

Color Codes for Bikealbanymap.Com (BAM) 8/7/19

A 4-23-19 email from the Empire State Trail Director said in part: *"Trail Color Codes. We aim to launch the Empire State Trail website, that will include interactive route maps, in the spring of 2020. The website will delineate on-road versus off-road sections (and will contain trail surface types – asphalt or stone dust – for all off-road sections). We haven't focused yet on how on-road vs. off-road sections will specifically be depicted on the website; we'll turn attention to that question this fall."*

BikeAlbanyMap.com (BAM) - We adopted a color code that balances safety with utility. ABC studied dozens of existing bike maps, so our findings can help other map designers.

Lessons learned:

- 1) Lowest interaction between bikes and cars = greatest safety.
- 2) Use minimum number of route types consistent with levels of safety. Our BAM has five types.
- 3) Make colors intuitive re: point #1, whenever possible (e.g., green = safe, red = danger).

BAM color scheme: Our five route types, from lowest car/bike interaction (safest) to highest interaction (least safe), are as follows. (#1 and #3 are the same as New York City and Philadelphia.)

- 1) **Green** = multi-use paths, or protected bike lanes.
- 2) **Orange** = conventional bike lanes. Since our application creates custom routes in blue, for each person interactively, we could not use blue for bike lanes as in New York City and Philadelphia. We settled on orange: easily seen, easy to distinguish from other route types. (NYC uses orange for "signed NYS bike routes," but that doesn't help indicate level of safety; thus we don't show signed bike routes on our BAM.)
- 3) **Purple** = shared lanes
- 4) **Brown Dotted** = sidewalks. Occasionally a sidewalk is the only connection between strategic locations (Dunn Memorial Bridge and Route 378 Bridge, over Hudson River). A separate color alerts riders that (a) local laws may require them to walk bikes (b) always yield to pedestrians. We use a dotted to make this important safety advice even clearer; it is the only time we use a dotted line on our map.
- 5) **Red** = heavy traffic. In order to fill in some gaps in our route network, it was unavoidable to occasionally use high-traffic streets. Since our primary audience is novice-to-average riders looking for low-stress routes, we felt it was necessary to give riders a color-coded heads up. Red is a universal danger signal, so it was a natural choice.

All of our routes are paved. None consists of stone dust or dirt, so we have no color code for that.

Links - Our map: <https://bikealbanymap.com/>. It includes a Help button at lower right, a Map Key at lower left.

New York City and Philadelphia are good examples of these principles; we adopted their concepts with a few modifications. NYC: <https://www1.nyc.gov/html/dot/downloads/pdf/bikemap-2019.pdf>
Philadelphia: <https://www.arcgis.com/apps/MapSeries/index.html?appid=7de2f0cc96de4675ac90d156b556b6b9>

At the other extreme, Portland Oregon and Madison Wisconsin have ten or more kinds of routes. Such fine-grained distinctions make their maps too difficult for the average rider.

Portland: <https://pdx.maps.arcgis.com/apps/webappviewer/index.html?id=b51534aa6e1f4dd4ad4d83c4a084d9a6>