

1 Introduction

“Around the world, more than 1.35 million people die each year in traffic collisions. . . . In the U.S., the toll is around 35,000 annually”.¹ In the US alone, “another 2 million people are nonfatally injured” each year.² In 2014, the year Muriel Bowser was elected Mayor of the District of Columbia, 23 people were killed in traffic in the District, including nine pedestrians and one person riding a bike; 39 people were killed in traffic in neighboring Montgomery County, Maryland, that year, also including nine pedestrians and one person riding a bike.³

The next year, shortly after taking office, Bowser announced that DC would adopt “a ‘Vision Zero’ approach”; she unveiled her government’s “Vision Zero Action Plan” in December, 2015.^{4–6} Several other governments in the region have also adopted “Vision Zero Plans”, including Montgomery County in 2017.⁷ But what is a “Vision Zero Plan”? Other than simply counting the bodies, how do we evaluate a Vision Zero Plan? And how do local jurisdictions’ Vision Zero Plans rate?

For space reasons, this paper will consider only the Vision Zero plans of DC and Montgomery County, Maryland, but many of the same issues apply as well to other “Vision Zero jurisdictions” in the region.

2 What is a Vision Zero Plan?

Vision Zero is a Swedish “approach to transportation, dictating that the government manage the nation’s streets. . . with the ultimate goal of preventing fatalities and serious injuries,” made law in 1997.⁸ In the US, and in Sweden before the 1990s, “the traditional road-oriented safety philosophy has as its starting point the ‘accident’* [But] by choosing the ‘accident’ perspective, you get a safety philosophy that at its best reduces accidents, not necessarily personal injuries”.⁹

*or, as many [advocates](#) and [journalists](#) now prefer to say, ‘crash’

The innovation of the Vision Zero system therefore is to change perspectives—rather than stopping *crashes*, the focus is on ending *injuries*: in engineering terms, “It is kinetic energy that kills and injures. . . . By managing the. . . energy that is transferred to the human body, an error tolerance can be built into the traffic system”.⁹ In other words, rather than striving to eliminate human error, which is impossible, roadway engineers should make it so people can make mistakes without killing each other or themselves. As Cushing *et al.* put it, Vision Zero takes the responsibility for collisions, and the injuries and fatalities they cause, away from the individual road user and “places [it] on road planners”.¹⁰ As the Swedes’ own Vision Zero Initiative puts it, “Vision Zero. . . can be summarised in one sentence: No loss of life is acceptable. . . . It is based on the simple fact that we are human and make mistakes. The road system needs to keep us moving. But it must also be designed to protect us at every turn”.¹¹

2.1 How do we evaluate a Vision Zero Plan?

Although the United States has not adopted the Swedish approach on a national level, many of its largest states and cities have, including New York City and San Francisco. There is no single, official definition of ‘Vision Zero’ nor a single ‘Vision Zero Plan’ among US entities, but the non-profit [Vision Zero Network](#) (VZN) promotes the concept, shares case studies and best practices, and sets expectations for what qualifies as a Vision Zero Plan.

According to VZN, “Vision Zero is not a slogan, nor a tagline, not even just a program; instead, Vision Zero is a fundamental shift in how your community approaches the issue of safe mobility”.¹² While a few cities in the US had declared a Vision Zero commitment before VZN existed, VZN set out a series of criteria for being recognized as a “Vision Zero community.” These include

- Setting a clear goal of eliminating traffic deaths and serious injuries within an explicit timeframe (i.e., 10 years), with the Mayor (or top elected official) publicly officially committing to the set timeframe and directing

appropriate staff to prioritize the work;

- A VZ Action Plan or Strategy is in place, with a focus on being data driven and equitable and including community input, or the Mayor and key departments have committed to creating one in a specified time frame;
- Key departments, including Transportation, Public Health, and Law Enforcement, are actively engaged as leaders and partners in the process of developing, implementing, and evaluating the Plan and sharing progress;
- A Vision Zero Task Force (including city agencies, key community stakeholders, and others) meets regularly to lead and evaluate efforts.¹²

Johnston’s review of Australian traffic-safety strategies also suggests two more criteria:

“First, the plan must not only be evidence based, but it must have sharp teeth. Second, the public release of a strategic plan that contains specific actions and targets for achievement helps ensure. . . application of sufficient resources and political and agency commitment to effective implementation.”¹³

3 How does DC’s Plan rate?

Early in 2016, VZN evaluated DC’s new Vision Zero Plan and rated it very highly, writing that “thanks to community input, advocacy engagement and deep buy-in from all corners of city government, the Plan makes clear that DC isn’t just committed in words, but taking action to shift the status quo”.¹⁴

Mayor Bowser had publicly committed DC to ‘eliminating traffic deaths and serious injuries’ by a specific date, the year 2024. ‘A Vision Zero Action Plan [was] in place. . . [with] a focus on being data driven, equitable, and including community input’, and not only were ‘key city departments. . . actively engaged. . . in the process of developing the Plan’ but 23 government officials had signed the Plan, including not only the heads of the Transportation, Health, and Police departments, but also Directors of Departments and Offices from

Disability Rights to Public Works to Unified Communications (which oversees 911 and 311); four Deputy Mayors; the Chancellor of DC Public Schools, and more.¹⁴

However, the last of the VZN’s criteria is the creation of a Vision Zero Task Force that “meets regularly to lead and evaluate efforts”. As of June 21, 2019, a search for ‘vision zero task force’ on the DC Government website [returns zero results](#), though a DDOT engineer told me a task force does exist which “meets monthly and consists only of government agencies under the Mayor’s purview”[†]. VZN’s “Guidelines for an Effective Vision Zero Action Plan” specifically lists the Task Force in its section on “Robust Community Engagement”, saying cities should “Create a multi-stakeholder Vision Zero Task Force that includes perspectives from representatives in public health, transportation, policy makers, police, *community, and advocates*, among others” (emphasis added).¹⁵ A closed group consisting only of policy makers from executive agencies simply fails to qualify.

3.1 “Key city departments. . . are actively engaged. . . in the process. . .”

Another core criterion is that “Key city departments. . . are actively engaged as leaders and partners in the process of developing the Vision Zero Plan, implementing it, and evaluating and sharing progress.” It is difficult to measure internal actions, but District departments do not seem to be succeeding at ‘evaluating and sharing progress’—even where DC laws require it.

Sections 102–107 of the Bicycle and Pedestrian Safety Amendment Act of 2016[‡] require agencies to compile and publish certain data at various frequencies—for example, crash and moving-infracton data are to be published at least monthly, while information on permits to occupy public space or block a sidewalk or bike lane is to be published weekly; a report on locations with the highest frequency of collisions that injure or kill pedestrians is to be sent to Council each year, and a report for improving bicycle and pedestrian safety

[†]Emily Dalphy, June 27, 2019, <https://twitter.com/TrafficEngineerD/status/1144104952601686016>

[‡]DC Law [21-155](#), [§102–107](#), DC Code [Title 50, Chapter 19B, §50-1951.02–7](#)

is to be sent to Council every second year. It is not clear that any of these reports have been submitted, so I wrote my Member of Council, Brianne Nadeau. A member of her staff wrote back to say that the required collision data is [available in DC’s data website](#), as is the [moving infraction data](#); as for the ‘permits to occupy public space’, he wrote that “this is done through the [TOPS](#) system, which still has a lot of kinks.”

Similarly, section 301 of the Bicycle and Pedestrian Safety Amendment Act of 2016[§] required DDOT to “create a Complete Streets policy” and, starting in 2017, to “report to the Council on the agency’s progress towards implementing the Complete Streets policy” every year. As of July 2019, the only Complete Streets Policy available on DDOT’s website is [dated 2010](#). Section 201[¶] required creating a Bicycle and Pedestrian Priority Area Program and annual reports about its progress, but as of July, 2019, searching DDOT’s website for “Bicycle and Pedestrian Priority Area Program” [returns no results at all](#).

If DC is making and evaluating progress, the District government sure doesn’t seem to be sharing it.

3.2 “Public, High-Level, and Ongoing Commitment”

Another, more recent publication of the Network is the Core Elements for Vision Zero Communities.¹⁶ The first of these Core Elements is a “Public, High-Level, and Ongoing Commitment” to “eliminating traffic fatalities and serious injuries within a specific timeframe. . . . In short, a Vision Zero commitment is only as strong as it is demonstrated in the actions of the city’s leadership and staff.”

It is difficult to measure internal actions, which is part of why the Core Element requires *public* commitment and action. Some of DC’s failures here are mundane—as of June 2019, a page in the Vision Zero website tracking “[Vision Zero in the News](#)” has not been updated since October 1, 2015—but there are more critical omissions and failures as well.

[§]DC Law [21-155, §301](#), DC Code [Title 50, Chapter 23D, §50-2381](#)

[¶]DC Law [21-155, §201](#), DC Code [Title 50, Chapter 23C, §50-2371](#)

In October 2017, DC’s Department of Public Works announced that DC “is now fully compliant with legislation requiring DC’s heavy-duty fleet be equipped with side-underrun prevention devices, or side guards”¹⁷—nearly ten years after that requirement was imposed by the “Bicycle Safety Enhancement Amendment Act of 2008.”** DPW also announced that “by 2019, the requirement will apply to all private heavy-duty vehicles registered in the District as well”—but while Section 605 of the Bicycle and Pedestrian Safety Amendment Act of 2016^{††} had set that 2019 deadline, the Bowser Administration did not finalize regulations to implement the Act until late 2018. Because of the Administration’s delay, the side-guards requirement^{‡‡} thus did not become law until January 4, 2019, three days after the statute was to have closed the window—and operators received a new 24 month window for compliance.

While nobody has—at least, as of this writing—yet been killed in DC with a truck not modified to meet the side-guard requirement, other failures of the city’s leadership and staff have led to injuries and deaths. In particular, after several deaths along Florida Avenue NE, DC had created a plan to redesign the roadway to reduce traffic speeds and widen sidewalks.^{18,19} It was then shelved for several years, until another death—of a well-known advocate for faster implementation of better, safer roads^{§§20,21}—finally prompted DC to implement interim changes and restart the process to find a permanent solution.^{20,22,23}

After noting that the existing design plan that is to be updated and finalized in the current process is five years old—older than DC’s actual Vision Zero Plan—and insufficient as a Vision Zero design, advocate David Cranor adds,

The multimodal study was to finish in May of 2014 but didn’t until February of 2015. In 2017, they were to be done with the 100% design in Spring of 2018. They were still at the 30% design this past January [2019] with the 65% and 100% designs still to go.

**DC Law 17-352, §2, DC Code Title 50, Chapter 2, §50-205

††DC Law 21-155, §605, DC Code Title 50, Chapter 2, §50-205(a-2)

‡‡DC Municipal Regulations Title 18, §758

§§and a personal friend of this author

They aren’t working towards streets that maximize safety and then they aren’t hitting their own deadlines to build the safety-compromised alternatives they’ve selected. No wonder the roads aren’t getting safer.²⁰

4 How do suburban DC communities’ plans rate?

“We are absolutely as a region failing to achieve our goals. . . . Our goals are fairly meaningless unless we have the policies and the initiatives to achieve said goals.” — Charles Allen, D.C. Council member and 2018 Chair of the National Capital Region Transportation Planning Board²⁴

By summer 2019, most of the communities surrounding DC had also adopted Vision Zero—Montgomery County, Maryland, on DC’s northern border, and Alexandria, Virginia, to the southwest of DC, in 2017^{7,25} and Prince George’s County, Maryland, to DC’s east, and Arlington County, Virginia, to the west, in 2019.^{26,27}

Arlington and Prince George’s Counties have, as of this writing, only just recently announced their intention to adopt Vision Zero; their actual policies do not yet exist. Alexandria is significantly smaller than its neighbors—its population is less than a quarter of DC’s—so due to limited space this paper will only discuss the much larger Montgomery County: how do the policies and initiatives of this suburban jurisdiction stack up?

4.1 Montgomery County, Maryland

Montgomery County issued its two-year action plan in November 2017,⁷ declaring the County would “eliminate fatalities and severe injuries on our roads by 2030”. The Plan contains several strong statements about how traffic fatalities “are not *accidents* and they are not an inevitable ‘cost of doing business’ in the modern world. . . . No one in our community should have to grieve the loss of a loved one as the result of a traffic collision”, as an average of 35 County families did each of the five years before the Plan.⁷

While the County Executive who began the program, Isiah Leggett, retired at the end of his term in 2019, his successor, Marc Elrich, had signed the plan as a Member of County Council and continues the commitment. And while Montgomery County’s plan document does not contain as impressive a list of agencies that signed on as DC’s Vision Zero Plan does, the Directors of Transportation and Public Information and the Chiefs of Police and the Fire and Rescue Service are listed below the County Executive in the Plan beside the Councilmembers, and the 17 “agencies and organizations who participated in the development” of the Plan include not only County agencies such as the planning, police, and transportation departments and the school district, but also the Maryland State Highway Administration; the County Attorney and Department of Correction and Rehabilitation; the county transportation department’s external Pedestrian, Bicycle, and Traffic Safety Advisory Committee; and two independent non-profit organizations, transit and riders’ advocates Action Committee for Transit and regional cycling advocates Washington Area Bicyclist Association.

The fact that Montgomery County’s plan lists not only executive agencies but also the County Council, the Advisory Committee, and two independent organizations seems noteworthy—while both the DC VZ Plan and articles about it note DC’s collaboration with outside organizations and members of the public in creating the Plan,^{6,14} the Plan itself is only signed by District executive offices and agencies. However, in implementation, Montgomery County, like the District, has fallen short in several ways.

“Public release of a strategic plan that contains specific actions and targets for achievement” As mentioned, a short-term Two-Year Action Plan was released in 2017.⁷ This plan in turn included as one of its Action Items the creation of a long-term Ten-Year Action Plan. Work on this Ten-Year plan was to have started in January 2019 and been completed by November 2019, but as of July 2019, it is one of the items which is “Behind Schedule, Not Started”.²⁸

“The plan must not only be evidence based, but it must have sharp teeth” The Two-Year Action Plan has deadlines for nearly every item in it, but no indication of what is to happen when those deadlines are not met or when actions don’t have the desired effect. For example, the Plan says that the County will issue a 1-Year Progress Report in January 2019, with the 1st Draft of the 10-Year Plan to follow in July 2019, and annual updates afterward.⁷ In late July 2019, six months after the 1-Year Progress Report was due, the first one was issued by the County, stepping through the action items in the Two-Year Plan and evaluating their status.²⁸ Aside from the Progress Report itself being late, several other items are marked as ‘behind schedule’, but there is no indication that any greater priority is being put on them by County government, nor that any action is to be taken in response. Several items are noted as ‘not started’ or ‘no resources’ “due to budget constraints”, but there is no indication that the County will attempt to reprogram funds or find the resources. This plan apparently has no teeth at all.

“A Vision Zero Task Force. . . meets regularly to lead and evaluate efforts” The Two-Year Action Plan calls for an Equity Task Force “with community members to ensure appropriate strategies, approaches, and messaging around Vision Zero”.⁷ This Task Force was to have been established by the end of 2017; it finally actually began meeting in March 2019, meeting five times by the end of July.²⁸ The Action Plan also calls for the County to Appoint a Vision Zero Coordinator by the end of January 2018 to manage the initiative and coordinate between the various departments and agencies involved; according to the Progress Report, the County finally issued an RFP—not a job announcement—for a Coordinator in May, 2019²⁸ ¶¶.

“Public, High-Level, and Ongoing Commitment” Some parts of Montgomery County government seem to be making progress. As the initial Progress Report demonstrates, many

¶¶While I’m not sure it has been published anywhere, it was mentioned at the September 2019 meeting of Action Committee for Transit that the RFP had failed to find a qualified contractor and that the position would indeed be posted as a regular job announcement.

action items targeting MCDOT and MCPD, especially projects that could be handled internally within those departments, have begun and are on schedule.²⁸ MCDOT is nearing completion of the East Coast’s first ‘protected intersection,’ with separation for bike lanes continued into the crossing.²⁹ However, projects that require collaboration among departments or other agencies, or which require political support from the Executive or other appointed bodies, are delayed or moving backwards.

For one example, in early June 2019 the Planning Department announced work on a Pedestrian Master Plan, including developing a “pedestrian level of comfort” analysis for streets throughout the county and eventually a list of recommendations to increase walkability along county roads.³⁰ However, the very same week, the County Planning Board voted 4–1 to reject a Parks Department staff recommendation to make permanent a narrowing of Little Falls Parkway at its intersection with the Capital Crescent Trail, where a man riding a recumbent bicycle was killed in 2016.^{31,32} (The Board did later vote to delay funding for removing the narrowing, so it will remain for at least five years.³³)

5 Conclusion

The District of Columbia and Montgomery County have each declared they intend to eliminate traffic deaths in their jurisdictions. But their executive agencies have dawdled at or outright failed to do the things that are necessary to make that happen, their legislatures have failed to hold them accountable, and they have made little progress.

In July 2019, Arlington, VA, and Prince George’s, MD, announced countywide Vision Zero commitments of their own. But as the experiences of DC and Montgomery County demonstrate, unless there is actual change in priorities and process, from the County Executive to department staff, and unless executives and legislators both evaluate progress with actual consequences for failure—with “sharp teeth”, as Johnston puts it—and apply not only sufficient resources but political commitment toward effective implementation, none of them will succeed in eliminating traffic deaths and serious injuries.

References

- [1] Walljasper, Jay, “Mission Zero: An uptick in traffic and pedestrian fatalities has many U.S. cities doubling down on Vision Zero,” *Planning* (June 2019), <https://www.planning.org/planning/2019/jun/missionzero/>, accessed June 3, 2019.
- [2] Naumann, Rebecca B. et al., “Organizational networks in road safety: Case studies of U.S. Vision Zero cities,” *Traffic Injury Prevention*, 20/4 (2019), PMID: 31039036, 378–85. doi: [10.1080/15389588.2019.1587752](https://doi.org/10.1080/15389588.2019.1587752), <https://www.tandfonline.com/doi/full/10.1080/15389588.2019.1587752>.
- [3] National Highway Traffic Safety Administration, “Traffic Safety Facts Annual Report Tables” (2013–2017), <https://cdan.nhtsa.gov/STSI.htm>, accessed June 4, 2019.
- [4] Laris, Michael, “New push to reduce traffic deaths in District is part of national effort,” *Washington Post* (Mar. 9, 2015), https://www.washingtonpost.com/local/trafficandcommuting/new-push-to-reduce-traffic-deaths-in-district-is-part-of-national-effort/2015/03/09/23ce9032-c699-11e4-a199-6cb5e63819d2_story.html, accessed June 3, 2019.
- [5] Lazo, Luz, “D.C. plans to add more traffic cameras,” *Washington Post* (Dec. 16, 2015), <https://www.washingtonpost.com/news/dr-gridlock/wp/2015/12/16/d-c-plans-to-add-100-more-traffic-cameras/>, accessed June 3, 2019.
- [6] Washington, DC, Department of Transportation, *Vision Zero: Safe Streets for Washington, DC: A Plan of Action*, 2015. doi: [10.15139/S3/YCIZOU](https://doi.org/10.15139/S3/YCIZOU), https://docs.wixstatic.com/ugd/1604df_94d0be3108a9486794428332c47bf947.pdf, accessed May 5, 2019.
- [7] Montgomery County, MD, Office of the County Executive, *Vision Zero: No Traffic Deaths by 2030 in Montgomery County: Two-Year Action Plan*, Montgomery County Government, Nov. 2017. doi: [10.15139/S3/T1DYMD](https://doi.org/10.15139/S3/T1DYMD), <https://montgomerycountymd.gov/transportation/traffic-safety/vision-zero>

- [d.gov/visionzero/Resources/Files/Montgomery_20County_20Vision_20Zero_20_20Year_20Action_20Plan.pdf](https://www.montgomerycountymd.gov/visionzero/Resources/Files/Montgomery_20County_20Vision_20Zero_20_20Year_20Action_20Plan.pdf), accessed May 5, 2019.
- [8] Goodyear, Sarah, “The Swedish Approach to Road Safety: ‘The Accident Is Not the Major Problem’: Sweden’s top traffic safety strategist visits New York to share lessons from the original ‘Vision Zero,’” *Citylab* (Nov. 20, 2014), <https://www.citylab.com/transportation/2014/11/the-swedish-approach/382995/>, accessed June 18, 2019.
- [9] Johansson, Roger, “Vision Zero – Implementing a policy for traffic safety,” *Safety Science*, 47/6 (July 2009), 826–31. doi: [10.1016/j.ssci.2008.10.023](https://doi.org/10.1016/j.ssci.2008.10.023), <http://www.sciencedirect.com/science/article/pii/S0925753508001859>, accessed July 9, 2019.
- [10] Cushing, Matthew et al., “Vision Zero in the United States Versus Sweden: Infrastructure Improvement for Cycling Safety,” *American Journal of Public Health*, 106/12 (Dec. 2016), 2178–80. doi: [10.2105/AJPH.2016.303466](https://doi.org/10.2105/AJPH.2016.303466), <https://ajphaphublications.org/doi/10.2105/AJPH.2016.303466>, accessed June 27, 2019.
- [11] Vision Zero Initiative, *The Vision Zero: No loss of life is acceptable*, 2016, <https://web.archive.org/web/20160318014022/http://visionzeroinitiative.se/en/Concept/>, accessed June 30, 2019.
- [12] Vision Zero Network, *What is the Vision Zero Network?* <https://visionzeronetwork.org/about/vision-zero-network/>, accessed June 18, 2019.
- [13] Johnston, Ian, *Halving Roadway Fatalities: A Case Study from Victoria, Australia, 1989-2004* (FHWA-PL-06-011, Washington, DC: Federal Highway Administration, International Technology Scanning Program, Apr. 2006), https://international.fhwa.dot.gov/halving_fatalities/halving_fatalities.pdf, accessed July 13, 2019.
- [14] Vision Zero Network, “Collaboration in Action: DC Debuts Vision Zero Plan” (Jan. 7, 2016), <https://visionzeronetwork.org/collaboration-in-action-d-c-debuts-vision-zero-plan/>, accessed June 19, 2019.

- [15] Ferrier, Kathleen et al., *Vision, Strategies, Action: Guidelines for an Effective Vision Zero Action Plan*, Vision Zero Network, LivableStreets Alliance, and Massachusetts Vision Zero Coalition, Dec. 2017, https://visionzeronetwork.org/wp-content/uploads/2017/12/VZN_ActionPlan_FINAL.pdf, accessed June 28, 2019.
- [16] Fox, Jenn and Shahum, Leah, *Core Elements for Vision Zero Communities*, Vision Zero Network, Nov. 2018, https://visionzeronetwork.org/wp-content/uploads/2018/11/VZN_CoreElements_FINAL.pdf, accessed June 20, 2019.
- [17] DC Department of Public Works, *Mayor Bowser Announces All of DC’s Heavy-Duty Fleet Now Has Side Guards*, Oct. 4, 2017, <https://dpw.dc.gov/release/mayor-bowser-announces-all-dc%E2%80%99s-heavy-duty-fleet-now-has-side-guards>, accessed June 24, 2019.
- [18] Goodman, Tony, “Florida Avenue shouldn’t have to wait for real sidewalks,” *Greater Greater Washington* (Apr. 2, 2013), <https://gqwash.org/view/30781/>, accessed Aug. 21, 2019.
- [19] Malouff, Dan, “A protected bikeway on Florida Avenue? Yes please!” *Greater Greater Washington* (Feb. 23, 2017), <https://gqwash.org/view/62495/>, accessed Aug. 21, 2019.
- [20] Cranor, David, “Initial thoughts following the Dave Salovesh murder,” *The Wash Cycle: Cycling Advocacy in the Nation’s Capital* (Apr. 22, 2019), <https://www.thewashcycle.com/2019/04/initial-thoughts-following-the-dave-salovesh-murder.html>, accessed Aug. 25, 2019.
- [21] Alpert, David, “The cycling community grieves as a driver kills Dave Salovesh, an outspoken critic of DC’s inaction on road safety,” *Greater Greater Washington* (Apr. 22, 2019), <https://gqwash.org/view/71820>, accessed Aug. 25, 2019.
- [22] Giambrone, Andrew, “DC transportation officials to present Florida Avenue NE street safety changes June 20: A planned city project spans the avenue from 2nd to 14th

- streets NE,” *Curbed DC* (June 11, 2019), <https://dc.curbed.com/2019/6/11/18661662>, accessed Aug. 25, 2019.
- [23] Sampson, Matthew and Alpert, David, “DC is starting temporary fixes to dangerous Florida Avenue NE,” *Greater Greater Washington* (June 24, 2019), <https://gqwash.org/view/72714/>, accessed Aug. 25, 2019.
- [24] Lazo, Luz, “Pedestrians continue to be at high risk on Washington region’s roads, data show,” *Washington Post* (Feb. 9, 2019), https://www.washingtonpost.com/local/trafficandcommuting/pedestrians-continue-to-be-at-high-risk-on-washington-regions-roads-data-show/2019/02/09/e6a4e7a8-1f52-11e9-8b59-0a28f2191131_story.html, accessed July 24, 2019.
- [25] City of Alexandria, Virginia, Nspiregreen LLC, and Toole Design Group, *Vision Zero Action Plan*, Dec. 1, 2017. doi: [10.15139/S3/gu1a7t](https://doi.org/10.15139/S3/gu1a7t), <https://dataverse.unc.edu/citation?persistentId=doi:10.15139/S3/GU1A7T>, accessed May 5, 2019.
- [26] Baxter, Jessica, “County Board Adopts Vision Zero Traffic Safety Strategy,” Arlington County, VA (July 16, 2019), <https://newsroom.arlingtonva.us/release/county-board-adopts-vision-zero-traffic-safety-strategy/>, accessed Aug. 19, 2019.
- [27] Bonessi, Dominique Maria, “Prince George’s County Finally Joins The Region In Adopting Vision Zero,” *WAMU 88.5 American University Radio* (July 25, 2019), <https://wamu.org/story/19/07/25/prince-georges-county-finally-joins-the-region-in-adopting-vision-zero/>, accessed Aug. 19, 2019.
- [28] *Status of Vision Zero action items as of 7/23/2019*, Montgomery County Government, July 23, 2019, <https://www.montgomerycountymd.gov/visionzero/Resources/Files/vz-progress.pdf>, accessed Aug. 19, 2019.
- [29] Strupp, Julie, “The East Coast’s first protected intersection is coming to Silver Spring. Here’s how it works.,” *Greater Greater Washington* (Aug. 8, 2019), <https://gqwash.org/view/73335/>, accessed Aug. 27, 2019.

- [30] Peetz, Caitlynn, “County Analyzing Streets for ‘Pedestrian Comfort’ and Safety: Two-year project will develop a pedestrian master plan, recommend improvements,” *Bethesda Beat* (June 11, 2019), <https://bethesdamagazine.com/bethesda-beat/development/county-analyzing-streets-for-pedestrian-comfort-and-safety/>, accessed Aug. 27, 2019.
- [31] Peetz, Caitlynn, “Planning Board Axes ‘Road Diet’ for Capital Crescent Crossing: Board opts to move trail to crossing with Arlington Road,” *Bethesda Beat* (June 14, 2019), <https://bethesdamagazine.com/bethesda-beat/development/planning-board-axes-road-diet-for-capital-crescent-crossing/>, accessed Aug. 27, 2019.
- [32] Peetz, Caitlynn, “Memorial Planned for Pedestrian, Bicyclist Killed in Bethesda in July: Bicycle ride, ‘ghost bike installation’ scheduled for Saturday morning,” *Bethesda Beat* (Aug. 15, 2019), <https://bethesdamagazine.com/bethesda-beat/news/memorial-planned-for-pedestrian-bicyclist-killed-in-bethesda-in-july/>, accessed Aug. 27, 2019.
- [33] Peetz, Caitlynn, “Planning Board Reverses Decision To Realign Capital Crescent Trail Crossing with Little Falls Parkway: Board defers funding for at least five years, retains ‘road diet’ in interim,” *Bethesda Beat* (Sept. 13, 2019), <https://bethesdamagazine.com/bethesda-beat/development/planning-board-reverses-decision-to-realign-capital-crescent-trail-crossing-with-little-falls-parkway/>, accessed Nov. 18, 2019.