

Hillsborough Street Door Zone Bike Lane, Raleigh NC



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BicyclingMatters.wordpress.com

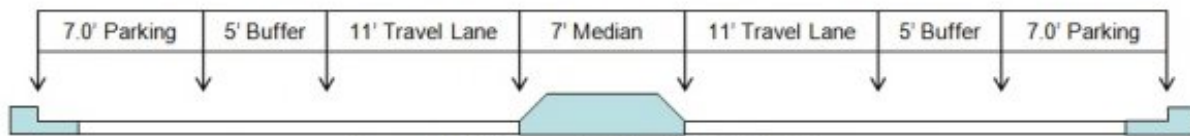
Humantransport.org

Summary

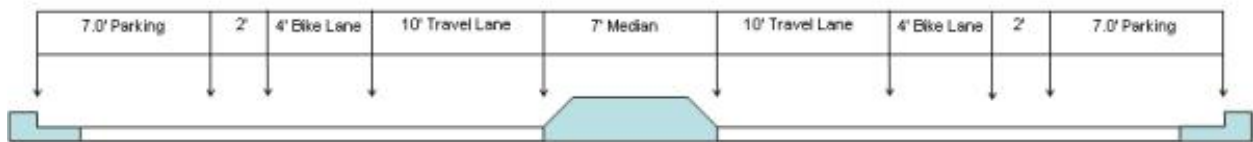
The proposed bike lanes on Hillsborough Street would create a dangerous facility for all bicycle users, but particularly for the beginners who it would attract.

Discussion

The reconstruction of Hillsborough Street is intended to reduce and slow motor traffic and create a more forgiving urban environment.



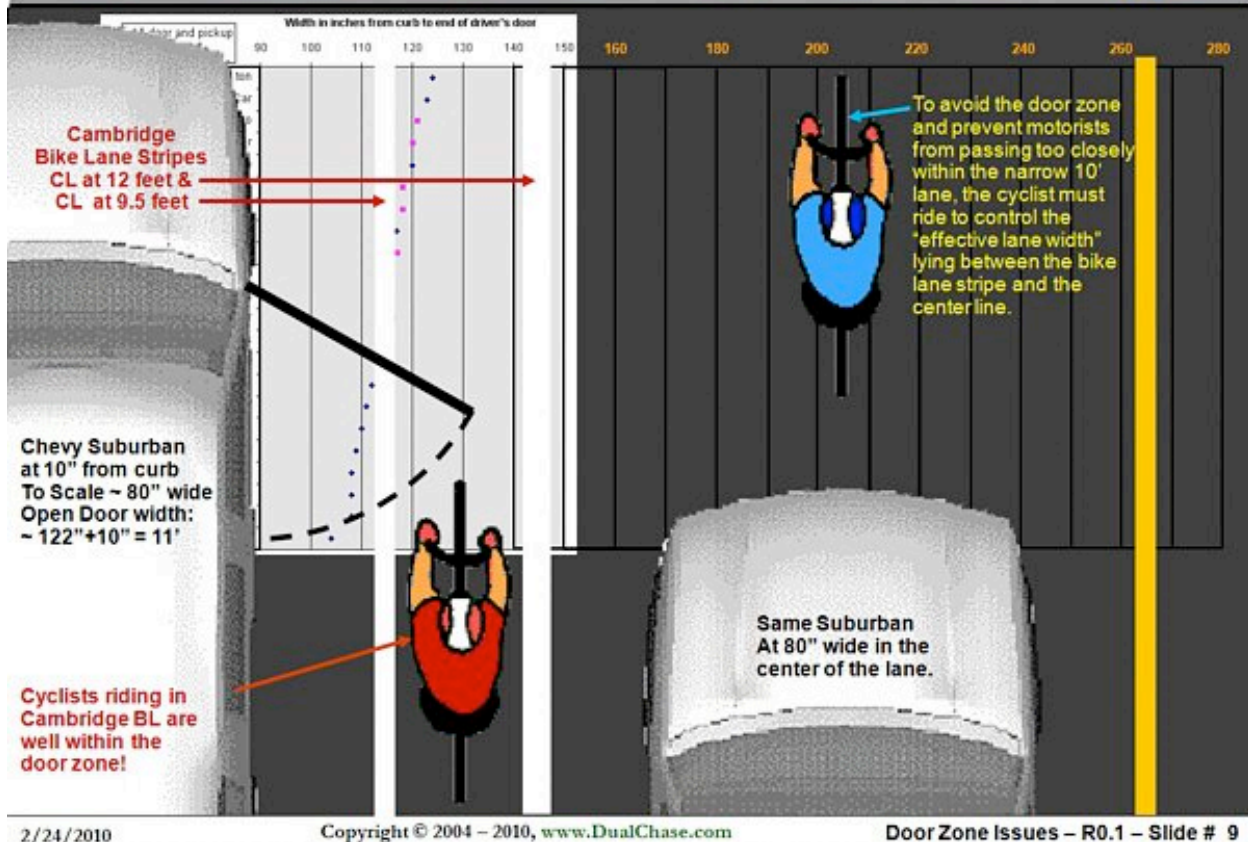
In this diagram, the designers recognized that a 5' buffer is required for travel safe from the opening doors of parked vehicles. There is one line of traffic.



However, in the proposed cross section with 4' Bike Lane, only an inadequate 2' buffer is specified. A second line of traffic --bicycle-- is added. Opened doors from parked vehicles will extend into the bike lane by as much as 2'.



Cambridge BL + Typical SUVs



In this drawing of a Cambridge, MA bike lane showing actual dimensions, a vehicle parked 10" from curb face has an open door width of 11'. This door would extend to the middle of the proposed Hillsborough Street bike lane, putting bicyclists at grave risk of a door strike. The dots in the white area depict the open door widths of other measured vehicles.

Further, because the proposed general travel lane on Hillsborough Street is a narrow, substandard 10' (heavy trucks and buses are 8.5' wide not including extended mirrors), the close spacing creates a danger to bicycle users who may deflect off an opening door or be startled into swerving left. The raised median also constrains motorists from adjusting left.

The *North Carolina Bicycle Facilities Planning and Design Guidelines* says,

“Under ideal conditions, **minimum** bicycle lane width is 1.2 m (4 ft)... Additional width also is desirable when the width of the adjacent traffic lane is less than 3.6 m (12 ft). This is an important addition because the effective clearance between a bicyclist and adjacent traffic is a function of the combined width of both the bike lane and the adjacent traffic lane.”

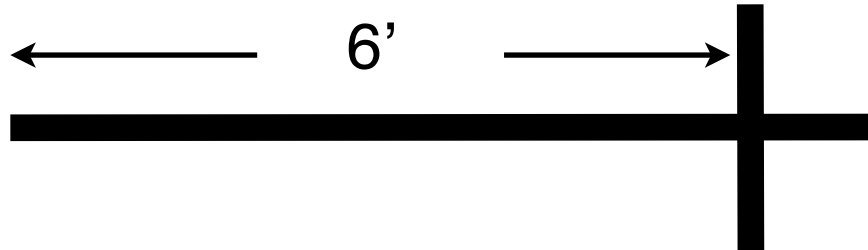
The North Carolina *Guidelines* assume a bike lane next to the curb with full clear space, and prudently maintain that 16' of total space is the **minimum** for a bike lane plus the adjacent standard lane. On Hillsborough Street the proposed substandard 10' "travel lane" with a 4' bike lane is a total of just 14'. Worse, the bike lane is not even a minimum 4' of clear space: car doors will suddenly and unexpected extend into the bike lane by as much as 2'.



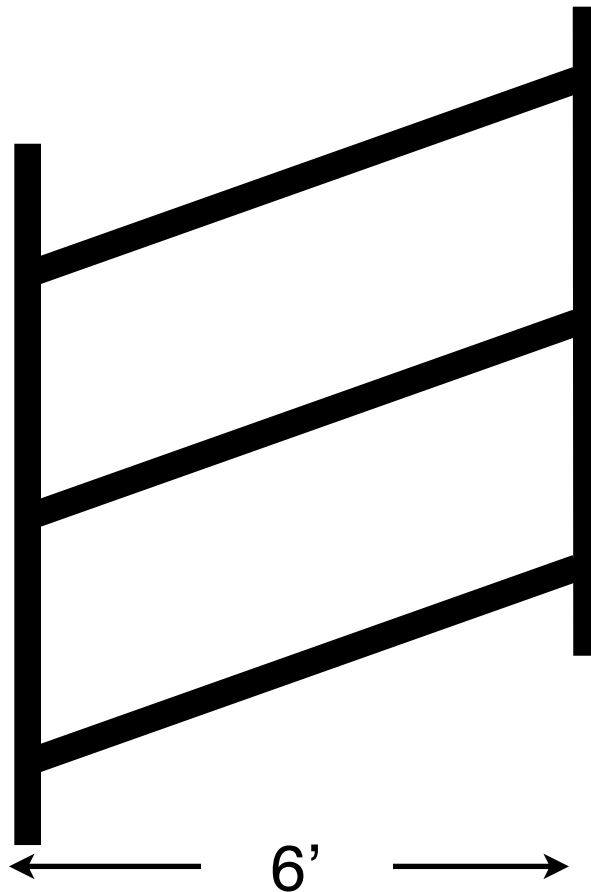
Dana Laird deflected off an opened door into the close traffic lane and was killed by the passing city bus in Cambridge, MA.

Alternative Treatment for Hillsborough Street

Do not place bike lanes. Parking stall “Tees” with 6’ extensions or cross-hatched diagonal lines can effectively visually cue bicycle and other drivers to the door swing area to be avoided.



The *MUTCD* says: “CROSS-HATCHED (diagonal) lines mark pavement areas where driving is discouraged, such as gore areas, painted medians, obstructions in the roadway, and other “safety zones.”



Optional treatment to place the R4-11 sign in the median.



Place the Shared Use Marking 17' on-center from the curb face.

Figure 9C-9. Shared Lane Marking

