

POSITION PAPER FOR JACKSON BLVD. BIKE LANES VS WIDE OUTSIDE LANES

From the conversations that I have had this week with DOT and other planners we might want to consider a compromise on the Jackson Blvd re-construct. Bicycle Lanes (BLs) might be the best option however the DOT with the revenue shortfall in the State Budget will have the upper hand in everything they do. All they have to do is say “it costs more” and the general non-biking public will back them. However there is an option. I would suggest the bicycling community consider Wide Outside Lanes.

When additional space on collector and arterial roads is deemed beneficial to both bicyclists (for comfort when motorists are passing) and motorists (for ease of passing) Bike Lanes (BLs) and Wide Outside Lanes (WOLs) are both options.

A BL is a striped and signed space exclusively for the use of bicyclists and is typically 4 or 5 feet wide. A WOL is a shared-use lane that is wider than a standard 12 ft lane; 15 feet is typically recommended. (Example: Mountain View is actually a WOL not a BL)

Following are issues in comparing BLs and WOLs.

1. Safety. BLs are typically touted as increasing bicyclist safety. BLs, and WOLs for that matter, have never been **shown** to actually increase safety as defined by reduced collisions. Both simply provide space and thus comfort to bicyclists, and ease of passing for motorists. BLs, however, give the **illusion of safety** due to a perceived protective effect from the stripe, but ironically exacerbate certain hazards for the unwary rider, the very rider they are installed to accommodate.

BLs constrain bicyclists in the position where **Drive Out, Left Cross, and Right Hook** collisions are more likely, and increase the hazard from debris.

Several bicycle-motor vehicle crash analyses around the country have shown the three most prevalent collisions to overwhelmingly be the Drive Out, Left Cross, and Right Hook, crashes that occur at driveway or roadway intersections.

These three types of crashes are partly a result of bicyclists being too close to the edge of the road, and BLs tend to aggravate this problem because of the physical, operational, and visual separation that BLs produce, and the constraining nature of the stripe. The educational countermeasure for these types of collisions is Use More Lane or Take The Lane. This message is thwarted by BLs because they restrict bicyclists to be in them.

The aforementioned studies, have shown the actual risk of bicycle-motor vehicle collision to be very different than the perceived main risk of the bicyclist being struck from behind, known as an Overtaking type crash. However, this crash is so rare, even in the absence of BLs, as to not warrant attention, especially when one recognizes that the few of these that do

occur are typically not preventable with BLs because of the circumstances under which they occur – drunk driving, riding unlit at night or driving with distraction are examples. Furthermore, the appeal for BLs is fundamentally a desire for additional road space, and most people are unaware of the option of a WOL and its benefits, as well as the little known (except among "experienced" bicyclists) but significant dis-benefits of BLs.

2. Intersections. The three main adult bicyclist crashes occur at junctions, and a BL adds to complexities at intersections and roads in general. A 5-lane road becomes a 7-lane road when BLs are added. A WOL does not add to the complexity of the roadway. With BLs, bicyclists wishing to turn left tend to not merge to the left far enough in advance or at all. Motorists turning right must turn across the BL. Drivers may improperly wait to allow bicyclists to overtake on their right, thus obstructing following motor vehicles and creating an ambiguous situation for bicyclists. A BL encourages bicyclists to overtake motorists on the right side and to go to the front of the queue. Passing on the right is very risky and leads to many Right Hook collisions. WOLs enable bicyclist passing on the right, but it is not as formally legitimized as with BLs. However, BLs can be instructional at intersections with a right-turn-only lane and where a BL through pocket is striped.

3. Right of Way. Greater ROW requirements and costs for a standard 12' lane with standard 4' BL (16' total feet) as compared to a 14' or 15' WOL. Less total width of a WOL means less impermeable surface to contribute to downstream flooding. If you take a BL that is about 6000 feet long and 5 feet wide, 1 foot wider than is required (17' of total width including the adjacent lane). Here, 15' WOLs would have saved 24,000 (2 x 6000 x 2) square feet of impermeable surface, and considerable money in ROW acquisition and roadway construction costs. I believe this argument alone would get DOT's attention.

4. Induced Riding/Perception. BLs are touted as drawing new, but novice, bicyclists because they "feel" safer. Is it proper to attract novice riders to potentially dangerous situations because of the perception of safety? Novice bicyclists fear getting hit from behind, an unlikely type of collision, and so request BLs, the only on-road accommodation they may know to exist. They don't realize the down sides of BLs nor the option of WOLs. As bicyclists gain knowledge of the actual risks of riding and how to reduce these risks, and become aware of the negative issues surrounding BLs, all of this either by experience or through education, they no longer desire BLs on most roads. It is argued WOLs serve existing bicyclists well but may do little to encourage would-be bicyclists unless they are "advertised." If WOLs were located on Jackson Blvd the road could be marked with "Share the Road" signs or noted in a brochure or map.

5. Sociology. BLs separate and segregate physically, operationally, visually (left turning drivers don't readily notice BLs which are much narrower than regular lanes), and socially.

Thus, bicycle riders have equal rights to the road as do other vehicle operators. A BL has the effect of sending the message to motorists that bicyclists have less right to be out of the BL. BLs create the expectation in motorists that bicyclists will and must stay "where they belong," in the BL. Some motorists make the incorrect assumption that bicyclists should be

in the BL. This can manifest as "Get in the Bicycle Lane!" yells, honking, or even physical harassment. Some places have made laws requiring bicyclists to be in BLs unless there is justification to be out of them.

A BL has the effect of teaching novice riders that they must remain in that space, no matter how unsafe it may be. These riders may then not readily learn vehicular bicycling principles. New bicyclists more readily learn vehicular bicycling principles in WOLs. Usually, to the right of the painted line is where a bicyclist would be riding whether there is a stripe or not. But in the situations where she/he MUST move out of that space: to make a left turn (depending on bicyclist speed and traffic conditions, the rider may have to merge out of a BL very far in advance of a turn. Also, not all left turns are made at intersections. Many are made into midblock driveways where no break in the BL is provided. "Those *&#\$ bicyclists can't even stay in the lanes we gave them!" Or worse. "The accident was the bicyclist's fault. They were not in the Bicycle Lane where they were supposed to be."

It is argued that BLs are visible icons to the legitimacy of bicyclists. But why should bicyclists rely on BLs for legitimacy? State law says bicyclists are legitimate on all roads. Do bicyclists want to be legitimate only on BL roads? WOLs or regular width roads can have "Share the Road" or "Bikes Belong" signs if bicyclist legitimacy needs to be affirmed, which it doesn't. A BL tends to restrict bicyclists to a rightmost portion of the road, and this is enforced by some militant drivers. In a WOL or regular lane, bicyclists are rightly free to ride where they choose. BLs require no cooperation, and none is manifested. WOLs require and foster cooperation.

6. Wrong Way Riding. BLs more readily enable wrong way riding. Wrong way riding in BLs is a significant collision threat with motor vehicles, especially those pulling out of side streets and driveways, and also with correct riding bicyclists who are in the same path. Imagine the hazard to a bicyclists on Jackson Blvd riding if the bicyclists who currently ride the wrong way on the sidewalk were to ride the wrong way in a newly created BL. Bicyclists are not as likely ride the wrong way in WOLs, though wrong way riding can and does happen anywhere.

7. Overtaking Separation Distance. The separation distance between overtaking motor vehicle and bicycle is slightly less in a BL than in a WOL, even though a WOL is narrower overall. This is an ironic finding in that a BL is supposed to provide "comfort" to bicyclists from passing motor vehicles, yet drivers pass closer than in a WOL. The ambiguity in a WOL may cause motorists to move over farther. With a BL, as long as the bicyclist is in their lane and the motorist in his, there is no need to move over. Perhaps in a WOL the driver tracks down the left lane line, whereas with a BL the driver centers himself between the two lines or even tracks down the BL.

8. Motor vehicle speed. BLs narrow the motorists' travel area as compared to a WOL so may have a traffic calming effect. On the other hand, BLs may result in higher driver speed when overtaking bicyclists than when in a shared WOL. BLs allow motorists to pass bicyclists without slowing down. As long as the driver is in his lane and the bicyclist in theirs, why slow down? The ambiguity of a WOL induces motorist caution, thus slower

speed. This has not been formally studied (it would be nearly impossible to undertake), but it is common anecdotal knowledge among experienced bicyclists.

SUMMARY

When to use bicycle lanes (or striped shoulders). BLs are best used, if at all, on higher speed (45 speed limit) roads with few driveways, intersections, and turning movements for both bicyclists and motorists, the lack of high speed bicycle descents, and where commitment is made for regular debris cleanup. (Jackson Blvd has lots of driveways, intersections, and turning movements.)

WOL's function very well for both bicyclists and motorists. Ideally though, they would be 15' from edge of gutter pan to line, providing even more space. (Mt. View is essentially a WOL) Any of the roads with BLs would be easy places to ride a bicycle without the stripe given the same or similar total available road space.

DOT is planning for 12' lanes with 8' curbside sidewalks along Jackson Blvd. If they were to eliminate 3 feet of sidewalk on both sides and put in a regular 5' walk they could then have two striped 12' lanes with the outside lane a WOL (15' from curb to left side line).

Some of you may not agree with me and still want BLs along Jackson but I believe that in today's economy if we try and get BLs on Jackson Blvd we have a 90% of failing. However if we can convince DOT to look at WOLs that it would probably not raise the cost of the project because they would be decreasing sidewalk width and increasing lane width we stand a very good chance of getting a safer riding surface along Jackson Blvd.

Thank you and good riding!

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