June 28, 2016

Richard Morell, CEO
PFL Spaces US LTD
2420 NE Sandy Boulevard, Suite 115
Portland, OR 97232

Dear Mr. Morell:

This letter is in response to your request for a Letter of Determination regarding a number of bicycle parking systems developed by PFL Spaces. The request is whether seven bicycle parking systems developed by PFL Spaces, which include vertical, space efficient and high density bicycle racks, meet the design standards of Zoning Administrator (ZA) Bulletin No. 9.

Any space efficient bicycle parking system that does not meet the specifications of ZA Bulletin No. 9 must be approved by the Zoning Administrator for determination of equivalency. ZA Bulletin No. 9 has minimum spacing requirements for "space efficient bicycle parking" systems. Space efficient bicycle parking systems are those that do not meet the clearance requirements established elsewhere in ZA Bulletin No. 9, but which "are designed in a way that would meet the basic requirements of an appropriate bicycle rack." Such minimum spacing requirements for vertical bicycle racks is set at 16 inches, measured from the mid-point of one rack to the mid-point of an adjacent rack. For double-decker lift-assist racks or other similarly designed space-efficient horizontal racks, the minimum spacing requirement between two racks’ midpoints is 17 inches. Additionally, ZA Bulletin No. 9 explicitly states that in no case shall a bicycle parking space require lifting the bicycle's both wheels more than 12 inches off the ground.

Your request includes the following seven bicycle parking systems for consideration (also see attached table): 1) Pushbike Cradle; 2) Custom Steel Frame; 3) Sliding Cradle Frame; 4) Silver Bullet Frame; 5) Pushbike Track; 6) Pushbike Arc; and, 7) Pushbike Slide.

Four of the bicycle rack systems are vertical frame racks. The "Pushbike Cradle" frame and the "Custom Steel Frame" meet the minimum spacing requirements between racks as outline in ZA Bulletin No. 9. The rack spacing for the "Sliding Cradle Frame" is 14 inches when bicycles are parked; however, it features a sliding roller that allows racks to move laterally with relative ease, allowing users to easily place and remove their bicycles from the racks. The 4) "Silver Bullet Frame" features a dual-sided,
staggered design and while these racks are spaced 10 inches apart from each other, they face opposite directions, creating a spacing of 20 inches for racks facing in the same direction. Given this information, it is my determination that these four vertical parking systems are acceptable types of vertical bicycle parking spaces and satisfy the design standards in ZA Bulletin No. 9.

The "Pushbike Track" parking system features a dual staggering and rolling mechanism ideal for structures with low clearances. However, the higher stagger rack requires the lifting of a bicycle's wheels approximately 15 inches off the ground. Given this information, it is my determination that this space efficient parking system's higher stagger racks do not meet the design standards in ZA Bulletin No. 9 and will not satisfy the required bicycle parking spaces per Planning Code Section 155.2.

The "Pushbike Arc" parking system is a double-decker lift-assist rack that features spacing of 16 inches between rack centers. Although ZA Bulletin No. 9 establishes a minimum clearance of 17 inches between bicycles for double-decker lift-assist racks, all other requirements are satisfied by this design. Given this information, it is my determination that this parking system design meets the equivalency of an acceptable space efficient bicycle parking rack outlined in ZA Bulletin No. 9.

Lastly, the "Pushbike Slide" parking system is a high-density horizontal parking rack that features a sliding mechanism designed to move racks freely. The spacing between the racks' centers when parked is 12 inches. But when racks are moved, a circulation zone is created to allow enough clearance between racks. Given this information, it is my determination that his parking system meets the space efficient bicycle parking design standards of ZA Bulletin No. 9.

Please note that a Letter of Determination is a determination regarding the classification of uses and interpretation and applicability of the provisions of the Planning Code. This Letter of Determination is not a permit to commence any work or change occupancy. Permits from appropriate Departments must be secured before work is started or occupancy is changed.

Appeal: If you believe this determination represents an error in interpretation of the Planning Code or abuse in discretion by the Zoning Administrator, an appeal may be filed with the Board of Appeals within 15 days of the date of this letter. For information regarding the appeals process, please contact the Board of Appeals located at 1650 Mission Street, Room 304, San Francisco, or call (415) 575-6880.

Sincerely,

Scott F. Sanchez
Zoning Administrator

Attachment: Summary Table - PFL Spaces - Bicycle Racks

Cc: Citywide Mailing List
    Eugenio Salcedo, Planner
<table>
<thead>
<tr>
<th>Frame Type</th>
<th>Model</th>
<th>Spacing between Racks</th>
<th>Min. Spacing per rack per ZAB No. 9</th>
<th>Require Lifting?</th>
<th>Satisfy ZA Bulletin No. 9?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vertical Bicycle Rack</td>
<td>1) Pushbike Cradle</td>
<td>16&quot; (staggered) or 24&quot; (single tier)</td>
<td>16&quot;</td>
<td>Yes- less than 12&quot;</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>2) Pushbike Cradle - Custom Steel Frame</td>
<td>16&quot; (staggered) or 24&quot; (single tier)</td>
<td>16&quot;</td>
<td>Yes- less than 12&quot;</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>3) Pushbike Cradle - Sliding Cradle Frame</td>
<td>14&quot; parked; horizontal sliding for circulation zone</td>
<td>16&quot;</td>
<td>Yes- less than 12&quot;</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>4) Pushbike Cradle - Silver Bullet Frame</td>
<td>10&quot; centers; 20&quot; every other rack</td>
<td>16&quot;</td>
<td>Yes- less than 12&quot;</td>
<td>Yes</td>
</tr>
<tr>
<td>Space Efficient Bike Rack</td>
<td>5) Pushbike Track</td>
<td>16&quot;</td>
<td>17&quot;</td>
<td>Yes- lower stagger approximately 4&quot;; Yes- higher stagger approximately 15&quot;</td>
<td>Yes for lower stagger; No for higher stagger</td>
</tr>
<tr>
<td>Double-decker Lift-assist Rack</td>
<td>6) Pushbike Arc</td>
<td>Single stagger: 12&quot; Double stagger: 24&quot;</td>
<td>17&quot;</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>High Density Parking</td>
<td>7) Pushbike Slide</td>
<td>12&quot; centers; 24&quot; minimum clear circulation with slide</td>
<td>17&quot;</td>
<td>No- lower tier; Yes-higher tier minimal lifting</td>
<td>Yes</td>
</tr>
</tbody>
</table>
To the Zoning Administrator,

Re: approval for alternative bicycle parking systems as referenced in the Zoning Bulletin

Please find outlined below and attached a request and supporting cut sheet documentation for the approval of a number of bike parking systems designed and manufactured by PFL Spaces - a global thought leader in innovative and functional bike parking with experience exceeding 200 projects in commercial office, residential and university campuses.

Our parking systems are variations of vertical, horizontal and double tier parking – driven by innovation with an emphasis on limiting the amount of lifting and/or maneuvering by cyclists in order that the process of parking is safe and seamless.

We are seeking the approval for the following products in the City of San Francisco as we are working loosely with a number of commercial and residential owners, developers and managers.

Please feel free to contact me directly with any questions.

Sincerely,

Richard Morell
CEO
PFL Spaces US LTD

1-888-218-3433

Signed and accepted by:

Name: Richard Morell
Signature: __________________________
Date: 2-19-16
Pushbike Cradle – vertical

Designed for bike riders not weight lifters, this vertical parking rack cradles the front tire, reducing lifting issues normally experienced with vertical parking. Its unique parking method also prevents damage to rims and spokes.

The Pushbike Cradle has a variety of framing options available and is U or D lock compatible.

See attached cut sheet and demonstration video at http://pflspaces.com/products/#pushbike-parking
Pushbike Track – horizontal

The Pushbike Track is the latest in revolutionary pushbike parking. The design uses a patented combination of nose to tail holding, dual staggering and a rolling mechanism. These key features dynamically change the way the space works and allow users to load and lock whilst in the circulation aisle.

The Pushbike Track is a floor-mounted system that is U or D lock compatible.

See attached cut sheet and demonstration video at http://pflspaces.com/products/#pushbike-parking
Pushbike Arc – double tier horizontal

The Pushbike Arc has the whole package – it’s compact and makes an impact. With its sleek design, this high density, secure parking system has revolutionized 2-tier compact bike parking with a unique holding mechanism allowing for easy lifting.

It’s a floor mounted system and features as moveable steel arm to allow for U or D locks to be secured to all bike frames.

See attached cut sheet and demonstration video at http://pflspaces.com/products/#pushbike-parking
Pushbike Slide – compact, staggered horizontal

The Pushbike Slide allows for high density parking with reduced bike clash points and good circulation space between bikes. Its slide system orients bikes horizontally, so bikes can be moved laterally.

It's a floor-mounted system and is U or D locks compatible.

See attached cut sheet
Designed for bike riders not weight lifters, this vertical parking rack cradles the front tyre, reducing lifting issues normally experienced with vertical parking. It’s unique parking method also prevents damage to rims and spokes. And yes, you can use your U-lock on it too. The Pushbike Cradle has a variety of framing options available.

**Budget:** USD $130 per bike unit

**Capacity/Unit:** 1 Bicycle

**Material:** Mild Steel

**Spacing:**
- 1'-4" centers (staggered) OR
- 2'-0" centers (single tier)

**Min. Ceiling Height:** 7'-2"

**Aisle Widths:** 5'-0"

**Customizations:** Custom powder coating colour (min quantity of 20)
CUSTOM STEEL FRAME

The custom steel frame is to be used when you have an area with no existing walls.

<table>
<thead>
<tr>
<th>Budget $USD</th>
<th>$130 unit + $70 framing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity/Unit</td>
<td>1 Bicycle</td>
</tr>
<tr>
<td>Materials</td>
<td>SHS verticals &amp; SHS horizontals</td>
</tr>
<tr>
<td>Spacing</td>
<td>1'-4&quot; centers (staggered) OR 2'-0&quot; centers (single tier)</td>
</tr>
<tr>
<td>Min. Ceiling Height</td>
<td>7'-2&quot;</td>
</tr>
<tr>
<td>Aisle Widths</td>
<td>5'-0&quot;</td>
</tr>
<tr>
<td>Customizations</td>
<td>Custom powder coating colour (min quantity of 20)</td>
</tr>
</tbody>
</table>

NB: the above diagrams refer to both the Pushbike Cradle unit & custom steel frame.
The Sliding Cradle frame, allows the vertical parker to move laterally thanks to the patented sliding roller.

<table>
<thead>
<tr>
<th>Budget $USD</th>
<th>$130 unit + $255 framing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity/Unit</td>
<td>1 Bicycle</td>
</tr>
<tr>
<td>Material</td>
<td>Nylon frame</td>
</tr>
<tr>
<td>Spacing</td>
<td>1'-2&quot; centers</td>
</tr>
<tr>
<td>Min. Ceiling Height</td>
<td>7'-6&quot;</td>
</tr>
<tr>
<td>Aisle Widths</td>
<td>5'-0&quot;</td>
</tr>
<tr>
<td>Customizations</td>
<td>Custom powder coating colour (min quantity of 20)</td>
</tr>
</tbody>
</table>

Layout

SLIDING CRADLE FRAME

PUSHBIKE CRADLE CUT SHEET www.pflspaces.com
SILVER BULLET FRAME

The Silver Bullet frame recesses two rows of Pushbike Cradles together to save 1'-7" per double row.

<table>
<thead>
<tr>
<th>Budget $USD</th>
<th>$130 unit + $185 framing</th>
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</thead>
<tbody>
<tr>
<td>Capacity/Unit</td>
<td>2 Bicycles</td>
</tr>
<tr>
<td>Material</td>
<td>Nylon frame</td>
</tr>
<tr>
<td>Spacing</td>
<td>10&quot; centers (dual sided, staggered)</td>
</tr>
<tr>
<td>Min. Ceiling Height</td>
<td>7'-2&quot;</td>
</tr>
<tr>
<td>Aisle Widths</td>
<td>4'-11&quot;</td>
</tr>
<tr>
<td>Customizations</td>
<td>Custom powder coating colour (min quantity of 20)</td>
</tr>
</tbody>
</table>

Layout

For more information contact design@pflspaces.com
The Pushbike Track is the latest in revolutionary pushbike parking. The design uses a patented combination of nose to tail holding, dual staggering and a rolling mechanism. These key features dynamically change the way the space works and allow users to load and lock whilst in the circulation aisle.

### Pushbike Track Cut Sheet

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budget USD</td>
<td>$285 per bike</td>
</tr>
<tr>
<td>Capacity/Unit</td>
<td>2 Bicycles per unit</td>
</tr>
<tr>
<td>Materials</td>
<td>Mild Steel - powder coated carriage, cold galvanised rail</td>
</tr>
<tr>
<td>Spacing</td>
<td>1'-4&quot; centers per bike</td>
</tr>
<tr>
<td>Min. Ceiling Height</td>
<td>5'-9&quot;</td>
</tr>
<tr>
<td>Aisle Widths</td>
<td>4'-11&quot;</td>
</tr>
<tr>
<td>Customizations</td>
<td>Custom powder coating colour</td>
</tr>
<tr>
<td></td>
<td>(min quantity of 20)</td>
</tr>
</tbody>
</table>

[www.pflspaces.com](http://www.pflspaces.com)
Note: Refer to pflspaces.com/downloads for working drawings.

Plan

Layout

Penny Farthings
PUSHBIKE PARKING
A PFL SPACES COMPANY

For more information contact design@pflspaces.com

PUSHBIKE TRACK CUT SHEET
The Pushbike Arc has the whole package — it's compact and makes an impact. With its sleek design, this high density, secure parking has revolutionized the 2 tier compact bike parking systems with a unique holding mechanism allowing for easy lifting.

**PUSHBIKE ARC CUT SHEET**

- **Budget**: $USD $600/ per bike
- **Capacity/Unit**: 2 Bicycles
- **Materials**: Aluminum Arc & Mild steel base with aluminum arc.
- **Finishes**: Powder coated
- **Spacing**: Single Stagger 1'-4" Centers, Double Stagger 2'-0" Centers
- **Min. Ceiling Height**: 8'-10"
- **Aisle widths**: 5'-10"
Side Elevation

Double Stagger

Single Stagger

Plan & Layout

Double sided double staggered layout

Single sided double staggered layout

Single sided single staggered layout

For more information contact design@pflspaces.com
The Pushbike Slide allows for high density parking with reduced bike clash points and good circulation space between bikes. Its slide system orients bikes horizontally, so bikes can be moved laterally.

**Budget $USD** $285

**Capacity/Unit** 1 Bicycle

**Material** Mild steel powder coated green

**Spacing** 1'-0" centers includes circulation

**Min. Ceiling Height** 7'-0"

**Aisle Widths** 4'-11"

**Customizations** Custom powder coating colour (min quantity of 20)
Section, Elevation & Perspective

Plan & Layout

For more information contact design@pflspaces.com