



THE MILTON BICYCLE ADVISORY COMMITTEE
MILTON, MASSACHUSETTS



Mr. William Clark, Director of Planning & Community Development
and members of the Planning Board

December 20, 2018

Dear Mr. Clark and members of the Planning Board,

Per Ms. Tougias' request and in line with the town's Complete Streets Policy, the Bicycle Advisory Committee would like to share several suggestions for improvements to the Wolcott Woods / Carberry Estate development project.

The Committee seeks for the town and state to provide local roads with the lowest practical "Level of Traffic Stress" (LTS) for bicyclists to encourage more people to ride bikes. People perceive roads with higher speeds and close-passing cars to be highly stressful, while car-free trails and quiet local streets are less stressful.

Some local examples:

- High LTS: Canton Avenue, Reedsdale Road, Granite Avenue
- Medium LTS: Brook Road (bike lanes, not sharrows)
- Low LTS: Neighborhood streets
- Zero LTS: Neponset River Greenway, Pine Tree Brook Path

People who ride bicycles can be classified into several categories depending on their tolerance to different Levels of Traffic Stress:

- <1% Strong and Fearless: People willing to bicycle with limited or no bicycle-specific infrastructure
- 7% Enthused and Confident: People willing to bicycle if some bicycle-specific infrastructure is in place
- 60% Interested but Concerned: People willing to bicycle if high-quality bicycle infrastructure is in place
- 33% No Way, No How: People unwilling to bicycle even if high-quality bicycle infrastructure is in place

While there are a few people who bike on Canton Avenue, they generally have a high LTS tolerance. But the much larger 'interested but concerned' demographic, which includes kids who might otherwise bike to school, is excluded. This results in more traffic on local roads because parents feel compelled to drive their children to school, which just reinforces the fact that people feel Canton Avenue is not safe to walk or bike along.

The Bicycle Advisory Committee preference for bicycle facilities, from highest to lowest:

- 1) Shared use path - fully separated from car traffic
- 2) Protected bike lane - separated from car traffic by a physical buffer such as flex posts or parked cars
- 3) Painted bike lane - preferably with painted buffer zones to protect riders from moving cars and the doors of parked cars
- 4) Share-the-road Sharrows with 'bicycles may take full lane' signage

However, we concede that because of cost and considerations like the scenic road designation, not all roads can be configured with low LTS bicycle facilities. In cases like Canton Avenue, the 'strong and fearless' people will continue to ride bicycles on-road there. But extending sidewalks or shared-use-paths along the corridor would benefit more people than sharrows do.

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The town has installed new sidewalks along some parts of Canton Avenue. The Committee encourages the town to continue this trend, and suggest that other Great Estates property owners follow the lead of this developer. If the Great Estates bylaw doesn't already call for this, perhaps it should.

The developer has proposed to build a crushed stone walkway on the inside of the stone wall. The Committee commends the developer for including this design element. However, we recommend that the path be paved, it should be extended along the southern section of the frontage, and the width should be increased from 4.5 feet to at least five feet wide. For a comparable example, please see Codman Road in Lincoln. That paved walkway appears to be about eight feet wide.

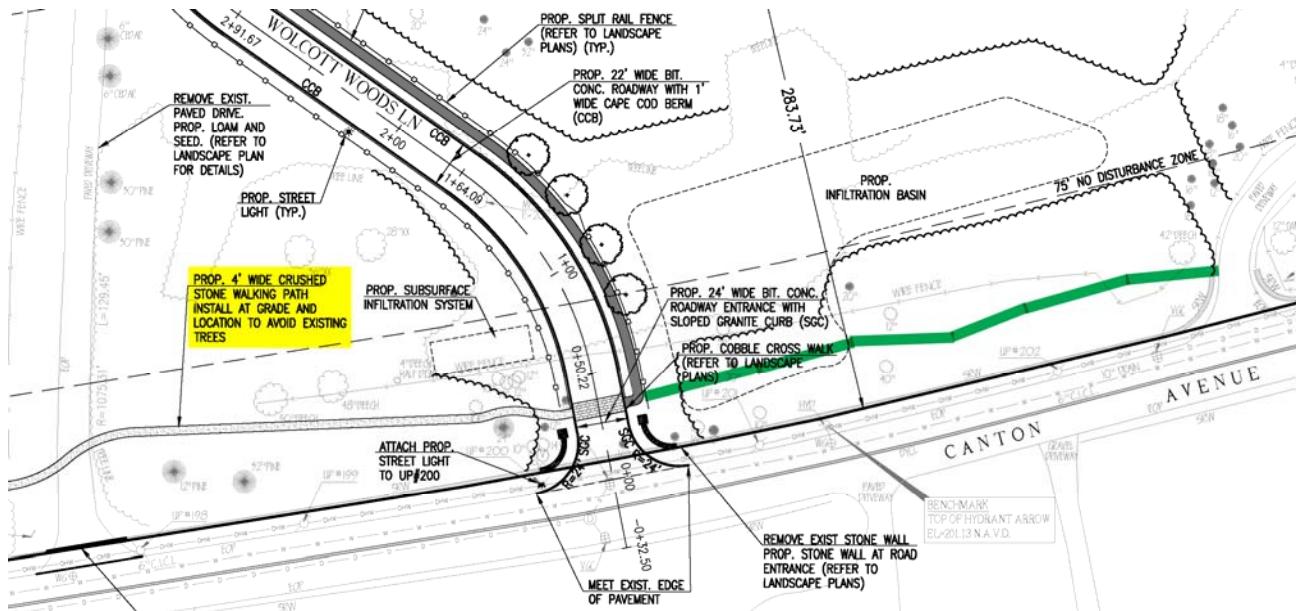


Figure 1: Upgrade frontage path to a paved sidewalk, extend to the next driveway, and increase the width.

As for the 'strong and fearless' people who do bike on Canton Avenue, they are generally fast riders. Also, Canton Avenue is one of the few roads passing through the Blue Hills Reservation, so it is one of the few paths for bicyclists to use in this area. Finally, this is part of the popular Blue Hills training loop (Canton Avenue, Unquity Road, Hillside Street, Blue Hill River Road, Route 138).

As bicyclists, we have observed that drivers tend to:

- 1) Look for cars, and occasionally do not even notice nearby bicycles
- 2) Underestimate the speed of bicyclists

We have analyzed public bicycle GPS data from Strava and found that of 1,910 individual bicyclists, their peak speeds at this site range from 9.3 to 42.0 mph, with a median of 28.0. While the Strava leaderboard is biased higher than average speeds (because these are personal best speeds and the data set is based on enthusiasts who tend to use the service more than casual or commuter riders), it does represent actual bicyclist speeds on this downhill section of road.

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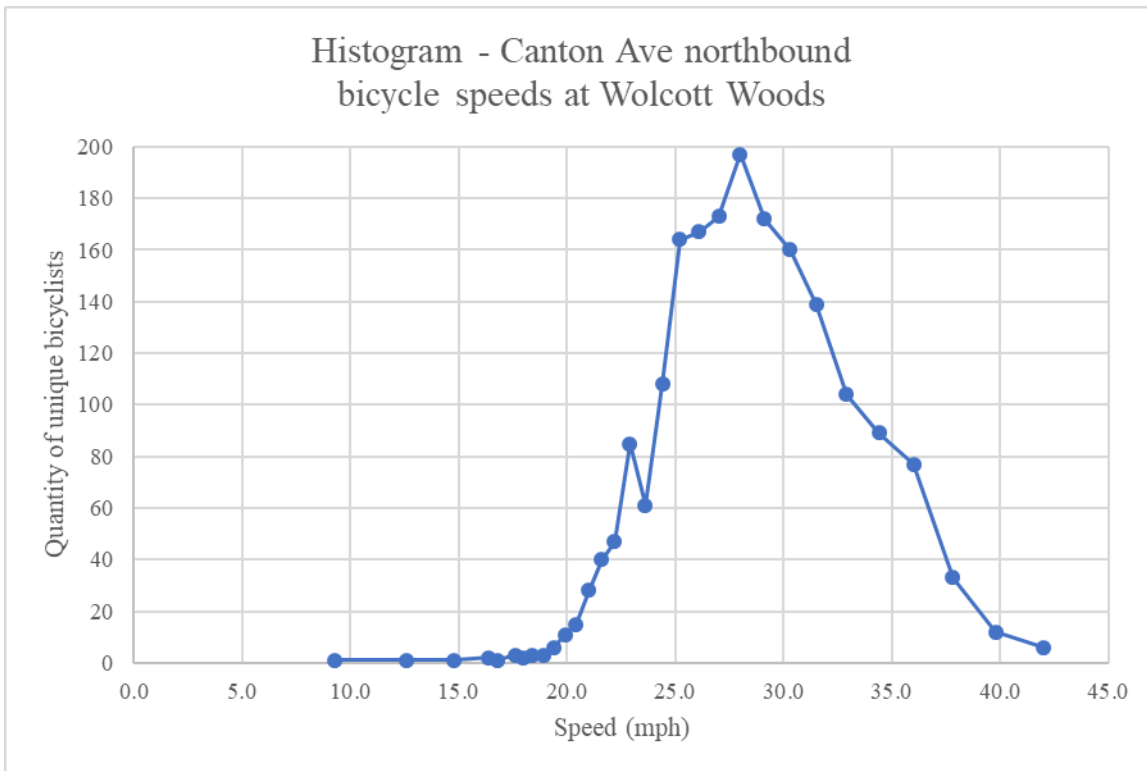


Figure 2: Personal best bicyclist speeds northbound on Canton Avenue at Wolcott Woods site.

Source: <https://www.strava.com/segments/19414541>

For these reasons, we recommend that at the intersection where the private road enters Canton Avenue, the developer place a stop sign and a 'look for bicycles' sign.

And because this development will add roughly 400 trips per day, which is higher than at any other nearby properties, on Canton Avenue before the private road, install 'intersection ahead' signs.



Figure 3: Recommended new signage

The Committee supports the developer's plan to install radar speed signs on Canton Avenue. We suggest the developer select models that record speeds and volumes, the condominium association should share the data with the town and maintain or replace these over time as needed.

