

June 18, 2018

**Re: Preferred Design Alternative for Broad Street**

The proposed re-striping plan for Broad Street is the result of feedback received from residents, business and property owners, and coordination with NCDOT. In May three design options for the corridor were shared with the public, which generated more than 300 comments. In general the concerns were about loss of parking, the need for the bicycle lane to be protected, and preserving or enhancing pedestrian safety. The proposed plan attempts to address these concerns, ensuring sufficient parking while providing a safe facility for bicyclists utilizing design standards endorsed by NACTO (National Association of City Transportation Officials). This striping plan will improve the safety for all road users by making it a more “complete street.” Complete Streets are designed for people of all ages and abilities to feel comfortable walking, biking, driving, or using transit.

Because this road is state-maintained by NCDOT, there are certain requirements and restrictions on the type of modifications that can be made. For example, NCDOT generally requires 11’ (minimum) travel lanes, 8’ parking lanes, and prefers to keep existing turn lanes at intersections. Additionally, this project is a routine resurfacing by NCDOT and not a locally-funded project. Thus, it is not possible to change the existing road width. Additionally, adding vertical protection between the bike lane and travel lane is not part of NCDOT’s routine resurfacing contract and will be considered later given availability of funds and approval from NCDOT.

Other options were analyzed but not fully designed. Removing parking from both sides of the street was determined to not be feasible given the parking needs of business and property owners along the corridor. With further analysis, the option with parking between the travel lane and bicycle lane was determined to be less safe and confusing for all users. The number of intersections and driveways along the corridor would lead to “floating” parking spaces along the corridor. Those utilizing parking would be required to get out of their car immediately adjacent to an 11’ travel lane on a busy street, and then cross the bicycle lane to get to the edge of curb. Bicyclists would be protected along the corridor but would be less visible to motor vehicles at driveways and intersections, where most crashes between motor vehicles and bicyclists occur. Bicyclists would also have more difficulty making left turns off of Broad Street. Motorists would likely pull into the bicycle lane when exiting driveways and unsignalized crossings in order to see around parked cars and block the bicycle lane. Finally, NACTO design standards recommend a minimum 3’ buffer between the parking lane and bicycle lane which is not possible.

Leaving parking on both sides of the street and encouraging bicyclists to use Iredell Street was also considered, based on previous comments received. However, Broad Street is the most direct north-south connection between Guess Road and Main Street for bicyclists. Using Iredell, which stops at W Club Blvd, would require a more circuitous route and would not allow direct access to the shops and businesses along Broad Street. Additionally, the lack of signalization at intersections (especially Markham Ave) makes it more difficult to cross the road safely and expeditiously. While Iredell Street may serve as an alternative to Broad Street, it does not provide the same level of access and connectivity.

Using these parameters, and incorporating feedback received, the following describes the plans for the preferred design option:

- Between Perry Street and Markham Ave, the available parking has been shifted from the east side of the street to the west side. This provides sidewalk access to those utilizing the parking, with crossings available at Markham Ave, Perry Street, or mid-block. A 2' buffer between the motor vehicle lane and bike lane is provided on both sides of the street, providing shy distance.
- The parking remains on the west side of the street between Markham Avenue and Knox Street, and while the bicycle lane on the east side of the street narrows to a 4' minimum, the 2' buffer is maintained (with the exception of the intersection at Knox and Broad). There, the bike lane remains 5' but the buffer narrows to less than 2'.
- At Knox Street, the parking shifts from the west side of the street to the east side, and remains on the east side through the intersection with Guess Road. The 5' bicycle lane and 2' buffer are maintained until intersection with Sprunt Avenue. At Sprunt, due to the need for parking and the requirement of NCDOT for an extended merge lane, dedicated lanes for bicycle facilities must end and transition to a shared-lane. This section and the Guess/Broad intersection are being further analyzed and could be modified in the final marking plan.

With any project, especially those using the road width that already exists, trade-offs and compromises must be made. However, the proposed striping plan shown will increase the safety of pedestrians, bicyclists, motorists, and those utilizing transit by more clearly identifying the space of each user. It will narrow the travel lanes and thus calm traffic, and more clearly indicate where parking is and is not allowed. Finally, the street will be a more pleasant one on which to drive, bike, walk, ride, and/or live.

Comments on the proposed plan are being accepted through June 27<sup>th</sup> at this website:

<http://durhamnc.gov/3670/Broad-Street>. We invite your feedback on ways to improve this design.