CLIMATE ASSESSMENT FOR

ZTA 25-13, Omnibus – Revisions, Clarifications, and Corrections

PURPOSE OF CLIMATE ASSESSMENT

The purpose of this Climate Assessment is to evaluate the anticipated impact of the zoning text amendment (ZTAs) on the county's contribution to addressing climate change. The assessment will provide the County Council with a better understanding of the potential climate impacts and implications of the proposed ZTAs at the county level. The scope of the Climate Assessments is limited to addressing climate change, specifically the effect of the land use recommendation of the ZTA on greenhouse gas (GHG) emissions and carbon sequestration, and how actions proposed by the ZTA could improve the county's adaptive capacity to climate change and increase community resilience.

SUMMARY

The ZTA is anticipated to have some minor positive impacts but overall will have more negative impacts. This ZTA is amending various provisions at once, and different sections of the ZTA are likely to have different types of impacts. There will be limited minor positive impacts due to the removal of the gross leasable area requirement for regional shopping centers before being allowed to increase building heights for specific uses. There are some negative impacts anticipated with the amendment requiring the outdoor storage of large items within the accessory structure setbacks, because many property owners have limited areas to store items on their properties without creating more pavement to avoid the setbacks. Slight negative impacts are also likely to be caused by the decrease in housing opportunities in employment zones, as the 30% cap on housing in these zones will limit the potential for sustainable mixed-use development.

The technical, grammatical, and other changes with this ZTA are unlikely to have any impacts as they are clarifying already existing processes.

BACKGROUND AND PURPOSE OF ZTA 25-13

This Zoning Text Amendment was introduced by the District Council on October 14, 2025. The purpose of the ZTA is to create several technical, clarifying, and other amendments to the Zoning Ordinance. The amendments that will cause the greatest changes are: the amended height restrictions for the regional shopping centers for greater developmental flexibility, the placement of a 30% gross floor area cap on household living uses in the Employment zones to preserve existing retail spaces, and the requirement for large items to be stored outside of the accessory structure setbacks of the underlying zone in order to provide a buffer between these items and neighboring properties.

The other amendments to the Zoning Ordinance are clarifying changes. These include the clarification of the gross floor area cap on non-residential uses for Commercial to Residential Reconstruction, the correction of outdated cross-references to expedited approval plans, and clarifying the applicable conditional use standards for Townhouse Living. These changes will create a more formal process in the Zoning Ordinance but are unlikely to cause any impacts beyond increased clarity and efficiency in the interpretation of the Ordinance. Thus, the clarifying amendments within this ZTA will not be analyzed for their potential climate impact as they are primarily making clarifying amendments to various provisions of the Zoning Ordinance.

VARIABLES THAT COULD AFFECT THE ASSESSMENT

For many ZTAs, it is difficult to determine the impacts on climate because of variables such as the scale and location of change, which may be difficult to ascertain. With this ZTA, major unknown variables that could affect the climate assessment include:

- Will the two regional shopping centers alter their development programs even with the added flexibility around building heights?
- How many properties may change their outdoor storage of large items after the creation of the requirement to store large items within accessory structure setbacks?
- How much potential housing would have been created in employment zones if the 30% cap on household living had not been introduced?

ANTICIPATED IMPACTS

There are both minor positive and slight negative impacts anticipated with ZTA 25-13. Positive impacts are anticipated from the increased flexibility on building heights for regional shopping centers; however, impacts to the county meeting climate goals are very minor because there are only two regional shopping centers in the county. The amendment requiring large items that are stored outside to adhere to the accessory structure setbacks will have negative impacts, especially on smaller lots, through reduced resiliency, adaptive capacity, and carbon sequestration, because green areas may be cleared for storage. Additional negative impacts come from applying a 30% development cap on household uses in the Employment Zones. The reduction in the potential for mixed-use development will remove opportunities for sustainable reuse of existing developed areas.

Below is a more detailed analysis of the variables identified as having an impact on carbon emissions as determined in the assessment worksheets found in *Climate Assessment Recommendations for Master Plans and Zoning Text Amendments in Montgomery County.*

GREENHOUSE GAS EMISSIONS, CARBON SEQUESTRATION, AND DRAWDOWN

ZTA 25-13 is anticipated to have slight positive impacts and some negative impacts on greenhouse gas emissions. There will be minor sequestration or drawdown reductions associated with this proposal, due to the potential for more development to spread further out with less mixed-use potential, and reduced sequestration due to green cover cleared for outdoor storage. There will be minor improvements to sequestration at shopping mall areas due to increased developmental flexibility (for the purposes of this assessment, drawdown and sequestration are terms used interchangeably).

GHG Emissions and Sequestration Checklist of Variables

Transportation.

- **Vehicle miles traveled by type:** There may be minor negative impacts leading to increased vehicle miles traveled by limiting residential development potential in employment zones since new residents may have to live further from employment and retail/service opportunities.
- **Number of trips**: The addition of the gross floor area cap in employment zones will have a negative impact on GHG emissions, as there will be a decreased potential for mixed-use development in employment zones. There will be less potential for people to live and work in the same areas, thus increasing the distance between housing and employment locations.
- **Non-vehicle modes of transportation:** There will be a minor negative impact due to the gross floor area cap. With the decreased potential for mixed-use development, there will be a minor decrease in walkability between locations of housing and employment.

Building Embodied Emissions.

- **Pavement infrastructure:** The removal of the restriction on regional shopping centers having a gross leasable area of at least 1,200,000 square ft. will have minimal positive impacts, as this could potentially reduce the amount of new pavement surfaces being built in undeveloped areas, as regional shopping centers could redevelop existing impervious space for uses such as housing. However, this impact would be minimal due to the small number of regional shopping centers. Additional minor negative impacts are anticipated with adding a 30% gross floor area cap on housing living uses in employment zones, as this will decrease the potential for mixed-use housing in these areas. With a limit to the amount of housing in these zones, new housing developments may be pressured to build in undeveloped areas, rather than in areas with existing pavement infrastructure. Finally, negative impacts may be seen with the outdoor storage portion of the ZTA because many property owners may need to relocate on-site storage into a green area to meet the new setback requirements.

Land Cover Change and Management.

- **Area of forest, areas of non-forest tree canopy, and areas of green cover:** Due to the decrease in the potential for housing in employment zones, there will be fewer options for potential housing sites on previously developed land, potentially increasing development pressure on sites that include areas of forest, non-forest tree canopy, and green cover. The potential removal and overall reduction in the amount of trees and green cover would decrease carbon sequestration in the county.

  The setback requirements large vehicles and other items would have to follow could spur further pavement being built on green areas, as currently driveways are often built across setback lines on smaller lot residential properties, which may become off-limits to storage going forward.

COMMUNITY RESILIENCE AND ADAPTIVE CAPACITY

Montgomery Planning anticipates that ZTA 25-13 will most likely have both a slight negative and a slight positive impact on Community Resiliency and Adaptation. Positive impacts would result from increased development flexibility in regional shopping centers. Slight negative impacts stem from increased environmental sensitivity due to additional development on natural areas for both new housing and to accommodate new storage opportunities.

Community Resilience and Adaptive Capacity Checklist of Variables

Exposure-Related Factors.

- **Activity in flood risk areas:** With the increased pavement likely due to the new setbacks impacting the outdoor storage of large items, the additional impervious surfaces created could create issues with water management, excessive runoff, and lot-to-lot water conveyance. The impervious pavements cannot uptake water during flood and stormwater events, and the potential loss of vegetation due to the construction of pavements will no longer be present as a buffer to stormwater and overall intake of water.
- **Activity in urban heat island:** The increase in pavement to accommodate storage of large items could add to the urban heat island effect, as the reduction in vegetative cover and shade from tree canopy will create warmer temperatures. Further, pavement can absorb higher amounts of solar radiation and thus hold more heat, causing the surrounding areas to be warmer.

Sensitivity-Related Factors.

- **Change to forest cover, non-forest tree canopy, and other green areas:** Similar to the land cover change and management effects, due to the decrease in the potential for housing in employment zones, there may be more stress on other properties in the county to develop housing, which could include areas of forest, non-forest tree

canopy, and other green areas, creating a slight negative impact. Also, the potential for increased pavement infrastructure to accommodate the storage of large items that meet setbacks could reduce forest, canopy, and green areas. Additional pavement would be created within the setbacks, as current paved driveways most often go beyond the building setback and therefore would not be a viable option for these large items, given this ZTA.

- **Change in perviousness:** The removal of the restriction on regional shopping centers will have minimal positive impacts, as this could reduce the amount of impervious surfaces being built in undeveloped areas, as regional shopping centers could remove some of their current shopping and parking to make space for other uses, such as housing. However, this impact would be minimal due to the small number of regional shopping centers. Conversely, with the potential decrease in the ability to develop mixed-use housing in employment zones, there could be an increase in the amount of imperviousness in the county. Mixed-use development encourages the sharing of impervious surfaces as multiple uses can be done on one area, rather than separating these uses into two different developed areas. Increased impervious surface areas are also likely to accommodate outdoor storage that meets setbacks, since many homeowners currently store regulated items in driveways that often cross the accessory structure setback lines. Any increased impervious surface areas in the county would have a negative impact on the resilience and adaptive capacity a community has to handle a changing climate.

Adaptive Capacity Factors.

- **Change in availability or distribution of economic and financial resources:** The increased developmental flexibility for regional shopping centers could increase the financial viability of these shopping centers, as these large centers can adapt and evolve to the changing needs and consumer trends in the county while being profitable in new ways with developmental changes.

RELATIONSHIP TO GREENHOUSE GAS (GHG) REDUCTION AND SEQUESTRATION ACTIONS CONTAINED IN THE MONTGOMERY COUNTY CLIMATE ACTION PLAN (CAP)

ZTA 25-13 will likely have minor negative and minimal positive impacts on GHG reduction and sequestration actions in the Montgomery County CAP. There is an increase in the potential for traffic, which could increase GHG emissions. There is also the potential for decreased sequestration due to new development potentially occurring in green areas including tree canopy and some forest area. The minimal positive impacts could occur with the increased developmental flexibility for shopping centers, but are limited to two sites in the county currently.

- **Traffic Management Systems:** The decrease in household living development in employment zones may slightly increase traffic in the county, as there will be more separation between places of employment and housing areas. Increased traffic increases GHG emissions from vehicles.
- **Retain and increase forests, and retain and increase tree canopy:** The reduction of requirements to the square footage of regional shopping centers and thus the ability for increased building height will allow for future development on these shopping centers to include possibilities of taller structures, with a decreased building footprint. This flexibility will widen future development possibilities, thus decreasing the pressure for development to occur in other areas of land that include existing forested areas in the county, thus promoting continued sequestration. While positive, this impact will be minimal as there is a small number of regional shopping centers. There will be a potential decrease in the amount of forest retained in the county, as there may be pressure to develop housing on green areas that may include forest or tree canopy rather than existing disturbed land in employment zones. There will be a potential decrease in tree canopy due to increased storage needs. Tree canopy may be cleared for space, and this will have negative impacts on the CAP goals.

RECOMMENDED AMENDMENTS

In reviewing the negative impacts anticipated by this Climate Assessment, and considering changes that could be recommended that keep the intent of the proposed zoning policy, Planning Staff recommends revisions to the outdoor storage portion of the ZTA. Specifically, exempting the storage of vehicles that are properly registered and licensed from having to meet the accessory structure setbacks. Staff supports expanding that further to any registered and titled motorized vehicle or trailer currently allowed to park on residential properties. As drafted, the new provision will cause storage limitations for items already being owned and operated lawfully. These storage limitations will necessitate increasing paving in green and vegetated areas on residential properties. With this recommendation, licensure will be encouraged for items that are unregistered or unlicensed.

SOURCES OF INFORMATION, ASSUMPTIONS, AND METHODOLOGIES USED

The climate assessment for ZTA 25-13 was prepared using the methodology (tables 1 and 2) for ZTAs contained within the Climate Assessment Recommendations for Master Plans and Zoning Text Amendments in Montgomery County, December 1, 2022.