





Examples of urban street projects falling short of the 2017 standards

The following are examples of Prince George's county transportation projects that are not consistent with the <u>2017 Urban Street Design Standards</u>, or show indications they are likely to deviate, in many important ways. These deviations mean the county continues to build roads in mixed-use urban transit centers that are unnecessarily wide and fast, perpetuating risk to pedestrians and bicyclists, and discouraging transit-oriented economic development. Two of the urban street design standards stand out as critical to achieving the safer, slower streets that foster a walkable, transit-oriented center: 25 mph design speed and protected bicycle lanes.

- **25 mph is an urban speed for a mixed-use environment**: Significantly, no projects have changed the posted speed limit to 25 mph although all urban street types are to have a 25 mph design speed. A lower design speed requires fewer travel lanes, narrower lane widths, tight corner turning radii, no slip lanes, and other features to reduce vehicle speeds. We assume the 25 mph design speed for all urban streets in the 2017 standards was intended to achieve a 25 mph operating speed for these roadways.
- **Protected bicycle lanes:** Although an option for an urban boulevard design, they have never been implemented by the county, despite need based on traffic volumes and traffic speed¹ and, in some cases, available right-of-way.

Ager Road Green Streets Project - still too fast & wide

The <u>Ager Road Green Streets project</u> (West Hyattsville Metro station) made a number of improvements – adding wider sidewalks, removing sidewalk obstructions like utility poles, adding Americans with Disabilities Act-compliant improvements including curb ramps, adding stormwater management features, and improving connections to the nearby trails. The project also narrowed travel lanes and added painted bike lanes. In the northern half of the project, it removed service roads and a travel lane in some places.

¹ See Federal Highway Administration (FHWA) <u>Bikeway Selection Guide</u> (2019); National Association of City Transportation Officials (NACTO) <u>Contextual Guidance for Selecting All Ages & Abilities Bikeways</u>; and the Maryland Department of Transportation (MDOT) <u>Bicycle Level of Traffic Stress Analysis (methodology</u>).



A memorial to Helen Jorgensen, who died crossing Ager Road in a nearby marked crosswalk, rests near a slip lane that DPW&T rebuilt as part of its Ager Road Green Street CIP project at the intersection with Hamilton Street. Photo by Dan Behrend

However, the street is still too wide. Based on traffic volumes,² it should be two lanes instead of four.³ The large turning radii, including slip lanes, allow drivers to make turns at high speeds, an unnecessary hazard for pedestrians. Its design speed is also too fast. In a recent traffic study, 70% of drivers exceeded the posted 30 mph speed limit. The March 2023 study also found the measured 85th percentile speed is 38 mph, which is 8 mph over the posted speed limit (and well above the 25 mph design speed for urban

streets).

Based on traffic volume and speed, the bike lanes should be protected (e.g., vertical elements like concrete curb stops separating people on bikes from cars) or separated (e.g., vertically separated next to the sidewalk, or combined with the sidewalk as a shared-use path). The sidewalks should have a buffer with street trees to separate people from the street.

To address the problem of too many travel lanes, unnecessarily long crossing distances, and high vehicle speeds, the March 2023 traffic assessment recommended allowing on-street parking at the curb lane to narrow the travel way. This would be an immediate, low or no cost

²2022 AADT & AAWDT (Monday - Friday): 10,944 (11,604) Oglethorpe St. to Queens Chapel Rd.; Peak AADT & AAWDT (Monday - Friday): 2017: 11,535 (12,235) Oglethorpe St. to Queens Chapel Rd.. Source: Maryland Department of Transportation, State Highway Administration Annual Average Daily Traffic (AADT) data. ³ Calculating motor vehicle traffic capacity and level of service, a qualitative measure of motor vehicle traffic flow at the busiest travel time, is highly technical. Using publicly available Annual Average Daily Traffic (AADT) and Average Annual Weekday Traffic (AAWDT) data as a rough metric, however, designs for county roads appear to have more travel lanes than necessary to achieve a vehicle Level of Service (LOS) E- in Regional Transit Centers and Local Centers. LOS E- is the standard set by M-NCPPC Prince George's County Planning Department Transportation Review Guidelines. For matching travel lane capacity to traffic volume, see e.g., the Motor Vehicle Arterial Generalized Service Volume table on page 94 of Florida DOT's 2023 Multimodal Quality Level of Service Handbook, which suggests that 2 lanes may accommodate an AADT over 20,000 on urban streets at an LOS E. According to NACTO, "While road diets are not appropriate on all 4-lane cross sections, streets carrying up to 25,000 vehicles per day function effectively with 3 lanes, depending on the traffic volumes of nearby adjacent streets." See also Dan Burden & Peter Lagerwey's "Road Diets: Fixing the Big Roads" (1999), which found some communities decided to cap road diets (reducing a 4-6 lane road to a 2 or 3 lane road) at 20,000 AADT. FHWA guidance suggests streets with 10,000 - 15,000 AADT are good candidates in many instances for a road diet; streets with 15,000 - 20,000 are good candidates in some instances.

solution to the overdesign of the roadway. In the longer term, bulb outs could be constructed to shorten crossing distances, along with reconfiguring bike lanes to be protected.



PROPOSED

Image: Ager Road Green Streets CIP Project, DPW&T

Key features comparison: Urban Street Design Standards & Ager Road Project

| Urban Street Design Standard | Ager Road Project |
|---|---|
| 25 mph design speed | 30 mph posted speed limit (38 mph 85th percentile) |
| 2-4 travel lane maximum | 4 travel lanes, unwarranted by traffic volumes & LOS E- |
| 10' travel lane widths (11' for bus routes) | 11' curb and inside lanes |
| 15' minimum turning radius | Slip lane re-installed at Hamilton Street onto Ager Road |
| 6' sidewalk | 6' sidewalk |
| 6' buffer for sidewalk | Mostly unbuffered, especially near Metro station. |
| bike facilities - 6.5' separated bike lane | 6' on-street, unprotected |
| On-street parking - 8' | No on-street parking around Metro station on Ager |

| | or Hamilton. Angle spaces are on Hamilton east of Ager Rd. |
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Projects in planning/design - under <u>DPW&T Capital Improvements</u> <u>Program (CIP) projects</u>

<u>Campus Drive Green Complete Street Project</u> (College Park Metro and Purple Line Stations) has similar design features and the problems as Ager Road, including: multiple travel lanes that may not be warranted by traffic volumes;⁴ 11' and 12' travel lanes instead of 10' and 11'; unprotected bicycle lanes despite the high speed generated by the multiple vehicle travel lanes; mostly unbuffered sidewalks, especially near Metro; 4' sidewalk on the north side.



Image: Campus Drive Green Complete Street Project, DPW&T

⁴ 2022 AADT & AAWDT (Monday - Friday): 8,781 (9,481); Peak AADT & AAWDT (Monday - Friday): 2016: 17,202 (18,412). Source: <u>Maryland Department of Transportation, State Highway Administration Annual Average Daily</u> <u>Traffic (AADT) data</u>.

| Urban Street Design Standard | Campus Drive Project |
|---|--|
| 25 mph design speed | Unspecified; currently 35 mph posted speed limit |
| 2-4 travel lane maximum | 4 travel lanes, may be unwarranted by traffic volumes & LOS E- goal |
| 10' travel lane widths (11' for bus routes) | 11' curb and inside travel lanes |
| 15' minimum turning radius | Slip lane re-installed at Old Calvert Road; other curb radii appear larger than 15' |
| 6' sidewalk | 8' existing sidewalk (south) 🔽 4' existing sidewalk (north) |
| 6' buffer for sidewalk | Mostly unbuffered, including near Metro |
| bike facilities - 6.5' separated bike lane | 5' on-street |
| On-street parking - 8' | No on-street parking |

Key features comparison: Urban Street Design Standards & Campus Drive Project

Belcrest Road (<u>SS4A application</u>) (Hyattsville Crossing Metro Station) is too wide (traffic volumes⁵ supports two, not four lanes); presumably too fast (not clear in design, but based on past practice, will likely drop 35 mph posted limit to 30 mph); replaces recommended protected bike facilities (i.e., combination of shared-use path and raised cycletrack) with 5-foot unprotected bike lanes.



Image: Belcrest Road (Queens Chapel Road to Adelphi Road, Long-Term Safety Improvements Recommendations, DPW&T



An image of Belcrest Road's existing conditions. Many county roads are overdesigned to minimize the delays that drivers might experience during rush hour. Outside of these few hours a day, the multiple lanes are unnecessary and encourage drivers to speed. Photo by Dan Behrend

⁵ 2022 AADT & AAWDT (Monday - Friday): 12,564 (13,324) Adelphi Road to East West Highway; Peak AADT & AAWDT (Monday - Friday): 2017: 13,125 (13,915) Adelphi Road to East West Highway. 2022 AADT & AAWDT (Monday - Friday): 16,635 (17,635) East-West Highway to Queens Chapel Road; Peak AADT & AAWDT (Monday - Friday): 2017: 17,460 (18,510) East-West Highway to Queens Chapel Road. Source: <u>Maryland Department of Transportation, State Highway Administration Annual Average Daily Traffic (AADT) data</u>.

| Urban Street Design Standard | Belcrest Road Project |
|---|---|
| 25 mph design speed | Unspecified; currently 35 mph posted speed limit |
| 2-4 travel lane maximum | 4 travel lanes, unwarranted by traffic volumes & LOS E- |
| 10' travel lane widths (11' for bus routes) | 10' inside lanes; 11' curb lanes (along bus route) 🔽 |
| 15' minimum turning radius | Reduced turning radii at some intersections and removed slip lanes at Toledo Terrace 7; however, slip lanes re-installed at Adelphi Road, East-West Highway, Belcrest Center Drive and Queens Chapel Road. |
| 6' sidewalk | Unspecified; currently > $6' \checkmark$ |
| 6' buffer for sidewalk | Unbuffered, including near Metro |
| bike facilities - 6.5' separated bike lane | 5' on-street |
| On-street parking - 8' | No on-street parking |

Key features comparison: Urban Street Design Standards & Belcrest Road Project

Lottsford Road (Largo Area CIP Roadway Project; Downtown Largo Metro Station) is too wide (traffic volumes⁶ supports two, not four lanes) and too fast (posted 30+ mph); buffered bicycle lanes should be protected based on motor vehicle speed and multiple vehicle travel lanes.



| Urban Street Design Standard | Lottsford Road Project |
|---|---|
| 25 mph design speed | Unspecified; currently 40 mph posted speed limit |
| 2-4 travel lane maximum | 4 travel lanes, unwarranted by traffic volumes & LOS E- |
| 10' travel lane widths (11' for bus routes) | 10' inside lanes; 11' curb lanes 🔽 |
| 15' minimum turning radius | Appears to mostly maintain larger, existing turning radii. Maintains slip lanes at Harry S. Truman Drive and Landover Road. |
| 6' sidewalk | 5' sidewalk |
| 6' buffer for sidewalk | 5' buffer |
| bike facilities - 6.5' separated bike lane | 7' on-street with 5' painted buffer (speeds warrant protected bike lane) |
| On-street parking - 8' | No on-street parking |

Key features comparison: Urban Street Design Standards & Lottsford Road

⁶ 2022 AADT & AAWDT (Monday - Friday): 11,955 (12,915); Peak AADT & AAWDT (Monday - Friday): 2017: 12,530 (13,410). Source: <u>Maryland Department of Transportation, State Highway Administration Annual Average Daily</u> <u>Traffic (AADT) data</u>.

Garrett A Morgan Lane Modification (Morgan Boulevard Metro) (Completed - see <u>Vision Zero</u> <u>project page</u>) reduced 6 lane road to 4 lanes, added unprotected bike lanes (a bus/bike lane), reduced posted limit from 35 to 30 mph. The roadway is still probably too wide (traffic volume⁷, or AADT, supports two, not four lanes) and too fast (posted 30 mph); bike lanes should be protected.



Image: Garrett A. Morgan Boulevard, Landover - Roadway Modification , DPW&T

| Urban Street Design Standard | Garrett A Morgan Lane Project |
|---|--|
| 25 mph design speed | 30 mph posted speed limit |
| 2-4 travel lane maximum | 4 travel lanes, may be unwarranted by traffic volumes & LOS E- |
| 10' travel lane widths (11' for bus routes) | 11-12' travel lanes |
| 15' minimum turning radius | Maintains existing turning radii, including slip lanes at Central Ave. |
| 6' sidewalk | Approx. 6' sidewalk 🔽 |
| 6' buffer for sidewalk | 2' buffer |
| bike facilities - 6.5' separated bike lane | 9-10' on-street bike/bus lane 🔽 (but could have been separated) |
| On-street parking - 8' | No on-street parking |

Key features comparison: Urban Street Design Standards & Garrett A Morgan Road

⁷2022 AADT & AAWDT (Monday - Friday): 16,234 (17,534); Peak AADT & AAWDT (Monday - Friday): 2018: 16,890 (18,070). Source: <u>Maryland Department of Transportation, State Highway Administration Annual Average Daily</u> <u>Traffic (AADT) data</u>.