



Integrating Transit with Bikes and Pedestrians

Hosted by the

Virginia Transit Association

Virginia Transit Association

1108 East Main Street, Suite 1108

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www.vatransit.com



The Voice of Public Transportation in Virginia



Integrating Transit with Bikes and Pedestrians



- Our Panelists Today:

- **Charlie Denney**, Senior Associate, Alta Planning + Design, Arlington, Virginia
- **Mark Ostertag**, Director of Safety and Training, Forsythe Transportation, Arlington, Virginia

- Questions:

- Type questions into box at bottom of webinar panel. Panelists will address all questions at end of webinar (include panelist name.)



Integrating Transit with Bikes and Pedestrians

CHARLIE DENNEY



ALTA PLANNING + DESIGN



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Design Matters



A safe and aesthetically pleasing environment in and around a transit facility is key to attracting and keeping riders

Pedestrians

- Majority of walking occurs within ¼ mile of transit stations
- Sidewalks separated from the street
- Street crossings that are well marked and as short as possible
- Reduced conflicts with motor vehicles
- and a pleasant environment to walk in



Bicyclists

- Majority of cycling trips to transit are three miles or less
- Cyclists prefer facilities where they can feel safe and generally have some separation from motor vehicles, such as paths and bike lanes
- Safe and secure bike parking at transit stops and stations is critical



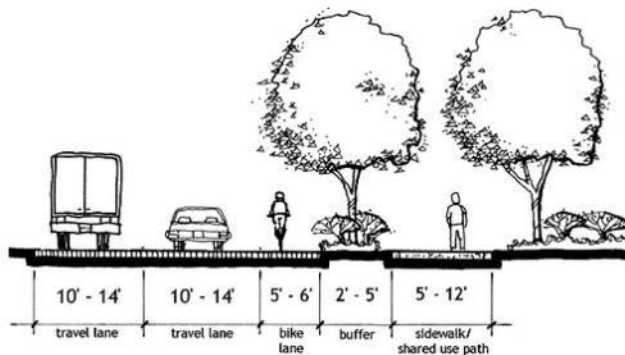
Complete Streets

- Accommodate all modes
- Reasonable speeds for all users
- Traffic moves



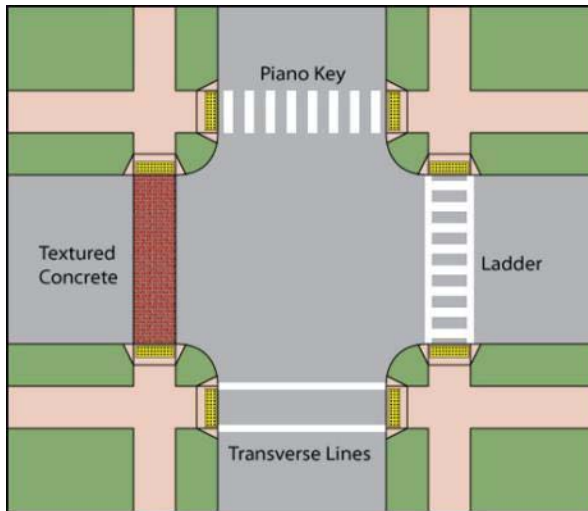
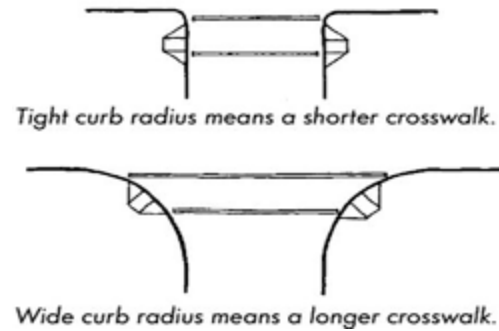
Sidewalks

- Width
 - 5' Minimum
 - 10' in dense areas
- Separation
 - 5' minimum
- Surface
 - Smooth



Crossings

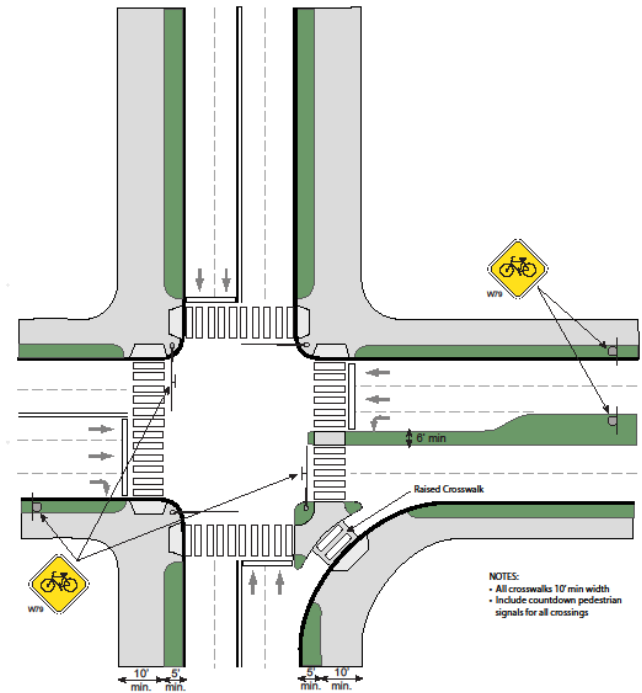
- Crossing Distance
- Markings



Reduce Conflicts

Pedestrians

- Reduce crossing distance
- Provide refuges

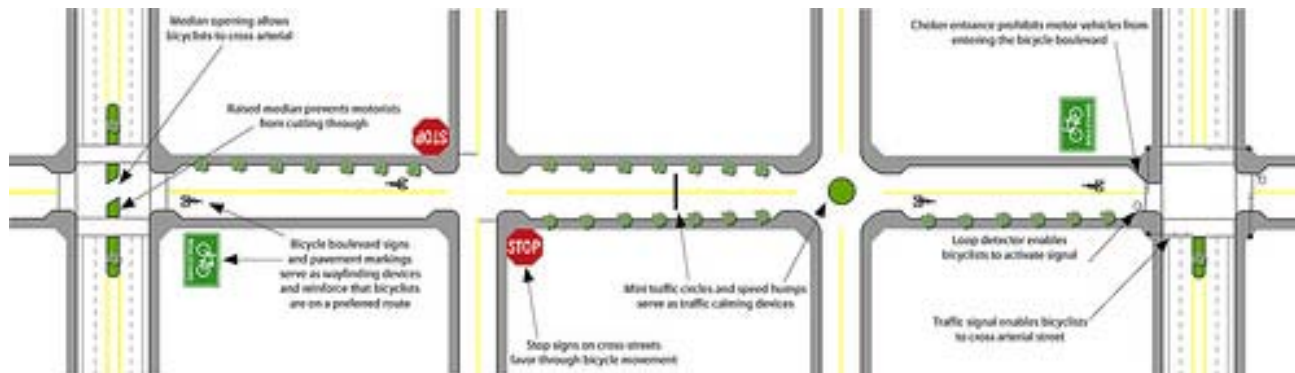


Urban Trail Major Road Intersection

Separation

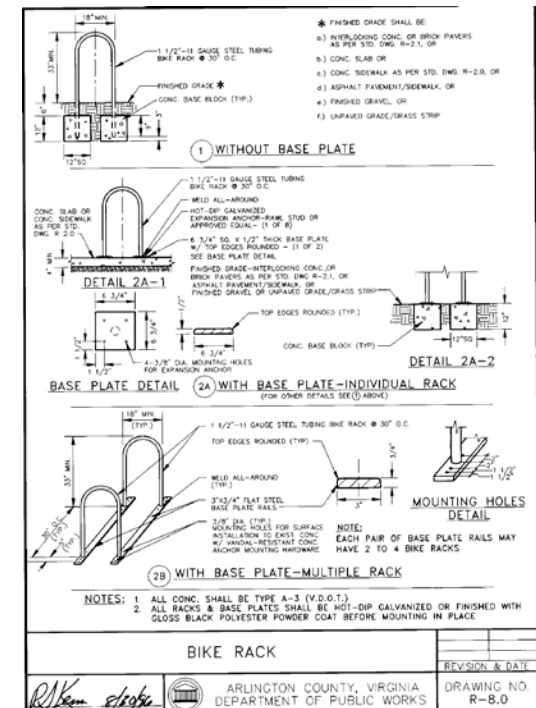
Bicyclists

- Bike Lanes
 - 5' -6' wide
 - OK next to parking
- Paths
 - 10' -12' wide
- Bike Boulevards



Parking

- Short term
- Type of rack is important
- Sheltered from the elements



Bicyclists

Parking

- Higher Security



Innovations

Bicyclists

- Bike Stations
- Bike Sharing



Complete Streets

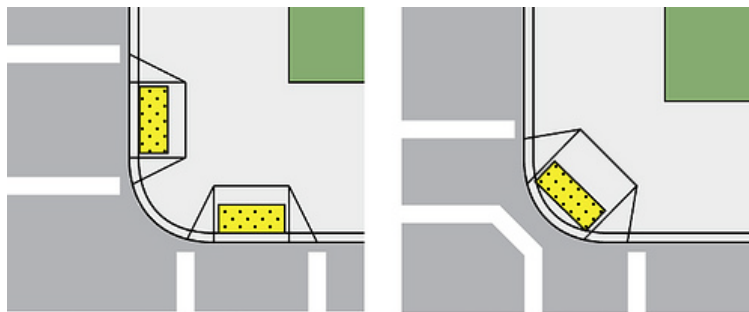
Elements

- Accommodate all modes
- Reduced vehicle speeds
- Maintain capacity



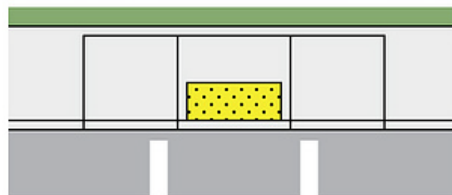
Complete Streets Universal Design

- Americans with Disabilities Act
- Access for everyone
- Good for all users



Perpendicular Curb Ramps

Diagonal Curb Ramps



Parallel Curb Ramps

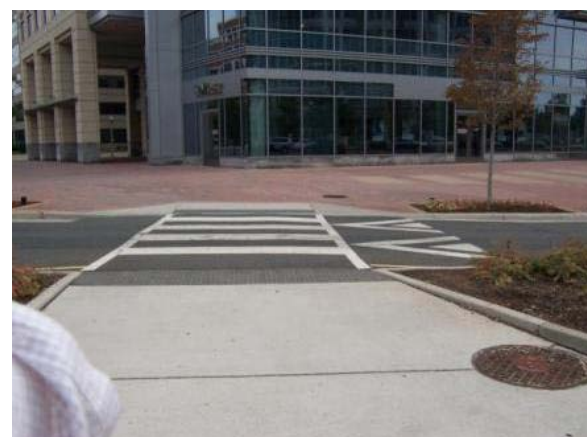


Ballston Case Study

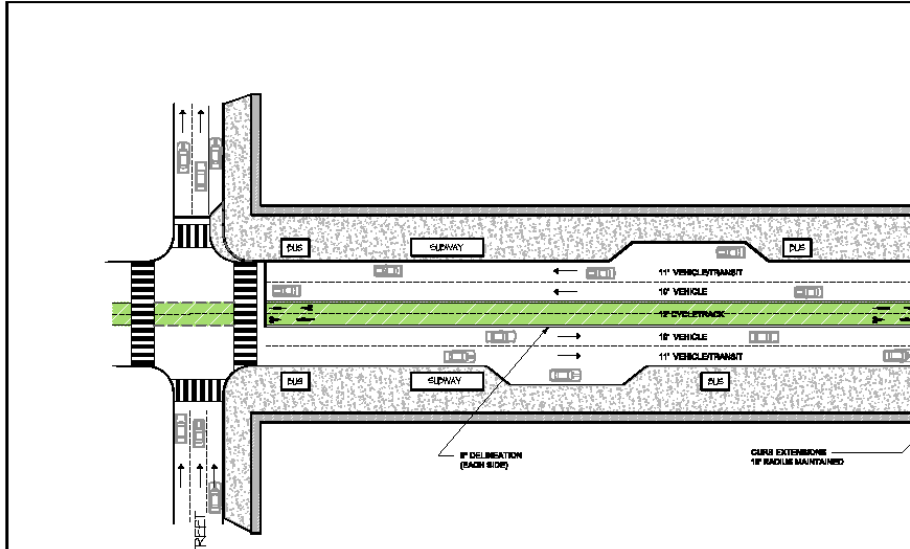


BIKEWAY INNOVATIONS

Ballston Case Study



Market Street Case Study



BIKEWAY INNOVATIONS



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Contact



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MARK OSTERTAG



FORSYTHE TRANSPORTATION



The Voice of Public Transportation in Virginia

Integrating Transit with Bikes and Pedestrians

- Every transit bus operator has a story complaining about a close call with a cyclist
- Interaction between transit vehicles and bicyclists is as unavoidable as death and taxes
- This interaction will have a serious impact in the areas of transit safety and training
- Transit agencies have no choice but to deal with and embrace this interaction

The Unavoidable Realities

- Cyclists are part of the driving environment
- They increase our “capture zone”
- Laws give them the same rights as other vehicles, plus more that other vehicles don't have
- Steel is stronger than flesh
- Bus-cyclist collisions are a transit agency media nightmare
- The situation is getting worse, not better

Here is proof



What it feels like now



Where we might be headed



To deal with these realities, transit must

- Institute policies and training that consider interaction with cyclists
- Provide training that explains:
 - The laws dealing with cyclists
 - The causes and statistics dealing with cyclist collisions
 - Most importantly, what to do when driving in the presence of cyclists

Laws dealing with cyclists

- A person operating a bicycle has the rights and duties applicable to a driver operating a vehicle...
- Can take whatever portion of the lane they want.
- Cyclists in Virginia have rights that other vehicles don't, such as:
 - Traveling on the sidewalk
 - Passing on the left or right, in the same lane or adjacent lane, or even off the roadway
 - Riding two abreast in the same lane

Collision causes and statistics

- Demographics of cyclists in collisions
- Leading causes of collisions with cyclists
- Local statistics
- Cyclists never have to prove their knowledge of the rules of the road.

Policies dealing with bicyclists

- Basic policies dealing with cyclists, such as
 - Always kneeling the bus to load bikes on the rack
 - How bikes are allowed on the bus
 - What bikes are not allowed on the bus
 - Bus stops that exist in bike lanes
 - Scanning the road sidewalk to sidewalk, rather than curb to curb
 - 5' of clearance versus 3'
 - Dim lights for cyclists
 - Honking policy

Safe driving practices

- Predicting cyclist behavior by:
 - Knowing what the law allows them to do
 - Assessing the skill level of the cyclist - realizing that some cyclists don't know the law
 - Understand cyclist communication – hand signals and eye contact
 - Recognizing that bicycles have different operating characteristics
 - Understanding how bike lanes, sharrows and other road improvements affect cyclist behavior

Safe driving practices

- One of the most important factor in predicting cyclist behavior is seeing and assessing the road ahead the same way a cyclist would. Understanding road conditions and hazards that face the cyclist (but not necessarily the driver) provides the bus Operator with a better indicator of how the cyclist is likely to behave in specific circumstances.

Seeing the road the way a cyclist would

- The “Door Zone”
- Sewer gratings
- Bike Lanes and other roadway cycling enhancements
- Soft shoulders
- Roadway condition & maintenance
- Construction areas
- Broken glass & gravel

Safe driving practices

- Bus operators need to be aware of the characteristics of buses that make them uniquely challenging for cyclists to safely share roads with them, such as
 - Bus width versus lane width
 - Wind characteristics around large vehicles (turbulence, slipstream or draft)
 - Rear engine vehicles get closer to cyclists before they realize their presence

Final Considerations

- Accident frequency versus severity
- Effect on the bottom line
- Media disaster
- Psychological impact on operators
- The safety reputation of a transit agency is fundamental to its success
- Ultimately, what we all want to avoid is...

Every transit safety professional's nightmare...





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Thank you for attending!

Please take a moment to complete the brief evaluation at the end of the webinar.
Your feedback is very important to us, and will help us improve
our broadcasts.

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