April 4, 2018

Honorable Andrew M. Cuomo Governor of New York State

Dear Governor Cuomo:

Thank you for having Ms. Barbas of the New NY Bridge Project write us on March 5 regarding the Shared Use Path (SUP). We appreciate the work to improve the path's safety and accessibility. It is welcome news that the latest plans remove swing gates, switch dismount signs to yield signs, improve warning signs for people driving.

Continuing our collaboration to make the bridge an exemplary, safe active transportation facility, we offer the following insights for consideration. Below is a summary. Further details are attached.

Safe systems account for how people actually behave instead of how we think people should behave.

- Design the signals and intersection to accommodate everyone: bike signal heads, sensors for all modes, short wait times, dedicated phase for people walking/biking, etc. Such measures significantly boost compliance.
- Plan for big peak volumes of people walking and biking
- Provide a third curb ramp at the trail head
- Configure the terminus so people can easily and safely ride on and off
- Ensure people wary of cycling in traffic have access to the Esposito Trail

These concepts will create safe interactions, obviating the need for chicanes added in the latest plan. **Chicanes would dangerously hinder flow on a path already below FHWA's width standards.** 

Communities on both sides of the Bridge are working to increase cycling for transport via a large safe cycling network. A transportation system only gains acceptance if users can access it whenever needed. Thus **the SUP must be operated like a road**, **only closing when absolutely necessary**.

Thank you again for the update and open mindedness. Please have staff contact us for any clarifications or assistance needed, particularly the State Police while determining 24/7 access.

Sincerely,



cc: Ali Chaudhry, Joanne Mahoney, Jamey Barbas, George Paschalis

# **Big Peak Volumes**

When contemplating how to design SUP elements, think of a group ride of 20 people coming off the bridge while another group ride of 20 people is coming on. Add to that a family on bikes and a family walking. All at the same time.

#### Accommodate Everyone

Giving everyone full consideration makes people feel the system is working for them, so they will be more likely to follow the rules -- enhancing safety.

For example, Chicago found that adding protected bike lanes, bicycle heads to the traffic signals and automatically sensing bikes boosted red light compliance to 81% by people on bikes -- up from 31% in the old system. ("<u>Case Study: Dearborn Street, Chicago</u>," NACTO)

## Signal / Intersection Design

Intersection signaling that serves all modes with limited wait times improves safety. The Clinton Ave / Franklin St intersection and signal should:

- Automatically detect all modes from all directions
- Have dedicated phases for people walking and biking during which motor vehicles are stopped. On weekend days, this phase needs sufficiently long to process large user volumes.
- Have bike signal heads synchronized with the pedestrian signals
- Have "<u>bike boxes</u>" painted on the street so riders will be positioned properly to utilize the dedicated phase
- Have accompanying "no turn on red, except bikes" signs
- If people using the paths will be crossing Clinton St at the same time people driving on Franklin have green lights, the system should display flashing yellow turn signals
- Defaults to "green" for people walking and cycling
- Defaults to red for people driving, but changes to green when vehicles arrive that are going slower than 20 MPH or stop briefly
- Changes signals to red when it detects cars that are going too fast
- When people are coming from all directions, loops quickly enough through the phases so people don't feel excessively delayed

See the "Signalization Strategies" section of FHWA's "Separated Bike Lane Planning & Design Guide."

#### **Obviates (Dangerous) Chicanes**

The system above makes the rules easy to obey. It encourages everyone to adhere to signals, helps moderate speeds of people driving into the intersection and neighborhood from the highways. Meeting safety goals this way obviates the need for chicanes.

LOS	Pedestrian Delay (sec/ped)	Likelihood of Noncompliance
Α	< 10	Low
в	≥ 10-20	
С	> 20-30	Moderate
D	> 30-40	
E	> 40-60	High
F	> 60	Very High

Cycling is quite safe due to low mass and low speeds. Chicanes will force people to change velocity and course -- generating rear end, wheel overlap, side swipe, fall over and head on crashes. So chicanes would wind up creating danger where it didn't exist before.

These conflicts will be significant given **the chicanes would narrow a path that will already be below FHWA's width guidelines**. The Side Path without chicanes will be only 10' wide. The path will easily see more than 150 users / hour / direction, for which FHWA recommends paths be 12 - 14' wide. (p 4-5, "<u>Small Town and Rural Multimodal Networks</u>," FHWA, 2016)

### Planning for Riding is Planning for Safety

Reflecting again on effective rules, Ms. Barbas mentioned "cyclists will be advised to walk their bikes." Unreasonable requests will reduce overall compliance with the intersection's safety systems.

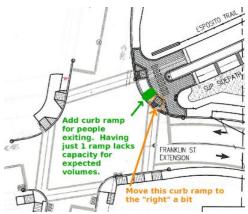




It will be wise to set up the area so people can easily and safely ride on and off in an orderly manner.

### Three Curb Ramps

The present design has just one curb ramp on the Side Path's half of the corner. (The Esposito Trail half of the corner has another curb ramp.) The number of people that will be cycling through this location means many will remain in the intersection after the signal changes. Another ramp is required. A western ramp to for people entering the Side Path, a middle ramp for people the exiting Side Path and an eastern ramp to serve the Esposito Trail.



#### Signs

The drawings still lack NYS DOT's "Narrow Lane Assembly" signs. They are applicable here due to street widths. They are are also *required* where Shared Lane Markings (sharrows) are used, per NYS DOT <u>TSMI 13-07</u>.

The "Turning Vehicle Yield" signs need bicycle icons added to them. Those, and the "Trail Crossing" signs seem to be needed for other directions as well.

#### **Acceptance Requires Access**

In your research of access hours for similar facilities, it is important to focus on areas with high bicycle use, like the Netherlands. Having good, accessible infrastructure leads to more people cycling for transportation, which is what communities surrounding the Bridge are working toward.

The bike lanes sought by the Route 9, Route 119, Nyack and Orangetown studies, combined with the Cuomo Bridge, will produce a large, safe cycling network. A transportation system only gains acceptance if users can access it whenever needed. Being open 24/7 makes biking viable for commuting and evening activities (Tarrytown Music Hall, restaurants/bars in Nyack and Tarrytown).

### Neighborhood Concern

The main "neighborhood concern" stems from fear of the unknown. Those concerns can be allayed by real-world experience from around the globe. People biking in the middle of the night are quietly going places without incident.

NYC and MTA bridges are open all night. Aside from the Brooklyn Bridge, NYPD does not patrol them on any regular basis. Crime, suicides and noise are not problems. Nearby residents are fine.

Some are wary of the path's lighting. Systems exist to turn on lights only when people are present.

# **Maintenance and Protection of Traffic**

When the Thruway fixes the highway, a Maintenance and Protection of Traffic plan is produced for the work zone. In the rare event it is absolutely necessary to completely close the road, alternative means of serving the traffic are provided and advance notice given. These same principles should apply to the SUP. Please don't use maintenance as a fig leaf to cover South Nyack's trepidation.

### Shuttle

When a full closure is truly necessary on the SUP, the replacement service needs to be frequent. Shuttle headways should be under 15 minutes or run in an on-demand basis.

### **Esposito Trail**

There have been rumblings of South Nyack's desire to restrict cycling on the Esposito Trail. Please take the steps necessary to ensure people wary of cycling in traffic have access to the Esposito Trail.