Attachment C

CLIMATE ASSESSMENT FOR

ZTA 25-08, EXEMPTIONS – LANDSCAPE CONTRACTOR

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 will have minor positive and negative impacts on carbon emissions and impacts on the county's goals of addressing greenhouse gas emissions, carbon sequestration, and ensuring resilience and adaptive capacity of our communities. There are slight negative impacts to embodied emissions associated with the potential deconstruction of structures and pavement, and the creation of material waste. Slight positive impacts stem from the potential increased area of forest, non-forest tree canopy, and green cover. Slight positive impacts on Community Resilience and Adaptive Capacity were found associated with activity in Flood Risk Areas, as decreased imperviousness and increased green areas could alleviate the impact from storms and improve water quality. The potential minor impacts will vary on a case-by-case basis, as each landscape contractor is likely to have varying layouts and sizes of operations existing on October 30, 2014.

BACKGROUND AND PURPOSE OF ZTA 25-08

This Zoning Text Amendment was introduced by the District Council on June 10, 2025. The purpose of the ZTA is to amend the existing exemptions for landscape contractors in the RC zone to allow for one violation of expanding the total square footage of onsite operations in existence as of October 30, 2014, before a conditional use is required. Under the current Zoning Ordinance, conditional use approval is required if the total square footage of the on-site operation of a landscape contractor for use in the RC zone is expanded or enlarged. This will allow Landscape Contractors that were issued

their first violation to return the onsite operations back to the square footage existing on October 30, 2014.

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, there is a more limited set of locations and situations where this activity could occur, resulting in less uncertainty.

ANTICIPATED IMPACTS

There are slight positive and negative impacts anticipated with ZTA 25-08. Due to the narrow scope of impacted properties with the ZTA, any impacts will be minor to insignificant in their impact on the county meeting its climate goals.

The following variables are identified as having a slight 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 25-08 is anticipated to have slight and insignificant impacts on greenhouse gas emissions. There will be minor sequestration or drawdown reductions associated with this proposal (for the purposes of this assessment, drawdown and sequestration are terms used interchangeably).

GHG Emissions and Sequestration Checklist of Variables

Building Embodied Emissions: to the extent any issued violations for onsite expansion and the subsequent restoration of the site back to operational square footage on October 30, 2014, the following variables may be impacted:

- **Building life span**: A building being demolished would shorten the lifespan of a building, as building life cycles being shortened has an indirect negative impact on total greenhouse gas emissions due to the construction process occurring more frequently if buildings and other structures are not being used and maintained for a longer period.
- **Pavement infrastructure**: Installed impervious surface space for storing equipment, vehicles, and materials. Impervious surfaces, like concrete and asphalt, contribute to carbon emissions by preventing rainwater from infiltrating into the soil, which disrupts the natural carbon cycle by reducing the soil's ability to store carbon; this is further compounded by the increased need for energy to produce and maintain these surfaces, contributing to additional carbon emissions. Removing imperviousness could

- **Material waste produced**: Some material waste could be produced following the demolition of existing structures and pavements or other impervious surfaces. Demolishing materials and modes of disposal, such as incinerators or adding waste to landfills, increases overall greenhouse gas emissions.

Land Cover Change & Management.

- **Area of forest**: Potential increased forest from demolition of existing structures or other impervious areas will increase the overall carbon sequestration abilities of sites, as forests are large carbon sinks.
- **Area of non-forest tree canopy**: Potential increased non-forest tree canopy from demolition of existing structures or other impervious areas could increase overall carbon sequestration abilities of sites, as individual trees do contribute to overall carbon sequestration.
- **Area of green cover**: Potential increased green cover available following demolition of existing structures or other impervious areas could increase overall carbon sequestration abilities of sites, as green cover/vegetation contributes to overall carbon sequestration.

COMMUNITY RESILIENCE AND ADAPTIVE CAPACITY

Montgomery Planning anticipates that ZTA 25-08 will most likely have a positive impact on Community Resiliency and Adaptation, as returning site operations of Landscape Contractors to previous operation sizes in the AR zone will result in fewer impervious surfaces and more green space.

Community Resilience and Adaptive Capacity Checklist of Variables

Exposure-Related Factors.

- **Activity in flood risk areas**: The ZTA will potentially decrease the impervious surface area if any structures or impervious areas were added to the site after October 14, 2014. The removal of these additional expansions could reduce the risk of flooding, with more potential of the site to manage increased water levels with water able to permeate and be stored in greater areas.

Sensitivity Related Factors.

- **Change to forest cover**: There could be increased forest cover with sites returning to previous square footage size, thus making space for forest to return where it may have been removed after October 30, 2014, or where forest has the potential to grow.
- **Change to non-forest tree canopy**: There could be increased non-forest tree canopy area with sites reducing operation sizes, thus making space for non-forest tree canopy to return where it may have been removed after October 30, 2014, or where it has the potential to grow.
- **Change to quality or quantity of other green areas**: More green areas could grow and return to being undeveloped area. Nearby green areas could be positively impacted by the reduction in overall operation size.

- **Change in perviousness**: There could be increased levels of perviousness with the reduction in impervious surfaces such as compacted gravel, materials, equipment, etc.
- **Change to water quality or quantity**: Water quality may increase as increased vegetation can reduce the impact of runoff, by absorbing more water than impervious surfaces are able to.

Adaptive Capacity Factors.

- **Change in availability or distribution of economic and financial resources**: This ZTA could positively impact Landscape Contractors in the RC zone with increased flexibility as they will not have to submit a conditional use application but returning to prior operation square footage but could also negatively impact operations if they must reduce the size of the operation space.

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

ZTA 25-08 does not involve any greenhouse gas or sequestration reductions or improvements related to the County's Climate Action Plan.

RECOMMENDED AMENDMENTS

Planning staff does not have any recommended climate-related amendments to ZTA 25-08 because it will have insignificant impacts on the County's goals regarding greenhouse gas emissions and sequestration rates. The ZTA does not offer obvious additional opportunities for decreasing any potential negative climate change-related impacts nor to significantly enhance positive climate change-related impacts beyond the potential benefits associated with the proposed use as discussed in this assessment.

SOURCES OF INFORMATION, ASSUMPTIONS, AND METHODOLOGIES USED

The climate assessment for ZTA 25-08 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.