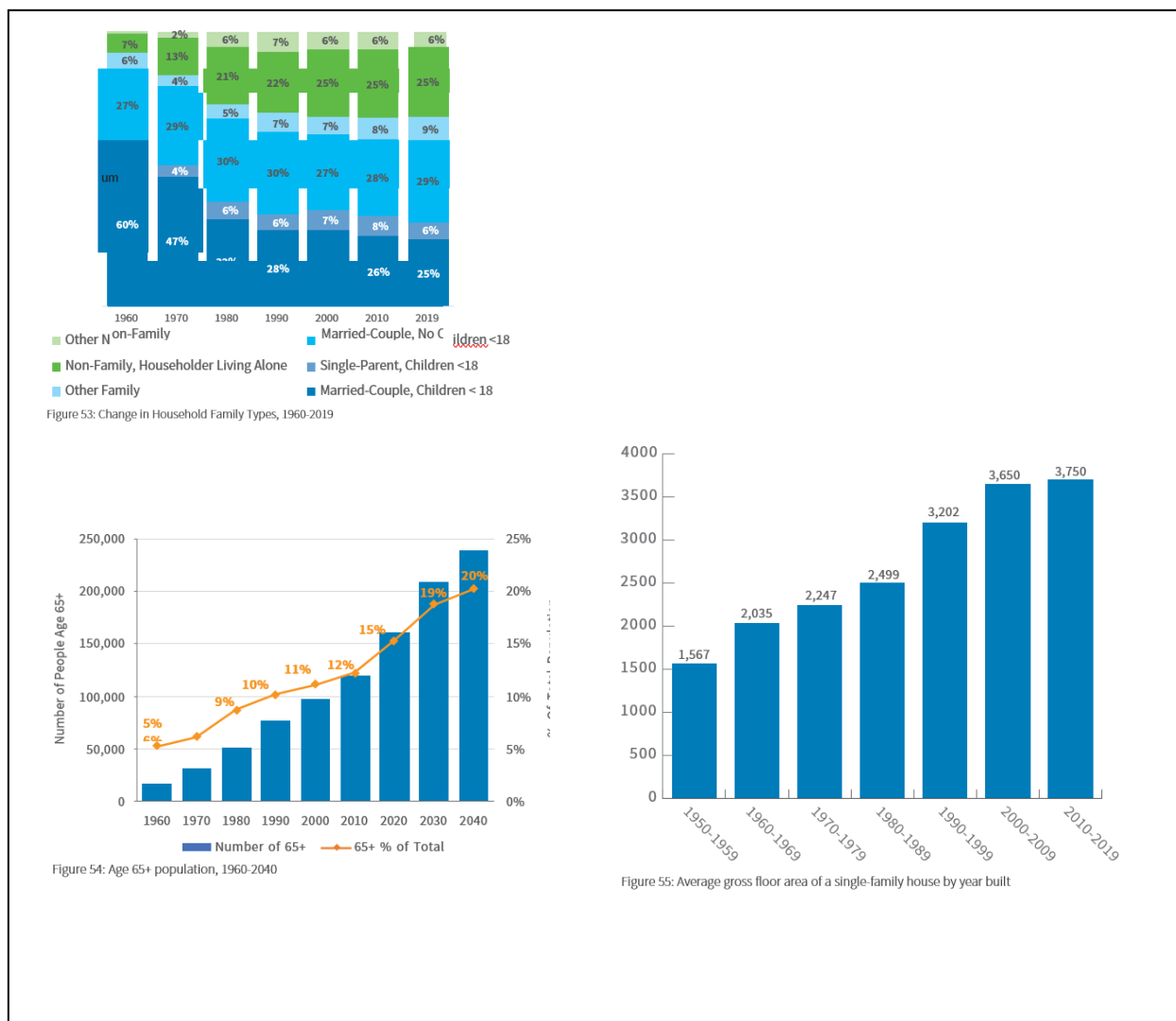


What is the problem we are trying to solve?

Montgomery County has an insufficient supply of housing. The current supply does not meet the needs of current or future households. A significant mismatch of supply and demand exists, where demand exceeds supply, raising the price of housing for both renters and those who want to own their home. While the county's median household income remains relatively high,

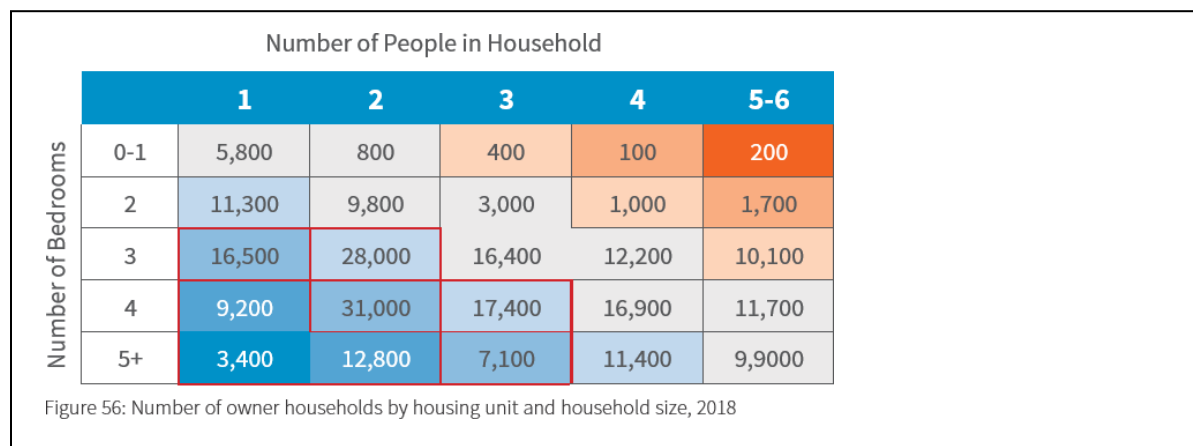
disproportionate growth in the number of households at the high and low ends of the income spectrum has created a barbell effect, with increasing numbers of low-income renters burdened by housing costs. Economic development strategies that improve incomes and employment options can help to combat this problem, but more attention and resources directed at affordable housing are also necessary. The number of households spending at least 30 percent of income on housing has continued to grow. Housing price increases have outpaced growth in incomes, leading some people to leave the county in search of more affordable places to live. Homeownership rates have been in decline, especially for adults under the age of 35. The obstacles faced by young workers in finding housing they can afford makes it harder for employers to attract and retain the employees they need, hurting our economic competitiveness.

The county's housing challenges are not limited to the slow pace of new construction. Social and economic changes have opened a growing gap between the living patterns of the early 21st century and the housing stock of earlier generations. The typical family household of the 1950s, consisting of a married couple with children living at home, represents a steadily diminishing share of all households. The percentage of households consisting of one person living alone increased from seven percent in 1960 to 25 percent in 2019, partly as a result of a trend toward deferring marriage and childbirth, and partly because a larger number of older people are divorced or widowed. While household configurations have remained fairly stable since 1990, the percentage of households consisting of a married couple with children has fallen from 28 percent to 23 percent and the percentage of households consisting of one person living alone has increased from 22 percent to 25 percent. These trends plus an increasing population of County residents over age 65 suggests average household size is decreasing and will likely continue to fall.

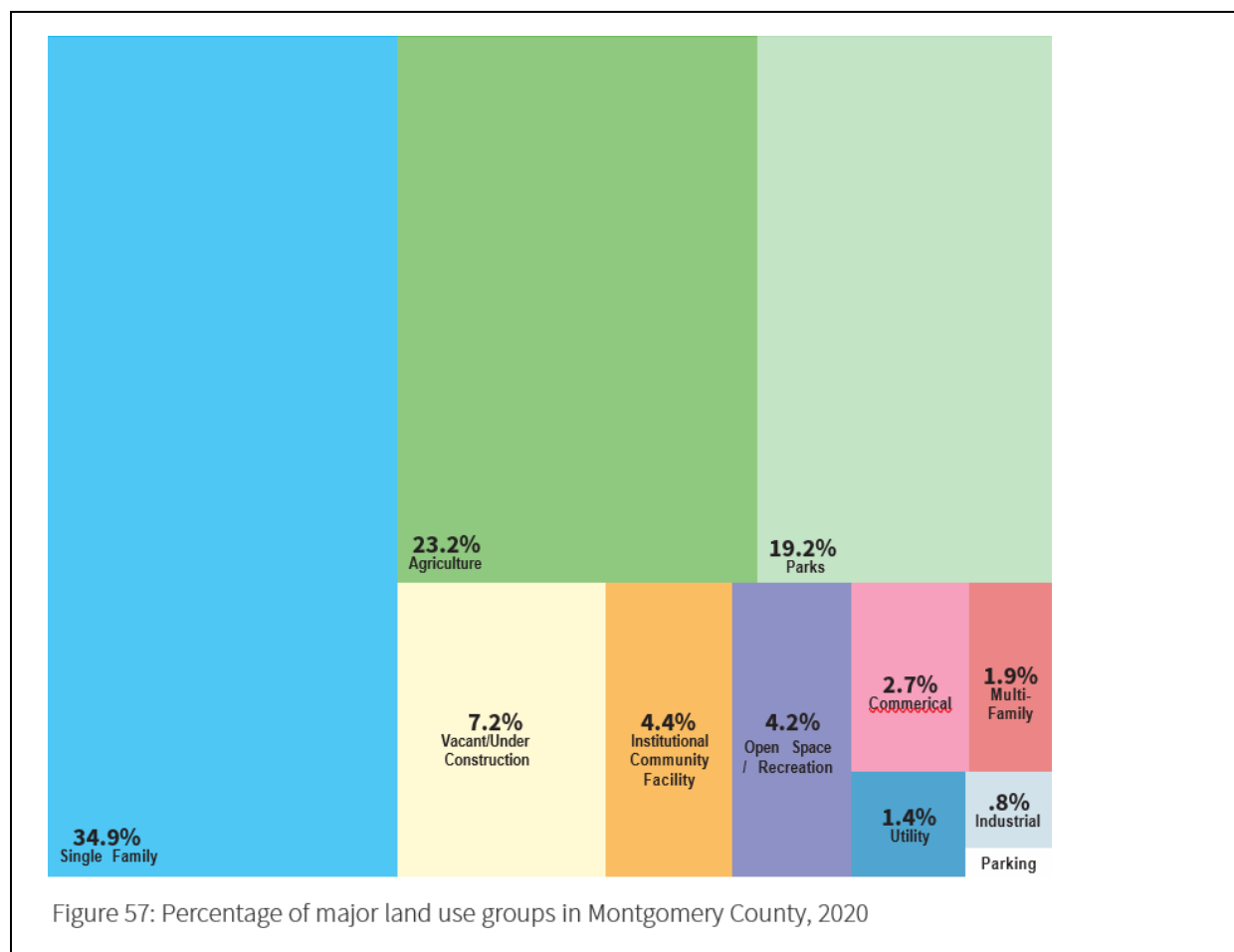


Despite the shrinking size of households, new single-family homes are getting larger, with single-family dwellings making up two-thirds of the county’s housing stock. Options to buy a starter home are limited. So are options to downsize. By some estimates, as many as one in three owner households are “over-housed”- that is, they have at least two more bedrooms than residents. With more than one-third of the county’s land area zoned for single family housing, more than ten times the area zoned for mixed use development, our ability to provide a greater variety of housing units in desirable locations is constrained. This limits the ability of long-time residents who want to relocate to a different type of home in their neighborhoods, and limits the availability of starter homes.

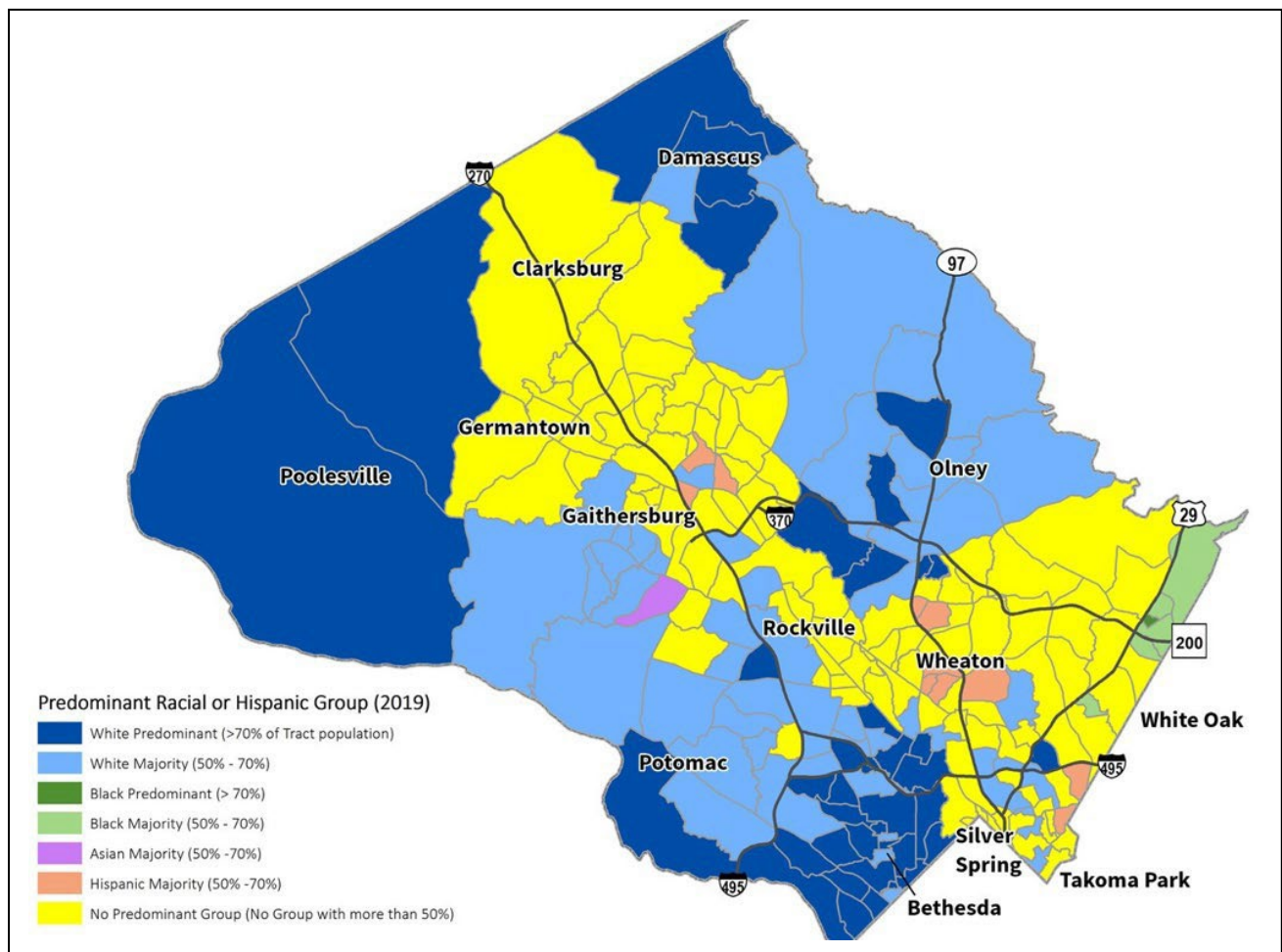
80,000 owner households or 32 percent of owner households, are over-housed, compared to only 3

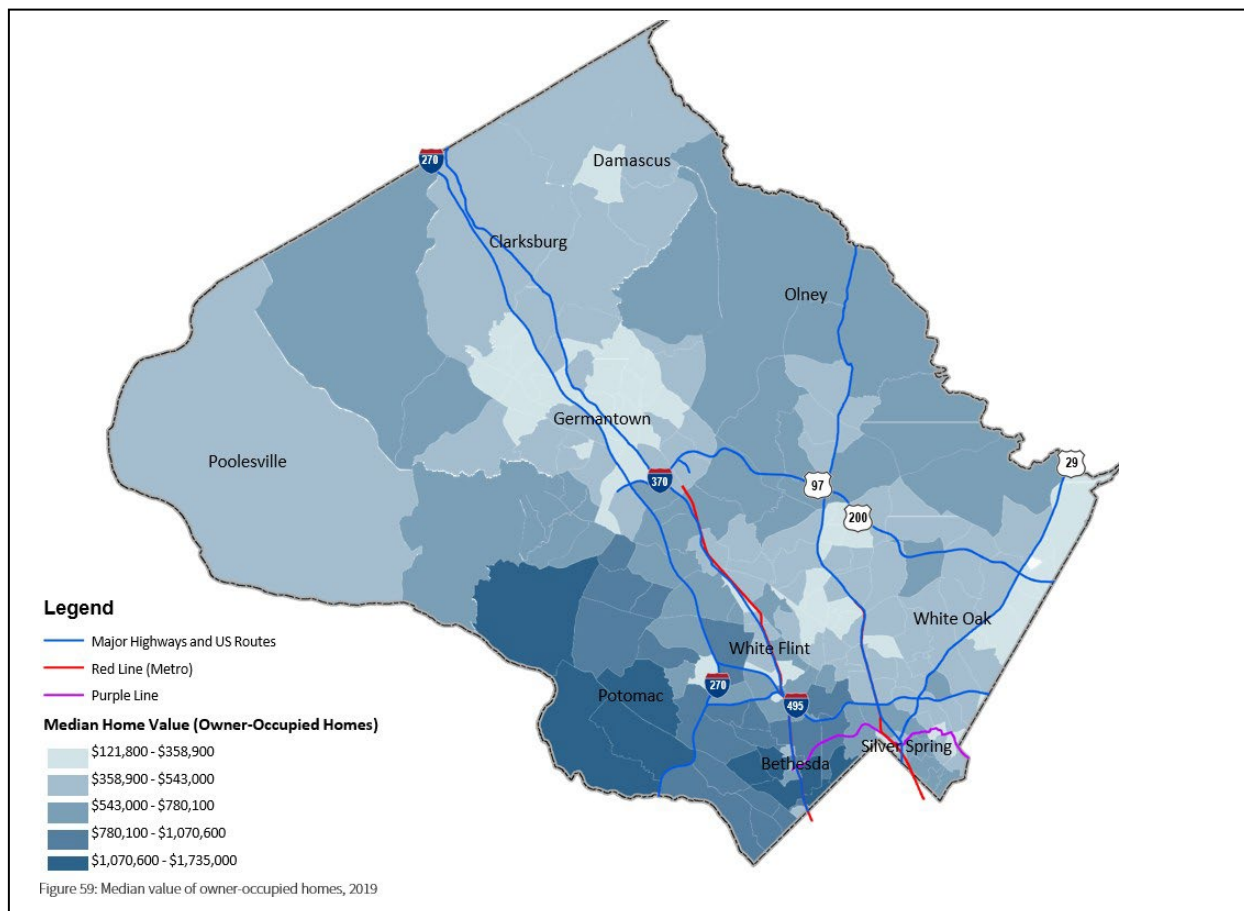


percent of renters households by the same measure.



The high cost and limited variety of available housing exacerbate inequality and segregation by race and economic class. Home prices vary widely in different parts of the county, closely tracking the racial and economic characteristics of neighborhoods, with white residents living in more expensive neighborhoods with better access to jobs, schools, and transportation options than the residents of less expensive neighborhoods, which are home to a disproportionate number of the County's African American, Latino, and other resident of color. These inequities reinforce the legacy of racism and both de facto and de jure segregation and continue to influence the geographic distribution of opportunities and resources, too often leading to inequitable outcomes in educational attainment, economic opportunity, and public health.

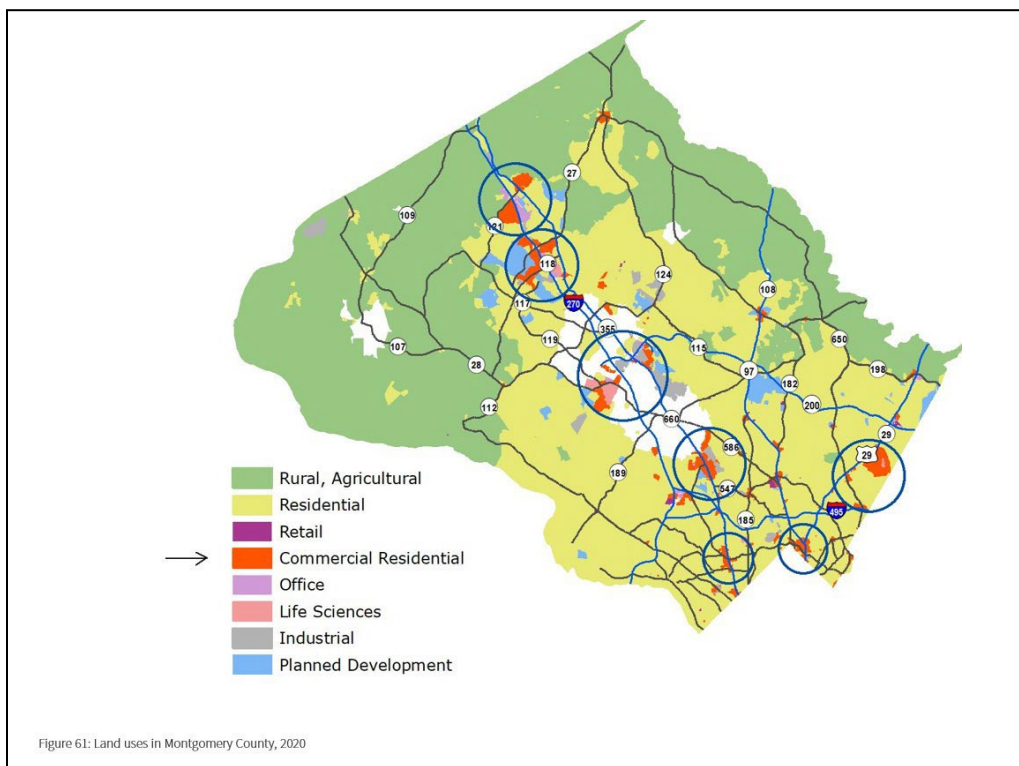
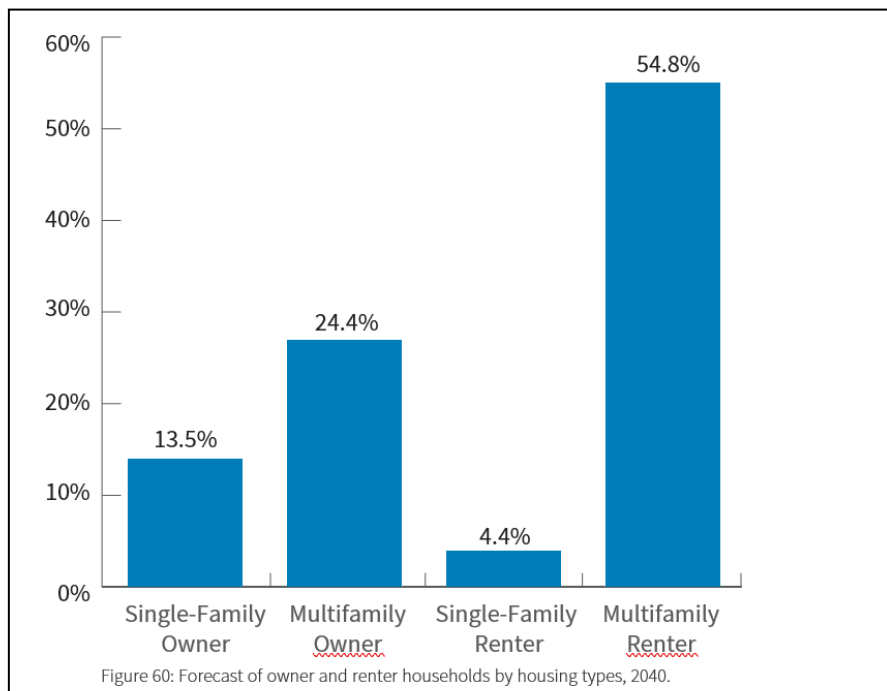




Without more housing in general and an increase in the availability of smaller, less expensive housing in particular, housing will become less affordable to a broad swath of the county's residents. Some will leave the county, either commuting long distances from home to work or departing the region in search of a more affordable place to live. Others will struggle with the burden of paying their rent or mortgage, reducing their standard of living.

Between 2020 and 2040, Montgomery County is expected to add 63,031 new households, both working households and non-working households, with new residents who are seniors or persons with disabilities.

Over the 2020 to 2040 period, forecast assumptions suggest that Montgomery County will need to add the following types of housing units to accommodate the forecasted households.



What policies will solve the problem?

Montgomery County needs housing at a wide range of prices. The current crisis of housing affordability affects households at all income levels, not just low-income households. The term affordable housing, generally used for subsidized housing, does not encompass the housing needs of middle-income households that constitute the largest segment of the county's population who are hurt by rising housing costs and limited supply. All non-subsidized market rate housing needs attention if Montgomery County is going to change the current trajectory of housing affordability. Montgomery County must view access to safe, affordable, and accessible housing as a basic human right. Every resident of Montgomery County should have a place to call home and no resident should be homeless.

By 2045, people of color are forecast to make up 73 percent of the county's population, with a significant percentage of these residents earning less than \$50,000 a year. Without economic strategies that are successful in reducing the projected percentage of households at low incomes, about half of all new dwellings will need to be rental units in multifamily buildings (including both apartment and townhome, duplex, triplex, and quadplex units) and more than one quarter will need to be for-sale units in multifamily buildings (including condominiums and other attached and semi-detached building types) in order to match the amount and types of housing to the needs of our residents. Expansion and diversification of our housing stock is an essential step toward reducing racial and socioeconomic inequality.

In order to address the county's need to increase the amount and variety of housing, the county should pursue the following policies and actions:

Encourage the production of more housing to better match supply with demand

- Expand opportunities to increase residential density, especially along major corridors and in locations where additional housing can assist in the development of Complete Communities. (Ec, Eq, Env)
- Increase the number of income-restricted affordable housing units, especially for low-income households with particular attention to high-income areas to ensure that people who work in retail, service and other low-wage earning employment sectors have the option not to commute. (Eq,)
- As part of the commitment to the Housing First approach, develop strategies to build deeply affordable housing and provide permanent supportive housing in support of unsheltered populations and those who may be aging out of youth programs. (Eq,)
- Support building code amendments that reduce costs by accommodating innovative construction methods and materials including modular prefabricated housing and mass timber. (Eq, Env)
- Continue to prioritize use of public land for co-location of housing and other uses, particularly where government agencies design new facilities or dispose of real property.

Consideration of increased opportunities for housing low and very low-income households should be included in the analysis of how best to leverage county assets. (Eq, Env)

- Increase regulatory flexibility to incentivize residential infill, redevelopment, and repositioning of office parks, shopping malls, and other underutilized properties. (Ec, Eq, Env)
- Provide financial and other incentives to boost housing production for market rate and affordable housing, especially near transit and in Complete Communities. (Ec, Eq, Env)

Plan for a wide range of housing types and sizes to meet diverse needs

- Facilitate the development of a variety of housing types in every part of the county but especially in areas near transit, employment, and educational opportunities. (Ec, Eq, Env)
- Support creative housing options including personal living quarters and/or micro units; “missing middle” housing types such as tiny houses, cottages, duplexes, multiplexes, and small apartment buildings; shared housing, cooperative housing, co- housing, and accessory dwelling units (ADUs), to help meet housing needs and diversify housing options throughout the County. (Ec, Eq, Env)
- Consider features of other housing models such as social housing that, in addition to providing long-term affordability for low and moderate-income households, emphasizes architectural quality, environmental performance, and social stability. (Eq, Env)
- Encourage provision of multi-bedroom units suitable for households with children in multifamily housing. (Eq, Env)
- Integrate people with disabilities, people transitioning from homelessness, and older adults into housing with appropriate affordability, amenities and services sized and designed to accommodate their households. (Eq)

Promote racial and economic diversity and equity in housing in every neighborhood

- Adjust the applicability of the Moderately Priced Dwelling Unit (MPDU) program and other affordable housing programs to provide price-regulated units appropriate for income levels ranging from deeply affordable to workforce. (Ec, Eq,)
- Evaluate incentives and housing programs like the Moderately Priced Dwelling Unit (MPDU) program to align County housing programs, incentives, and tools with future housing needs. (Ec, Eq,)
- Develop targeted strategies to minimize gentrification and displacement while promoting integration and housing choice and avoiding a concentration of poverty. (Eq,)
- Refine regulatory tools and financial and other incentives with the goal of minimizing displacement and avoiding a net loss of market-rate and income-restricted affordable housing stock without creating disincentives for the construction of additional units. (Eq,)

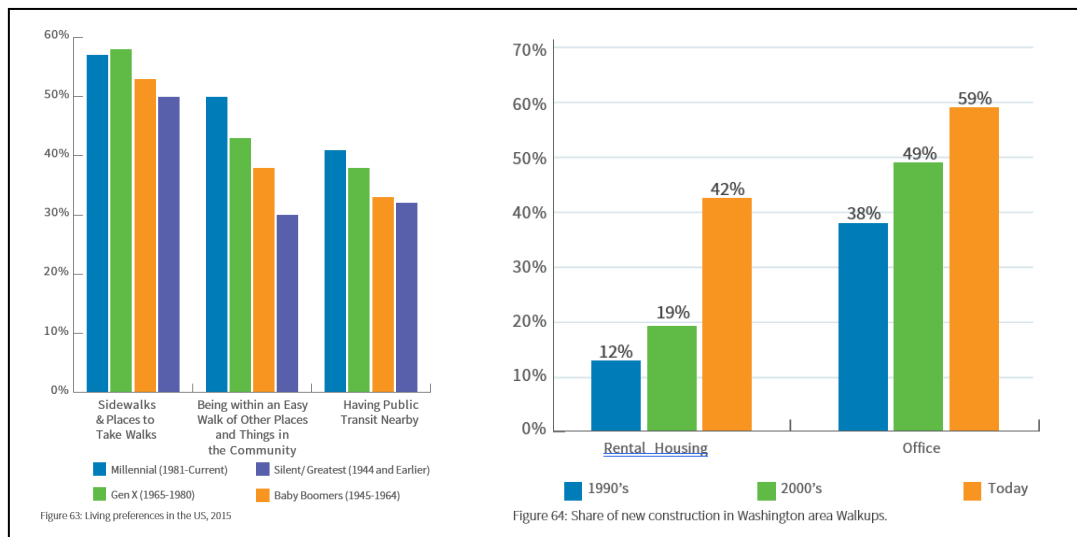
- Identify and allocate additional revenue for the Housing Initiative Fund (HIF) and other county programs to meet the needs of low-income households. (Eq)
- Expand existing programs designed to increase access to homeownership, especially among low-income residents, people of color, and young adults; create new programs and entities such as community land trusts to maintain long term affordable homeownership opportunities. (Eq)
- Support and strengthen housing code regulations and tenant protections to ensure healthy and fair housing. (Eq)
- Examine options to expand housing access through the elimination of fair housing barriers and enforcement of fair housing laws to protect residents from discrimination. (Eq)
- Evaluate methods to maintain affordability in rental housing throughout the County. (Eq, Ec)
- Improve collection of data on neighborhood change to monitor and address involuntary displacement, disinvestment, and related phenomena. (Eq)

How will these policies serve the goals of Thrive Montgomery 2050?

A healthy supply of housing that is suited to meet the needs of households of different sizes, incomes, needs, and preferences is central to achieving Thrive Montgomery's key objectives:

Housing Supports the Workforce Needed to Grow Our Economy

First, increasing the supply of housing near transit, jobs, and amenities will improve the quality of life for everyone in the county while helping to attract and retain the broadly skilled workforce that employers need, helping to make the county more economically competitive. The increased demand for walkable neighborhoods with a mix of uses – especially near transit – is well documented. Housing in “Walkable Urban Places (WalkUPs)”, command prices 71 percent higher per square foot than other locations in the Washington area, reflecting both the desirability and relative shortage of these kinds of places. By concentrating more housing of different sizes and types near high-quality transit corridors, we can provide housing that will help keep the most productive workers in the county, curb escalating prices in the most desirable locations, and improve accessibility of jobs, transportation, and services.



A Range of Housing Types Priced for a Range of Incomes Is Essential to Integration and Equity

Second, the construction of a wider variety of sizes and types of housing and a focus on affordability and attainability will help diversify the mix of incomes in neighborhoods across the county, improving access to services, amenities, and infrastructure for low- and moderate-income residents, who are disproportionately people of color.

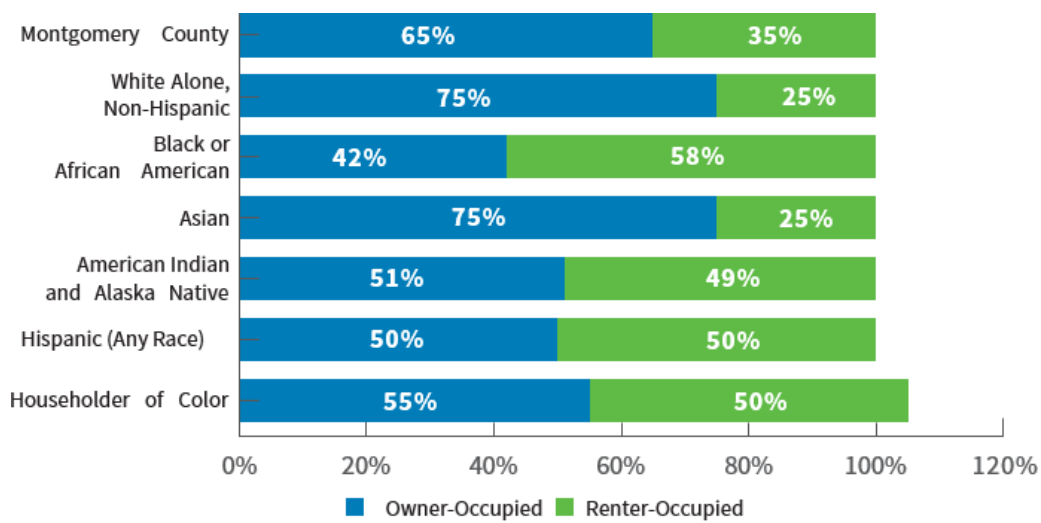


Figure 65: Rate of homeownership by race, 2017

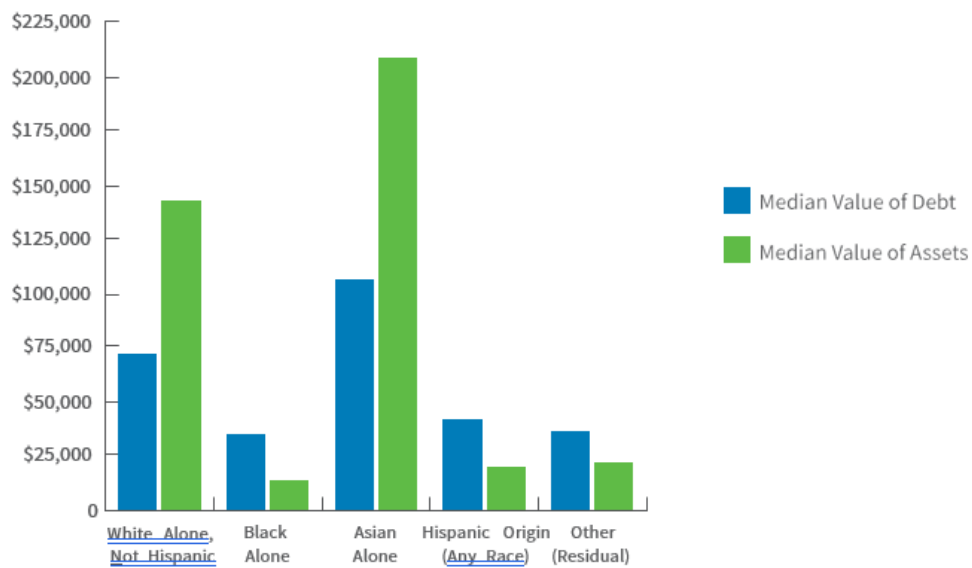
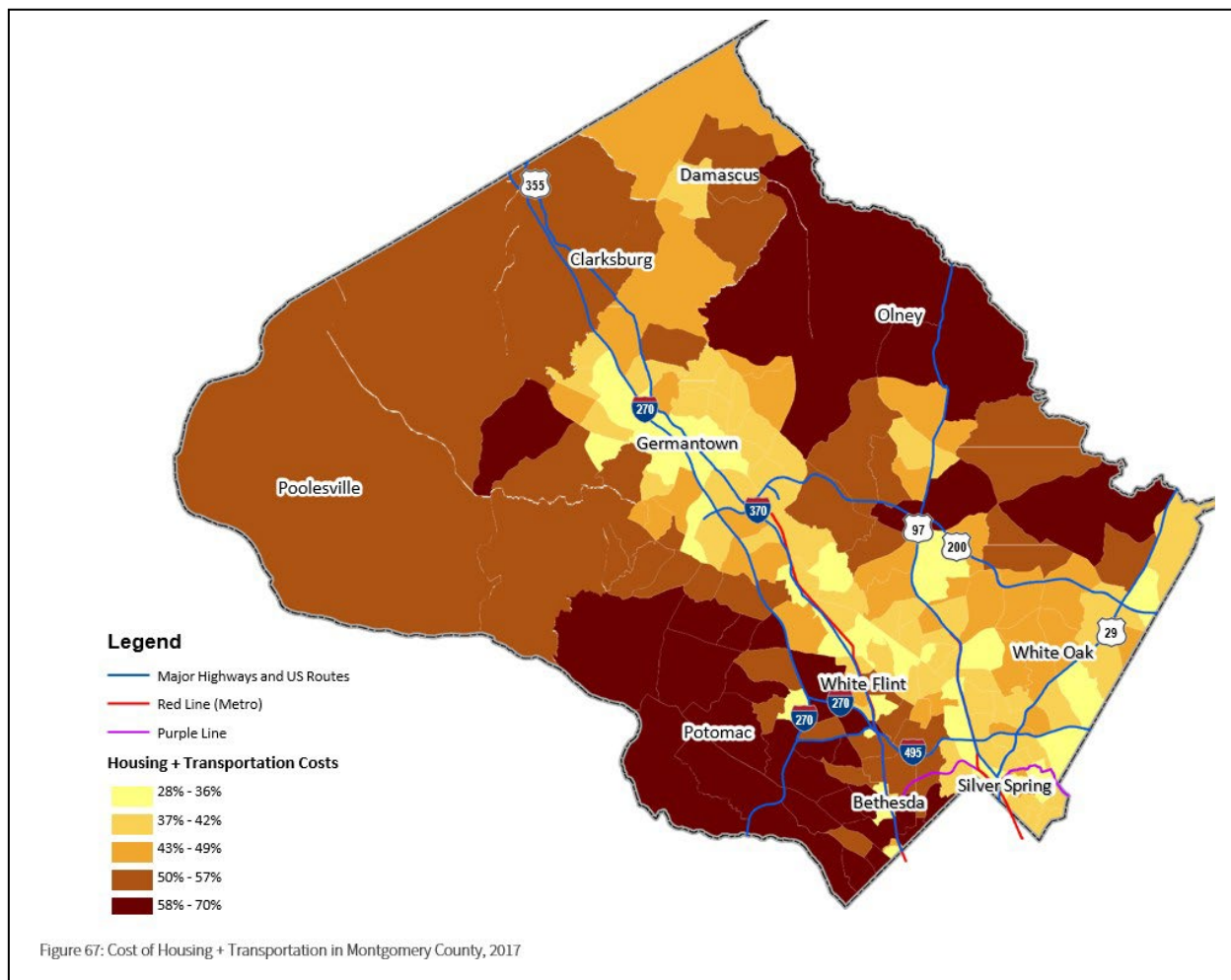


Figure 66: Wealth accumulation and debt by race, 2016



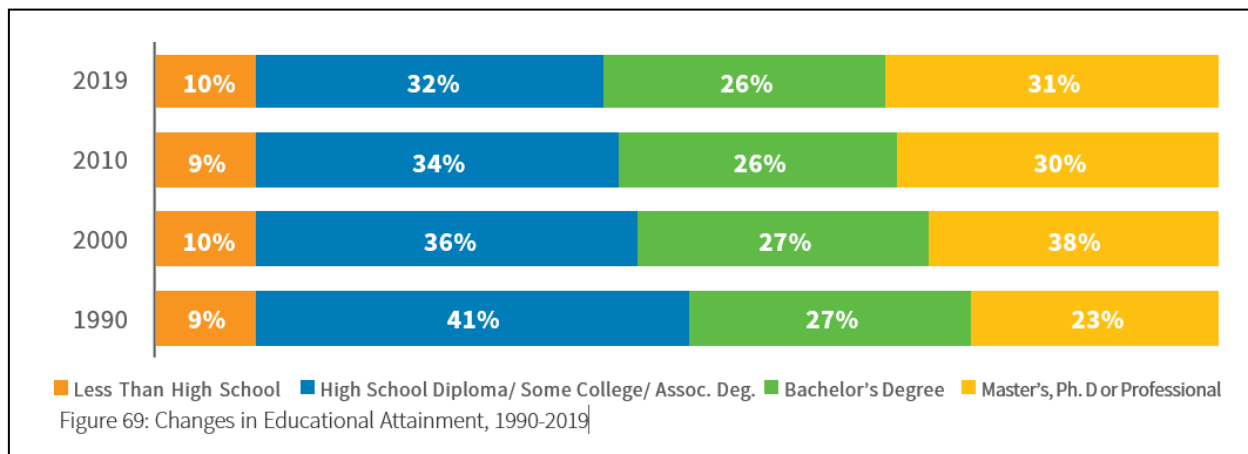
Adding more “Missing Middle” housing types – ranging from low to medium densities such as accessory dwelling units (ADU’s); duplexes; triplexes; quadplexes; live-work units; and clustered housing such as townhouses, courtyard dwellings and smaller apartment buildings to more neighborhoods is intended to provide more choice, enhance intergenerational interaction, promote aging in place, and build social capital.

Missing middle housing will not necessarily be “affordable” in the same sense as price- or income-restricted units that receive public subsidies or are covered by the county’s moderately priced dwelling unit program, but it can fill crucial gaps in the housing market. For first-time buyers who struggle to save enough for a down payment on a large, single-family house, a duplex or tiny house can provide an accessible point of entry to home ownership. For empty nesters who want to downsize but cannot find a smaller, less expensive home in the neighborhood where they raised their family, a small apartment building or a courtyard bungalow could provide a welcome alternative to relocating from the area.

Of course, missing middle housing by its nature is highly likely to be more affordable than single-family detached houses in the same neighborhood because these housing types require less land, employ relatively inexpensive wood frame construction, and are designed for people looking for smaller and more efficient living spaces. We need less expensive alternatives to single-family detached dwellings because a wider variety of options accessible across the spectrum of incomes, family sizes, and lifestyles will make the housing market function more effectively for all of our residents at every stage of their lives.



Preservation of both naturally occurring and regulated existing affordable units will minimize gentrification and displacement as these communities see future investments in transit infrastructure, schools, and amenities. Building new affordable housing for families in existing amenity-rich neighborhoods will expand access to quality education for a wider range of students, leading to more integrated schools and helping close the achievement gap for people of color. Over time, these efforts are expected to minimize de facto segregation based on income between school districts and encourage greater social mobility. Mixed-income housing in communities lagging in investment will help mitigate the concentration of poverty and enhance access to amenities and recreational opportunities for current residents.

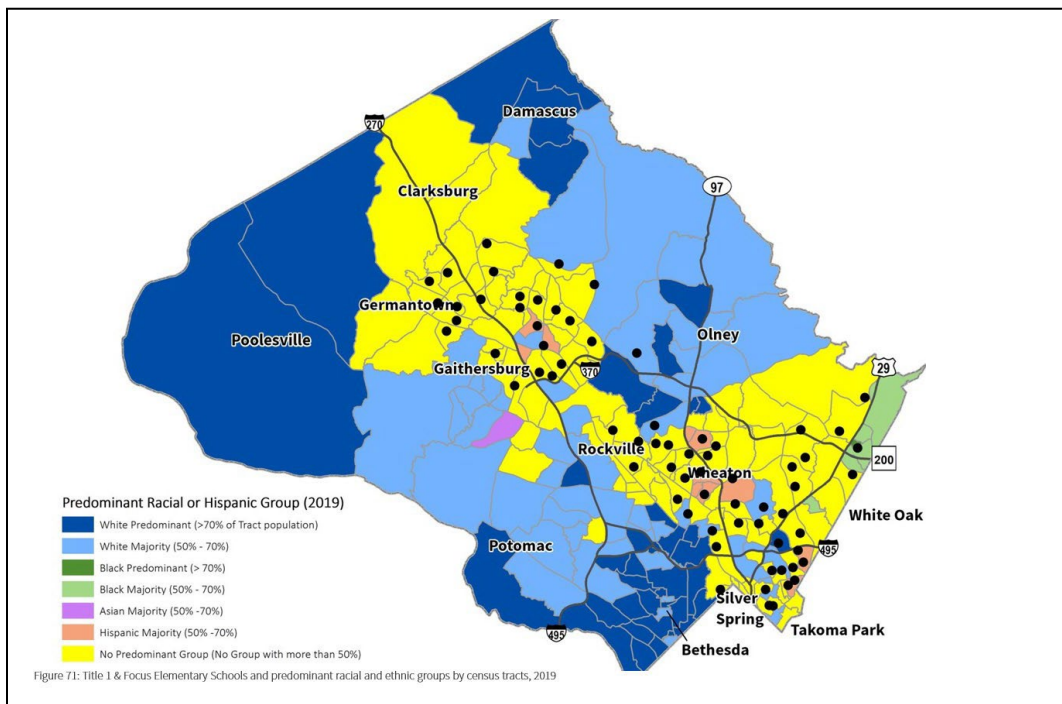
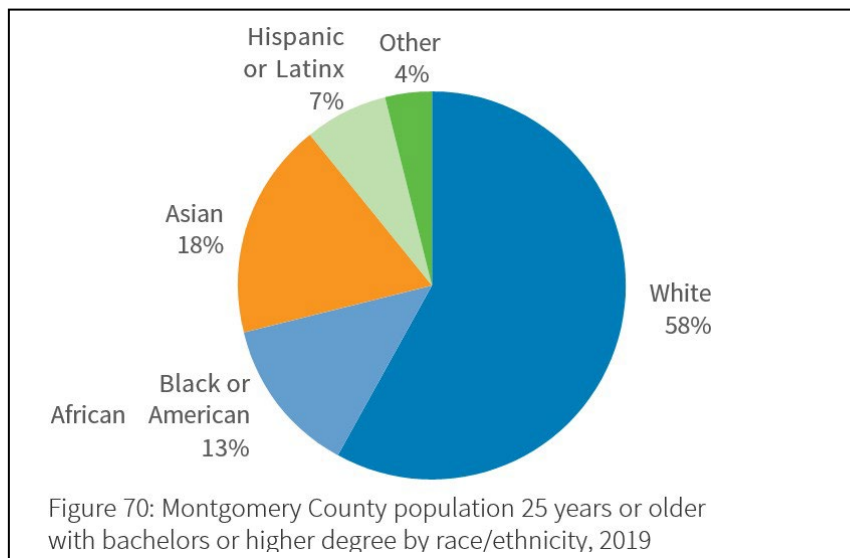


A Wider Variety of Housing Types Is Crucial to Reducing the Environmental Impact of Growth

Third, a broader range of housing types – particularly the inclusion of multifamily buildings of varying scale depending on their location – will reinforce the benefits of Complete Communities because flexible residential zoning should allow more people to live closer to work, increase the walkability of neighborhoods, and limit the development footprint on the environment. By allowing smaller residences and more multifamily building types, encouraging infill and repurposing, and adding housing near transit and jobs, these recommendations will collectively reduce greenhouse gas emissions and improve other measures of environmental health. New construction can also help mitigate environmental impacts by increased use of stormwater management, use of clean building materials and technology, more energy efficient lighting and appliances, and plumbing fixtures that conserve water.

Historically, many people who fill critical jobs in Montgomery County, such as teachers, police and first responders, and the service workforce have lived in more remote parts of the County or outside Montgomery County altogether, driving long distances to reach their places of employment. Creating a wider range of more housing options through infill, redevelopment and adaptive reuse of existing buildings should provide these workers the opportunity to live closer to their employment, which would also reduce vehicle miles traveled while using valuable land more sustainably.

Montgomery County's naturally occurring affordable housing can also play a role in mitigating its environmental impact as the housing ages. The rehabilitation of these facilities presents an opportunity to shepherd in environmentally sustainable practices. Rehabilitation offers environmental benefits through adding more eco-friendly and modern features, like newer appliances and HVAC systems.



How will we evaluate progress?

In assessing proposals related to the supply of housing and measuring the success or failure of the approaches proposed in this plan, relevant measures may include:

- Rates of homeownership by race, income, age, and area

- Number of and proportion of cost-burdened households disaggregated by race, income, and age
- Combined housing and transportation costs disaggregated by race
- Rent and mortgage payments as a proportion of household income disaggregated by race, income, and age
- Number and percent of low-income households in a census tract (concentration of poverty)
- Number and percent of low-income households lost in a census tract over a period of time (displacement)
- Racial and income diversity across a variety of communities throughout the county
- Proportion of housing units proximate to transit routes and job centers
- Number of residential units issued building permits, overall and by area of county
- Number of affordable units by type, overall and by area of county
- Naturally Occurring Affordable Housing preserved, overall and by area of county
- Number of homeless residents
- Proportion of missing middle housing units and units in multifamily buildings
- Range of home prices by housing type
- Greenhouse gas emissions and energy use from residential buildings and transportation per capita

PARKS AND RECREATION: For an Increasingly Urban and Diverse Community- Active and Social

Introduction: Evolving and Expanding Roles for Parks and Recreation

Montgomery County has long been a leader in adopting forward-thinking policies for the preservation of land for parks, recreation, agriculture, and resource conservation. The M-NCPPC has won the National Recreation and Parks Association Gold Medal for the country's best large parks system a record six times. Like other aspects of planning, however, the success of our approach to parks, recreation and open space must continue to evolve to meet changing needs.

The story of the Parks Department closely tracks the ways in which American suburbs – and the attitudes, lifestyles, and values of their residents – have changed:

- In the 1920s and 1930s, developers of early down-county subdivisions dedicated stream valley floodplains to the M-NCPPC. The resulting parks helped to market these subdivisions and provided a place for water and sewer infrastructure along with parkways for pleasure driving. This was a period when restrictive covenants were used in some residential neighborhoods to exclude racial and religious minorities, and public recreational facilities such as swimming pools were also often segregated.
- In the early post-war period, Montgomery County's role as a bedroom community for a growing capital city increased demand for organized recreation in park activity buildings, ballfields, and tennis courts. The development pattern throughout these early decades of the Parks Department's history was characterized by subdivisions of single-family homes with backyards grouped by residents with similar income and social structure and designed with the assumption that residents could, would and should drive to major amenities.
- By the 1960s and 1970s, the influence of the environmental movement – sparked in part by Silver Spring's Rachel Carson – led the park system to devote more attention to resource stewardship. The 1980s and 1990s saw the introduction of "smart growth" and increased appreciation for the benefits of a compact form of development, with park acquisition and the Agricultural Reserve working together as part of a comprehensive approach to land conservation policy as a tool to protect the environment and discourage sprawl.
- By the mid-1990s, the Parks Department had begun to recognize the importance of preserving and interpreting significant sites in local African American history. For example, it established the Underground Railroad Trail and related programming to help tell the story of slavery and emancipation as these events played out in Montgomery County. The Department did not, however, give much thought to disparities in the distribution of recreational opportunities or access to nature.
- At the turn of the 21st century, the desire to revitalize central business districts led the Parks Department to plan and build more urban parks, initially as "buffers" to protect abutting

single-family neighborhoods from more intensive – or simply different – types of development such as apartment buildings, townhouses, or commercial uses.

- In recent years, the Parks Department has developed analytical tools such as “equity mapping” to ensure racial, socioeconomic and geographic equity in parks and recreation budget and programming decisions. Projects like the Josiah Henson Museum and Woodlawn Manor Cultural Park help to educate residents about the history and legacy of slavery, and staff with deep expertise in historic preservation, archeology, and cultural programming work to document the stories of African Americans and their role in the county’s history.

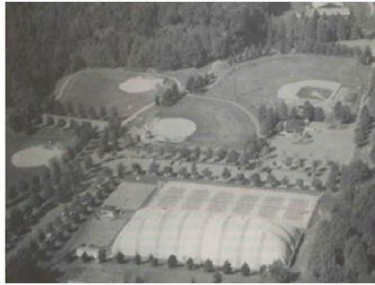
Montgomery County Parks Timeline 1930 to 2010

1930s-1940s



Stream Valley Parks
Water Protection

1950s-1960s



Regional Parks
And Athletic Fields

1970s



Neighborhood Parks

1960s-1970s



Environmental Awareness

1980s-1990s



Smart Growth
Open Space Preservation

2000s-2010s



Urban Park Shortage

What is the problem we are trying to solve? Closing the Gaps in Park and Recreation Planning to Meet the Needs – and Serve the Values - of a Changing Community

The Parks Department has built a well-deserved reputation for environmental stewardship, and it has made progress in providing a wider range of recreational opportunities, such as cricket, to meet the needs of a more culturally diverse population. It has room, however, for improvement:

- Our highest density areas are far from most parkland, which is difficult to reach without access to a car.
- Conservation-oriented parks can include carefully designed trails and other low impact recreation areas; however, many of these parks lack appropriate access for hikers and bikers, limiting their availability to the greater public.
- Parks conceived as buffers often act as separators rather than gathering places for people.
- Park facility standards and acquisition strategies conceived during a period of greenfield expansion are incompatible with infill development and adaptive reuse of sites.

Meanwhile, the role of land conservation and stewardship in addressing the county's environmental sustainability goals is as important as ever. Urban redevelopment and infill will reduce the environmental impact of future growth by reducing greenhouse gas emissions and help reverse the damage from earlier development by incorporating modern state-of-the-practice stormwater management features. Nonetheless, the environmental performance of green infrastructure on public land must keep getting better to improve water quality, limit property damage and erosion from flooding, and add tree and forest cover.

In addition to maintaining its leadership role in environmental management, the Parks Department must continue to take on new roles:

- Improve service to residents of downtowns, town centers, and other intensively developed areas
- Focus on social engagement and community building as a central role of parks and recreation
- Encourage vigorous physical activity for people of all ages, abilities, and cultures

Over the coming decades, our challenge is to acquire, develop and program parks, recreation, and privately owned public spaces that provide a range of active recreation and community building opportunities throughout the most intensively developed parts of the county while continuing to apply sound environmental stewardship practices to public lands.

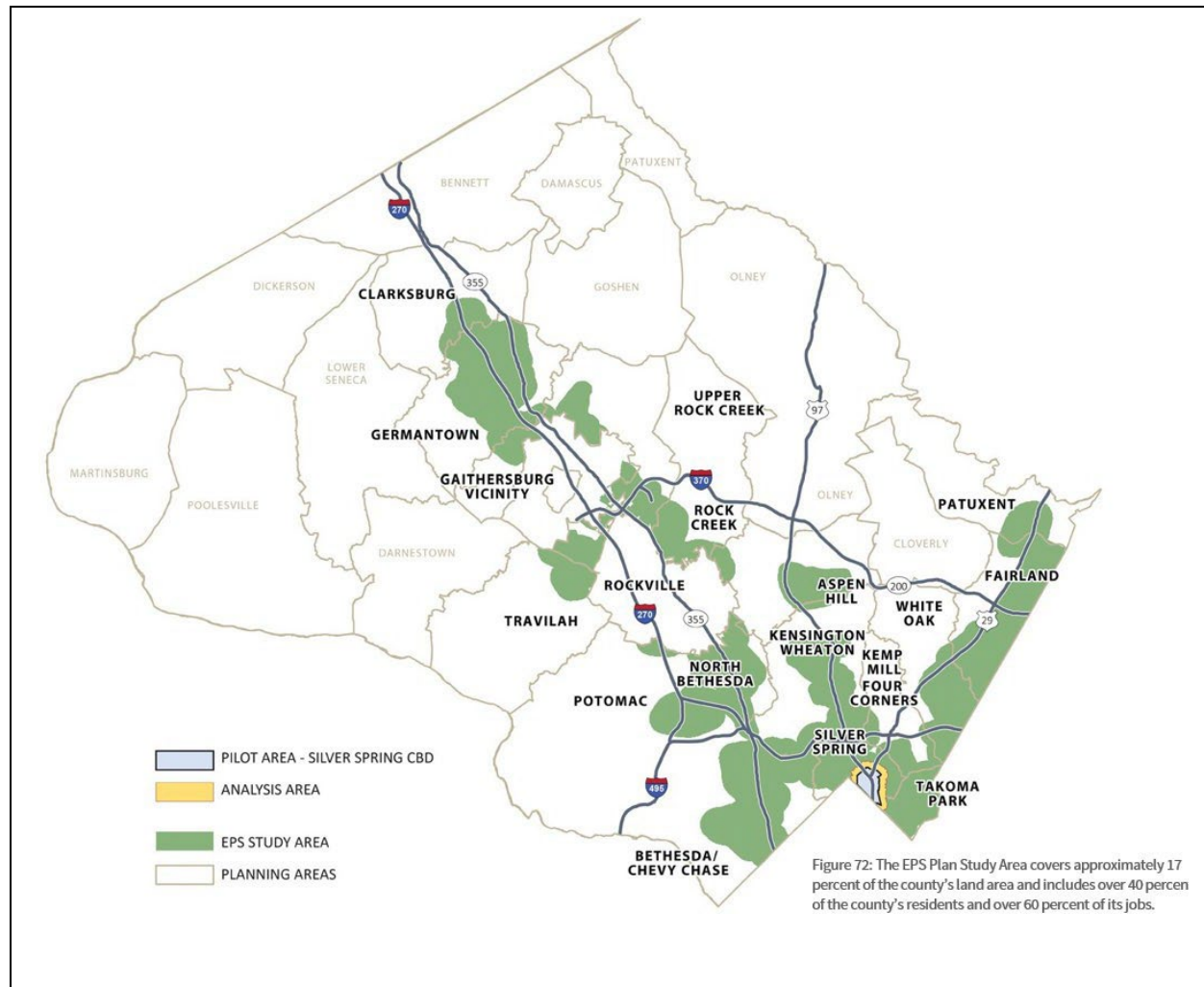
What policies will solve the problem?

In order to maximize the contributions of parks and recreation towards creating strong communities with lasting value, the county will pursue the following policies and practices:

Focus on creating high quality urban parks.

- Prioritize acquisition of land for parks in urban centers and other intensively developed places along growth corridors and in Complete Communities using the Legacy Urban Space CIP commitment, the Energized Public Spaces Functional Master Plan (EPS Plan) and the Parks, Recreation and Open Space (PROS) Plan as starting points. (Ec, Eq, Env)
- Offer programs in urban parks to encourage visitation, increase the amount of time spent in parks and make these spaces centers of activity. (Eq)
- Implement the EPS Plan to ensure that densely populated parts of the county enjoy walkable access to a full range of park experiences. (Ec, Eq)

- Integrate privately owned public spaces (POPS) with the park/recreation system to supplement publicly owned and managed gathering spaces and athletic facilities, using a range of ownership and management approaches to public space. (Eq)
- Coordinate land use and park planning to ensure Complete Communities have access to a range of park types, including athletic facilities, through a combination of public and privately owned resources.

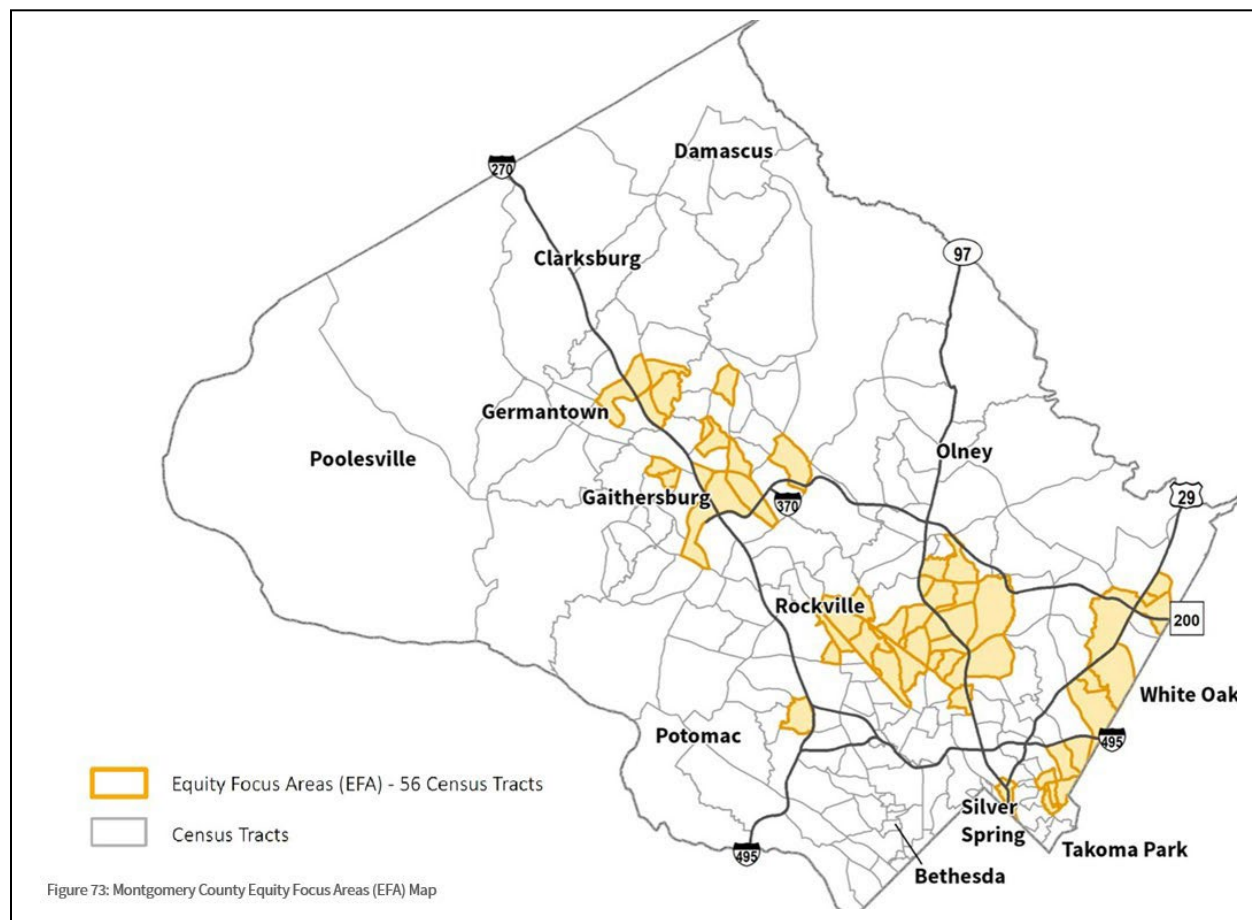


Use park and recreation facilities/programs to promote active lifestyles.

- Include active recreation as an integral element in park planning and design.
- Encourage active recreation as a key component of POPS in all parts of the county.
- Deliver park and recreation facilities and programs designed to encourage residents of all ages, cultural backgrounds, and abilities to engage in vigorous physical activity. (Eq)
- Support the continued renovation and maintenance of high-quality athletic fields.

- Integrate park trails and paths into transportation planning and better use them to connect residents to jobs, centers of activity, and other parks and trails. (Ec, Eq)
- Ensure that residents in urban, suburban, and rural areas all have access to a wide variety of parks and programs.

CDC data from 2019 indicates that only 14.6-20.5 percent of Maryland adolescents (grades 9-12) achieve one hour or more of moderate and/or vigorous physical activity daily. Recent survey data show that the percentage of children under age 12 who played team sports “regularly” has declined in recent years, from 42 percent in 2011 to 38 percent in 2018.



Ensure that parks and recreation opportunities are equitably distributed along racial, socioeconomic, and geographic lines.

- Amend the EPS Plan study area to incorporate a more refined analysis of equity in its methodology. (Eq)

- Expand and improve the use of racial and socioeconomic equity measures in developing capital budgets for park and recreation facilities. (Eq)
- Gather data on – and address – barriers to participation in park and recreation programs. (Eq)
- Improve accessibility of park and recreation facilities via walking, biking and transit. (Eq)
- Ensure that urban, suburban, and rural areas all have access to great parks. (Ec, Eq)

Make social connection a central objective for parks and recreation.

- Design park, recreation, and related infrastructure and services around building community, creating opportunities for interaction, and making parks and recreational amenities a central element of Complete Communities. (Eq)
- Connect neighborhoods and people to parks with a world-class trail network. (Ec, Eq)
- Include food/beverage in planning and programming parks and recreational facilities where appropriate. (Ec)
- Provide park amenities that appeal to visitors with different interests and physical abilities. (Eq)

Update park facility standards and acquisition strategies to align with infill development and adaptive reuse strategies.

Coordinate with county agencies to accommodate multiple needs, including recreation, education, community-building, and resource stewardship - through colocation, adaptive reuse, co-programming and other combined or shared land and facilities.

Maintain high standards of environmental stewardship in park management and operations.

- Reaffirm the Parks Department’s commitment to resource conservation, stewardship, and sustainability practices such as innovative stream and habitat restoration projects. (Env)
- Selectively acquire additional land where needed to protect sensitive natural resources, improve water quality, increase tree cover, enhance wildlife corridors, curb invasive species, and achieve other environmental goals. (Env)
- Create a resiliency plan to improve the ability of park and recreation facilities and natural resources to withstand the effects of climate change. (Env)
- Prioritize the equitable distribution of green infrastructure.

Integrate parks/rec/public spaces into economic development strategies and land use planning to attract employers and workers, build social connections, encourage healthy lifestyles, and create vibrant places, especially as part of Complete Communities.

How will these policies serve the goals of Thrive Montgomery 2050?

These policies will strengthen the role of parks and recreation in economic competitiveness, racial equity, environmental sustainability and promote an active, healthy community for all.

Parks create vibrant, economically competitive places

World-class places require world-class park, recreation, and cultural amenities. Look to Central Park in New York, Golden Gate Park in San Francisco, Millennium Park in Chicago, or Hyde Park in London and the significance of great urban parks becomes clear. Parks are essential to creating vibrant, economically competitive places. In fact, parks and the amenities they provide are regularly cited as among the most important factors influencing decisions by businesses about where to relocate or expand.

Multiple academic studies have shown that parks increase adjacent property values from 5 percent to 20 percent, providing incentives for property owners to contribute to the creation of public parkland or to build POPS as part of their development projects. This data also shows that taxpayer-funded investment in parks and related programming and amenities deliver strong economic returns on investment to the public.

Parks improve Equity, Social Interaction and Public Health

The quality and accessibility of parks is a basic component of equity in the delivery of public services. Parks are so integral to what makes a community desirable and healthy that ensuring equity in decisions about which land is acquired for parks in what part of the county and how that land is used is essential to achieving our goals for racial and socioeconomic justice. The Parks Department has made major strides in recent years in incorporating quantitative measures of equity in its capital budget recommendations, and this approach should be expanded to include analysis of programs and facilities managed by other agencies, such as Montgomery County Public Schools, the Department of Recreation, and the Department of Libraries.

Well-designed and sited parks are one of the most straightforward ways to establish a clear sense of place. They invite people of all ages, cultures, incomes, and interests to gather and interact in ways not achieved in any other location or context. Not only do they foster social connectedness, but with healthy levels of civic engagement and social cohesion, they can act as community hubs and focal points for response and recovery during natural disasters and other emergencies.

Parks and recreation also are vital to improving health outcomes for all our residents. According to the CDC, more than 60 percent of U.S. adults do not engage in the recommended amount of activity and approximately 25 percent of U.S. adults are not active at all. Because 90 percent of outdoor experiences happen close to home, parks - particularly in urban areas - play an important role in outdoor recreation. Trails for example, are a great way to motivate people to explore public spaces and new parts of the county, expose residents to different neighborhoods and encourage exercise and healthy lifestyles. Likewise, community gardens help to reduce the impact of food deserts in low-income areas, encourage physical activity and social interaction, and give residents who do not have yards access to nutritious foods that contribute to a healthy lifestyle. Access to opportunities for vigorous physical activity is especially important to improve health outcomes and quality of life for people of color, who suffer higher rates of diabetes, high blood pressure and obesity.

Parks will play a larger and more complex role in environmental management

Of course, parks also play a major role in environmental sustainability. Climate change has resulted in increased frequency, intensity and/or duration of fires, flooding and intense rain events, drought, high winds, and extreme temperatures. This rapid destabilization of climate patterns jeopardizes the ecological stability of nearly all global communities. Parks and natural areas help address the effects of climate change and enhance environmental resiliency. Stream restoration and stormwater management projects on parkland protect against flooding and improve water quality. Parks provide wildlife corridors that can account for changes in habitat patterns. Urban tree canopy mitigates thermal pollution, helps limit the heat island effect of intensive development, filters pollutants, and sequesters carbon. Habitat restoration provides wildlife with natural terrain, reduces human-wildlife conflict, and improves overall ecosystem performance.

These benefits to the natural environment are especially important in parts of the county that have not been the beneficiaries of high levels of public and private investment. Sustainability is and will continue to be incorporated into every aspect of the Parks Department's work, and it should be accomplished in ways that complement and support investments in facilities and programs designed to expand access to active recreation and social connection rather than operating in competition with or opposition to these investments.

How will we evaluate progress?

In assessing proposals related to parks and recreation and measuring the success or failure of the approaches recommended in this plan, relevant measures may include:

- Number of urban parks
- Miles of streams restored, and stormwater runoff treated
- Childhood obesity
- Stream water quality
- Urban tree canopy
- Additional miles of trails built
- Park and recreation patronage/participation by race/ethnicity, language spoken and age
- Awards and other recognition of excellence in urban parks and trails
- Patronage at community gatherings
- Proportion of population within 15-minute walk of three park experiences
- Proportion of park and recreational facilities serving equity focus areas
- Access to park and recreational facilities, including athletic fields via walking, biking, and transit
- Number of high-quality athletic fields, noting those with lights, on MCPS, County, and MNCPPC property
- Number of play spaces on MCPS, County, and MNCPPC property

Conclusion

Our community has experienced major social, economic and environmental changes over the life of the Wedges and Corridors plan, and even more dramatic shifts are on the horizon.

Thrive Montgomery 2050 establishes a framework for responding to economic, demographic, social, and environmental change in ways that are rooted in enduring lessons about what has made places successful in the past, while remaining adaptable to unforeseen circumstances. That is why the plan emphasizes the basic concepts of compact form; diversity of building types and design; and complementary transportation infrastructure instead of attempting to predict the pace and direction of technological innovation or the consequences of catastrophic events, whether natural or man-made, whose long-term effects are impossible to forecast with certainty.

This plan seeks to ensure that we are prepared to face multiple futures. This document is a guidebook, not an exhaustive list of prescriptions. It does not address every topic relevant to our future, but it provides strong direction for decisions about land use, transportation, and related issues within the ability of local government to influence.

Montgomery County has a lot going for it yet there's room for improvement

In addition to the advantages Montgomery County has enjoyed by virtue of our location in the national capital region, the County has benefitted from a tradition of thoughtful planning that has allowed us to develop and grow while preserving land and other resources in ways that have supported a high quality of life. The Wedges and Corridors Plan was exceptionally progressive for its time, and it helped us to build high quality park and school systems, preserved natural resources and farmland, and laid the groundwork for transit-oriented smart growth. Thrive Montgomery 2050 has attempted to provide an unflinching assessment of the Wedges and Corridors Plan and provide policies and practices that will build on its ideas but also address its shortcomings that have adversely impacted parts of the County.

The federal government's presence has given us a foundation of good jobs and a concentration of public investment in life sciences and information technology that provide enviable opportunities. But the stability and reliability of the base of employment tied to government should not make us complacent. Policies and investments need to capitalize on those opportunities and ensure that Montgomery County is a strong competitor with a diverse economy that brings our residents good paying jobs. Because land is scarce, there is less room for error and discipline is needed in how land is used, and design excellence can be fostered to respond to market forces and attract both businesses and residents to call Montgomery County home.

We must also address the reality that Montgomery County's prosperity has not benefited all our residents equitably. The urgency of demands for racial justice and the need to rebuild bonds of trust and community are clear. As the demographics of our community change rapidly along

dimensions of age, race and ethnicity, income and wealth, culture, and language, the need to confront inequitable practices has grown increasingly urgent.

As for environmental sustainability, Montgomery County's past record of support for water quality protection, forest conservation, and land preservation are helpful but ultimately will not be sufficient to shield us from the effects of climate change. More creative strategies to build resilience and improve sustainability of both the built and natural environments are critical.

While these economic, social, and environmental changes will not be easy to navigate, Montgomery County is well-positioned to make the decisions and investments necessary for success. Our community is in the 99th percentile of all counties in the country in terms of household income and educational attainment, with annual economic output of almost \$100 billion and an amazingly diverse population. We can draw on tremendous human and physical resources; our assets would be the envy of almost any local jurisdiction anywhere. With Thrive Montgomery 2050 as a guide, we can plan carefully and act decisively to make the changes needed to help Montgomery County thrive well into the future.

How Thrive Montgomery 2050 will be Implemented

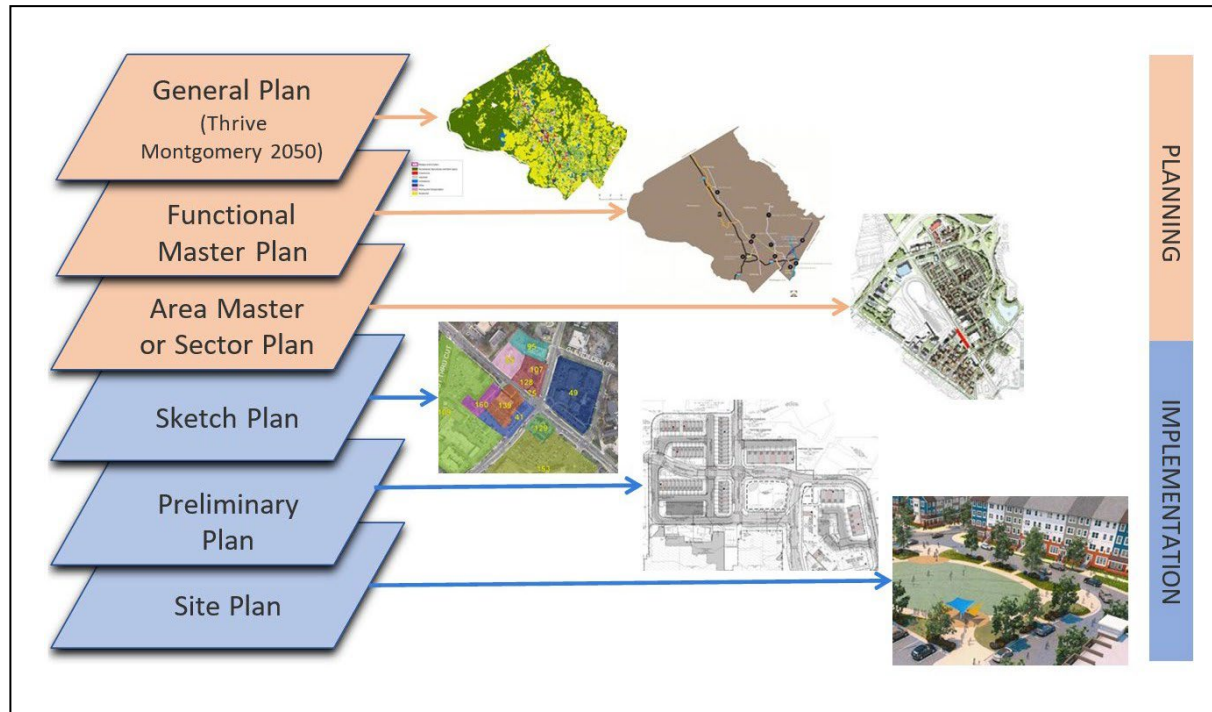
Thrive Montgomery 2050, as the County's General Plan, is a guidebook, not a roadmap. It lays out an overarching vision for the future of the county. Its policies and practices are not self-implementing. Instead, the General Plan's role in land use is to guide future decision-making and actions so that its policies become a reality on the ground. Some of these actions we know are needed now, others will become clear as conditions, opportunities, challenges, and technologies change over time. Thrive Montgomery's vision of compact growth, complete communities, and integrated design arts and culture serve as an umbrella under which tactical tools such as master plans, regulations, codes, and future development will be the building blocks for a more equitable, sustainable, compact, and walkable Montgomery County where all residents can thrive.

Cooperation among public and private sectors in implementation

Implementation of Thrive Montgomery 2050 will occur over several decades and will require changes in master plans, zoning and building codes, subdivision regulations, the adequate public facilities ordinance and many other county rules and processes – they are not made in the adoption of this General Plan.

The Planning and Parks Departments will lead much of the work, but full implementation of Thrive 2050's recommendations will require collaboration or approval of other government bodies and public input. For example, updating the zoning code will require coordination with Department of Permitting Services, while changes to street design standards require coordination with the Department of Transportation and the State Highway Administration. Agencies such as the Arts and Humanities Council can embark on the creation of a new

cultural plan, and the Department of Recreation, working with the Parks Department, will help expand opportunities for physical activity. The County Council will be asked to review and approve many of these efforts in both land use and budget decisions.



The Role of the Public and Private Sectors

Market-driven development will play an important role in implementing Thrive Montgomery 2050. Montgomery County is embarking on an ambitious effort in an age of intense competition and disruption in the private sector and shrinking fiscal capacity of government entities at all levels. To successfully implement these bold ideas, the county will need to align public and private investments to maximize their long-term benefits. Future growth will need to be focused in a compact footprint through private sector-led real estate projects. Infill and redevelopment along major corridors will create a finer-grained network of streets and add gathering spaces that complement publicly-owned parks. Property owners will retrofit outdated buildings for new uses and enhance environmental performance by redeveloping surface parking lots and incorporating stormwater management. Private investment in diverse housing types and neighborhood serving retail will fill in missing amenities and lead to more Complete Communities.

Of course, growth requires improvements and additions to public infrastructure and services. Public infrastructure is provided mainly through the county's Capital Improvements Program (CIP), but the private sector makes important contributions pursuant to the county's Adequate Public Facilities Ordinance and impact tax law, which require property developers to build, dedicate, or provide money for parks, roads, schools, and affordable housing. These rules are

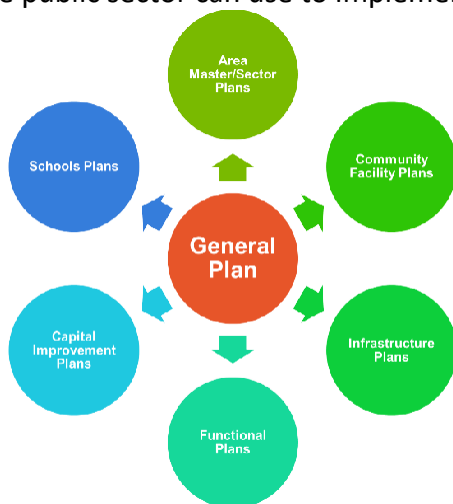
the mechanism by which new development at its inception generates revenue for the public sector to fund infrastructure improvements. New sources of funding and more effective use of county assets, such as public land and right-of-way, also may be needed. The combination of such public and private investments is the most reliable long-term strategy for creating built environments likely to attract new residents, businesses, and a skilled workforce to the County. The anticipated outcome is an economically competitive and sustainable county with a strong tax base and broadly shared opportunities.

Compliance with Maryland State Requirements for Planning

Maryland law requires local jurisdictions and agencies to meet specific standards and requirements for the exercise of planning authority delegated by the state. Thrive Montgomery 2050 complies with multiple state laws that govern requirements for comprehensive/general plans by local jurisdictions. For further details, please refer to Appendix A: Compliance with state law requirements.

Tools to Implement the General Plan

Thrive Montgomery 2050 sets a high-level policy framework to guide the future land use. While non-government entities will play a role in its implementation, the public sector—Montgomery Planning, Montgomery Parks, the Montgomery County government, and other government agencies—will all play critical roles in implementing the Plan. The following section describes the tools the public sector can use to implement the Plan’s policies over the coming decades.



Master Plans

Master plans (or area master plans or sector plans) are long-term planning documents for a specific place or geographic area of the county. All master plans are amendments to the General Plan. They provide detailed land use and zoning recommendations for specific areas of the county. They also address transportation, the natural environment, urban design, historic resources, affordable housing, economic development, public facilities, and implementation techniques. Many of Thrive Montgomery 2050’s policies and practices

cannot be implemented with a one-size-fits-all approach. Area master plans will help refine and implement them at a scale tailored to specific neighborhoods.

Functional Plans

Functional plans are master plans addressing a system, such as traffic circulation or green infrastructure, or a policy, such as agricultural preservation or housing. A functional master plan amends the General Plan and may include recommendations on land use and zoning. The Master Plan of Highways and Transitways, the Energized Public Spaces Functional Master Plan, and the Master Plan for Historic Preservation are functional plans that do not include land use or zoning recommendations; however, the Preservation of Agriculture & Rural Open Space Functional Master Plan does. New and revised functional master plans can help refine and implement Thrive Montgomery 2050 recommendations that affect county-wide systems and/or policies.

Montgomery County Code Chapter 59 – Zoning Ordinance

The division of a locality into zones is done for the purpose of regulating the use of private land. All land in Montgomery County is zoned. Within each zone, the Zoning Ordinance allows certain uses by right and allows others conditionally with approval by the Hearing Examiner. The Ordinance also excludes or limits certain uses from each zone. For each zone, the text of the Ordinance specifies the uses allowed, the density of development, the bulk of buildings, the required open space, the necessary off-street parking, and other prerequisites to obtaining permission to develop. The County Council, acting as the District Council (which has the legal oversight authority over land use), makes the final decision on changes to the Ordinance and changes to a property's zone.

The Montgomery County Zoning Ordinance is maintained as Chapter 59 of the Montgomery County Code. Updates to the Ordinance are proposed as zoning text amendments and must be adopted by the County Council. Implementing Thrive Montgomery 2050 policies will likely require changes to the zoning code.

Other Regulations

In addition to Chapter 59, other chapters in the Montgomery County Code include regulations governing land use and development in the county. Chapter 50 of the County Code contains the subdivision regulations, which govern the legal division and subsequent transfer of land to ensure new developments are coordinated with other existing and planned developments. Chapter 50 also includes the Adequate Public Facilities Ordinance which ensures transportation and public school facilities are planned and in place to serve new development.

Capital Improvements Program (CIP)

The implementation of Thrive Montgomery 2050 will require major public investments in infrastructure over many years. The Capital Improvements Program (CIP) is the mechanism by which the County plans for and funds major infrastructure projects, including new and renovated schools, streets, and parks. The County adopts a new six-year CIP on even

numbered years. The General Plan, master plans, functional plans, and the Growth and Infrastructure Policy are important planning tools for informing which projects are prioritized in the CIP. These plans provide a link between the needs for specific projects and county-wide or neighborhood development needs.

Facilities Plans

Thrive Montgomery 2050 includes guidance that applies specifically to the design, placement, and funding of public facilities. Future planning for public facilities, including County government facilities, park facilities, public schools, and Montgomery College, should reflect this guidance and direction in order to ensure they are compatible with and help implement the goals of Thrive Montgomery 2050.

Other Funding Sources

Given constraints on the amount of money the county can borrow, Thrive Montgomery 2050 recommends consideration of new sources that could fund the provision of more community amenities. The Plan recommends, for example, exploring the creation of alternative funding tools to support the acquisition and development of parks in urban areas.

Other Resources

Other county plans with tactical guidance such as the Climate Action Plan (CAP) and Economic Development Strategic Plan are key resources beyond master plans to implement the vision of Thrive Montgomery 2050.

Relationship between Thrive Montgomery 2050 and the Climate Action Plan

Thrive Montgomery 2050 was developed in coordination with the county's Climate Action Plan (CAP). Thrive Montgomery 2050 addresses generally where and how land will be conserved or developed for housing, office buildings, parks, agriculture, recreation, transportation, and other types of public and private infrastructure - decisions that have a major influence on greenhouse gas emissions, carbon sequestration, and adaptation to climate change. The CAP, on the other hand, focuses on specific near-term actions to eliminate greenhouse gas emissions by 2035 and mitigate or adapt to the effects of increased heat and flooding, high winds, and drought. Thrive Montgomery 2050's climate change-related recommendations will be implemented in concert with the CAP.

Modifications to other plans, policies, and rules

As stated many times already, Thrive Montgomery 2050 is a broad policy document and does not, in and of itself, change land uses, zoning or transportation. Key to implementing Thrive Montgomery 2050, Montgomery County will need to undertake a variety of future actions. These actions will guide the priorities for future work programs of the Planning Department, the Parks Department, and other government agencies over the next several years. The "Action List of Resources", a supplementary document to the Thrive Montgomery 2050 Plan that includes a list of actions and Plan resources, should be revisited after the Plan is adopted.

Measuring Progress - Indicators

The County undoubtedly will encounter issues not anticipated by this plan. The indicators listed below are intended, along with the more detailed metrics listed in previous chapters, to guide how these types of issues and potential responses should be evaluated and allow for periodic assessments of progress to inform priorities and set shorter-term goals. These indicators address the three overarching objectives of the plan and are broader than the more specific measures included in each chapter. The following list should not be considered exhaustive and may be modified or expanded to suit future needs:

- Economic performance and competitiveness
 - Wage and job growth
 - New business formation
 - Economic output per capita
- Physical activity and public health measures
 - Daily and weekly exercise and physical activity
 - Participation in organized and informal sports and fitness activities
 - Adverse health outcomes associated with physical inactivity
- Racial equity and social inclusion
 - Racial and economic diversity of neighborhoods and schools
 - Measures of social capital, civic engagement, and community trust
 - Equitable life outcomes across race, income, age, gender, etc.
- Environmental sustainability and resilience
 - Greenhouse gas emissions
 - Vehicle miles traveled
 - Water and air quality

The indicators, along with the measures provided in the preceding chapters, will be further refined over time. The supplementary document “Action List of Resources”, that includes a list of actions and Plan resources should be revisited after Thrive is adopted, evaluating the proposed list of actions and associated timeframes. It should also include a section on indicators and metrics, using the measures of progress included at the end of each chapter to develop specific metrics. The section on indicators and metrics should include detailed information on how the metric or indicator is measured, the agency responsible for collecting the associated data, the frequency the metric or indicator will be publicly reviewed and reported, and the frequency indicators and metrics will be evaluated to monitor their relevancy and use. An overall assessment of Plan progress should be conducted on a regular basis.

APPENDIX A: Compliance with State Law Requirements

Maryland law requires local jurisdictions and agencies to meet specific standards and requirements for the exercise of planning authority delegated by the state. In Montgomery County, these requirements are usually met through new master plans, which amend the General Plan. In some cases, state planning requirements are met through the adoption of county regulations or guidelines, which are summarized below and are incorporated by reference.

12 Visions of the State Planning Act

Maryland's 2009 Planning Visions law created 12 "visions" to guide sound growth and development policy. The visions address quality of life and sustainability; public participation; growth areas; community design; infrastructure; transportation; housing; economic development; environmental protection; resource conservation and stewardship, and implementation.

Thrive Montgomery 2050's goals and policies are consistent with and support these visions:

1. Quality of Life and Sustainability

Thrive Montgomery 2050 recommends policies and practices designed to improve the quality of life of the county's residents by making the distribution of public services and amenities more equitable; improving housing affordability; and broadening access to economic, educational, social, recreational, and open space opportunities. The Plan also emphasizes sustainability and protection of natural resources coupled with environmental resilience and adaptation to climate change.

2. Public Participation

The Plan has been developed with broad and deep engagement with neighborhood organizations, businesses, cultural groups, religious institutions and other stakeholders. The role of land use, transportation and park planning in building civic capacity and social capital is among its central themes.

3. Growth Areas

Thrive Montgomery 2050 proposes that almost all new residential and non-residential development should be located in existing and planned population and business centers near existing and planned transit such as the Metro rail stations and the bus rapid transit (BRT) corridors. All of these places are within the county's Priority Funding Areas.

4. Community Design

The Plan emphasizes the importance of design excellence in creating Complete Communities that are attractive and lovable, foster social engagement, build a stronger sense of community, and create social and economic value.

5. Infrastructure

The Plan concentrates future growth in transit accessible places where infrastructure to support

current and planned growth is either already available or can be provided in an efficient, sustainable, and equitable manner. It recommends continuing support of agriculture and protecting environmental resources such as forests and streams.

6. Transportation

A safe, efficient, and multimodal transportation system with transit as the predominant mode of travel is key to creating economically resilient, equitable, and sustainable communities. The Plan emphasizes walking, biking, rolling and other non-motorized modes of travel with emphasis on moving people rather than vehicles. The plan's recommendations for reducing travel by car are critical to meeting the county's goal of eliminating greenhouse gas emissions by 2035.

7. Housing

The Plan emphasizes the need to produce more housing of all types and sizes, especially near transit, for a range of incomes to deal with the housing affordability crisis. It recommends a range of tools and mechanisms such as rezoning for a wider variety of residential building types and adopting innovative financing and construction techniques to increase housing choices for a diverse and aging population.

8. Economic Development

The Plan is based on the idea that a compact form of development with a mix of uses and forms and high quality parks and public spaces supported by infrastructure designed to make walking, rolling, and riding transit attractive and convenient is the best way to make communities attractive to employers who need highly educated workers and want to take advantage of public and private health care and technology related assets in the county and within the Washington region.

9. Environmental Protection

The Plan emphasizes the role of "smart urbanism" incorporating a compact form of development, preservation of land for agriculture and conservation and natural resources, a strong park system, and reduced reliance on driving is the most effective way to make population growth and economic activity more sustainable. The Plan includes ambitious recommendations designed to reduce vehicle miles traveled, encourage more energy efficient buildings, and a variety of other steps to cut greenhouse gas emissions, protect water quality, and enhance tree cover and other environmental resources.

10. Resource Conservation

The Plan's recommendations on Complete Communities; compact development; heavier reliance on walking, rolling, and transit with reductions in vehicular travel; stewardship of parks and land conservation; and other environmental management strategies such as stream restoration will help protect and conserve the county's waterways, forests, farmland, and other natural resources.

11. Stewardship

Thrive Montgomery 2050 provides policy guidance to be implemented by numerous public and

private entities. Successful implementation will require sustained support from government agencies, businesses, community-based organizations, and residents.

12. Implementation

Thrive Montgomery 2050 emphasizes the importance of indicators to track progress and evaluate how new ideas and proposals will help achieve the Plan's objectives. It discusses the roles of public agencies, the private sector, and the community in implementing the Plan's ideas. It provides high level guidance on funding sources that will be tapped to support capital investments as well as the need to identify new funding sources and financing strategies. It also describes the policy and regulatory tools available for implementation.

Conformance to Section 1-406 (a) and (b) of the Land Use Article

Maryland's Land Use Article Sections 406(a) and (b) require certain elements be included within the general plan, but do not mandate a specific format. As such, local governments have addressed these required elements in a manner that fits the needs of their community and the resources available to respond to the issues explored during the planning process.

Development Regulations Element

The plan does not include new "development regulations" because it is policy driven, with objectives, policies, and proposed practices. Once these elements are supported through the adoption of the Plan, changes to development regulations may coincide with new area master plans or functional plans. Such regulatory changes are part of the legislative process, so participation will again be afforded to the public. This concept is recognized in many parts of the Plan with several policies and practices suggesting future changes and refinements to code, guidelines and other regulatory tools.

Housing Element

Thrive Montgomery 2050 includes a housing element in the Chapter titled Housing for All: More of Everything. The passage of HB-1045 in 2019 requires all comprehensive plans adopted after June 1, 2020, to have a housing element. As part of this element, several of the policies and practices in Thrive Montgomery 2050 address the need for low-income and workforce housing. The Montgomery County Housing Needs Assessment (July 2020) provides an analysis of current demographic, economic and housing market conditions in the County, and a detailed household and housing demand forecast for the County out to 2045. The Housing Needs Assessment was used to develop several of the policies and proposed practices related to housing in Thrive Montgomery 2050 and is adopted by reference into the Plan.

Transportation Element

The Transportation and Communication Network: Connecting People, Places and Ideas chapter addresses the transportation element as required in the Land Use Article.

Senate Bill 236 -Sustainable Growth and Agricultural Preservation Act of 2012 (SB 236)

Senate Bill 236 (SB 236) requires local jurisdictions to map and adopt specified growth tier designations to limit the proliferation of onsite sewage disposal systems and protect and conserve agricultural and other open space land.

The law stipulates the creation of four tiers of land use categories to identify where major and minor residential subdivisions may be located in a jurisdiction and what type of sewerage system will serve them. It includes a four-tier classification for all areas within a jurisdiction:

- Tier I - Areas currently served by sewerage systems.
- Tier II - Growth areas planned to be served by sewerage systems.
- Tier III - Areas not planned to be served by sewerage systems. These are areas where growth on septic systems can occur.
- Tier IV - Areas planned for preservation and conservation.

Montgomery County implemented SB 236 by adopting a Tiers Map through an amendment to the County's subdivision regulations (codified at Chapter 50, §50.4.3 of the County Code). The official map displaying the County's Growth Tier areas is located on the Planning Department's website and is incorporated by reference into Thrive Montgomery 2050.

The Agricultural Stewardship Act of 2006 – House Bill 2 (HB 2)

House Bill 2 (HB 2) requires counties certified under the Maryland Agricultural Land Preservation Foundation to receive funding for farmland preservation to establish Priority Preservation Areas in their comprehensive plans and manage them according to certain criteria. In Montgomery County, the requirements of HB 2 are met through the Functional Master Plan for the Preservation of Agriculture and Rural Open Space.

Economic Growth, Resource Protection, and Planning Act of 1992, as amended
Sensitive Areas Element

The 1992 Economic Growth, Resource Protection, and Planning Act required local jurisdictions to adopt a "sensitive areas" element designed to protect sensitive areas from the adverse effects of development. Sensitive areas include streams and their buffers, 100-year floodplains, habitats of threatened and endangered species, steep slopes, wetlands, and other areas in need of special protection.

In Montgomery County, the sensitive areas element was satisfied by the Planning Board's adoption of the Guidelines for Environmental Management of Development in Montgomery County (July 2021). The Guidelines include goals, objectives, principles, policies, and standards designed to protect sensitive areas from the adverse effects of development; they provide detailed criteria and methods for regulatory review of development in sensitive areas and are included by reference into the Plan.

House Bill 1141 Land Use Planning – Local Government Planning, 2006, (HB 1141)
Water Resources Element

Local jurisdictions are also required to include a water resources planning element in their comprehensive plans. This element ensures that drinking water and other water resources will be adequate and suitable receiving waters and land areas will be available to meet stormwater management and wastewater treatment and disposal needs of existing and future development. Montgomery County's Water Resources Functional Plan, which was approved by

the County Council in July of 2010, and adopted by the full Commission in September 2010. The Plan examines land use, growth, and stormwater management in the context of adequate drinking water supplies, wastewater treatment capacity, water quality regulatory requirements, and inter-jurisdictional commitments, and is included by reference into the Plan.

Mineral Resources Element

HB 1141 also requires local jurisdictions to include a mineral resources element in their comprehensive plans if current geological information is available.

There are currently only two remaining mineral extraction operations in the county: The Aggregate Industries Travilah Quarry near Rockville; and the Tri-State Stone quarry on Seven Locks Road near River Road. The Travilah Quarry is zoned Heavy Industrial (IH), covers over 320 acres and is over 400 feet deep in places. It produces much of the aggregate used in construction for the National Capital Region. The Tri-State Stone quarry is a 21.5-acre operation that produces natural stone (mica-schist quartzite) products for residential construction. Both quarries still have significant reserves and are expected to be in operation for some years to come.

When the quarries are depleted or otherwise closed, the sites will be reclaimed for other uses. In the case of the Travilah Quarry, studies have long been underway by the Interstate Commission on the Potomac River Basin, the Washington Suburban Sanitary Commission, the Metropolitan Washington Council of Governments, DC Water, and the Washington Aqueduct to use the open pit as an emergency water supply reservoir.

The Potomac Master Plan recommends that should redevelopment of the area of the quarry that is not needed for the reservoir be proposed prior to another master plan amendment, an advisory group will be formed to provide the opportunity for public review.

The Tri-State Stone quarry is located in a residential development, is zoned R-200, and is a legal non-conforming use as the quarry and building supply operation predate implementation of the zone. Like similar nearby mines that were eventually closed and redeveloped as residential areas, the Tri-State quarry will also be evaluated for reclamation and redevelopment when it closes.

Given the dwindling of commercially viable mineral deposits throughout the county, the preferred use of land in the Agricultural Reserve for agriculture, and the importance of the two large sole-source aquifers in the county, new operations to extract mineral resources are not currently expected. All existing or new mining operations will continue to be guided by master plans and other applicable law.

APPENDIX B: Glossary

Accessory Dwelling Unit (ADU): A residential unit on the same lot as an existing single-family dwelling and used as a complete, independent living facility with provisions for cooking, eating, sanitation, and sleeping. It can be within the main structure of the house, an addition to the main structure, or a separate structure on the same lot.

Active transportation: Non-motorized forms of transportation, such as walking, biking and rolling via wheelchair, scooter, or other conveyance.

Affordable housing: Housing that is either built under a government regulation or a binding agreement that requires the unit to be affordable to households at or below specified income levels or is available at market prices that achieve the same result. The moderately-priced dwelling unit (MPDU) program's income requirements typically set the price of units at levels affordable to households earning 65 percent of area median income (AMI) for garden apartments, and 70 percent (AMI) for high-rise apartments.

Agricultural Reserve: A designated area of Montgomery County planned and zoned primarily for agricultural uses that includes the majority of the county's remaining working farms and certain other non-farm land uses.

Attainable housing: Housing that is both affordable to households at a range of income levels and suitable for needs of these households. Implicit in the concept of attainable housing is the idea that a range of housing options (type, size, tenure, cost) exists in the local market.

Area median income (AMI): The midpoint of a region's income distribution – half of households in a region earn more than the median and half earn less than the median. For housing policy, income thresholds set relative to the area median income—such as 50% of the area median income—identify households eligible to live in income-restricted housing units and the affordability of housing units to low-income households.

Biophilic design: The practice of designing the built environment with a focus on connecting people with nature.

Built environment: Any manmade building, structure, or other intervention that alters the natural landscape for the purpose of serving or accommodating human activity or need. It includes cities, buildings, urban spaces, infrastructure, roads, parks, and any ancillary features that serve these structures.

Bus rapid transit (BRT): A fixed-guideway transit system where buses operate in dedicated lanes, either physically or through signing and marking, distinct from general purpose lanes used by automobiles. BRT systems also typically include off-board fare collection systems and advanced transit information systems.

Capital Improvement Program (CIP): A six-year comprehensive statement of the objectives with cost estimates and proposed construction schedules for capital projects and programs for all agencies for which the county sets tax rates or approves budgets or programs. Examples include the construction of public schools, street maintenance, and parks improvements.

Central Business Districts (CBDs): downtowns or major commercial centers. Montgomery County has four areas officially designated in the County Code as Central Business Districts: Bethesda; Friendship Heights; Silver Spring; and Wheaton.

Civic capacity: The capacity of individuals in a democracy to become active citizens and to work together to solve collective problems and of communities to encourage such a participation in their members.

Climate Action Plan: In July 2019, Montgomery County launched a planning process to develop prioritized actions and strategies to meet the county's greenhouse gas emissions reduction goals. The county released a draft Climate Action Plan in 2020.

Climate change: A change in global or regional climate patterns, particularly the change apparent from the late 20th century onwards attributable largely to increased levels of atmospheric carbon dioxide produced by the use of fossil fuels.

Co-housing: Semi-communal housing consisting of a cluster of private homes and a shared community space (such as for cooking or laundry facilities).

Co-location: Locating more than one public facility in one place. For example, locating a library and a park on the same property or next to each other.

Commercial centers: A broad grouping of areas of high commercial activity with a concentration of jobs, retail, housing, transit and other ancillary uses and support services. It includes Central Business Districts, downtowns, and town centers.

Compact form of development: The practice of consolidating development of the built environment in ways that place buildings and infrastructure close together to reduce walking, biking, or driving distances and to make efficient use of land. According to Growing Cooler, The Evidence on Urban Development and Climate Change, "The term "compact development" does not imply high-rise or even uniformly high density, but rather higher average "blended" densities. Compact development also features a mix of land uses, development of strong population and employment centers, interconnection of streets, and the design of structures and spaces at a human scale."

Concentration of poverty: Neighborhoods where a high proportion of residents live below the federal poverty threshold.

Conditional use: A conditional use, previously known as a "special exception," is a use that is not permitted as a matter of right in the zone where it is located but may be allowed subject to

a review process administered by a hearing examiner.

Congestion pricing: Congestion pricing (also called decongestion pricing) is a mechanism to reduce traffic congestion by charging a fee for vehicles entering a certain area, usually a commercial center, during rush hours. In addition to reducing traffic through shifting some of the traffic to non-rush hours, it also helps improve air quality and other modes of travel such as walking and bicycling.

Connectivity: The number of ways and variety of options to reach multiple destinations. There are many different ways to define connectivity for land use purposes. For example, subdivisions with dead end streets may have poor connectivity with surrounding land uses. A grid street pattern often provides more options to connect with destinations within or outside a neighborhood or commercial center. Connectivity also implies non-physical means (telephone, internet, social media, etc.) to connect with others.

Cooperative housing (or co-op housing): An alternative to the traditional method of homeownership. In cooperative housing, the residents own a part of a corporation that owns and manages the building.

Corridor: An uninterrupted area of developed or undeveloped land paralleling a transportation route (such as a street, highway, or rail) or the land within one-quarter mile of both sides of designated high-volume transportation facilities, such as arterial roads. If the designated transportation facility is a limited access highway, the corridor extends one-quarter mile from the interchanges.

Cost-burdened household: A household that spends 30% or more of its income on housing costs.

Density: A measure of the amount of development on a property. Density is often expressed as the number of residential units per acre of land (or another unit of measure), or the total amount of residential or commercial square footage on a property. When expressed as the ratio of residential or commercial square footage to square footage of lot area, it is called Floor Area Ratio (FAR).

Design guidelines: A set of guidelines intended to influence the design of buildings, landscapes and other parts of the built environment to achieve a desired level of quality for the physical environment. They typically include statements of intent and objectives supported by graphic illustrations.

Disadvantaged People: Places that are affected most by economic, health and environmental burdens, including low-incomes, poverty, high unemployment, lack of access to jobs and quality education, and increased risk of health problems.

Downtowns: Downtowns are Montgomery County's highest density areas including Central Business Districts and urban centers. They are envisioned to have dense, transit-oriented

development and a walkable street grid (existing or planned). These areas are envisioned to share several of the following characteristics: identified as Central Business Districts and/or major employment centers; high levels of existing or anticipated pedestrian and bicyclist activity ; high levels of transit service; street grid with high levels of connectivity; continuous building frontage along streets, with minimal curb cuts; and mostly below ground or structured parking.

Duplex: A residential structure that typically resembles a single housing unit but contains two dwelling units. It can be arranged as two units next to each other sharing a common wall, or one unit above the other.

Employment centers: Areas with a high concentration of jobs.

Equity: just and fair inclusion into a society where all can participate and prosper. The goal of equity is to create conditions that allow all to reach their full potential. Equity and equality are often confused, but equality only achieves fairness if everyone starts from the same place and needs the same help. Equality may be defined as treating every individual in the same manner irrespective of needs and requirements.

Equity Focus Areas: Equity Focus Areas are parts of Montgomery County that may experience the highest inequities in access to community amenities and other resources to support a good quality of life.

Functional master plan: A master plan addressing either a county-wide system, such as circulation or green infrastructure, or a policy, such as agricultural preservation or housing. A functional master plan amends the General Plan but does not make land use or zoning recommendations.

Green infrastructure: The interconnected network of natural areas (forests, 100-year floodplains, wetlands, meadows, and streams and their buffers) and conservation parks that comprise natural ecosystems and provide environmental services.

Greenfield development: Development on undeveloped land or land previously used for agriculture or left to evolve naturally.

Greenhouse gas (GHG) emissions: Gases that trap heat in the atmosphere, such as carbon dioxide, methane, nitrous oxide, and fluorinated gases.

Growth and Infrastructure Policy: A set of rules and guidelines governing the obligations of private developers to contribute toward the cost and construction of public facilities such as roads and schools needed to accommodate new growth.

High-Quality Transit: Includes rail and bus rapid transit service that is reliable, frequent, fast and comfortable. Generally, the transit service should be so frequent that passengers do not need to consult a schedule.

Housing First: Housing First is a homeless assistance approach that prioritizes providing permanent housing to people experiencing homelessness, thus ending their homelessness and serving as a platform from which they can pursue personal goals and improve their quality of life. This approach is guided by the belief that people need basic necessities like food and a place to live before attending to anything less critical, such as getting a job, budgeting properly, or attending to substance use issues.

Housing Initiative Fund (HIF): Administered by the County's Department of Housing and Community Affairs, funding is used to provide loans to support production of new affordable housing, acquisition and preservation of existing affordable housing, and subsidies to make housing affordable to very low-, low-, and moderate-income tenants. Funding is also used to support homeownership programs. The fund receives revenue from a variety of sources including taxes, proceeds from bonds, and loan repayments.

Impervious surfaces: Any surface that prevents or significantly impedes the infiltration of water into the underlying soil, including any structure, building, patio, road, sidewalk, driveway, parking surface, compacted gravel, pavement, asphalt, concrete, stone, brick, tile, swimming pool, or artificial turf.

Infrastructure: The built facilities, generally publicly funded, required to serve a community's development and operational needs. Infrastructure includes roads, water supply and sewer systems, schools, health care facilities, libraries, parks and recreation, and other services.

Land use: The use of any pieces of land through buildings or open land for activities including housing; retail; commerce; manufacturing; roads; parking; parks and recreation; and institutional uses such as schools, healthcare and all other human activities.

Land use plan: The land use element of an approved and adopted general, master, sector, or functional plan.

Mandatory Referral: The Maryland State law and review process that requires all county, state and federal agencies and public utilities to refer any land use changes/improvements and infrastructure projects in Montgomery and Prince George's counties to the M-NCPPC for advisory review and approval.

Master plans: Master plans (or area master plans, or sector plans) are long- term planning documents that provide detailed and specific land use and zoning recommendations for a specific place or geography of the county. They also address transportation, the natural environment, urban design, historic resources, public facilities, and implementation techniques. All master plans are amendments to the General Plan.

Mass timber: Specialized wood building construction using engineered wood products created through lamination and compression of multiple layers to create solid panels of wood that are used as structural elements to frame a building's walls, floors, and roofs.

Missing middle housing: The term missing middle housing encompasses a variety of housing types that range from low- to medium densities such as duplexes; triplexes; quadplexes, live-work units; and clustered housing such as townhouses, courtyard dwellings and smaller apartment buildings.

Mixed-income housing: Housing units affordable to a broad range of income levels.

Mixed-use development: A development that typically contains residential and commercial uses in the same building or within a small area. For example, a residential building with ground floor retail is a typical mixed-use development.

Moderately Priced Dwelling Unit (MPDU): Montgomery County's inclusionary zoning program that requires a minimum of 12.5-15 percent of new units in a development to be affordable to renters households earning up to 65 percent of area median income for garden-style apartments and up to 70 percent for high-rise apartments and for-sale affordable units for households earning 70% or less of area median income.

Montgomery County Zoning Ordinance: Chapter 59 of the Montgomery County Code, which contains the zoning controls to regulate the use and development of all private property in the county. It generally defines permitted uses, maximum building floor area or the maximum number of units permissible on each property, and maximum building heights, minimum setbacks, open space and other requirements to shape all buildings and related improvements.

Multifamily housing: A building containing three or more dwelling units on a single lot.

Naturally occurring affordable housing: Market-rate residential units that are affordable to low and middle-income households without public subsidies. It generally refers to rental housing but can include ownership properties as well.

Public space: Open area or building space available for use and enjoyment by the public.

Public realm: Any open space or built environment that is open to the public for access and enjoyment. Typically, the public realm includes roads, sidewalks, streetscapes, and public spaces. An expanded definition of public realm includes all that is visible from a public space. For example, building facades of private buildings as they line the streets or surround a public plaza are part of the experience of walking through the street or the plaza. A neon sign on a private building becomes part of the perception of the overall space.

Public-private partnership: A cooperative arrangement between at least one public and one private sector entity to carry out a project or initiative.

Purple Line: A 16-mile rapid transit line extending from Bethesda, MD, (Montgomery County) to New Carrollton, MD, (Prince George's County). The Purple Line will connect directly to the Metrorail Red, Green, and Orange Lines.

Race: A social construct that artificially divides people into distinct groups based on characteristics such as physical appearance (including color), ancestral heritage, cultural affiliation, cultural history, ethnic classification, and the social, economic, and political needs of a society at a given period. This definition is cited directly from Montgomery County Bill 27-19 (lines 49-53).

Rail or Rail transit: In Montgomery County rail transit includes Metrorail, the Purple Line, and Maryland Area Regional Commuter (MARC) train service.

Redlining: Redlining in the context of land use refers to discriminatory real estate practices designed to prevent African American or other groups from obtaining mortgage loans in certain neighborhoods. In 1935, the Federal Home Loan Bank Board (FHLBB) asked the Home Owners' Loan Corporation (HOLC) to look at 239 cities and create "residential security maps" to indicate the level of security for real estate investments in each surveyed city. On the maps, the newest areas— those considered desirable for lending purposes—were outlined in green and known as "Type A." These were typically affluent suburbs on the outskirts of cities. "Type B" neighborhoods, outlined in blue, were considered "Still Desirable," whereas older "Type C" were labeled "Declining" and outlined in yellow. "Type D" neighborhoods were outlined in red and were considered the riskiest for mortgage support. These neighborhoods tended to be the older districts in the center of cities; often they were also African American neighborhoods.

Right-of-way: The legal right, established by usage or grant, to pass along a specific route through grounds or property belonging to another. In this document, this term generally describes the land available for roads, sidewalks, utility lines, and transit infrastructure.

Shared housing: A housing unit where two or more people live and share rent or mortgage, utilities, and other housing related costs.

Single-family home (or dwelling): A single-family home or dwelling unit is one primary residence on a recorded piece of land. A single-family detached home is a stand-alone structure that does not share any walls with another housing unit. A duplex has two side-by-side units with a shared party wall. Duplexes are considered semi-detached single-family units. Townhouses are considered attached single-family homes.

Social capital: the combination of trust, interpersonal relationships, a sense of belonging, shared norms and values, respect and appreciation for diversity, sense of mutual obligation and reciprocity, and other factors that contribute to the willingness and ability of members of a community to cooperate and communicate with each other effectively to achieve shared objectives.

Social justice: Equitable access to wealth, opportunity, and privileges. It encompasses the idea that no individual and group should have a disproportionately higher share of political and economic power than all other individuals and groups leading to a just society.

Sprawl: A pattern of low-density suburban development that is highly dependent upon the

automobile as the main form of travel and is considered the source of today's traffic congestion, environmental degradation and other issues associated with the growth of suburbs since at least World War II.

Stormwater management: The collection, conveyance, storage, treatment, and disposal of stormwater runoff to prevent accelerated channel erosion, increased flood damage, and degradation of water quality.

Streetscape: The improvements within and adjoining a street right-of-way that influence our perception of streets. It includes the width of the roadway, street trees and landscaping, sidewalk/pavement, street lighting, and other street furniture.

Sustainability: the practice of meeting the economic, social, and environmental needs of the present without compromising the ability to meet the needs of the future.

Town centers: Town centers are similar to downtowns but generally feature less intense development and cover a smaller geographic area. They typically have high- to moderate-intensity residential development, including multi-family buildings and townhouses, and retail (existing or planned). Town centers share the following characteristics: a regional or neighborhood-serving retail node with housing and other uses; medium to high levels of pedestrian and bicyclist activity; medium levels of existing or planned transit service; a street grid that ties into the surrounding streets; continuous building frontage along streets, with some curb cuts; a mix of structured and underground parking as well as surface parking lots.

Transfer of Development Rights (TDR): A zoning mechanism that, in Montgomery County, grants property owners in the Agricultural Reserve one development right for each five acres of land. These development rights can be sold (transferred) to landowners or developers who can use them to develop at a higher density in designated areas elsewhere in the county.

Transit: In Thrive Montgomery 2050, transit, or public transit, means a public transportation system for moving passengers by rail, buses, and shuttles.

Transit-oriented Development (TOD): A mixed-use development within walking distance (up to one-half mile) of a transit stop. TODs typically have sufficient development density to support frequent transit service and a mix of residential, retail, office, and public uses in a walkable environment, making it convenient for residents and employees to travel by transit, bicycle, or foot.

Transportation networks: A set of transportation facilities including highways and roads, rail lines, transit facilities, trails, and bike paths that together form the transportation system of a jurisdiction or a region.

Tree canopy: The layer of leaves, branches, and stems of trees that cover the ground when viewed from above and that can be measured as a percentage of a land area shaded by trees.

Triplex: A residential structure that contains three units.

Urbanism: The best characteristics of cities and centers of human settlements including a compact building form; shorter distances between destinations; a mix of uses such as a mix of living and work places in a variety of buildings types in close proximity to each other; and streets that are safe for walking, biking and other forms of travel without being dominated by vehicles.

Urban design: The process of giving form, shape, and character to the arrangement of buildings on specific sites, in whole neighborhoods, or throughout a community. Urban design blends architecture, landscaping, and city planning concepts to make an urban area accessible, attractive, and functional.

Vehicle miles traveled (VMT): The amount of travel for all vehicles in a geographic region over a given period.

Walkable Urban Places (WalkUPs)

WalkUPS are high-density places, walkable places with multiple modes of transportation and the integration of many different real estate products in once place. A 2019 study by the Center for Real Estate and Urban Analysis, using the Brookings methodology as a guide, defines WalkUPs as urban places with more than 1.4 million square feet of office and/or more than 340,000 square feet of retail in pedestrian friendly walkable environment with a Walk Score® of 70 or greater.

Wedges and Corridors: The planning framework underlying the 1964 General Plan for Montgomery and Prince George's counties. The concept was created in 1960 for the entire Washington, DC, region. The corridors were the major interstate highways radiating out of Washington, DC, which was envisioned to be the major employment center of the region. Each corridor was meant to have a string of cities (corridor cities) designed to accommodate most future residential. The wedges were the triangular-shaped pieces of land between the corridors.

Zone: A land classification under the Montgomery County Zoning Ordinance intended to regulate the land uses and buildings allowed in each zone. Certain uses are permitted by right and others as conditional uses. Any use not expressly allowed is prohibited. A zone also regulates building height, setback open space and other requirements.

Zoning: The practice of classifying different areas and properties in a jurisdiction into zones for the purpose of regulating the use and development of private land. Each zone specifies the allowed uses within each zone, the maximum size and bulk of buildings, the minimum required front, side and back yards, the minimum off-street parking, and other prerequisites to obtaining permission to build on a property.

Zoning Ordinance: see Montgomery County Zoning Ordinance.