

May 2, 2014

Mr. John Allen
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Delivery Via: Email: jsallen@bikeexpert.com

Reference: Connect Historic Boston Response to Comments

Mr. Allen:

The City of Boston Public Works Department is in receipt of your letters dated January 14, 2014 and March 12, 2014 regarding the Connect Historic Boston Bike Trail Project and offers the following response to your comments:

Cycle Track Layout and Design

The cycle track and the limits of construction in the Connect Historic Boston Project is the first phase of a much larger plan for improved bicycle and pedestrian facilities as described in the Connect Historic Boston plan. Future projects will continue to expand this network to bring residents and visitors safely and conveniently to the many historic destinations in Boston. The city has received broad support for this endeavor both locally and nationally.

Your letter cites multiple studies regarding cycle facilities and references your website bikeexpert.com for further information. So we reviewed the information on your website and noticed that some of those of those studies are from the '70's and '80's and are considered outdated. Research, preference surveys, and bicycle data around the world has shown a clear trend: cycle tracks increase overall ridership, and are preferred by more types of potential bicyclists.

The following is a list of more recent data and studies that support the methodology in developing this design.

- In Washington, DC, more bicyclists began riding on 15th Street after the one-way cycle track was installed. After the two-way cycle track was installed, there was a 205% increase in bicycle volumes between P Street and Church Street during the p.m. peak hour, and there was a 272% increase in bicyclist volumes between T Street and Swann Street during the p.m. peak hour.¹

¹ Parks J., Ryus P., Tanaka A., Monsere C., McNeil M., Dill J., Schultheiss W. (2012). *District Department of Transportation Bicycle Facility Evaluation*. Project No. 11404.



- An evaluation of six cycle tracks in Montreal compared the facilities to parallel streets without bicycle facilities, and found on average that 2.5 times as many riders use the cycle track over the parallel streets².
- A study of nine large North American cities show a clear trend in safety in numbers, and “as the levels of cycling increase, injury and fatality rates per trip and per km traveled fall dramatically. Thus, if we can increase cycling, it will almost inevitably be safer.”³
- A study of 14 large cities shows a clear trend that a higher percentage of female cyclists is correlated with a higher overall bicycle mode share.⁴

While these facilities may result in overall lower travel speeds for cyclists compared to existing conditions without protected bicycle facilities, they are expected to dramatically increase the bicycle mode share, a goal that has been explicitly stated by the City of Boston and the Massachusetts Department of Transportation.

Evolutions in cycle track design have created safer facilities by separating conflicts at intersections, improving sight lines, and slowing bicycle and vehicle speeds to create a safer environment for all modes. Below is a high level summary of some of the safety research for cycle tracks:

- An evaluation of six cycle tracks in Montreal compared the streets with cycle tracks to parallel streets without bicycle facilities, and found that the streets with cycle tracks have a 28% lower injury rate over the parallel streets without bicycle facilities.⁵
- Researchers examined crash rates on 19 US cycle tracks physically separated from vehicle traffic by a buffer and distinct from the walking paths compared to reference streets without cycle tracks. The overall crash rate for cycle tracks was 2.3 (95% CI = 1.7, 3.0) crashes per million bicycle kilometers. For vehicle-bicycle crashes on roadways, the overall published crash rates per million bicycle kilometers ranged from 3.75 to 54, and from 46 to 67 in the US and Canada respectively. These “results suggest that, in the United States, bicycling on cycle tracks is safer than bicycling on roads.”⁶
- A study of 690 bicycling injuries in Canada across all types of bicycle facilities showed that cycle tracks had the lowest risks, about one-ninth the risk of the reference: major streets with parked cars and no bicycle infrastructure. Bicycle lanes were found to have about one-half the risk as

² Lusk, A. C., Furth, P. G., Morency, P., Miranda-Moreno, L. F., Willett, W. C., & Dennerlein, J. T. (2011). Risk of injury for bicycling on cycle tracks versus in the street. *Injury prevention*, 17(2), 131-135.

³ Pucher, J., & Buehler, R. (2012). Promoting Safe Walking and Cycling: Lessons from Europe and North America. (Presentation to Harvard Graduate School of Design, 17 Oct 2012). Also Pucher, J., & Buehler, R. (2012). *City Cycling*. Cambridge, MA: MIT Press.

⁴ Garrard, J., Handy, S., & Dill, J. (2012) Women and Cycling, in Pucher, J., & Buehler, R. (eds.), *City Cycling*. Cambridge MA: MIT Press.

⁵ Lusk, A. C., Furth, P. G., Morency, P., Miranda-Moreno, L. F., Willett, W. C., & Dennerlein, J. T. (2011). Risk of injury for bicycling on cycle tracks versus in the street. *Injury prevention*, 17(2), 131-135.

⁶ Lusk, A. C., Morency, P., Miranda-Moreno, L. F., Willett, W. C., & Dennerlein, J. T. (2013). Bicycle Guidelines and Crash Rates on Cycle Tracks in the United States. *American journal of public health*, 103(7), 1240-1248.

the reference. Busy streets are associated with higher risks than quiet streets, and bicycle-specific facilities are associated with lower risks.⁷

- The Prospect Park West New York City cycle track case study found that all crashes decreased by 16%, injuries decreased by 63%, and injury risk decreased by 50% post-installation. The study also reported there were no reported injuries between bicyclists and pedestrians.⁸

While the proposed bicycle facilities do not provide direct connections to all potential destinations, they will result in a dramatic expansion of protected bicycle facilities in Beacon Hill, West End, North End, and Charlestown. This is the first phase of a much larger plan for improved bicycle and pedestrian facilities as described in the Connect Historic Boston plan. Future projects will continue to expand this network to bring residents and visitors safely and conveniently to the many historic destinations in Boston.

Thank you for your input and we look forward to continue to work with all community stakeholders on this important project.

Sincerely,



William R. Egan, PE

Chief Civil Engineer

Project Manager - Connect Historic Boston

⁷ Teschke, K., Harris, M.A., Reynolds, C.C., Winters, M., Babul, S., Chipman, M., Cusimano, M.D., Brubacher, J.R., Hunte, G., Friedman, S.M., Monro, M., Shen, H., Vernich, L., & Crompton, P.A. (2012). Route infrastructure and the risk of injuries to bicyclists: A case-crossover study. *American journal of public health*, 102(12), 2336-2343.

⁸NYCDOT (2011). Prospect Park West: Bicycle Path and Traffic Calming Update. (Presentation, 20 Jan 2011).