AGENDA
ANC 6A Transportation & Public Space Committee Meeting
Tuesday, January 17 at 7:00 pm
Virtual Meeting via Zoom
For those attending via Zoom: use this link: https://us06web.zoom.us/j/86582128231
Call-in Number: 1 301 715 8592
Webinar ID (access code): 865 8212 8231
One tap mobile: +13017158592,,86582128231#
Public Meeting – All are welcome

Community comment welcome; may be limited to 2 minutes to provide a chance for everyone to speak. Community comment time will be opened after each Old and New Business item.

I. Call meeting to order.

II. Introductions & Announcements

III. Old Business
None posted.

IV. New Business:
A. 11th Street NE traffic safety concerns (Mike Velasquez)
B. Traffic Safety Investigation (TSI)process (Amber Gove) Discussion of TSI 2.0 process and collection of additional input on prioritized locations.
- https://ddot.dc.gov/featured-content/traffic-safety-investigation-tsi-dashboard
- https://ddot.dc.gov/sites/default/files/dc/sites/ddot/service_content/attachments/DDOT%20Traffic%20Safety%20Input%20%28TSI%29%20Prioritization%20Model.pdf

C. Proposal of a 4-way stop sign at 14th Street and Tennessee Avenue NE(Laura Gentile)
D. Neighbor concerns regarding ineffective speed table on 1200 D Street (Laura Gentile)
E. Community discussion and input to send to DDOT re 11th Street NE (East Capitol Street to Florida Avenue NE)

V. Additional Community Comment:

VI. Adjourn meeting

District Department of Transportation

DDOT Traffic Safety Input (TSI) Prioritization Model

The TSI 2.0 prioritization model evaluates objective criteria and generates a unique score for each intersection within the District. Traffic Safety Inputs (TSIs) are scored and ranked based on the score of their respective intersections. If a TSI address is located between multiple intersections, it receives the highest score of the adjacent intersections. The criteria used for prioritization of the TSIs are grouped in five (5) main categories consisting various criteria that were thoughtfully selected based on the equity and safety needs, availability of robust data, and the safety interventions available in the TSI toolbox.

Lastly, calculated intersection scores are subject to change, due to the ever-changing conditions on the District's roadway network. Therefore, DDOT will periodically re-calculate the intersection scores, to ensure that changes in below criteria are accounted for and that prioritization of TSIs is based on the most recent conditions.

Below is a detailed description of the criteria used in the TSI 2.0 prioritization scheme:

Crash Patterns (30%)

- Non-Motorist Crashes: This criterion is based on whether the intersection has one or more traffic crashes involving non-motorists (i.e., pedestrians, cyclists, and micro-mobility users) in the last three complete calendar years. The criterion is pass-fail, giving full points if the minimum value is met.
- Different-Direction Crashes: This criterion is based on whether the intersection has a minimum number of traffic crashes of certain collision types in the last three complete calendar years. The collision types include head-on, left turn, right turn, right angle, and opposite-direction sideswipe. The minimum is three (3) crashes for locations on the local and collector roadway network and five (5) crashes for locations on the arterial roadway network. The criterion is pass-fail, giving full points if the minimum value is met.

Vision Zero High Injury Network (20%)

- Proximity to Vision Zero High Injury Network: This criterion is based on proximity to Vision Zero High Injury Network (HIN) corridors. Locations receive additional points for each HIN corridor and final scores are normalized on a scale of 0 to 1.

Equity (20%)

- Race and Ethnicity: This criterion is based on adjacent Census Blocks, DC Equity Area Study
- Disability: This criterion is based on adjacent Census Blocks, DC Equity Area Study
- Income: This criterion is based on adjacent Census Tracts

Vulnerable Road User (VRU) Trip Generators (20%)

- Schools: This criterion is based on the number of schools within varying walksheds. Locations receive additional points for each school and final scores are normalized on a scale of 0 to 1.
- Transit Stations: This criterion is based on the number of transit stations (Metrorail, Streetcar, Metrobus, Circulator) within varying walksheds. Locations receive additional points for each transit station and final scores are normalized on a scale of 0 to 1.
- Senior Centers: This criterion is based on the number of senior centers within varying walksheds. Locations receive additional points for each senior center and final scores are normalized on a scale of 0 to 1.
- Recreation Centers/Parks: This criterion is based on the number of recreation centers within varying walksheds. Locations receive additional points for each recreation center and final scores are normalized on a scale of 0 to 1.

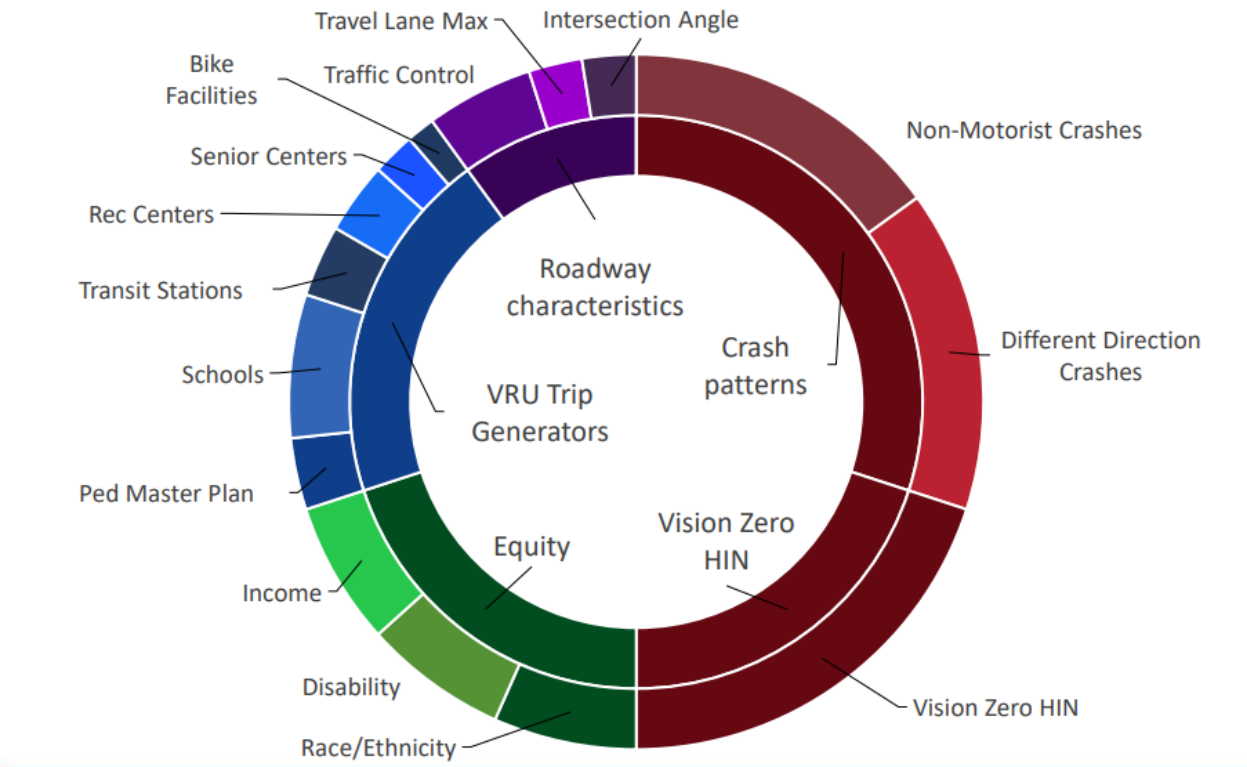
- Bicycle Facilities: This criterion is based on the presence of bicycle facility in MoveDC Plan. The criterion is pass-fail, giving full points if the criterion is met.
- DDOT Pedestrian Master Plan Score: Criterion is based on the average pedestrian demand score of all segments at the intersection, normalized on a scale of 0 to 1.

Roadway Characteristics (10%)

- Intersection Traffic Control: This criterion is based on the traffic control type of the intersection. Locations with higher control type receive lower score on a scale of 0 to 1. Intersection control type hierarchy from highest to lowest control type is as follows: full traffic signal, all-way stop control, two-way stop control, yield, uncontrolled.
- Travel Lane Count: This criterion is based on the number of travel lanes at unsignalized intersections, as a measure of challenging geometry, normalized on a scale of 0 to 1.
- Intersection Angle: Criterion is based on the intersection skew angle less than 80 degrees for non-signalized intersections, as a measure of challenging geometry. The criterion is pass-fail, giving full points if the criterion is met.

Final Score (100%)

The final location score is based on all the components described above. Scores are normalized to provide a 0 to 100 scale, with the lowest score being set to 0 and the highest score being set to 100. Below graphic is a schematic demonstration of the prioritization criteria used. The inner rings demonstrate the main categories (i.e., Crash Patterns, Vision Zero High Injury Network, Equity, Vulnerable Road Users Trip Generators, Roadway Characteristics) and the outer rings demonstrate the individual criteria in each category. The lengths of the rings represent the relative weight of each criterion.



In addition to the above factors, TSIs are prioritized based on the functional classification of the roadway, meaning that of the 200 priority locations advanced each quarter, 160 locations (i.e., 80%) are pulled from the local and collector roadway network and 40 locations (i.e., 20%) are pulled from the arterial roadway network. This was determined based on below important facts:

- TSI Toolbox is most suited for addressing small-scale spot safety improvements on local and collector neighborhood roadways.
- DDOT has several proactive safety initiatives and programs that primarily focus on roadways of higher functional classification (i.e., arterial roadways) and are the best vehicles for delivering transformative safety improvements on these roadways. These programs include but are not limited to Annual Safety Improvement Program (ASaP), Bus Priority projects, Protected Bike Lane (PBL) projects, and our High Injury Network (HIN) corridor projects.
- The 80/20 percent split is in line with the ratio of roadway miles in the local/collector and the arterial roadways categories in the District of Columbia.

Lastly, to ensure that TSIs are prioritized in all 8 Wards during every quarter, a minimum of 10 top priority TSI locations in each Ward are prioritized (i.e., 80 TSIs) every quarter, while the remaining 120 locations are prioritized based on their universal score/rank.

District Department of Transportation

DDOT Guidelines on Vertical Traffic Calming Implementation

INTRODUCTION

The purpose of this memo is to detail the criteria used to evaluate implementation of vertical traffic calming infrastructure on roadways within the District. Vertical traffic calming devices including speed humps, speed tables, and raised crosswalks are typically used to maintain travel speeds at or below the posted speed limit. These devices are most widely applied along local and collector neighborhood/residential streets but may be applied to certain minor arterials in unique circumstances, per these guidelines. Vertical traffic calming devices shall not be placed on roads classified as Principal Arterials or higher. **The criteria detailed in this document supersedes all previous DDOT guidance on vertical traffic calming, including *DDOT Speed Hump Request Procedures and Engineering Guidelines* (2010) and *DDOT Traffic Calming Assessment Application* (2012). The criteria and applicability for other non-vertical traffic calming remains unchanged.**

Generally, vertical traffic calming devices can result in both positive and negative impacts to the transportation network. Implementation of these devices can help maintain travel speeds at or below the posted speed limit and help manage aggressive driving behavior. The United States Federal Highway Administration's (FHWA) Traffic Calming ePrimer states that "*speed effects of a single or series of speed humps are greater than for any other traffic calming measure with the exception of route diversions that eliminate a particular traffic movement.*" However, in some cases they can increase emergency response time, and may lead to an increase in noise or physical vibration in cases where trucks and transit vehicles are frequent. Another common concern with vertical traffic calming is the potential for traffic diversion to adjacent streets. However, FHWA's Traffic Calming ePrimer states "*As single installation, there is little traffic diversion from the street; as part of a series, typical volume reductions of 20 percent observed*." Given the benefits identified by FHWA, and the relatively minor and manageable drawbacks, speed humps and similar vertical traffic calming measures shall be the preferred method for speed-related neighborhood traffic calming in the District, when feasible.

Implementation of vertical traffic calming is considered through the Traffic Safety Input (TSI) process. Any requests for vertical traffic calming that are received outside of the TSI process will be denied with instructions for the residents to submit their input via the TSI process. When considering vertical traffic calming requests at a location that has been prioritized for engineering investigation via the TSI process, DDOT reviews whether certain eligibility and feasibility criteria are met for the roadway in question. Satisfaction of all these criteria indicates that a street is eligible for speed hump installation. Following a determination of eligibility, a set of design criteria is provided that shall be followed for all vertical traffic calming installations. Exceptions to these eligibility and feasibility criteria require written approval of Traffic Safety Branch Manager prior to installation. DDOT may also consider vertical traffic calming as part of other on-going projects with or without a corresponding TSI.

ELIGBILITY CRITERIA

The following criteria must be met for a street to be eligible for vertical traffic calming installation.

Roadway Classification, Traffic Volume and Speed

Local Roads

Speed humps and/or raised crosswalks may be installed on streets classified as local roads with predominantly residential land uses, provided that all other eligibility and design criteria are met. While DDOT may choose to collect traffic data on a case-by-case basis, it is not a requirement for implementation of vertical traffic calming devices on local roads.

Collector Roads

Installation of speed tables and/or raised crosswalks on collectors with ADT (Average Daily Traffic) less than 5,000 vehicles per day can be considered following the collection of volume and speed data. Speed data should be evaluated in the context of Vision Zero based on the known dangers of increased travel speeds on safety, and particularly the safety of vulnerable users as the risk of fatality or serious injury increases exponentially with vehicle travel speed. Engineering judgement shall govern the final decision in all cases.

Installation of raised crosswalks can be considered on collectors with ADT between 5,000 and 7,500 vehicles per day in unique circumstances following an engineering assessment. Vertical traffic calming devices shall not be installed on collectors with ADT higher than 7,500 vehicles per day.

Other Classifications

In general, for speed management on minor arterials or roads with higher classifications, alternative countermeasures such as Automated Traffic Enforcement (ATE), Driver Feedback Signs (DFB), flashing speed limit signs, as well as corridor-level treatments including road diet projects are preferred and should be considered before vertical traffic calming. Additional proven traffic control devices to specifically address pedestrian crossing safety issues on arterial that can be considered include but are not limited to flashing pedestrian signs, Rectangular Rapid Flashing Beacons (RRFB), and depending on deployment criteria and availability of funding and resources, High-Intensity Activated CrossWalK (HAWK).

Vertical traffic calming devices shall not be placed on roads classified as minor arterials with ADT higher than 7,500 vehicles per day or on higher classification roads. Speed tables and/or raised crosswalks may be considered on minor arterials with ADT lower than 5,000 vehicles per day, following an engineering assessment. Additionally, installation of raised crosswalks can be considered on minor arterials with ADT between 5,000 and 7,500 vehicles per day in unique circumstances following an engineering assessment with special considerations given to proximity to schools and higher concentration of vulnerable road users at uncontrolled crossings along these arterials.

The functional classification of streets in the District can be found in the 2016 Functional Classification Map:

https://ddot.dc.gov/sites/default/files/dc/sites/ddot/publication/attachments/FunctionalClass_2016.pdf

The approximate ADT of streets in the District can be found in the 2018 Traffic Volume Map:

https://ddot.dc.gov/sites/default/files/dc/sites/ddot/publication/attachments/TrafficVolumes_2018.pdf

Roadway Grade

Vertical traffic calming shall not be installed on roadways where the grade exceeds eight percent (8%). Roadway grade can be determined by field survey when collecting existing site conditions or can be estimated using Google Earth. If grades measured using Google Earth are within one percent (1%) of this threshold, a field survey using an inclinometer shall be performed to confirm the roadway grade.

Roadway Speed Limit

Vertical traffic calming shall not be installed on roads where the posted speed limit is greater than 30 miles per hour. Where no speed limit is posted and on all local roads, the default speed limit is assumed to be 20 miles per hour.

Emergency Access Route

Vertical traffic calming shall not be installed on any roadway that serves as a primary route for emergency vehicles, such as the main approaches to hospitals or fire stations.

Truck or Transit Route

Speed humps shall not be installed on streets that are designated as transit or truck routes. Consideration should be given to installation of speed tables and/or raised crosswalks if vertical traffic calming is desired on such roadways, if heavy vehicle (i.e., trucks and buses) percentage does not exceed 5%. Determination of heavy vehicle percentage along higher-volume collectors should be made based on vehicle classification counts.

A map of WMATA transit routes can be found here:
https://www.wmata.com/schedules/maps/upload/WEB_WMA_MAG_DC_21x34_210305.pdf

A map of DDOT-designated truck routes can be found here:
https://ddot.dc.gov/sites/default/files/dc/sites/ddot/service_content/attachments/DC%20Truck%20Map%20Brochure_12.10.20_web.pdf

DESIGN CRITERIA

If a street is found to be eligible for vertical traffic calming installation, the following design specifications should be used to determine the exact location of vertical traffic calming devices in the field.

- Devices shall be placed in locations where drivers have adequate sight distance to see vertical deflection on the roadway surface, preferably from a distance of at least 250 feet on uninterrupted segments of road for drivers traveling at the design speed;
- Placement of devices must avoid conflicts with other transportation and utility infrastructure;
- Devices should be located near a streetlight to ensure nighttime illumination;
- Devices shall be installed at least 200 feet apart but not greater than 500 feet apart on road segments bounded by two intersections;
- Devices shall be placed at least 5 feet from a driveway, and 20 feet from an alley;
- Devices should be placed at least 150' from STOP or YIELD-controlled intersection approaches. However, where other constraints exist (e.g., short block spacing or presence of driveways) a distance of at least 100' may be used provided that proper spacing and placement of warning signs can be maintained;
- Devices should be placed at least 250’ from a traffic signal (shorter spacing may be considered on a case-by-case basis);
- Devices should NOT be installed on horizontal or vertical curves if avoidable. If placement on a curve is unavoidable, advanced warning signs and markings shall be designed to provide satisfactory notice to drivers;
- Devices shall NOT be installed in the path of a pedestrian crossing or curb ramp, unless the device installed is a raised crosswalk;
- Devices shall NOT be installed over manholes or water valves;
- Devices shall NOT be installed adjacent to fire hydrants;
- Devices installed near drainage inlets should be installed on the downslope side of the inlet as to not impact drainage flow; and
- Devices may be installed on concrete roadways using either asphalt or concrete construction.

If it is determined during design that one or more of the above criteria would be violated, the Traffic Safety Branch Manager shall make a final determination on whether it is still feasible and safe to install vertical traffic calming devices and where the devices shall be installed. Locations of vertical traffic calming devices proposed under a Safe Routes to School assessment shall comply with all design criteria.

Raised Crosswalks

Additional design criteria are required for the installation of raised crosswalks, as outlined below. Raised crosswalks installed at an intersection shall require a full engineering design plan that is designed by a licensed professional engineer.

- Raised Crosswalks, including their flares or pitch, should not be installed in conflict with water, sewer, gas, telecom, Pepco, or DDOT-owned signal/streetlight manholes;
- Raised Crosswalks shall not be installed such that the flares extend into any conflicting travel lanes when installed at intersections;

- Raised Crosswalks shall not be installed at intersections such that any relocation of the stop bar that may be required to install the raised crosswalk violates minimum intersection sight distances. Raised crosswalks are most preferred at uncontrolled and/or midblock crossings, where vehicular traffic flow is not controlled by a traffic control device such as a stop sign or a traffic light;
- Raised Crosswalks shall not be installed if proper alignment of ADA ramps with the proposed crosswalk cannot be maintained; and
- Raised Crosswalks shall not be installed such that they will impact drainage flow.

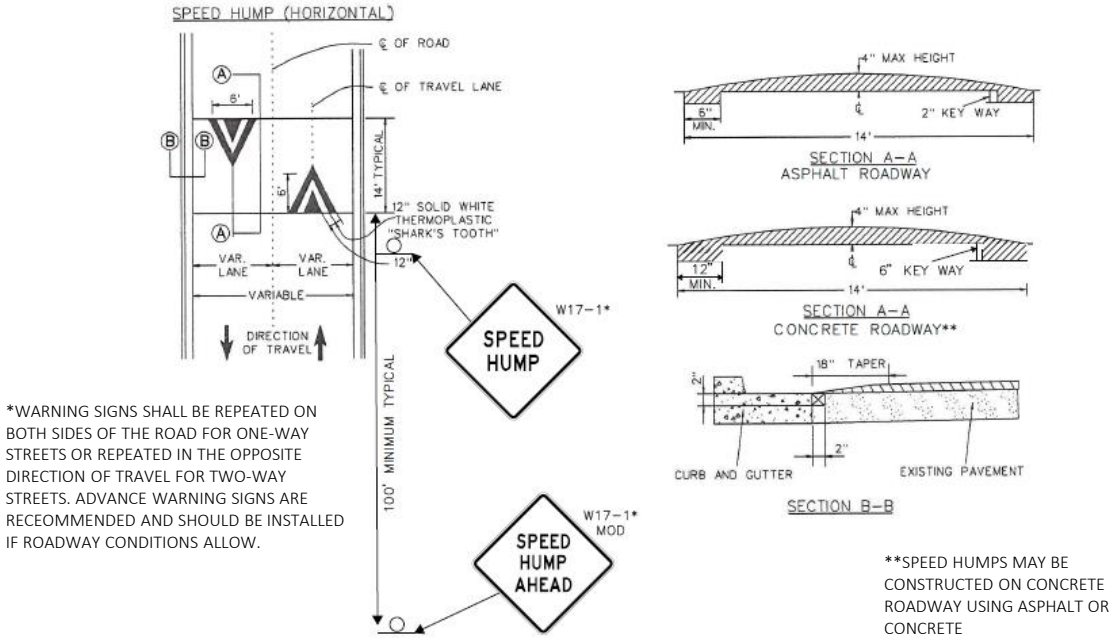
EXCEPTIONS

Any exceptions to the guidelines outlined in this document shall require written approval from the Traffic Safety Branch Manager of the Traffic Engineering and Safety Division.

DESIGN STANDARDS

Design specifications for vertical traffic calming devices and the associated warning signs, as installed by DDOT are provided in the following sections.

Speed Hump Design Specifications

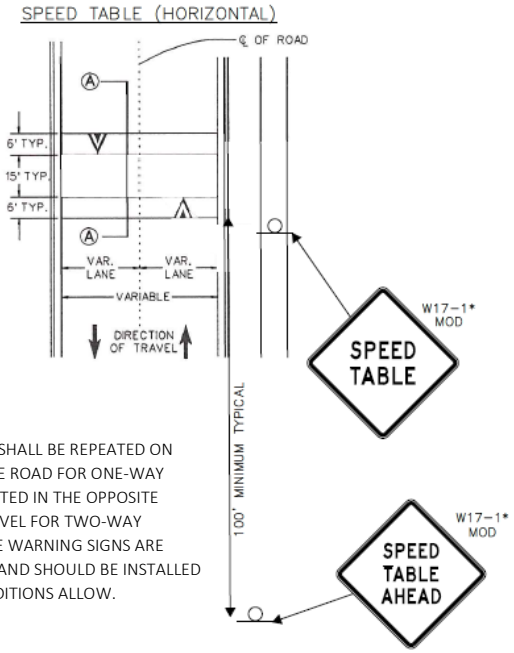


*WARNING SIGNS SHALL BE REPEATED ON BOTH SIDES OF THE ROAD FOR ONE-WAY STREETS OR REPEATED IN THE OPPOSITE DIRECTION OF TRAVEL FOR TWO-WAY STREETS. ADVANCE WARNING SIGNS ARE RECEOMMENDED AND SHOULD BE INSTALLED IF ROADWAY CONDITIONS ALLOW.

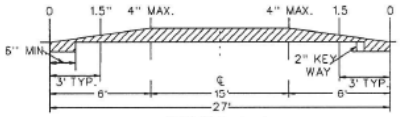
**SPEED HUMPS MAY BE CONSTRUCTED ON CONCRETE ROADWAY USING ASPHALT OR CONCRETE

NOTES:
TYPICALLY, A SPEED HUMP IS 14 FEET LONG BUT CAN BE BETWEEN 10 FEET AND 14 FEET IN LENGTH, AND HIEGHT CAN BE BETWEEN 3 INCHES AND 4 INCHES. TYPICAL HEIGHT IS 4 INCHES.

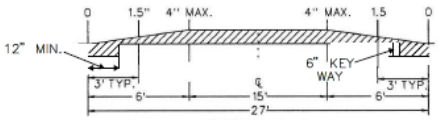
Speed Table Design Specifications



*WARNING SIGNS SHALL BE REPEATED ON BOTH SIDES OF THE ROAD FOR ONE-WAY STREETS OR REPEATED IN THE OPPOSITE DIRECTION OF TRAVEL FOR TWO-WAY STREETS. ADVANCE WARNING SIGNS ARE RECEOMMENDED AND SHOULD BE INSTALLED IF ROADWAY CONDITIONS ALLOW.



SECTION A–A
ASPHALT ROADWAY



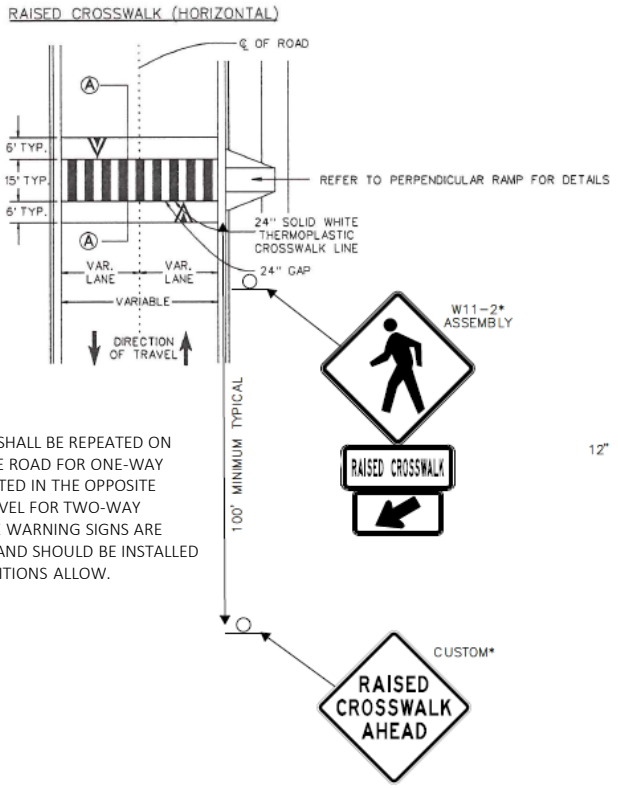
SECTION A–A
CONCRETE ROADWAY**

**SPEED TABLES MAY BE CONSTRUCTED ON CONCRETE ROADWAY USING ASPHALT OR CONCRETE

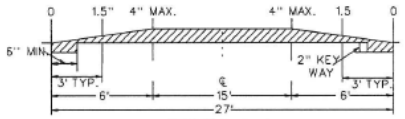
NOTES:

TYPICALLY, A SPEED TABLE IS 27 FEET LONG BUT CAN BE BETWEEN 22 FEET AND 27FEET IN LENGTH. HIEGHT CAN BE BETWEEN 3 INCHES AND 4 INCHES. TYPICAL HEIGHT IS 4 INCHES.

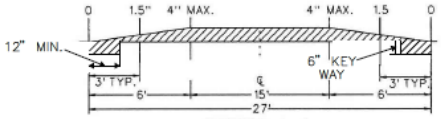
Raised Crosswalk Design Specifications



*WARNING SIGNS SHALL BE REPEATED ON BOTH SIDES OF THE ROAD FOR ONE-WAY STREETS OR REPEATED IN THE OPPOSITE DIRECTION OF TRAVEL FOR TWO-WAY STREETS. ADVANCE WARNING SIGNS ARE RECEOMMENDED AND SHOULD BE INSTALLED IF ROADWAYCONDITIONS ALLOW.



SECTION A–A
ASPHALT ROADWAY



SECTION A–A
CONCRETE ROADWAY**

**RAISED CROSSWALKS MAY BE CONSTRUCTED ON CONCRETE ROADWAY USING ASPHALT OR CONCRETE

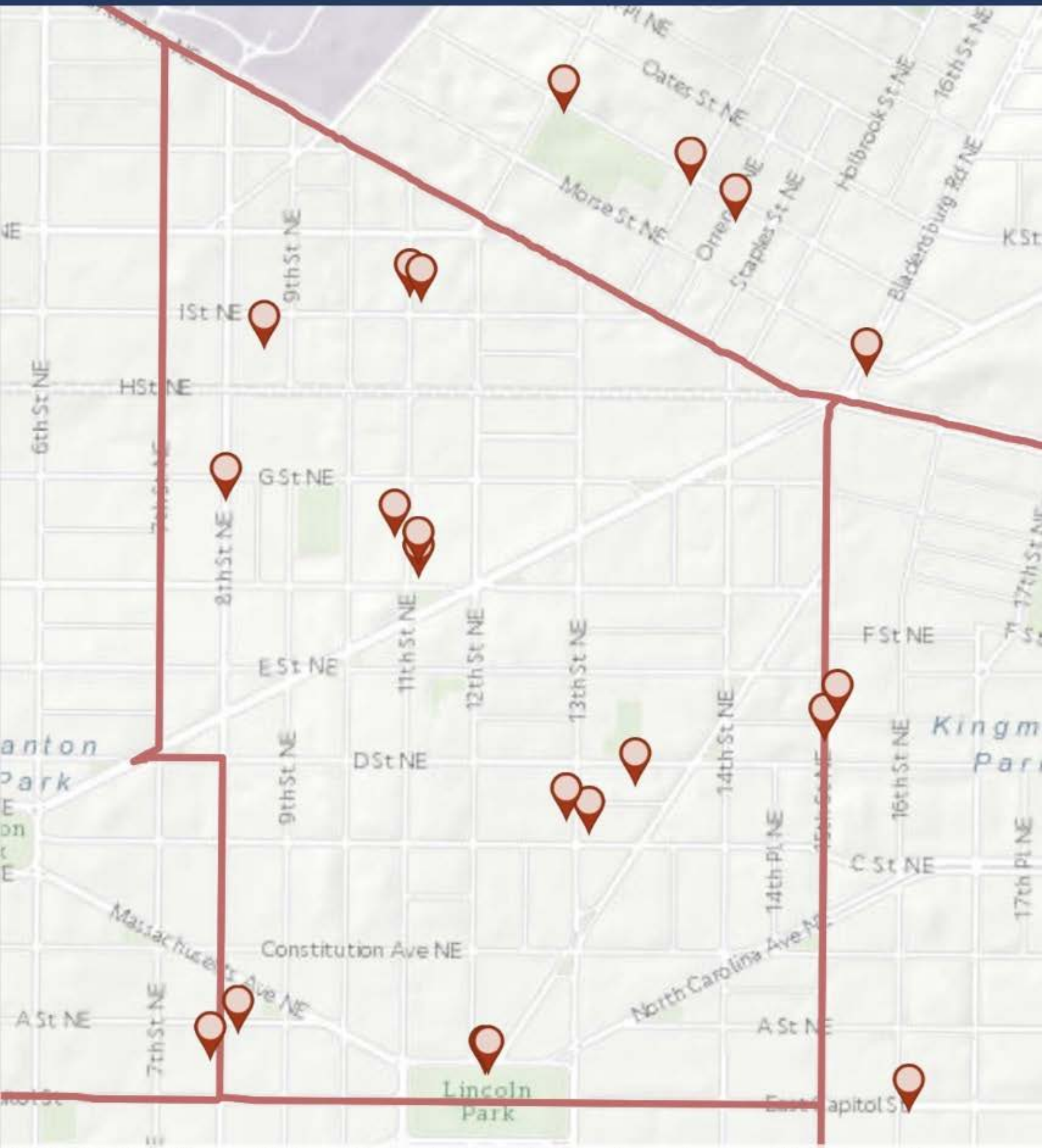
NOTES:

1. THE WIDTH FOR RAISED CROSSWALKS WILL BE 22 FEET FOR LOCAL ROADS AND 27 FEET FOR COLLECTOR ROADS. HIEGHT CAN BE BETWEEN 3 INCHES AND 4 INCHES. TYPICAL HEIGHT IS 4 INCHES.
2. IF INSTALLATION OF PERPENDICULAR RAMP IS NOT FEASIBLE THEN REFER TO OTHER RAMP DETAILS.

6:10

ddot.dc.gov

d.
District Department of Transportation



DC GIS | Office of Planning - https://planning.dc.gov/ | Azteca Systems,