

Bike Lane Evaluation Guide

Somerville Bicycle Committee – December 2005

The Somerville Bicycle Committee (SBC) has periodically discussed the pros and cons of striping bike lanes (and related accommodations like counter-flow lanes, shared lane “sharrows”, edge lines, etc.) on Somerville streets. We’ve also evaluated specific reconstruction, restriping or repaving projects that include a potential bike lane accommodation. On some occasions, disagreements arose over what the appropriate street width is to accommodate safe and efficient bike lanes. In an attempt to clarify what different configurations look and feel like, members of the SBC rode on numerous on-road bike facilities in neighboring Cambridge in August 2005.

The SBC recognizes that there are pros and cons of bike lanes in both a universal sense and on specific streets. However, there are studies that indicate that bike lanes encourage some cyclists to ride further from parked cars, can promote a more orderly and predictable traffic flow, signify to drivers that bicycles belong, and encourage some potential cyclists to overcome their fears of traffic. Additionally, surveys both nationally and locally indicate that bike lanes are popular with both existing cyclists and those wishing to ride more often but are intimidated by traffic conditions. So along with other programs and policies to encourage bicycling in Somerville (bike parking, education, enforcement, road maintenance, etc.) the SBC would like to support and promote the creation of well-designed bike lanes, especially along streets where the politically-charged removal of traffic lanes and/or parking is not necessary. To implement this policy, the committee feels it is important to establish a procedure for evaluating streets and developing recommendations for specific bike lane applications in the City of Somerville.

The attached checklist tool was therefore developed to 1). guide the street’s design after the SBC is requested by other departments (Mass Highway, DPW, T&P, SPCD, etc.) to consider a particular bike lane proposal or 2). when SBC or other community members suggest a street be targeted for bike lanes. The attached evaluation guides the design by adding or subtracting width to minimum travel, bike, and parking lane dimensions in 6” or 12” increments to accommodate vehicle and bike traffic under different contextual conditions.

The Guide acknowledges that bike-lane design need not be characterized as “one size fits all”. Although AASHTO, MassHighway and others have set standards for minimum and recommended bike-lane widths, the SBC believes that flexible guidelines for travel-lane, bike-lane, and parking-lane dimensions should consider contextual issues such as typical traffic speed, topography, and adjacent land uses. For example, bike lanes need to offer a greater comfort level for cyclists when traffic is moving at a higher speed or if the street is a busy route for trucks and/or buses. Additionally, safe travel distance from parked cars, i.e. protection from the “door zone,” should be flexible and respond to the rate of parking turnover and probability of the opening of the driver’s-side door (keeping in mind that cyclists should be aware that motor vehicle doors could unexpectedly open at any time, and should keep a minimum of three (3) feet between themselves and any parked vehicle).

Some final recommendations may not fit within the existing or proposed curb-to-curb width for a particular street. When the recommendation exceeds the curb-to-curb width by 12” or less for the entire street, reduction of either the travel, bike or parking lane should be considered. When it exceeds the curb-to-curb width by more than 12”, alternative methods to provide bike access such as a wide outside lane or “sharrows” should be employed.

Please note, that the evaluation procedure’s recommendation is in no way intended to be used as an engineering standard but as a guideline that allows a level of flexibility in the widths of the travel, bike and/or parking lanes. Furthermore, the SBC believes that the provision of bike lanes should in no way mean that bicyclists cannot use other travel lanes as normally and legally allowed.

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STREET _____ CURB-TO-CURB WIDTH _____

	NO	YES	
TRAVEL LANE _____	<input type="checkbox"/>	<input type="checkbox"/>	10'-0" (minimum)
Limited* bus/truck traffic?	<input type="checkbox"/>	<input type="checkbox"/>	no change
Moderate** bus/truck traffic?	<input type="checkbox"/>	<input type="checkbox"/>	add 6"
Frequent*** bus/truck traffic?	<input type="checkbox"/>	<input type="checkbox"/>	add 12"
Typical traffic speeds <25 mph?	<input type="checkbox"/>	<input type="checkbox"/>	no change
Typical traffic speeds 25-35 mph?	<input type="checkbox"/>	<input type="checkbox"/>	add 6"
Typical traffic speeds >35 mph?	<input type="checkbox"/>	<input type="checkbox"/>	add 12"
	SUB-TOTAL		<input type="text"/>
BIKE LANE _____	<input type="checkbox"/>	<input type="checkbox"/>	5'-0" (minimum)
Absence of curb-side parking?	<input type="checkbox"/>	<input type="checkbox"/>	subtract 6"
Limited* bus/truck traffic?	<input type="checkbox"/>	<input type="checkbox"/>	subtract 6"
Moderate** bus/truck traffic?	<input type="checkbox"/>	<input type="checkbox"/>	no change
Frequent*** bus/truck traffic?	<input type="checkbox"/>	<input type="checkbox"/>	add 6"
Typical traffic speeds <25 mph?	<input type="checkbox"/>	<input type="checkbox"/>	no change
Typical traffic speeds 25-35 mph?	<input type="checkbox"/>	<input type="checkbox"/>	add 6"
Typical traffic speeds >35 mph?	<input type="checkbox"/>	<input type="checkbox"/>	add 12"
	SUB-TOTAL		<input type="text"/>
PARKING LANE _____	<input type="checkbox"/>	<input type="checkbox"/>	8'-0" (minimum)
No storefront retail along street?	<input type="checkbox"/>	<input type="checkbox"/>	no change
Some areas of storefront retail?	<input type="checkbox"/>	<input type="checkbox"/>	add 6"
Continuous storefront retail?	<input type="checkbox"/>	<input type="checkbox"/>	add 12"
Significant downhill stretch? (higher cycling speeds)	<input type="checkbox"/>	<input type="checkbox"/>	add 6"
Significant uphill stretch? (lower cycling speeds)	<input type="checkbox"/>	<input type="checkbox"/>	subtract 6"
	SUB-TOTAL		<input type="text"/>
	SUB-TOTAL		<input type="text"/>
			TOTAL <input type="text"/>

* - Limited bus/truck traffic: fewer than 20 buses and trucks in each direction per weekday peak hour

** - Moderate bus/truck traffic: between 20-50 buses and trucks in each direction per weekday peak hour

*** - Frequent bus/truck traffic: more than 50 buses and trucks in each direction per weekday peak hour