PROPOSED SPRING ST/CEDAR ST SEPARATED BIKE LANEs

Wayne Avenue to Second Avenue
Project map
Project background

- **Scope**
  - Construct bike lanes in accordance with Master Plan recommendations along Spring and Cedar Streets between Wayne and Second Avenues.

- **Why now?**
  - This project is being advanced now because Spring Street is programmed for repaving in Spring/Summer 2016.
  - MCDOT analyzes roadways programmed for repaving for potential/recommendation for bike lanes.
  - Spring/Cedar Street is a good candidate because of excess lane widths throughout the corridor.
Facility type

- One-way separated bike lane
  - A separated bike lane is a bike lane that includes a physical barrier between the bikeway and traffic. The barrier can be a curb, parked cars, flexposts, planters, or a similar object.
  - Separated bike lanes offer more protection and less stress for all types of cyclists than a traditional bike lane.
Facility type

- Montgomery County’s second cycletrack
  - Woodglen Drive in White Flint was the first.
  - It’s a two-way separated bike lane.
Why Spring Street?

- Bicycling is becoming more popular as a mode of transportation, and offers a sustainable way for people to get around the county.
- Silver Spring is growing more urban, and new cycling facilities are needed to help residents, workers, and shoppers get around safely.
- Spring and Cedar Streets connect other cycling facilities and will help cyclists connect to many nearby dwellings, jobs, and recreational and entertainment venues.
Spring Street and Cedar Street connect several existing or proposed cycling facilities, including:

- Cedar Street contraflow bike lane
- Second Avenue bike route
- Ellsworth Drive bike route
- planned Cameron St bike lanes
- future Capital Crescent Trail
- future Silver Spring Green Trail
Existing conditions

- Conditions along Spring and Cedar Streets vary greatly throughout the corridor

- Lanes:
  - 2 from Second to Cameron
  - 4 from Cameron to Ellsworth
  - 2 from Ellsworth to Wayne

- Parking: Second to Cameron & Ellsworth to Wayne

- Median: Second to Fairview & Colesville to Ellsworth
Existing sections

- Spring at Second
  - A “road diet” several years ago left extra space in the roadway
  - Instead of 4 lanes, the street was narrowed to just 2

Example only. Conditions may vary.
Existing sections

- Spring at Fairview
  - Lanes are wider than necessary

Example only. Conditions may vary.
Existing sections

- Cedar at Wayne
  - Lanes are wider than necessary
  - Narrowest section of the corridor

Example only. Conditions may vary.
Proposed conditions

- The project will construct separated bike lanes for the majority of the corridor. Except:
  - Pershing to Wayne (conventional bike lane)
  - Westbound at Spring & Colesville and Spring & Georgia (floating bike lane with mixing zone)

- Parking will be retained along most of the corridor. Spaces removed:
  - Cedar between Pershing and Wayne
  - Cedar between Ellsworth and Pershing (one side only)
Proposed sections

- Spring at Second
  - Bike lanes separated by parked cars.
  - Travel lanes, turn lanes, and parking retained.

Example only. Conditions may vary.
Proposed sections

- **Spring at Fairview**
  - Bike lanes separated by parked cars.
  - Travel lanes and parking retained.

Example only. Conditions may vary.
Proposed sections

- Cedar at Wayne
  - Conventional bike lanes on this block.
  - Eastbound lane connects to existing Cedar Street contraflow bike lane.
  - Parking removed.

Example only. Conditions may vary.
The project will require the removal of some metered parking spaces.

- Cedar between Wayne and Pershing:
  - Remove 10 spaces

- Cedar between Pershing and Ellsworth:
  - Remove 5 spaces on N side, add 4 on S side (OPTION A) [net -1]
  - OR
  - Remove 9 spaces on south side (OPTION B) [net -9]

- Spring between Alton and Cameron:
  - Add 3 spaces

- Spring between First and Georgia:
  - Remove 3 spaces
Intersections

□ Bike boxes
Intersections

- Bike boxes
- Ingress lane
Intersections

- **Bike boxes**
  - Most signalized intersections will get bike boxes.
  - **Benefits of bike boxes:**
    - Allow cyclists to position themselves to be visible to drivers.
    - Increase the throughput of the intersection for cyclists and reduce delay.
    - Facilitate left turns during the red phase of the signal.
Intersections

- Bike boxes
  - Montgomery County already has one of these on Woodglen Drive.
Intersections

- Bike boxes
- Ingress lane
- Two-stage queue boxes
Intersections

- Two-stage queue boxes
  - Most signalized intersections will get two-stage queue boxes.
  
- Benefits of two-stage queue boxes:
  - Allows safer/more comfortable left turns for cyclists off of the cycletrack.
  - Separates turning cyclists from through cyclists.
  - Reduces turning conflicts between cyclists and motorists.
Intersections

- Bike boxes
- Ingress lane
- Two-stage queue boxes
- Colored conflict area
Intersections

- Colored conflict areas
  - Signalized and unsignalized crossings and driveways will be marked with colored pavement.
  - Benefits of colored conflict areas:
    - Increases the visibility of cyclists
    - Raises awareness of conflict areas to both cyclists and motorists.
    - Reinforces cyclist priority over turning vehicles.
    - Guides cyclists through the intersection.
    - Makes bicycle movements more predictable.
Intersections

- Bike boxes
- Ingress lane
- Two-stage queue boxes
- Colored conflict area
Dealing with right turn lanes

- There are heavy turn volumes at Spring/Georgia and Spring/Colesville (westbound).
- We cannot modify the signals at this time to get an exclusive/protected bike phase.
- At these intersections, the right turn lane will be to the right of the bike lane with a mixing zone at the approach.
- We hope to use flexposts to prevent crossovers in the queue area.
Intersections

- Pocket lane
Pocket bike lane

Where there’s a right turn lane, the bike lane needs to be to the left of it.

Benefits of a pocket lane:

- Prevents “right hook” collisions.
- Moves crossing movements away from the intersection.

Drawbacks:

- Requires a mixing zone.
- Bike lane loses separation.
Intersections

- Pocket bike lane
  - At Spring/Georgia and Spring/Colesville, we will use flexposts to prevent cross over traffic at the intersection.
Intersections

- Pocket lane
- Mixing zone
Intersections

- **Mixing zones**
  - A mixing zone allows bicycles and right turning vehicles to cross over each other before the intersection.

- **Benefits:**
  - Reduces chances of “right hook” at the intersection.
  - Correctly positions cyclists and vehicles for intersection.

- **Drawback**
  - Removes separation.
Intersections

- Pocket lane
- Mixing zone
- Floating bus stop
Floating bus stop

- A floating transit stop avoids requiring buses to pull into the bike lane to discharge passengers.

Benefits:
- Avoids buses pinching cyclists against curb.
- Transit patrons have exclusive waiting area.
Intersections

- Pocket lane
- Mixing zone
- Floating bus stop
MCDOT hopes to construct the Spring/Cedar Street separated bike lanes in Spring/Summer 2016

- Construction sequence
  - Move/remove/add parking meters
  - Move & reconstruct curbs and medians and other concrete work
  - Repave roadway
  - Paint lane markings
  - Open bike lanes!
Comment period

Public comment period closes
February 19

Send comments to
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