



# Nice Ride Minnesota Parking Zones (“Virtual Station”) Master Plan

<< DRAFT for public review >> August 8, 2018





# 1. Overview

Nice Ride Minnesota (“NRM,” a nonprofit mobility manager), with input from Motivate Minnesota LLC (“Motivate”), submits this Master Plan in accordance with the June 4, 2018 License Agreement between NRM and the City of Minneapolis.

If approved by the Director of Public Works, this Plan will guide the permitting and implementation of parking zones for dockless bike sharing.

This Master Plan may be amended from time to time as we experiment and collaborate to improve both administrative processes and customer experience.

This Master Plan is complemented by a planning web site hosted by Community Design Group at [www.niceride-newparkingzonesplanning.org](http://www.niceride-newparkingzonesplanning.org)

## The approach to dockless bike sharing described here is new and innovative

We will require our customers to return dockless bikes to a parking zone (referenced in this report as a “virtual station”) that has been approved and permitted by public landowners.

Tactics for demarcating virtual stations will vary by property owner; on City-owned land, striping on pavement with special signage will demarcate virtual stations, whereas on University of Minnesota-owned land, virtual stations will likely be existing bike racks.



*Photo simulation of a pair of new dockless bikes parked at a parking zone located adjacent to our current dock-based (green bike) system.*

## The process for collaboration between the public and private sector is also new and innovative

We envision regular meetings to evaluate results, improve processes, and seize opportunities for public-private partnership. We also plan to engage the public in the site-selection and site-planning processes earlier than traditional processes.

Our website will invite residents, business owners, property owners, and riders to request a virtual station and provide information needed to expedite review.

This plan also addresses priorities for implementation; while our implementation schedule is fast, we wish to ensure that we implement virtual stations in a manner that is sufficient for the City.

In addition, while this plan is intentioned to set expectations for what the City shall expect from this endeavor, as of publication, Motivate continues to work across various stakeholders (sponsors, vendors, designers, etc.) to finalize design and procurement tasks; thus, real-life implementation of some renderings found in this master plan may vary in language, color and style.



***At the kickoff for public planning of the new system on April 25 2018.***



***Nice Ride's model for working on its planning initiatives has been engagement-based - right from the start. Image: engagement event at UROC in North Minneapolis as part of Phase 2 planning for the system, in September 2010.***

## 2. Collaboration Process with Public Landowners Regarding Permitting, Results and Cycle of Development

NRM will convene a Bike Share Mobility Management Meeting, starting a few weeks before our planned launch date and occurring quarterly thereafter.

An agenda for these meetings is envisioned to include the following items:

- 1) Bike share system performance, assessed against metrics for quality, reliability, equity, and orderliness.
- 2) Permitting process review.
- 3) Rider and neighbor experience review (including comments and suggestions received via website, customer service, and 311).
- 4) Opportunities review: new products and technologies; new opportunities for public/private partnership.

We suggest that the location for these meetings rotate between the public landowners (beginning with the City of Minneapolis, the University of Minnesota, and the Minneapolis Park and Recreation Board). Motivate's local team will join in person, along with their relevant product development team who may join either in-person or by phone.

NRM will facilitate the discussion and look for opportunities to strengthen the public-private partnership, through outreach to new partners and identification of new grant funding opportunities. Examples of focus areas will include user-interface integration, equity programs, and regional expansion with e-bikes.



***Regularly convening all the stakeholders together at a single location to discuss issues and improvements will help the project's implementation to move forward smoothly.***



### 3. Method for Demarcating Virtual Stations

Methods for demarcating virtual station will vary by property owner and application.

#### Delineated zones as virtual stations

We envision that the majority of our virtual stations will be implemented on pavement or concrete in public right-of-way (e.g. on sidewalks or on streets). For this application, we will be using a white, reflective, removable pavement striping product to delineate virtual stations to users.

Striping will be designed to mimic vehicular parking spaces and may be placed independent of, or adjacent to, existing Nice Ride station equipment. Dimensions of the striping can be found in Figure 1.

#### Signage for virtual stations

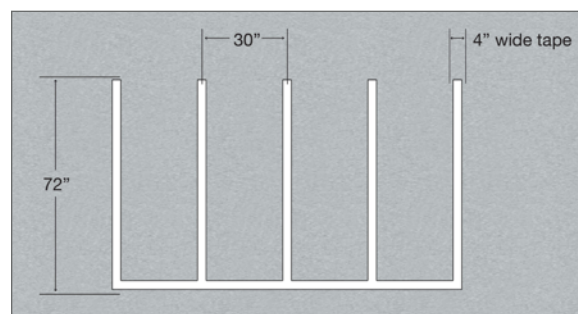
Signage will also be placed to denote each virtual station.

#### Application adjacent to existing docks

For stations adjacent to existing Nice Ride station equipment, a sign will be attached to the existing station hardware. Renderings of this application may be found in Figure 2.

#### Application using delineated space

For some applications, such as on-street delineated space (e.g. adjacent to parallel-parked cars, or wide sidewalks or plazas), a free-standing, weighted, removable sign will be used. Renderings of this application may be found in Figure 3.



*Figure 1: Dimensions of striping and small station module.*



*Figure 2: Sign for station adjacent to existing station.*



*Figure 3: Free-standing, weighted, removable sign.*

## Application near a parking sign

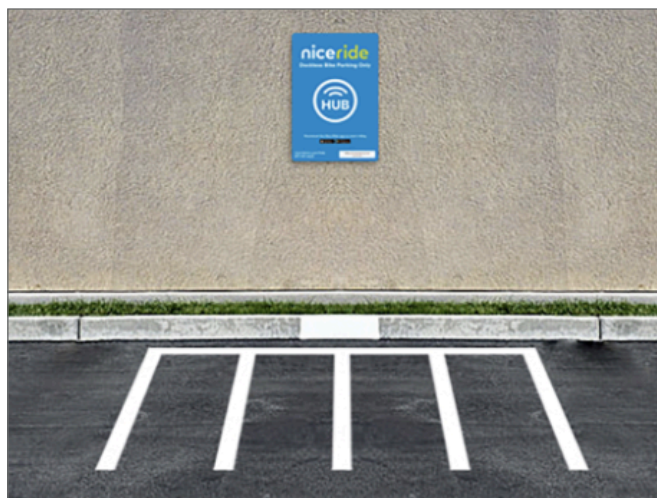
For stations near a parking regulations sign, a sign may be attached to the existing drive-rail with the approval of the city or applicable property owner. Renderings of this application may be found in Figure 4.



**Figure 4: Sign attached to an existing sign.**

## Application in a parking lot

For stations in a parking lot (i.e., permitted by private owners), a sign may be attached to a building's exterior wall with the approval of the applicable property owner. Renderings of this application may be found in Figure 5.



**Figure 5: Sign attached to a building's exterior wall.**

## Use of existing bike racks as virtual stations

For some applications, such as on University of Minnesota property, existing bike racks will also be permitted to be used as virtual stations. Provided that GPS coordinates of the bike racks have been provided to Nice Ride, Nice Ride will not need to make any modifications to the racks for them to serve as virtual stations.

With owner permission, we will apply small, non-permanent, decals to these bike racks to denote the bike racks as appropriate places to lock bikes. Renderings of this application may be found in Figure 6.



**Figure 6: Decal at existing bike racks.**



## Signage at virtual stations

All signage at virtual station will include the Nice Ride logo and wayfinding to designate the location as acceptable for locking Nice Ride's dockless bike fleets. It will also contain customer service website and phone number as well as instructions stating that the bikes are for dockless parking only.

Excluding the small decals placed on bike racks, signage will also include the nearest street intersection as well as a site ID that can be used by the user to assist a customer service representative with confirming their location.

While specific copy, language and design may be subject to change, a rendering of an example of this may be found in Figure 7.



**Figure 7. Example rendering of virtual station signage (subject to revision).**

## 4. Methods for Directing Users to Use Virtual Stations

Nice Ride will use a variety of methods to guide users on the proper use of virtual stations, including for where and how to park their bikes.

### Basic System Operations

Working through NRM, Motivate will deploy 1,500 dockless bikes in 2018. Usage of these dockless bikes will primarily flow through an app on the user's smartphone and a smart-lock device that is attached to the rear wheel of each bike. While branding and graphic design of the bike has not yet been finalized, a rendering of the dockless bike with associated smart-lock is shown in Figure 8.

Users will use the app both to locate bikes at virtual stations and to unlock the bike.

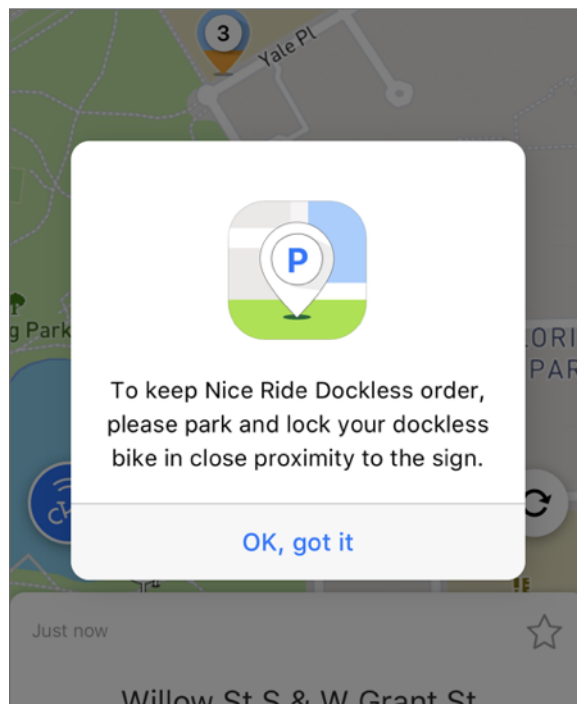
Users will be allowed to ride anywhere within the service area (defined as the Minneapolis City Limits) and may also ride their bike out of the service area. While the customer is riding, their location will be tracked by the smart-lock using GPS and a cellular data connection.

Virtual stations will be shown in the app and the user will be required to end all trips at a virtual station; the action of manually locking the bike will end a user's trip. The final location of the bike will be recorded and sent to a centralized location to ensure a user has returned their bike to a virtual station.

Motivate will redistribute bicycles within the program service area throughout the day, and will ensure all bicycles are in acceptable operating condition. Motivate will relocate bikes as necessary from areas



**Figure 8: Dockless bike, with smart-lock shown in orange circle.**



**Figure 9a: Screenshot from the Nice Ride app, communicating need to end the rental at a designated parking zone.**



that have a surplus of bikes to areas in which demand is high. To this end, strategies for determining where bikes should be moved from and to will be developed as ridership patterns are realized based on trends in the existing system and also on the dockless fleet, following launch.

Motivate will perform regular maintenance checks for each bicycle; all bicycles identified by customers as needing service will be repaired or removed from service within 72 hours.

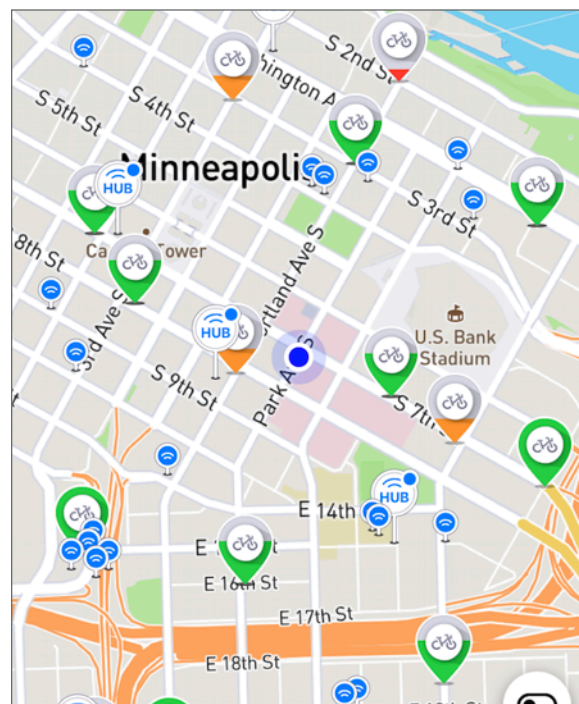
Motivate will also clean each virtual station as necessary and will remove conspicuous graffiti or accumulations of litter from stations within 48 hours of notification.

## Mobile App Design

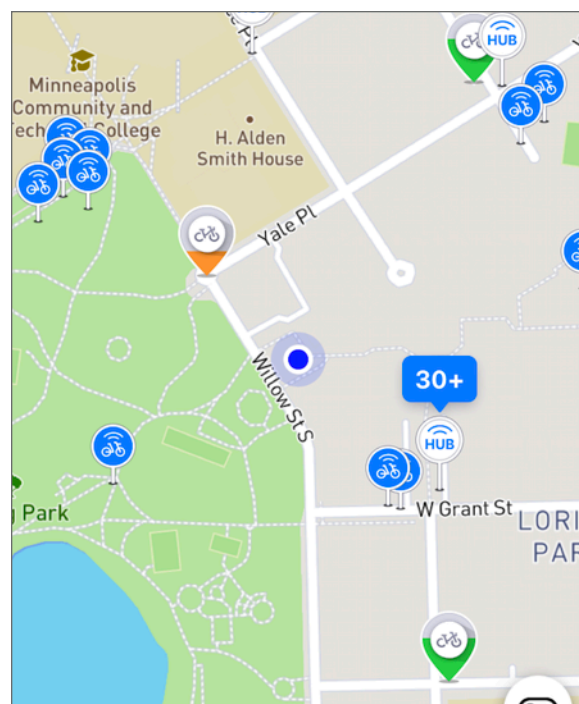
Users will access dockless bikes through the app. Users will be able to identify the location of virtual stations through special icons in the app; the specific location of each dockless bike will also be visible to the user and cluster around virtual stations to give users an idea of the number of bikes available at a specific station.

A “Plan a ride” feature will also be incorporated into the app; this feature will favor bike infrastructure and encourage customers to end their trip at virtual station near their destination.

While branding and graphic design of the app has not yet been finalized, some renderings of screenshots can be found in figures 9a-e.



**Figure 9c: Screenshot from the Nice Ride app showing location of both virtual and dock stations.**



**Figure 9d: Detail (zoomed-in view) showing location of both virtual and dock stations.**

## Penalties for Not Returning Bikes to Virtual Stations

Users will be required to return bikes to a virtual station at the end of their trip; users who do not comply will be subject to monetary penalties.

While specific price-points are subject to approval and confirmation by Motivate, an example of such a penalty could be an “out-of-station” fee of \$10, which would be assessed to users who do not return their bike to a virtual station.

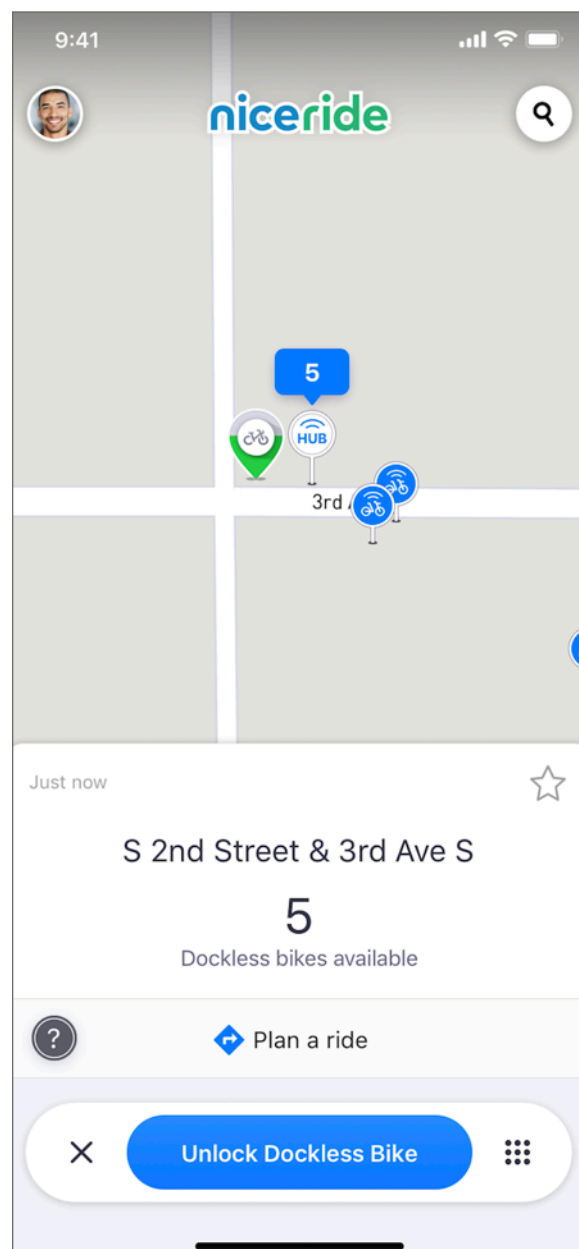
Users who start their trips from points outside a virtual station or the service area will not be subject to penalties as long as they return the bike to a virtual station.

## User Service Escalation for Violators

While a long term goal is to have instantaneous push notifications delivered to a user’s phone when they lock a bike outside of a virtual station, the process will be manual through Motivate’s local customer service team to ensure some subjectivity is introduced into the penalty process in the initial months after launch.

Motivate will audit users of the dockless bikes for compliance to ensure bikes are returned to virtual stations. Due to the limitation of current GPS technology and associated GPS drift, an appropriate tolerance level will be given to each user’s benefit upon introduction of dockless bikes in fall 2018.

Upon a user’s first violation that is not within this degree of tolerance, users will not be fined, but will instead be contacted by Motivate customer service via e-mail and advised of the following:



**Figure 9e: Detail (zoomed-in view) showing options for unlocking a dockless bike and planning a ride from a specific virtual station.**



- That they did not return their bike to a virtual station, which is not acceptable and a violation of the system's terms of use.
- Penalties that will be assessed at the next violation.

For each user's subsequent violation after their first (and following contact by Motivate customer service via e-mail), users will be assessed the appropriate fee. Users will have the ability to dispute penalties and address concerns through Motivate customer service channels (phone call, e-mail, etc.).

Motivate may opt to terminate the membership of egregious offenders of this policy (users who leave the bikes far outside the system, or who repeatedly do not use virtual stations).

## User Education

A large part of the success of the dockless bike system in Minneapolis will be a focus on user education and communicating changes and usage of the new system to existing members and new users. A heavy component of this focus will revolve around virtual stations and penalties for not returning bikes to virtual stations.

Communication will be broken into three phases:

- Pre-launch
- Launch
- Post-launch (continuous education)

In order to effectively engage the audience, NRM and Motivate will develop a campaign

using multiple marketing channels that will include:

- Email (to members, community partners, and stakeholders)
- App (tutorial on dockless bikes + virtual stations)
- Website (messaging, videos, and FAQ page)
- Various educational materials (e.g. brochures, station signage, etc.)
- Outreach through equity programs

Motivate will continue to update and amplify instructional materials as observations are made of confusion or pain points in the user experience. This will include regularly training and re-training of customer service representatives and event ambassadors to ensure they are well-versed in supporting users and answering key questions.

## Bike Angels and Other Incentive Concepts

Incentive programs that have been successfully deployed at-scale in some of Motivate's other bike share systems (Citi Bike in New York City, Ford Go Bike in California's Bay Area, Blue Bikes in Metro Boston) will likely be a unique and long-term tool to direct users to utilize virtual stations.

In some Motivate systems, a framework is in place so that users can voluntarily opt-in to an incentive program called "Bike Angels." These users are then incentivized through community leaderboards, non-monetary rewards (free passes, membership

extensions, etc.), and gift cards to take trips that benefit their bike share system.

Using targeted e-mails and special in-app iconography visible only to participants of the program, users are encouraged to adjust trips by both dropping off bikes at areas where bikes are needed, as well as picking up bikes from stations where additional docks may be needed. In each city where the Bike Angels incentives have been deployed, the program has successfully expanded the rebalancing / redistribution capacity of the local operations team by at least 25%.

Since Nice Ride will be the first system in North America to introduce dockless bikes at such a scale (in the 1000s) while leveraging the virtual station concept, Motivate will likely need between 6-12 months of ridership data to fully understand user behavior as it relates to use of virtual stations. Thus, implementation of an effective program similar to Bike Angels in New York City or the San Francisco Bay Area will not be possible until late 2019.

Motivate will learn much from the scale and innovation of the Nice Ride system in the Twin Cities. Planning is already underway about how such an incentive scheme could be modified to encourage use of virtual stations, including incentives for (1) customers who act in a “recovery” function to collect dockless bikes that have been left outside of the service area or away from virtual stations and return them to virtual stations, and (2) incentives for customers with a high compliance rates for repeated use of virtual stations.

## Operations Plan to Move Incorrectly Parked Bikes

Motivate will employ an “asset recovery” function to move incorrectly parked bikes to virtual stations. Teams will work to return incorrectly parked bikes to virtual stations.

Priorities for these teams will be as follows:

- Complaints or notifications of incorrectly parked bikes received through the Motivate customer service team.
- Bikes that have been parked far from a virtual station (miles from the nearest station, outside Minneapolis city limits, etc.).
- Incorrectly parked bikes close to virtual station, but that have not moved in over 24 hours.

In situations where recovering bikes requires entering a private property or residence, Motivate will work with the Minneapolis Police Department or appropriate authorities to recover the bike.

As usage patterns develop over the first months of operation, this Operations Plan will be refined to better serve the needs of the system and the community.



## 5. Public Engagement in Site Selection

A robust process for engaging residents, workers and visitors in identifying and selecting parking zone sites will help ensure the system is responding to the needs and interests of the public - and make for a more successful bikeshare service.

We are inviting Minneapolis residents, workers and visitors to provide ideas to help us plan this next evolution of bikeshare in the city.

Those who are interested in participating can do so through the following two options which are available at the planning website ( [www.niceride-newparkingzonesplanning.org/locations.html](http://www.niceride-newparkingzonesplanning.org/locations.html) ):

### Option 1: Using the site request form

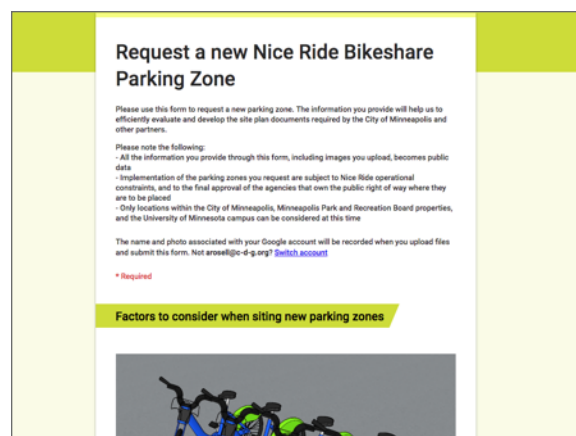
This option is intended for people who have a specific location in mind, and can send information to develop a site plan. For example, someone who has a “perfect location” in mind and is able to provide an address, measure the space and send us a picture. Or, someone who owns a business or land where we could place a station.

### Option 2: Using the Nice Ride Wikimap

This option is intended to receive comments and guidance from people who have some general locations in mind to help increase overall system connectivity or the equitable distribution of bikeshare in the city.

### Other options

We may also conduct additional in-person or online engagement opportunities as the need arises.

The image shows a screenshot of a web form titled "Request a new Nice Ride Bikeshare Parking Zone". The form has a light green header and footer. The main content area is white. It includes instructions on how to use the form, a list of factors to consider when siting new parking zones, and a section for providing contact information. The factors to consider include: "All the information you provide through this form, including images you upload, becomes public data", "Implementation of the parking zones you request are subject to Nice Ride operational constraints, and to the final approval of the agencies that own the public right of way where they are to be placed", and "Only locations within the City of Minneapolis, Minneapolis Park and Recreation Board properties, and the University of Minnesota campus can be considered at this time". The contact information section includes fields for "Name", "Email", and "Phone", with a note that "The name and photo associated with your Google account will be recorded when you upload files and submit this form. Not an email? Switch account".

**Nice Ride's online Parking Zones request form.**  
**People can use this form to provide site plan information for new virtual stations.**

### How will we use the information we receive?

We will take all of the comments received as part of the public engagement process into consideration, and will work with project partners, sponsors and owners of the public right of way where parking zones will be located (City of Minneapolis, Minneapolis Park and Recreation Board, the University of Minnesota, etc.) to finalize recommendations and implement the plan. We will provide regular updates through the Nice Ride New Parking Zones website and through the plan's electronic newsletter.

## Engagement we've already completed: the April 25 Community Forum

Over fifty people attended and participated at our first Community Forum at Day Block Brewery on April 25, 2018. Activities included presentation and updates on the new parking zones, numerous activities and much group discussion, comments and questions. Link to these items can be found at [www.niceride-newparkingzonesplanning.org/april-25-community-forum.html](http://www.niceride-newparkingzonesplanning.org/april-25-community-forum.html)

The activities completed included:

- Activity 1: A brainstorming session on ideal outcomes, potential issues, and opportunities for the new system
- Activity 2: Designing a better virtual station: an activity to think about the materials and layout for the new stations, how they fit in the public space, and how they announce their location to users and potential users
- Activity 3: Developing a new user-friendly name for the virtual stations
- Activity 4: Discussion and recommendations on where and how to site virtual stations to help increase equitable access to Nice Ride for all communities

The information we received at the Community Forum continues to be used to refine ideas regarding configuration of the parking zones, naming of the system stations, and location for additional parking zones that can help increase equitable access throughout the city.



**The forum collected hundreds of comments and ideas - from aspirations for the new system to drawings for how the new parking zones should be configured.**



**Participants providing their comments about what they would like to see as outcomes of the new stationless system.**



**One of the ideas received at the Community Forum for the design of the new parking zones.**

## 6. Permitting Process and Data Management

Developing and implementing an efficient process will ensure goals are being met and that customers have access to the stations they need.

For 2018, the working goal is to install (once permitted by the City) as many as 200 virtual stations; to accomplish this, Motivate expects that it may have to collect information on as many as 1,000 prospective sites to determine 200 that are acceptable to both Motivate and the City.

To support the virtual station permitting process with the City of Minneapolis, Motivate will propose to convene a Site Permitting Kick-Off meeting comprised of local Motivate team members, representatives from the City of Minneapolis and right-of-way property owners (e.g. University of Minnesota, Minneapolis Park and Recreation Board, etc.). The goal of this meeting will be to determine workstreams that will support the City's (and applicable property owners') requirements for evaluating prospective sites selected by Motivate in a time-frame that also supports Motivate's goals of approximately 200 virtual stations by the end of the 2018 riding season.

Motivate envisions that processes should be established for both an informal process for evaluating and discussing sites and providing feedback, as well as a more formal process that officially grants Motivate the authority to install virtual station pursuant to applicable City of Minneapolis requirements.

As part of the informal processes, Motivate proposes that a weekly meeting or conference call comprised of local Motivate team members, representatives from the City of Minneapolis and right-of-way property owners be held to discuss concerns with individual site permit applications, as well as opportunities to improve communications and workstreams.

Motivate will look to the City and right-of-way property owners for guidance on their formal approval processes.



## Site Permit Application

For each prospective site that Motivate determines is eligible to be a virtual station, Motivate will submit a site permit application that contains the following information:

- Unique site ID
- Site name (e.g. cross-streets or local landmark)
- Latitude and longitude coordinates
- Approximate street address
- Property owner
- Owner of adjacent parcel(s)
- Location type (off-street, on-street, turf, etc.)
- Snow emergency route designation (yes, no, etc.)
- Surface type (sidewalk, asphalt, etc.)
- Capacity (in # of bikes)
- Dimensions of the virtual station
- ADA clearance
- If the station is co-located with physical Nice Ride station equipment (yes, no, etc.)
- Picture of station streetview
- Satellite imagery of station location overlaid with approximate footprint of virtual station

An example of the proposed site permit application can be found on Figure 10 (next page); Motivate will be open to amendments to this site permit application if necessary for the city or property owners' purposes.

## Data Management

Motivate will maintain a database of relevant information associated with each virtual station. This information will include, but not be limited to the following data points:

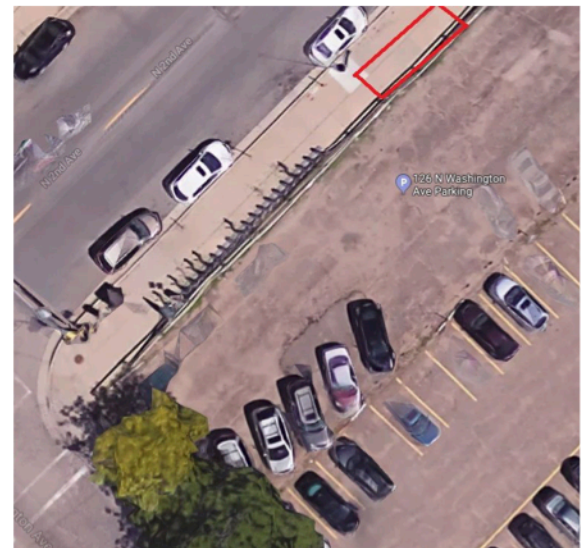
- Unique site ID
- Site name (e.g. cross-streets or local landmark)
- Latitude and longitude coordinates
- Approximate street address
- Property owner
- Owner of adjacent parcel(s)
- Location type (off-street, on-street, turf, etc.)
- Snow emergency route designation (yes, no, etc.)
- Surface type (sidewalk, asphalt, etc.)
- Capacity (in # of bikes)
- Dimensions of the virtual station
- ADA clearance
- If the station is co-located with physical Nice Ride station equipment (yes, no, etc.)
- If station is installed or not installed

This information will be kept in a format suitable for GIS purposes and will be updated regularly as stations are installed, removed, moved, etc. The City of Minneapolis and right-of-way property owners shall be able to obtain a copy of this dataset upon request.

ID: 30021A  
Revision date: 7/12/2018

## 2nd Ave N & Washington Ave N

Coordinates	44.983932, -93.270840
Street address (approximate)	231 N 2nd Ave Minneapolis, MN 55401
Property owner	City of Minneapolis
Ownership of adjacent parcel	Red Spot Lot
Location	Off Street
Snow emergency	No
Surface type	Sidewalk
Capacity	10
Dimensions	304" x 84"
ADA Clearance	60"
Existing station location	Yes



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**niceride**

*Figure 10: Sample site permit application.*

## 7. Priorities for Implementation of Parking Zones

The new designated parking zones will greatly expand access to Nice Ride's bikeshare fleet.

We envision these new designated parking zones at the following locations:

- Existing docking stations.
- Neighborhood commercial nodes
- Parks and sports fields
- Libraries
- High frequency transit
- Locations near apartments and other multi-family housing
- Locations that improve equitable access to bikeshare for all populations

The maps and narrative provided in this section illustrate some of these locations, and identify a sustainable, phased approach that accommodates the agreed-upon schedule for introduction of new fleet bicycles, addresses priority and equity locations, and responds to the growing system's operational needs and constraints.



***Siting the new virtual stations at neighborhood commercial nodes, like 48th and Chicago, will help extend bikeshare coverage throughout Minneapolis residential neighborhoods.***



***Improving connections to transit is one of the goals for siting of the new parking zones.***



## Dockless fleet size and expansion

Approximately 1,500 new dockless bikes will begin to arrive in Minneapolis starting September 2018 and will be in place for the remainder of the 2018 season.

The anticipated number of bikes that will be added each year to the Minneapolis fleet are:

- 1,500 in 2018
- 1,500 in 2019
- 1,500 in 2020 if usage targets are met
- 1,500 in 2021 if usage targets are met

## Service area

Starting 2018 (upon introduction of the dockless bikes) the service area for the dockless system will be the extent of the city of Minneapolis.

## System densification

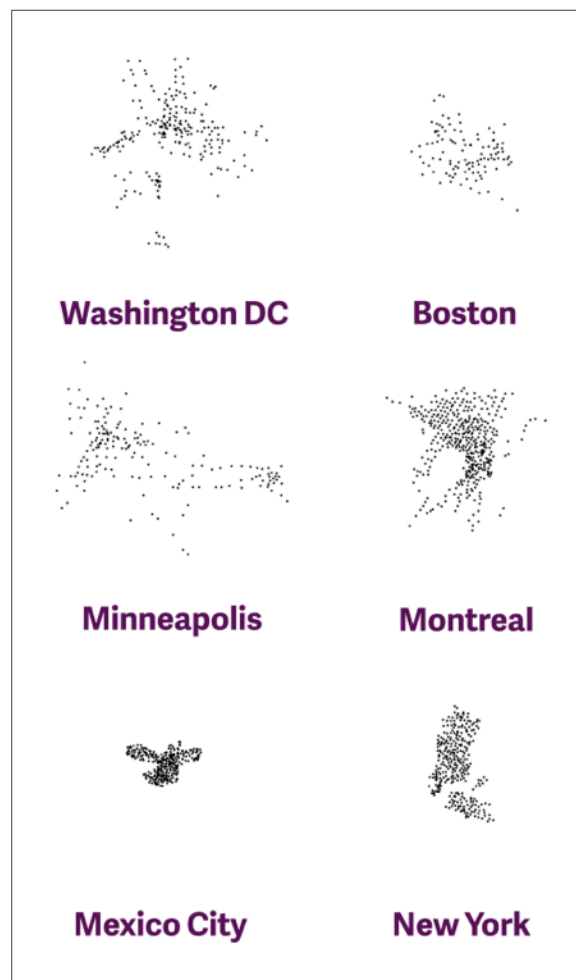
A key consideration for convenient access to bikeshare (and for growing use of bikeshare for transportation) is the relative density of stations where users may start or end their trips. The National Association of City and Transportation Officials (NACTO) recommends a dense network of stations that are no more than 1,000 feet apart.

Currently, Nice Ride station densities (for the green bike / docked system) are much lower than those found in peer systems elsewhere.

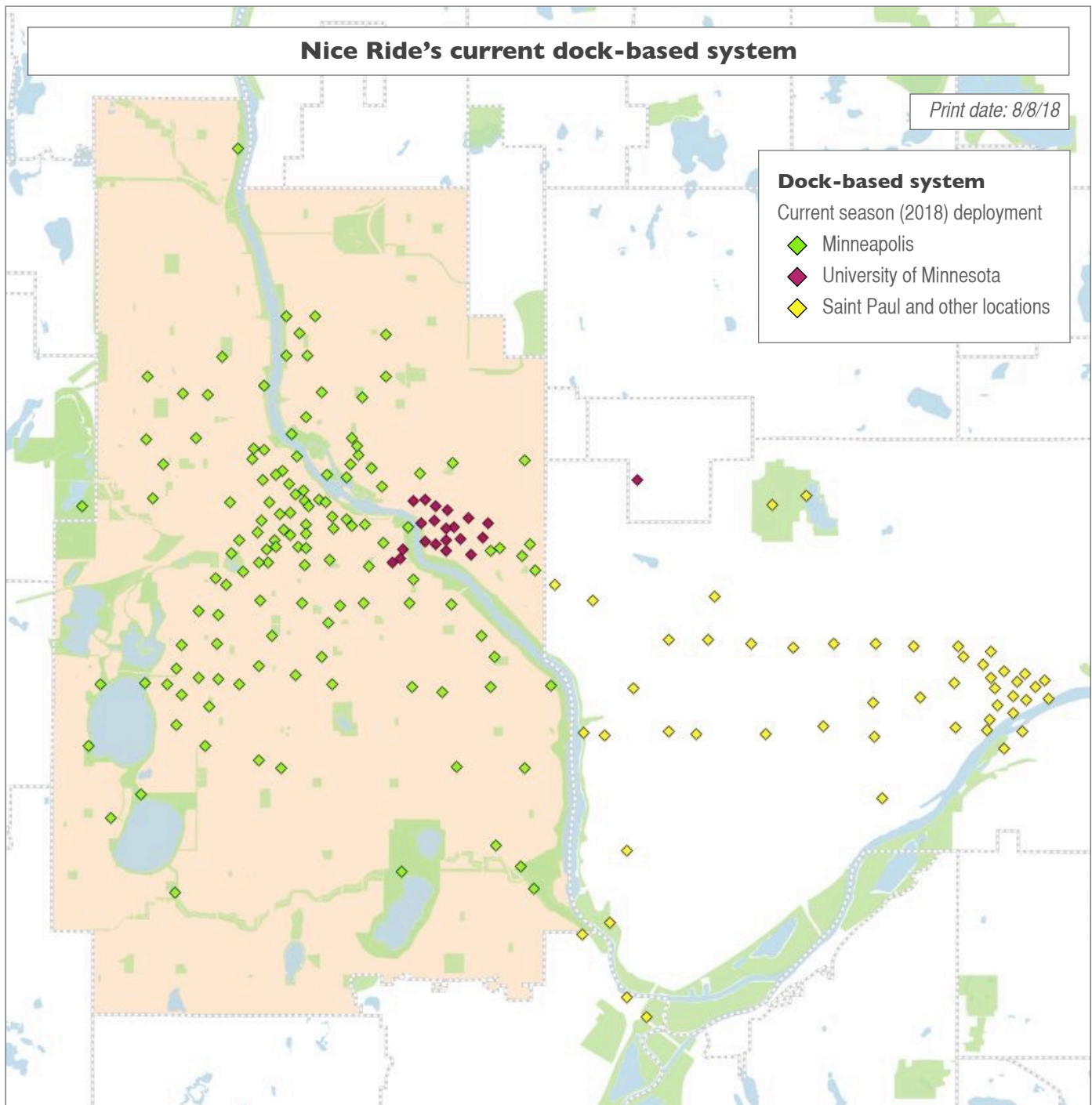
One of the goals for the Nice Ride dockless system will be to fill-in gaps in station coverage while growing the system's overall footprint and expanding equitable access to bikeshare for communities throughout Minneapolis.



**Community destinations, including parks, libraries and businesses will be key locations for the new virtual stations.**



**Minneapolis station density compared to selected peer cities. All systems are shown at the same scale. Adapted from David Yanofsky, "29 of the world's largest bike-sharing programs in one map," Quartz, May 29, 2013.**



*Locations for Nice Ride's current dock-based system, based on current (2018 season) deployment.*

**1,000 ft (NACTO guidelines) system planning grid**  
*also showing location of current dock-based system*

Print date: 8/8/18

**Dock-based system**

Current 2018 deployment

- ◆ Minneapolis
- ◆ University of Minnesota

**\* Please note:** Focus area shown on this map is for preliminary planning purposes only. Actual phasing and locations may vary.



## Phasing for 2018 season

A key benefit of dockless technology for bikeshare systems is the ability to quickly and relatively inexpensively grow the number of stations provided in a location.

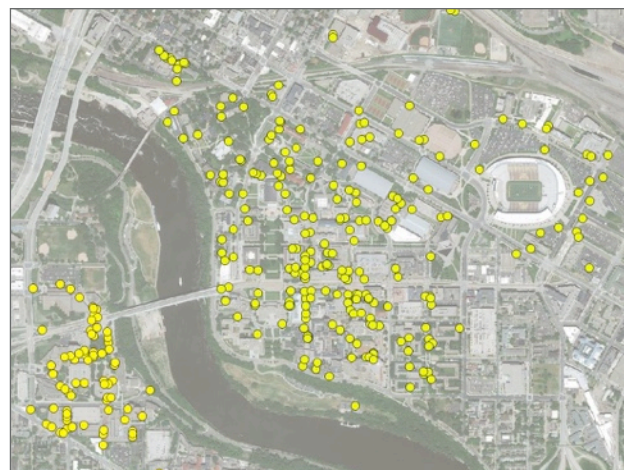
A goal for initial 2018 deployment of virtual stations is to add approximately 200 locations within Minneapolis. Of those, approximately 60 virtual stations will be sited adjacent to high-use dock-system stations, with the remaining 140 virtual stations being sited within a contiguous focus area that leverages the existing stations and expands the overall footprint of the dockless system.

In addition, approximately 300 additional virtual stations will be available in Minneapolis at the University of Minnesota campus (the university has authorized use of bike racks in the East Bank or West Bank campus as virtual stations).

The initial focus area for 2018 deployment, as shown on the next pages, is intended to help orient search efforts for suitable virtual station locations (it is estimated that approximately 800 to 1,000 sites will need to be surveyed in order to end up with 140 suitable locations).

The focus area responds to existing station and ridership concentrations while also working to expand equitable access to bikeshare for communities throughout Minneapolis.

Phasing for growth of the system will respond to those goals and also to operational constraints, including the need to cost-effectively and sustainably manage both the dockless and dock-based systems.



***Approximately 300 virtual stations will be available at the University of Minnesota Minneapolis campus.***



***Effective maintenance and operations for both dockless and dock-based systems are a key priority for planning of dockless system expansion.***

**General densification zone for 2018 (“2018 parking zones focus area”)**  
shown on 1,000 ft system planning grid, also showing current dock-based system

Print date: 8/8/18

**Dockless system**

2018 Focus area \*

**Dock-based system**

Current 2018 deployment

◆ Minneapolis

◆ University of Minnesota

\* Please note: Focus area shown on this map is for preliminary planning purposes only. Actual phasing and locations may vary.



**Location of parking zones focus area and parks and libraries**  
*also showing location of current dock-based system*

Print date: 8/8/18

**Parks and libraries**

■ Parks

■ Libraries

**Dockless system**

□ 2018 Focus area \*

**Dock-based system**

Current 2018 deployment

◆ Minneapolis

◆ University of Minnesota

\* Please note: Focus area shown on this map is for preliminary planning purposes only. Actual phasing and locations may vary.



**Location of parking zones focus area and neighborhood commercial nodes**  
*also showing location of current dock-based system*

Print date: 8/8/18

**Neighborhood nodes**

Neighbhd. Commercial

**Dockless system**

2018 Focus area \*

**Dock-based system**

Current 2018 deployment

Minneapolis

University of Minnesota

\* Please note: Focus area shown on this map is for preliminary planning purposes only. Actual phasing and locations may vary.

**Location of parking zones focus area and transit boardings and alightings**  
*also showing location of current dock-based system*

Print date: 8/8/18

**Total transit boardings & alightings (Jenks dist.)**

- 0 to 105
- 105 to 415
- 415 to 1,117
- 1,117 to 3,015
- > 3,015

**Dockless system**

- 2018 Focus area \*

**Dock-based system**

Current 2018 deployment

- ◆ Minneapolis
- ◆ University of Minnesota

\* Please note: Focus area shown on this map is for preliminary planning purposes only. Actual phasing and locations may vary.



**Location of parking zones focus area and racially concentrated poverty**  
*also showing location of current dock-based system*

Print date: 8/8/18

**Poverty and minority  
concentration, per tract**

■ > 40% poverty  
(non-student)

■ > 50% minority

■ > 40% non-student  
poverty AND > 50%  
minority

**Dockless system**

□ 2018 Focus area \*

**Dock-based system**

Current 2018 deployment

◆ Minneapolis

◆ University of Minnesota

\* Please note: Focus area shown on this map is for preliminary planning purposes only. Actual phasing and locations may vary.



## 8. Contact Information

For any questions or any further inquiries regarding the recommendations included in this plan, please contact:

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