Andrea Cowley Comments

Current list of design issues:

1. Ped/Bike decking is too narrow to provide sufficient margins for bidirectional traffic with bidirectional passing
   1. A 14” deck (presuming no loss from rail) can be split into 2 even 7” lanes
   2. Bicycle handlebars can reach as wide as 800mm/2'8"
   3. As the siding rail height is 42” from the deck, cyclists must cycle to the left of the railing, to avoid clipping the railing and becoming injured, cyclists may take a more inward stance, especially novices and those on difficult to control and heavy bicycles such as CaBi sharebikes
   4. Pedestrians do not tend to walk directly against the deck rail
   5. Passing distance without leaving the lane thus is reduced to a pessimal case of 15cm/6 inches. This represents less than 2 credit cards of distance between the outside rider and the rail edge
   6. I suggest increasing the deck width to 20” as a safety measure to increase the passing distance in the pessimal case to 18"
   7. Less critically this allows two abreast cycling which is likely to encourage further use as bridge users feel less pressure to "keep up" as is seen on many local trails

2. Bridge deck rail height is too low to prevent cyclist falls
   1. The siding rail height is noted in drawing B-302 as being 42” high 9” taller than me and would exceed any safety provided by the rail by a significant margin
   2. Consider raising the rail height to 8’ to increase safety

3. Bridge deck rail is directly vertical, which does not allow for full deck utilization by bicycles
   1. As discussed before, bicycles require space for handlebars, and for cyclist movement
   2. Cyclists are not likely to cycle close to obstacles such as rails
   3. A safety barrier that extends from the deck at an acute angle outward before rising vertically would allow full use of the deck by cyclists, further increasing the passing distance

4. The bridge is placed between a loud railway and highway, combined noise may be above safe exposure limits without hearing protections
   1. The Woodrow Wilson Memorial Bridge has clear barriers in place that protect users from falls and noise exposure, a similar barrier seems indicated

5. The 180 degree/double 90 degree turn on the east landing is not conducive to safety and traffic flow
   1. Please visit the Mt Vernon Trail on a CaBi at the Theodore Roosevelt Island Parking
   2. On heavy bicycles and with novice users, the double bend climb can be a significant challenge
   3. The bike/ped bridge on the east side lands in a parking lot that appears to have sufficient space to allow for a full length 1:20 climb without a bend
   4. Removing the bend will allow for better traffic flow and accessibility for novices
   5. Alternatives could include curves or shallow turns rather than sharp acute angles

6. A rescue plan should be created in conjunction with DC and Arlington Fire/EMS with electric utility vehicles pre-positioned at the Long Bridge park for rescue service use
   1. I did not see bridge capacity indicated in the drawings, and presumably navigating rescue equipment on the bridge would not be ideal in any case
   2. A low weight utility vehicle (such as Polaris brand ATV) should be considered as a supplement to ACFD/DCFD gear
   3. This could be kept on site at the Long Bridge park to prevent delays in moving equipment

7. A plowing plan should be created in conjunction with Arlington Parks to ensure plow equipment available can navigate the bridge/acquire new equipment
   1. This ped/bike bridge is posed to be a major commuter thoroughfare, proper plowing is essential to maintaining this link after it's construction
   2. A member of the Parks department should be contacted to ensure that proper equipment is available to keep the bridge deck clear and safe during winter weather events
   3. As above it is important to ensure that plowing equipment is light enough to operate on the bike/ped bridge