

MEMORANDUM

October 4, 2019

To: Eric Graye

Organization: Montgomery County Planning Department

From: Toole Design

Project: Subdivision Staging Policy Update

Re: Preliminary Literature Review

The following is a preliminary summary of the literature review for Montgomery County's Subdivision Staging Policy Update. Over the past two months, the project team has reviewed Vision Zero efforts from cities around the United States.

Throughout this literature review, the project team has assessed the Vision Zero programs in over two dozen cities around the United States, with a particular focus on these cities' efforts to incorporate Vision Zero into the transportation impact study or development review processes. While communities across the nation have taken the Vision Zero pledge, they typically focus on redesigning existing streets to be safer, as opposed to how design standards can be applied to new development.

This focus may have to do with most Vision Zero adoptees being central cities that are built out. These communities are less likely to have greenfield development areas (or even large-scale redevelopment areas) than suburban or rural places. As a result, Montgomery County is something of an outlier among Vision Zero adherents, and has the potential to become an example for other suburban or urban-suburban communities of how Vision Zero can be incorporated into the transportation impact study or development review process.

Montgomery County's Vision Zero Action Plan

In 2017, Montgomery County became one of the first county governments in the United States to develop a Vision Zero plan. For over a decade prior, the county had worked to make its streets safer for all users, resulting in a 37% decrease in severe collisions between 2012 and 2016. However, the Action Plan notes that a simultaneous 58% increase in fatal traffic collisions has led to a renewed effort to eliminate traffic deaths entirely.

The resulting Vision Zero Action Plan has several goals aimed at increasing traffic safety and focusing on communities and corridors where the risk of traffic collisions is greatest:

- To reduce severe and fatal traffic collisions 70% by 2024, and entirely by 2030
- To focus engineering improvements on the "High Injury Network," 20 road segments that have a disproportionate amount of the county's traffic collisions
- To prioritize its resources on improving traffic safety in historically disadvantaged communities

The plan includes 41 action items, each of which fall into five key action areas: including Engineering, Enforcement, Education and Training, Traffic Incident Management, and Law, Policy, and Advocacy. Vision Zero requires a data-driven approach to identifying trends that can contribute to traffic collisions, and as a result, the county is committed to closely tracking the Action Plan's effectiveness. Some of the largest accomplishments in the two years since the plan's inception have been the adoption of a Complete Streets policy, which is currently underway; retiming pedestrian traffic signals to give people more time to cross the street; expanding the county's Safe Routes to School program; and providing a Vision Zero Feedback Map for public input.

Vision Zero programs around the United States

As part of the literature review, the project team reviewed the Vision Zero policies and associated planning efforts in 27 cities across the United States:

- Alexandria, VA
- Arlington, VA
- Austin, TX
- Bellevue, WA
- Bethlehem, PA
- Boston, MA
- Cambridge, MA
- Charleston, SC
- Chicago, IL
- Columbia, MO
- Denver, CO
- Eugene, OR
- Fort Lauderdale, FL
- Fremont, CA
- Los Angeles, CA
- Macon, GA
- New York, NY
- Oakland, CA
- Philadelphia, PA
- Portland, OR
- Sacramento, CA
- San Antonio, TX
- San Francisco, CA
- San Jose, CA
- San Luis Obispo, CA
- Seattle, WA
- Washington, DC

Of the communities reviewed, the majority have established Vision Zero policies, but have not directly tied them to transportation system performance. Many communities indirectly include Vision Zero goals in a requirement to study active transportation modes, or to tie impact fees to Complete Streets or active transportation projects. While a community's development review process may not explicitly mention Vision Zero, it may incentivize or require pedestrian- or bicycle-friendly design that aligns with Vision Zero's goals.

There are several metrics that communities use to assess Vision Zero-related transportation impacts, which could be applicable to Montgomery County's development review and LATR processes, many of which are already incorporated to an extent or in specific cases. They include:

- On-site data collection, such as intercept surveys, that provide fine-grained information on how occupants and visitors to a site travel there, as well as the effectiveness of available infrastructure or educational programming. On-site data collection allows for more accurate information, as ITE trip generation estimates are both relatively opaque and not reflective of a given place.
- Crash data near the site of a proposed development, including pedestrians, bicyclists, and drivers. Safety-related data is typically available and may be geocoded to specific locations, allowing an assessment of the area immediately around a development that could be impacted.
- Measuring the impact of a development by "person-trips" instead of vehicle trips, which acknowledges that site occupants or visitors may travel there by different modes
- Longitudinal surveys that measure how mode share changes at a site or within a district over time, demonstrating the effectiveness of transportation demand management programs.

Additionally, the County could explore incorporating Vision Zero into the existing TDM (transportation demand management) requirement for large developments, one component of which is an educational campaign where occupants or visitors learn about available travel options or incentives. This is an opportunity to introduce Vision Zero education, and to use subsequent data collection efforts to measure its effectiveness.

Case Studies

The following are four cities whose Vision Zero efforts may be considered best practices for Montgomery County:

Washington, DC

The District of Columbia made Vision Zero its official policy in 2015, when it passed the Vision Zero Action Plan. Today, the DC Office of Planning incorporates Vision Zero design into its development site review process, with guidelines for site access, loading, and the arrangement of the public realm. Applicants required to perform a traffic impact study for their projects must complete a Scoping Form with 33 questions, many of which relate to Vision Zero. They must provide person trip generation estimates (as opposed to vehicle trips), assess the condition and completeness of the sidewalk and bicycle network, investigate the condition of nearby transit stops, and identify the site's proximity to high-crash intersections and blocks. This approach bears some resemblance to Montgomery County's development approval process, particularly its emphasis on reducing auto use near transit via lower parking requirements and could be applicable to the County.

Philadelphia, PA

Philadelphia's Vision Zero Action Plan dates to 2017. Since then, the city has rolled out a Complete Streets Project Review Checklist that incorporates Vision Zero design recommendations. The checklist requires project applicants to provide (or demonstrate the presence of) frequent pedestrian crossings (every 300 to 500 feet), to identify the number of potential conflicts between different travel modes, and the presence of "high priority" bicycle design treatments and "appropriate" speeds and lane widths in and around their site – and to make changes where possible. The city does not charge transportation impact fees or require traffic studies as part of site review. This checklist is the primary way that Vision Zero policies take effect in the planning process and ensures that pedestrian- and bicycle-oriented design is the priority in new development, not accommodating an increase in driving as is often the result of traffic impact studies.

Sacramento, CA

Sacramento introduced its Vision Zero Action Plan in 2018, but the introduction of Vision Zero-aligned development review began with a study of impact fees two years earlier, which appears to be ongoing. The city is considering whether to tie transportation impact fees to Complete Streets projects in targeted areas. Transportation officials identified approximately 74 miles of streets with a high rate of crashes, and have produced a list of pedestrian, bicycle, and transit projects in those areas, including redesigning intersections to be safer for people on foot and providing transit signal priority. 19% of the funds from impact fees would be set aside for Bus Rapid Transit projects. Developers applying to build projects in those areas would pay a higher share of the cost for safety mitigation based on the number of projected new vehicle trips. This approach of charging higher impact fees based on traffic conditions in that area bears some resemblance to Montgomery County's impact fee structure, with different rates for Red, Yellow, and Green policy areas, but with additional targeting to ensure that development throughout the city goes to pay for priority safety projects that ultimately benefit everyone.

Oakland, CA

Oakland has not officially taken the Vision Zero pledge but has adopted policies that align with Vision Zero goals. The city requires an extensive transportation impact study for new development proposals, including analysis of nearby sidewalk conditions, the potential increase in VMT (vehicle miles traveled), and the number of pedestrian, bicycle, and vehicle collisions within the past five years at nearby intersections. The traffic modeling applicants are required to use reflects a variety of travel modes, reducing the likelihood that the impact study will recommend auto-centric changes such as road widening. Applicants are asked to use ITE Trip Generation Estimates, which are then adjusted with city-provided formulas to generate pedestrian, bicycle, and transit mode shares. Together, these metrics serve to emphasize pedestrian and bicycle safety, while encouraging applicants to accommodate non-automotive travel modes. The city requires applicants to identify potential safety improvements at intersections near the site using the FHWA Crash Modification Factor Clearinghouse.