Electric Train Design & Public Input
Onboard Bike Storage
EMU Onboard Bike Storage Timeline Overview

- Samples Arrived: early August 2017
- Outreach Events, Poll, Social/Media: August 8 to September 1, 2017
- Public feedback paired with technical analysis: August through September 2017
- BAC Special Meeting: August 24, 2017
- Discussion with bike community reps: September 2017
- Determination: End of September 2017
Bike Car Configuration Constraints

- Bike ratio 1:8
- 1 ADA lavatory per trainset
- Seat capacity: FFGA 10% increase requirement
## Determination: Stacking Option

<table>
<thead>
<tr>
<th>Option</th>
<th>Bikes per trainset</th>
<th>Seats per trainset</th>
<th>Ratio</th>
<th>*Percent Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stacking</td>
<td>72</td>
<td>567</td>
<td>1:7.8</td>
<td>12.5%</td>
</tr>
<tr>
<td>Hybrid</td>
<td>68</td>
<td>573</td>
<td>1:8.4</td>
<td>8.3%</td>
</tr>
</tbody>
</table>

*Additional train and frequency benefits associated with PCEP results in increase from today (per peak hour, per direction)*
BIKE CAPACITY

100% Diesel Fleet: 384

OPTION 1 Stacking: 432 (+12.5%)

OPTION 2 Hybrid: 416 (+8.3%)

25% Diesel/75% Electric Fleet
EMU Onboard Bike Storage Outreach

Station Outreach with Samples: August 8 to September 1
EMU Onboard Bike Storage
Website Written Comments

- Stacked preference = 27%
  - Riders who chose the stacking option preferred it due to current capacity issues.
  - A few commented on its ability to accommodate different bike types/sizes.

- Hybrid preference = 24%
  - Riders who favored the hybrid option mostly preferred it because of easy storage.

Week of 7/23/2017 through 8/31/2017
• Other = 33%
  – Riders mentioned their inability to lift their bike.
  – Some people want a combination of both the hybrid and stacking options in different parts of the train.

• Bike theft = 16%
  – There is concern over bike theft in general and the effectiveness of cameras to prevent it.
  – A few commenters prefer to have seats in close proximity to bikes for added vigilance.
EMU Onboard Bike Storage Outreach Continued

• BAC recommends stacking option: August 24
• Bike Coalitions
  – Refined storage option details
  – Support stacking option
• Direct emails to Board and BAC
  – Over 100 received
  – Approximately 98% recommending maximum capacity
### EMU Capacity

#### CURRENT DIESEL FLEET (Mix Of Bombardier and Gallery Cars | 5- and 6-car Train Sets)

<table>
<thead>
<tr>
<th>Average Number Per Train Set</th>
<th>Train Sets Per Peak Hour In Each Direction</th>
<th>Seated Passenger and Bike Capacity per Peak Hour in Each Direction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seats 741</td>
<td>5</td>
<td>Seats 3,705, Bikes 384</td>
</tr>
<tr>
<td>Bikes 76.8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### MIXED FLEET (Mix of 7-car Diesel Train Sets and 6-car Electric Train Sets)

<table>
<thead>
<tr>
<th>Average Number Per Train Set</th>
<th>Train Sets Per Peak Hour In Each Direction</th>
<th>Seated Passenger Capacity Per Peak Hour In Each Direction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seats 681.3</td>
<td>6</td>
<td>Seats 4,088, Bikes 432</td>
</tr>
<tr>
<td>Bikes 72</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- 12.5% increase in bike capacity
- 10.3% increase in seat capacity
- 31% increase in seat + standing capacity
EMU Onboard Bike Storage

Folding Bikes
- Seats cantilevered
- Can fit certain models (e.g. Brompton 23” x 22.2” x 10.6”) under seats
Questions