# REQUEST FOR PROPOSALS (RFP NO. 21-009) RIALTO BIKESHARE PROJECT NO.170810

## Revised Financial Proposal Scenario #2

City of Rialto, California

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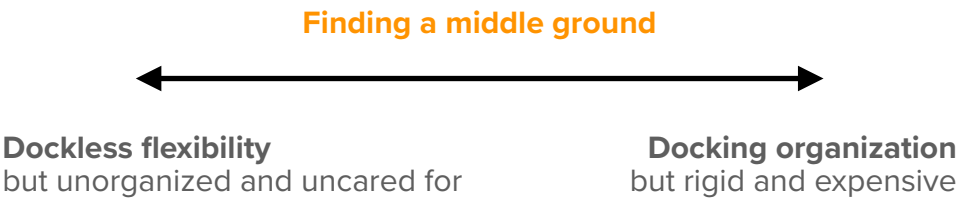
# Executive Summary

Drop Mobility is a leading micro-mobility solutions provider head quartered in Toronto, Canada and operating across multiple markets in North America through its US subsidiaries. Founded in the spring of 2017, our city-first partnership mindset has allowed us to extend the service to many municipalities and campuses in quick time. We were the first North American smart bike company to partner directly with a city and launch a hub-based bike share system in Canada. Since then, Drop has grown to be the market leader in Canada, and has further expanded rapidly to the US markets where we operate and support thousands of vehicles (including e-bikes, pedal bikes and electric scooters) in a number of cities.

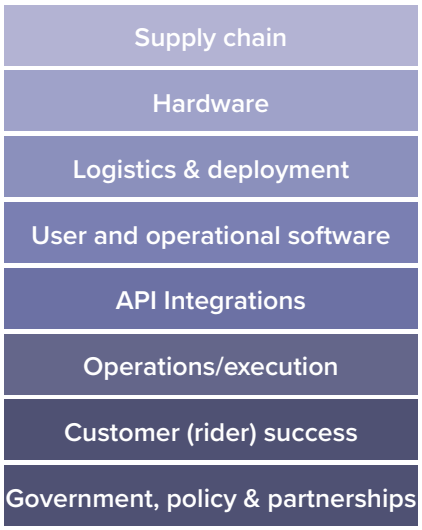
Just in the last couple of years, the micro-mobility and bike share industry has changed drastically with the advent of GPS tracked smart electric vehicles, geo-fencing solutions, dockless operations and the rise of private venture backed micro-mobility companies that are pushing endless supply before validating the demand. This has left cities with a lot of uncertainty about how to structure a system that works best for everyone and is sustainable. There have been many instances of private companies exiting overnight, based on their independent goals and are not committed to real mobility development in the cities.

Traditional docked systems are organized but expensive and inflexible. Dockless systems offer more convenience for users but are disorganized and chaotic for cities. We at Drop believed from the very beginning that instead of choosing camps between docked and dockless systems, there has to be a better way of delivering micro-mobility to cities that want to provide a convenient but organized system to their residents and visitors. We researched extensively and tested various operating models across the multiple markets in which we operate directly and developed our very own hub model that we feel is the perfect middle ground. This involves operating both electric and non-electric vehicles with GPS and lock-to technology in a geo fenced coverage area with multiple destinations marked as hubs. Using a smartphone app, users have the flexibility to check out the vehicles and leave them at the hubs or lock them to any convenient city infrastructure (like racks, posts, etc) anywhere within the coverage area. The hub model is explained in greater details further in this submission.




Further, we believe that for a city bike share system to be successful, you need a partner who is well versed with all parts of the project and not just a specialist in hardware. Our end-to-end expertise in different functions of micro-mobility like hardware, software, supply-chain, operations and customer support make us a full service partner and enables us to provide locally branded and customized solutions to our customers. All of our capabilities are explained in greater detail within the scope of work section.

We believe that given our unique approach to micro-mobility, we are a great fit to support the immediate bike share needs and greater mobility goals for Rialto and look forward to engaging in more detailed conversations with all relevant stakeholders up ahead in the process.




*Our end to end expertises across the entire stack of micro mobility make us a desired partner*

# Project Understanding

After carefully evaluating the RFP, implementation plan, bike feasibility study, and conducting a market analysis of the City of Rialto, our team is confident that we have a good understanding of the city's bike share goals. The city is looking for reliable contractor/vendor who will service the community in a long term capacity with a turn-key bike share system. The City intends for the contractor to be responsible for a full stack of services, including but not limited to installation, maintenance, operations, staffing, app development, branding/marketing, and data sharing of the program. The city also expects some flexibility in the project costs and scope and expects the contractor to come up with two different scenarios given the available budget and additional budget potential.

At a high level, Drop drop has worked with numerous cities and counties across the US in a variety of bike share structures, including many markets where Drop operates a turn-key system. Drop has a flexible operations philosophy, and we believe that there is no "one-size fits all" approach to administering a bike share service. We work with our city partners to determine the best solution for achieving a sustainable, well-utilized and efficient bike share system. If the City resources and findings dictate that a turnkey approach is the most optimal solution for their bike share needs, then Drop will tailor our operations to meet that need. We work within the available resources and existing infrastructure and believe in a phased deployment and expansion in collaboration with the city's mobility plans and goals.

More specific to our findings, there are a few expectations that Rialto seems to have from the bike share system. The program must increase safety for bicycling trips, increase overall bicycling in the city, and should be connected with transit. At a high level, these are all important issues which Drop has dealt with in prior experiences with similar and larger cities, and we have proven success in achieving these goals.

Promoting safety for our riders is salient in our systems. In each city, we work with regulators and city officials to get a clear picture of where safety concerns lie in the city. There might be a particular intersection where riders are put in jeopardy, or a specific zone. We use this city-specific information to compliment the safety information that we already include in our app and website guidelines.  Drop can also go a step further to promote safety in specific areas. Through our BLE/GPS and geofencing technology, we can create exclusion zones in dangerous riding areas. This means that riders will be notified before and during a trip if there is an area that they can not ride. For example, if there is a road with a poorly separated shoulder, that has a history

of collisions between bikes and cars, we can make that to be an exclusion zone. Riders will know that they can not take their bikes there, and the locking system will not work if they attempt to end their trip in that area.

Finally, helmet education and availability is a crucial aspect to Drop's operations. When users are on-boarded onto the app, they are exposed to a variety of educational screens including how to use the app, how and where to lock/park their bike, as well as the need to use a helmet. In addition to this, Drop does implement retail partnerships for helmet sale as well as subsidized helmets for members, students, etc, through our app to promote their use. Drop also engages in many public education initiatives to ensure safety on the roads at schools, community centres, and in street promotions.

In order for any bike share program to be successful, there needs to be sufficient ridership. Drop uses a number of mechanisms for enhancing ridership, including street promotions, partnerships with local bike advocacy and non-profit groups, co-branding opportunities with other businesses in the city, a properly integrated and balanced system, and a variety of other methods. Drop has also found in our experience that there is inherently greater usage of pedal assist e-bikes than traditional pedal bikes. They reduction in energy required to use the vehicles allows for people to go further with less effort. This also expands the demographics of people able to use the bikes, as some senior citizens who might not otherwise be able to bike can use the e-bikes comfortably. It's for this reason that we always include e-bikes as a crucial part of our fleet.

Connecting with transit is another key component of a properly functioning system that Rialto has listed as a goal in this project. In many of the cities that we operate in, we connect with transit both in terms of the positioning of hubs and stations near central transit lines to solve the first and last mile challenge, but also through possibly integrating transit ticketing, maps, schedules, etc into our software or in the local transit app. This integration can provide users with a seamless experience by truly connecting our bikes with the transit infrastructure.

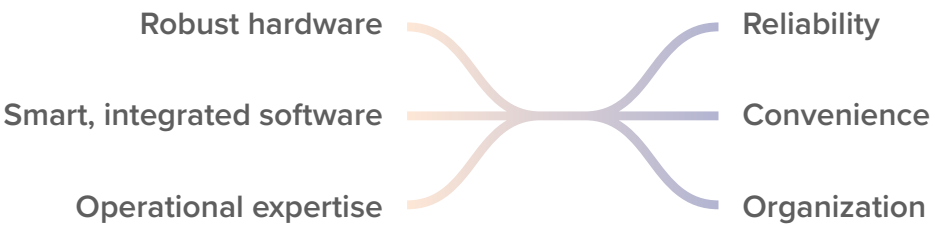
Additionally, as explained in the Bike Share Feasibility study, a successfully implemented bike share project has the potential to enhance social equity in Rialto. Access to transportations crucial for individuals to have the opportunities to take advantage of life-enhancing services and opportunities available to them, such as going to the doctor, getting to school, getting to work, or socializing in their community. Individuals lacking the means to get to central transit lines for the purposes of using these services are further put at a disadvantage from those with access to personal transit devices such as a car or bicycle. As demonstrated throughout the study, it is salient for a bike share program to be designed with rebalancing and vehicle placement plans in place such that devices are available for increased mobility in disadvantaged communities is salient. Having said that, it is important that there is proper engagement with various communities through available channels to ensure representation in those decisions. Another way that Drop had developed an equitable bike share system in similar communities has been to develop equity programs with the city and various non-profits and social services, which allows for discounted rates or non-mobile phone payment options. This mechanism would be at the top of the list of plans to develop alongside the city in a Rialto bike share system.

To sum up, we understand that the City of Rialto is looking for a capable and flexible operator who can work within a limited budget that may change during the course of the program. You are looking for someone who can work as per your plans and deliver on shared goals more like a partner than a vendor. This is the kind of program that we get most excited about as at the core of our value system is to see bike share succeed and make bikes available for more and more people in need.

All of the above capabilities and qualifications are discussed in greater detail further in this submission.

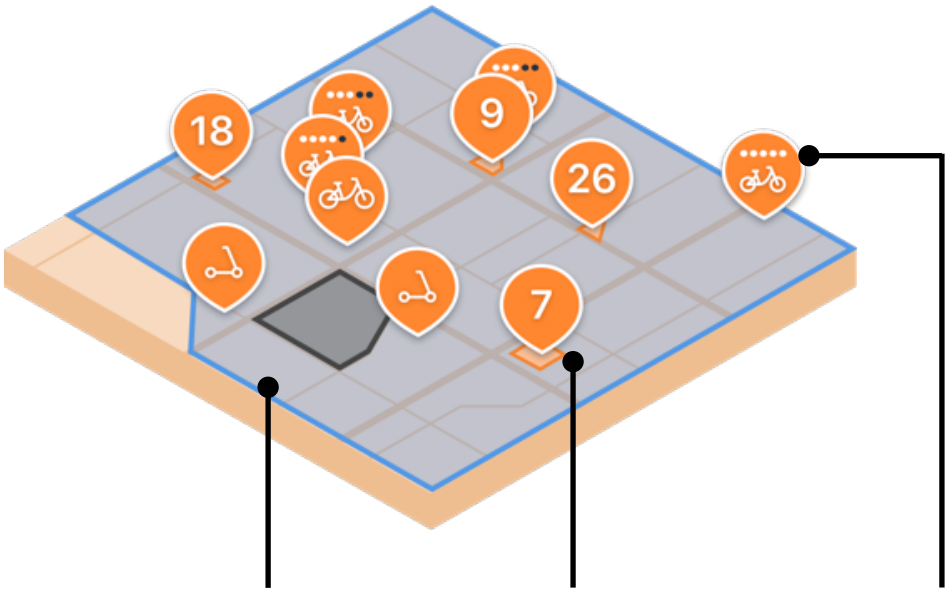
# Scope of Work

At Drop we believe in a simple framework for delivering sustainable micro-mobility that involves a combination of robust hardware, an integrated operating model and smart software. This enables us to deliver reliability, convenience and organization which is the key to a successful bike share system. We will discuss our system equipment in further detail below in the System Equipment section, but first we will provide details on our hub based operating model, smart software technology and data services.




## Hub-based operating model

As depicted below, our hub-based model is the perfect middle ground between docked and dockless that provides user convenience, reliability and organization.




**Coverage area** is clearly defined and communicated to users on their apps. Enforced through warnings, incentives and penalties.

Mobility “hubs” for parking and picking up e-bikes increase **reliability** of finding a vehicle and organization.

GPS tracked vehicles that can be unlocked through smartphones by scanning a QR code.

We demarcate an overall service area that is geofenced so that vehicle trips cannot be ended outside this region. We further work with our city/transit partners to identify key locations (like existing biking hotspots, city racks, bus stops, etc) and designate these as ‘hubs’. These are locations where the on ground operations team will rebalance vehicles most of the time and users will be encouraged through in-app instructions to park here. This increases reliability of finding vehicles and keeps the system organized. The hub-based system is a unique solution because users know that reliably there will always be vehicles at certain hubs, and cities know that vehicles will be rebalanced back to hubs. We monitor the system closely through our advanced backend admin software.

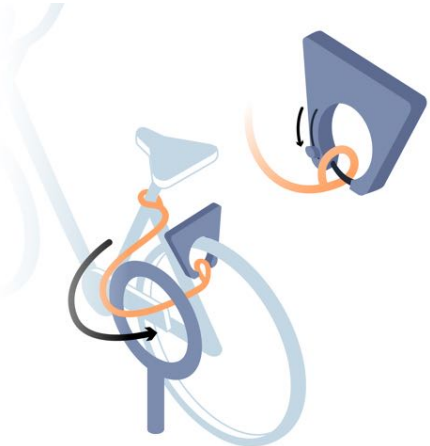
There are a few critical features in our operations that ensure the hub-based model is successfully deployed and maintained. These are our lock-to technology and the end-trip process review.

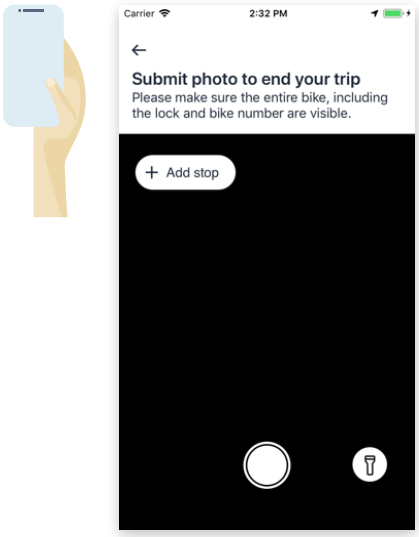
All of our bikes are equipped with a lock-to cable technology. While ending their trip, users are instructed to use the cable to tether the bike to physical infrastructure either at a hub (or at any other locations like city bike posts, racks, flex hubs, etc) and securely lock it. This prevents vehicles from falling over or being left in areas in the middle of the sidewalk or other precarious positions that so many micro-mobility companies have been criticized for.

To ensure that users are following this system, we have built an additional step without which the users cannot end their trip. Once the user clicks the ‘end-trip' button in the app, they are prompted to take a photo of the vehicle with the lock clearly visible. The trip only ends once the photo is successfully submitted on the app. Each of the photos are stored in our back end admin platform where they are accessed and reviewed by the customer support team. If a user did not park correctly, they are notified via the app about the parking issue, and they are subject to warnings and potential fines in a clearly laid-out process. At the same time, our operations team is notified through our automated team-messaging system to check out the vehicle that was provided an end-trip warning.

All our vehicles have an onboard GPS chip and and our service area is geofenced, so we always exactly know where all of our vehicles are at all times. This helps the team to effectively rebalance vehicles to hubs and promptly retrieve any vehicles left out of zone or not properly parked. We can also create exclusion zones and black out areas within the service region where the city partners do not want us to allow vehicles to be parked.

With all of the above hardware and software technology features, we have been able to deliver over 95% parking compliance in markets where we have deployed the hub model. When issues do arise we are able to track vehicles in real time and resolve quickly.

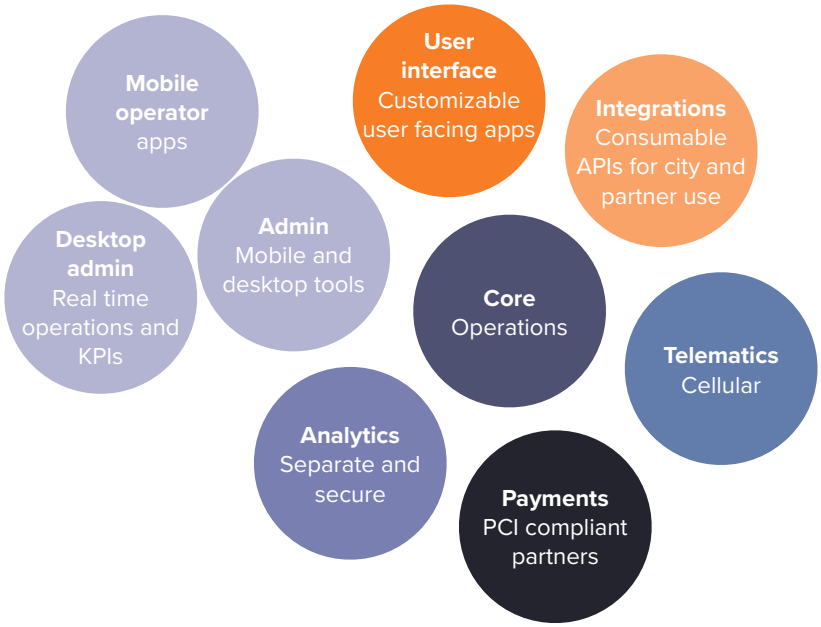




## Software and backend technology

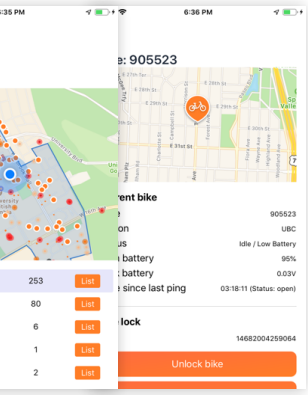
Drop Mobility provides an integrated mobility solution. Our technology stack is developed by our in-house team, with years of experience in regionalization and operating bike share. We provide everything from building a locally branded user facing app, city's bike share website or backend admin platform for on-ground operations. An expertly designed software ensures that every aspect, from the BLE and GPS of the vehicles to the UX, to the data-sharing, to customer support and open API's  for integrations is reliable and consistent for both users and our partners. This means that the app is easy to use, vehicles are easy to locate and ride and user data and privacy is protected.

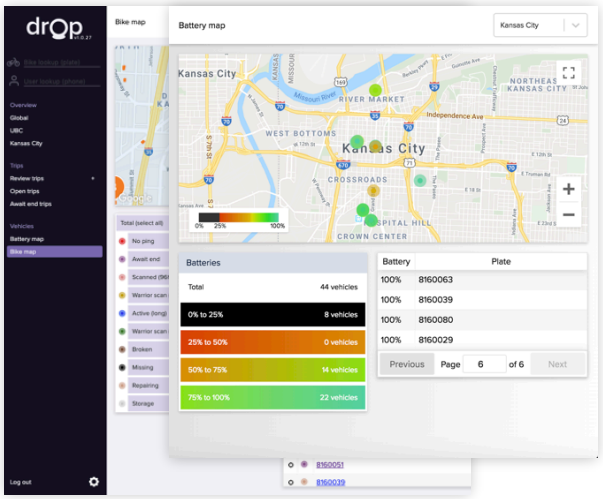
Our infrastructure is localized from the ground up, and includes the suite of tools from operations backends on desktop and mobile, white-labelled user facing apps and websites, and the core modules which maintain and manage connectivity with vehicles over the cellular network.



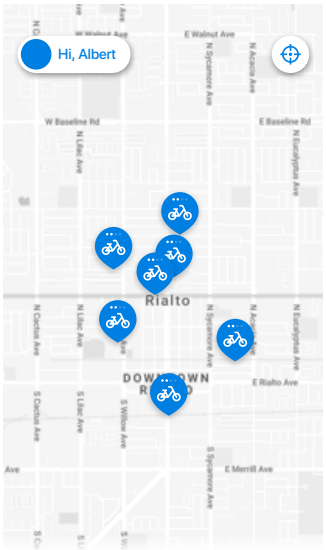

Drop's technology suite is decentralized and modular, which increases reliability while allowing us to move quickly. For example, each module can be updated or customized one at a time.

Parts of our stack are hosted on partners like AWS and Digital Ocean. Databases are backed up in real time in PostgreSQL. Payments are provided through Stripe (PCI compliant).




Operations staff have access to mobile and web platforms. Drop regionalizes and co-brands local user apps and also provides user websites if required (PikeRide example).



- Flexible pricing options (membership, day pass, pay as you go and more), or work with our team for specialized occasions (like conferences, etc) Generate coupon codes for specialized occasions
- View detailed user info, previous trips, end-trip photos, past warnings, ban/manage users and other relevant user data in our web admin
- Vehicle management system which can disable vehicles that are unfit for use, remotely
- Editable service areas both from the mobile app and the web interface
- Built-in vehicle issue tracking system that is tied to vehicles as well as field-technicians so that maintenance can be tracked (and the ability to search/filter by properties like vehicle number, technical name, etc)
- Customer tracking system (CRM) that helps delegate and manage customer support issues
- Smart rebalancing reports that indicate vehicle usage and recommends balancing options
- Trips view that maps trip start/end/duration as well as the ability to filter/find specific trips by their properties (user name, vehicle number, start region, etc)
- End-trip management view that manages proper parking with end-trip photos (and can fine/report customers, or incentivize customers to park in certain regions)
- Hub management including sponsor markers, physical naming and tagging, and more
- Battery management view with low battery bike status, as well as aggregate battery stats (like lifetime of battery before swap)
- End users can report issues with trips, which, if relevant, are automatically added as vehicle issue tickets
- Field-staff have access to mobile apps that allow them to view detailed vehicle status and system status reports, as well as receive notifications for maintenance/system alerts

## Customer Facing Website and App

Our front-end user apps for Android, iOS and platform website were designed for today's mobile user.

- Easy to signup with familiar phone number verification and persistent login
- Our website platform is customized to iOS and Android users and has tracked download metrics
- Users can easily view vehicle locations, statuses and check out a vehicle with the quick scan of a QR code
- Users can sign up for all membership and day pass types within the app, skipping any kiosk or website
- Financial services are run in a transaction-protected sandbox and processed through our service provider, Stripe, which is PCI compliant
- User names and addresses are anonymized in all non-encrypted environments, and all app access is encrypted over HTTPS and TLS with audit trails
- Customer feedback section allows users to give feedback, ratings, get FAQs answered, chat with a team member immediately or report issues with their trip
- Both the user app and website is modifiable to include sponsor hubs, sponsor checkouts, other advertising options (which can be developed with our team on a unique per-sponsor basis)
- Users can see their trip history with summary data about their health and environment impact
- Before starting a trip, users are shown instructions customized to their current location, region and past riding experience

## Data sharing and security

We believe in sharing all relevant and useful information with our partners, with an eye towards user privacy and data security. There are three levels of data sharing Drop Mobility provides: public, partner reports & API access, and live system data.

### Level 1: public data

- Drop Mobility's systems are interoperable with the GBFS (General Bikeshare Feed Specification) and MDS (Mobility Data Specification) formats, and can provide an API endpoint.
- Drop is a strong proponent of multi-modal travel, and public data helps our partners and other service providers integrate into one technology platform

### Level 2: partner reports & API access

- Tokenized data (without personally identifiable information) is shared with partners on a weekly or monthly interval, and include customizable reports which are unique to each region's requirements
- Reports already include the following- Trip history: including distance, duration, start/end, trip path, member history: member subscription uptake tracking, coupon code usage, etc, revenue reports: by type, by vehicle, graphed, customer service reports, Demographic and region-specific data can be collected
- Any additional reports which are anonymized and would be of utility to our partners, we develop in concert. The frequency of the above reports can be daily, weekly or monthly as desired

### Level 3: system data is shared with partners at an application level

- Our partners can access Drop's operational backend through our mobile and web applications. These systems are part of day to day operation and product team updates features regularly. You will get access to real time data and location of the vehicles in the system and will have the ability to download raw historical data, such as anonymized trips, trip points, system usage and data on the operations, such as activity of the operations team, etc
- Each staff member will have their own login credentials for security and authentication purposes
- These applications are secured through industry-standard encryption protocols (SSL, HTTPS) and strong password and identity systems
- In addition there are many customizable real time reports and analytics available on our web admin dashboard.

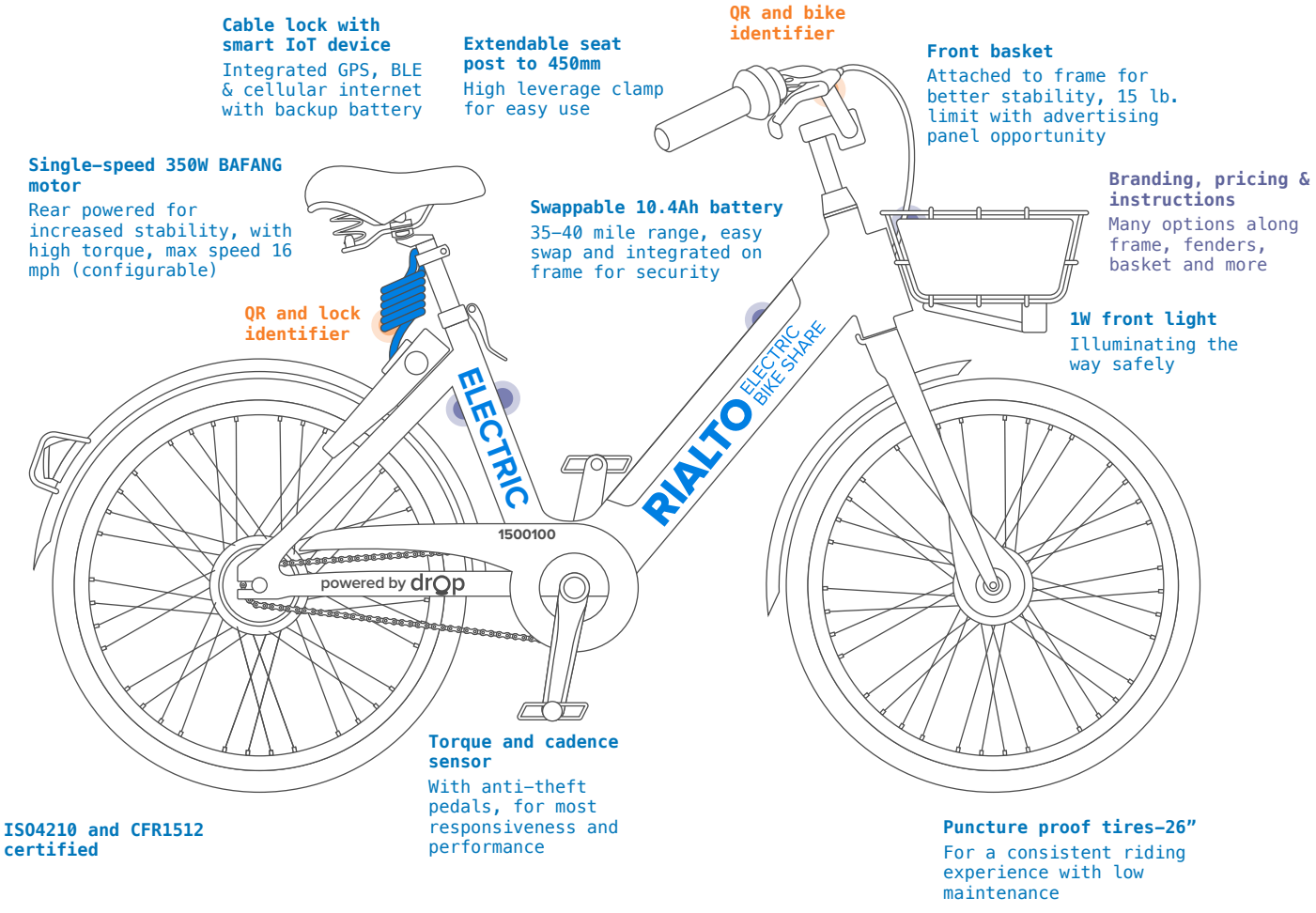
## System Equipment

In addition to smart, integrated software and operational expertise, robust hardware is essential for a healthy system. Be it vehicles like our electric pedal assist bikes or hub/station infrastructure like bike racks, way finders, etc.

At Drop we have our own R&D, design and hardware engineering teams that work with our hand picked manufacturing partners to delivery all micro-mobility hardware including e-bikes that are most suited for bike sharing. We have developed the Drop e-bike model E201L after multiple iterations and this is our most popular model till date. We have been able to achieve this superior product quality as we control everything from design to parts sourcing to assembly to spares for our hardware. Working closely with manufacturing partners allows us a lot of flexibility and customization unlike many micro-mobility companies that pick “off the shelf” products and deploy them for bike sharing use without proper testing or research.

Our design philosophy for the e-bike is to have a simple, light and convenient bike frame which gives the rider an enjoyable riding experience but also balance this with a durable, safe, easy to maintain overall design. The various security features are meant to limit theft and vandalism.

Drop’s e-bike is rugged, durable and stylish. Everything from its sturdy design, longer range battery, unisex frame, foam tires to lock-to mechanism have been designed for public bike sharing. The bikes are equipped with internet connected smart locks with on-board GPS and sensors that provide real-time data on battery-levels, locations, bike condition and more. In addition, the unique lock-to cable allows bikes to be secured to physical infrastructure.



## Some key safety features that we have built into our bikes

- Electric motor on the back wheel in a combination with Shimano brakes so that the bikes don't flip while hard braking as was reported with some competitor bikes recently
- Concealed numbered battery with keys that is easily swappable but weather proof
- lock-to cables, harder to fall and be stolen
- Basket is fixed in place, reduces tipping
- Bell is double turn for easy use (you can turn it in any direction)
- Front light that actually illuminates the ground and stays on till bike is in unlocked state
- Puncture proof tires (prevent mid trip stops)
- Roller brakes with lowest in class maintenance and highest in class durability
- Double protected brake wires
- Tamper free screws to avoid theft
- Anti-theft pedals
- 16 mph max speed, Torque sensor for better control, electrical cutoff when not turning pedals

In addition to the bikes,  Drop works with our distributing partners to ensure that a wide array of supplies are available for the management and maintenance of the system. We determine with our city partners what supplies are needed for the system to be effective. This list includes, but is not limited to bike racks, bike signage, all bike spare parts, retrofitting kits, and rebalancing trucks. Our operations team is well trained and well equipped to deal with any workload that may arise daily.

In addition, Drop works with leading manufacturing partners, adhering to international protocols like ISO 9001:2015 and we have industry Gold standard certifications like CFR1512 for our e-bikes.

Our vehicles also comply with CPSC Public Law 107-309 for maximum engine wattage and ISO 43.150. TUV testing certification is also available and can be provided on request.

Finally, we have the capability to source any mobility hardware through our strong manufacturing network and relationships. Eg. Special accessible bikes, multi speed gear bikes, etc.

***An additional Rialto branded e-bike rendition is available at the end of the document for reference.***

# Business Plan and Pro-forma

At Drop we believe that a public bike share system should be locally customized based on the city's available resources and should not come at a drastic upfront cost to the city.

The nature of our pricing/ownership/operations structure depends heavily on the needs and capacity of the cities that we partner with, the level of funding that they have available, the size of the system they would like to develop, and their existing bike share operations infrastructure. Our partnership depends upon entering into transparent discussions and collaborating on how we can achieve a system with mutual financial and operational sustainability.

Generally speaking, there are four financial categories for any shared micromobility system. These are; hardware procurement cost, software development/management cost, on-ground operations cost and ridership revenue. We work with cities to subsidize and share each of these costs and revenues to enable a sustainable program feasible for all parties involved.

We are not in the business of making a significant profit on the hardware sales, and are rather willing to subsidize a portion of the hardware costs, depending on the funding availability. We also focus on building user demand before pushing excessive vehicle supply. Ownership of the vehicles is generally worked out using the proportion of funding for the hardware from each party in the partnership. But we are open to partial or complete ownership of vehicles by the city if that works better for regulatory reasons.

On the software front, we provide cities with their own user and admin apps and play a support role on maintaining and trouble shooting the software. The software costs are subsidized in large parts through ridership revenue.

On the day to day operations cost, we work within the available infrastructure and hire locally to support and manage the system. We work out an effective balance between investment in rebalancing, parking infrastructure in a phased manner depending on expansion goals.

We work with the city's goals and existing benchmarks on the user/rider pricing and membership model. The revenues can be shared in a way that makes the system feasible for all parties involved. This is a model we have successfully implemented across many of our existing markets. Some of the general pricing products are explained further in this submission.

Below is a tabular breakdown of different costs expected in sync with system size, contract length, etc for the preferred scenario #2.

**Scenario #2:** 5 year program with $1,000,000 in city funding

# Scenario #2

- This is the scenario where the city has $1,000,000 available to spend on a bike share system for 5 years of operation. $120,000 of this has to be spent on marketing and outreach.
- We are proposing a fully electric system with Drop's electric pedal assist (E201L) bikes operating in a hub based model. As explained earlier, this includes having geo-fenced stations (hubs) with bike racks and way finder signs installed for organized parking and user clarity.
- We will provide a "Rialto Bike Share" user app (iOS and Android) and provide a customized website and admin backend (desktop/tablet/smartphone app versions) developed by Drop's in-house software team.
- Proposed system size and hardware details: 125 Drop e-bikes, 25 additional e-bikes, 40 additional swappable batteries and chargers, minimum 18 bike racks (72 rings in total to accommodate ~140 bikes), sufficient spare parts and tools for a 5 year operation.
- Drop to work in collaboration with the city to define KPIs and provide relevant reporting to the city. A detailed approach can be found on page 23.
- Additional transit integration opportunities like ticketing, scheduling, special passes etc with larger system footprint.
- More aggressive marketing, outreach and community engagement opportunities in this scenario. Proposed strategies and activities, as well as a detailed budget, can be found on page 21.
- Focussed and customized equity program support for underserved neighborhoods, detailed on page 22.
- Software cost includes- maintenance, platform fee, GPS/data cost, etc.
- Hardware branding in city livery with eg. "Rialto Bike Share, powered by Drop" subtext.
- Cost to manage operations includes: bike maintenance, daily rebalancing, charging, repairs, customer service, transportations vehicles, insurance and anything else needed to keep the system safe and available.
- Open to working with sponsors, transit or any other community stakeholders.
- Open to hiring locally and using any available public bike infrastructure.

| Details | Count |
|---|---|
| **Duration of program** | 5 years |
| **Electric pedal assist bikes** | 125 |
| **Extra batteries** | 40 |
| **Hubs fitted with bike racks and signage** | 18 |
| **Proposed local operations team size** | 1 FT + 1 PT |
| **Leased rebalancing vehicles** | 1 |
| **Expected users/members in 5 years** | 3,000 |
| **Expected rides in 5 years** | 75,000 |

While we had initially proposed a long term system leasing option, we took the reduced budget and grant considerations back to our team and are happy to share that we can offer an **outright purchase option** within the reduced budget. Below are details for this option which we believe will be the most appropriate for both Drop and the city. We are not re-quoting the leasing option as we feel it will be more complicated to execute within the revised budget, and we can avoid seeking exceptions to the grant.

## Outright system purchase overview

- City will own all bikes, hubs/racks and other related hardware like extra batteries, spares, etc
- City to pay on actuals for spares and major repairs to bikes and hubs
- We are proposing to keep a portion of the budget aside for replacement bikes
- This also allows us to maintain and deploy the separate marketing budget
- This option allows for standard termination/renewal terms
- We will actively work to secure additional sources of revenue like advertising, sponsorships, events, etc

**Following is the budget breakdown with projected costs and revenues for outright purchase:**

| Cost head | One time/Annual (US$) | 5 year total (US$) |
|---|---|---|
| **Electric bikes cost @ $2,200/bike for min 125 bikes, includes 40 extra batteries** | $275,000 | $275,000 |
| **Electric bikes replacement @ $2,000/bike for ~ 25 bikes** | $50,000 | $50,000 |
| **System launch and activation** | | $20,000 |
| **Bikes/hubs major repairs** | $10,000 | $50,000 |
| **Spare parts and additional labour** | $10,000 | $50,000 |
| **Hubs (18) fitted with bike racks and signage @ $1,500/hub** | $27,000 | $27,000 |
| **Software (apps, web, admin) development (one time)** | | $10,000 |
| **Software/platform connectivity and maintenance** | $18,000 | $90,000 |
| **Operations cost (team, rebalancing, workshop, etc)** | $81,477 | $407,384 |
| **Insurance** | $10,000 | $50,000 |
| **Marketing and community engagement** | $24,000 | $120,000 |
| **Total funds required (5 year cost)** | | **$1,149,384** |
| **Grant funds applied** | | **$1,000,000** |
| **Additional services and resources** | | $100,000 |
| **Revenue plan** | | |
| **Revenue (Avg) from user fees** | $30,000 | **$150,000** |
| **Total funds available** | | **$1,150,000** |

Drop will retain all profits from user fees; this expected revenue will offset some operating costs.

## Payment schedule for ownership

- Advance on contract : $100,000 (By June 15th 2021), Launch date Dec 1st 2021
- Payment on delivery : $500,000-includes payment for year 1 operation, (By Dec 15th 2021)
- Annual payment for year 2: $100,000/year (By Dec 31st 2022)
- Annual payment for year 3: $100,000/year (By Dec 31st 2023)
- Annual payment for year 4: $100,000/year (By Dec 31st 2024)
- Annual payment for year 5: $100,000/year (By Dec 31st 2025)

Total: $1,000,000 paid across 5 years and $800,000 of this within the first 3 years as per our understanding of the grant funding disbursement.

### Year 1 expenses to be covered:

Bikes cost- 150 bikes- $325,000

System launch- $20,000

Repairs year 1- $10,000

Spare parts year 1- $10,000

Hubs (18) with racks- $27,000

Software development- $10,000

Software maintenance year 1- $18,000

Operations year 1- $81,477

Insurance- year1- $10,000

Marketing and outreach including launch- $64,000

Total for year 1 payable at the time of system delivery/launch is $575,477. We propose to round this off to $600,000 payable as $100,000 advance and $500,000 on delivery.

We are also assuming that the city has a tax exemption for any sales or local taxes.

# Project Schedule

We are proposing a January-February 2022 launch provided a Notice to Proceed by July 2021. Should the this take longer, these dates will shift accordingly as we require that the system launch be scheduled to begin 180 days from contract signing and payment of the advance.

**August to October:** Discovery phase: This phase entails gathering information from the city to set up the most effective launch of the system possible. Included during this period is hub mapping, system sizing, infrastructure sourcing, and collaborative planning (existing system transition, communication, internal stake holders onboarding, integration possibilities, etc). During the phase above, key Drop operations team members will visit participating communities within Rialto (eg. schools, large employers), and meet key stakeholders in Rialto to become acquainted with the geography and more effectively plan the operational process for the city. During this time, Drop will also reach out to bike advocacy groups, non-profit groups, and any other organizations with aligning values to explore collaboration opportunities. Our team engages with the stakeholders to learn about potential community engagement opportunities like connecting with bike enthusiast groups, any existing bike/scooter share users, universities, campuses, retail, etc. We then devise a strategy for prior to launch, during the launch, and following the launch activations. Drop also engages in a number of additional pre-launch explorative endeavours where needed, such as a market survey and social media information campaigns.

**November to December:** Demo/Training period: This phase includes the hiring and training of a project manager, and the planning of a launch event and marketing strategy that is specific to Rialto.

During this period, the project manager gets trained and then demos and tests all bikes/software system to make sure that they are ready to go. In addition to this, the project manager begins looking for more local part time hiring options for fleet management and maintenance. We also scout for suitable workshop/charging spaces and rebalancing vehicles. Plans for the marketing and launch of the system are further developed and we maintain a comprehensive launch checklist. Drop has developed an effective training and onboarding process which we use to quickly bring new team members on board.

**January/February:** Final Launch Planning and execution: Any final planning for the launch is done, and complete preparations are actioned to ensure a smooth first few weeks. Within a week of launching the new system, Drop hosts a launch event to generate excitement and build awareness. For this event, we invite key figures in transit, cycling, sustainability, government and the press. We also coordinate a press release and social media campaigns.

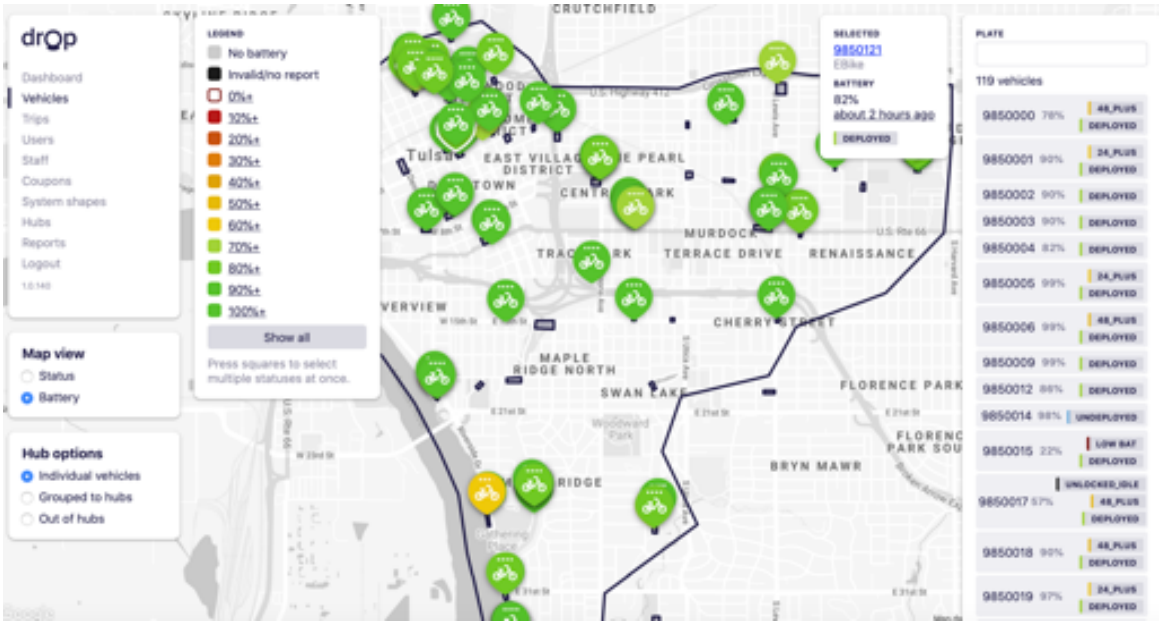
**Additional requirements for successful implementation**

- City support for local marketing, PR and community engagement
- Space for a temporary workshop and charging station
- City participation in overall strategy, service area and hub identification
- Shared KPI's to measure pilot success to be jointly defined
- Any temp/part time labour for activation and launch
- Collaboration of key stakeholders within community- like transit, campuses, etc
- Support for the Equity Program, including a desk for cash payment and help determining qualified participants for the subsidized memberships.

# Rebalancing Plan

At Drop, we have built customized software interfaces that give field staff and system administrators a variety of reports and detailed information on system utilization. We use this data (like riding patterns and bikes trip history) to determine which areas/hubs should be prioritized when rebalancing. There are both mobile and web views for the staff to enable convenient and flexible monitoring of the system. There are various algorithms in the backend that prompt the field team on their rebalancing routes and goals for every shift.

The e-bike batteries are swappable so can easily be replaced on the field with the extra batteries we will provide. The e-bikes thus should never really go out of service due to battery reasons. There is an additional backup battery on the smart bike locks that will keep the lock active and ping the servers for a week even if the main bike battery runs out for some reason. The field staff has access to real time battery charge status for all bikes (see web app screenshot below for reference). This and many other reports and tools make it easy for the staff to plan their day, prioritize routes and attend to bikes depending on their status.




*An e-bike battery status view for field staff on the Drop admin backed app*

Given that e-bikes have swappable batteries that have a longer capacity and lower charge times than scooters or pedal bikes, this allows our team to plan routes that limit the amount of van and truck trips during rebalancing. Some field staff also like to carry charged batteries in a backpack, and bike from hub to hub while rebalancing. The speed and ease of using the electric bikes allows for this process to still be quite efficient while carbon emissions are limited.

As described earlier in the “hub model” section, using GPS and BLE technology, the end trip picture review process (as described in detail above), and system generated warnings, fines etc, we are able to track and enforce best parking practices.

Our geofencing, hub-based model with lock-to technology, as well as our end picture review helps to ensure that bikes are locked parked correctly after use. When they download the app, the users are clearly educated on how to properly park their bike, and the entire end-trip process. When a user ends a trip, our GPS technology confirms whether or not the bike has been parked both in the service zone or hub. The BLE on

the users phone ensures that they need to be close to the bike before ending their trip. Additionally, the user takes a photo of the locked bike in order to end their trip. Using both smart technology and our customer service team reviewing pictures, we confirm that the bike was tethered and parked correctly, meaning that it was parked either in a hub or at a public bike rack or bike post and not in an exclusion zone or in a way that affects the public right of way. If the vehicle is not parked correctly, the user receives an email with a link to the picture, and an explanation of how their bike is incorrectly parked. Our admin dashboard (which is available to all operations staff and shows them the status and location of all bikes) automatically flags this vehicle as being parked incorrectly (along with any other incorrectly parked bikes) and during their daily runs, the operations team uses the GPS coordinates of that bike to locate it and move it to a correctly parked position.

In our experience, this education process deters users from repeatedly parking bikes incorrectly. However there are occasional users looking to take advantage of the system and use the bikes without parking them correctly on a repeated basis. In those cases, users are subject to a warning system, which is tracked based on how many parking infractions they have committed. Based on the discretion of the operations team and the policies that we set in place in each market, a user can be subject to a parking fine(s) or removal from the service if they demonstrate an unwillingness to learn from the mistakes that they have repeatedly made while parking their vehicles.

Given the spread of COVID 19, in communities with a larger proportion of senior citizens, operations staff will be more diligent about making sure that vehicles are properly sanitized. We also have access to special assisted bikes for people with disabilities if required.

# Maintenance Plan

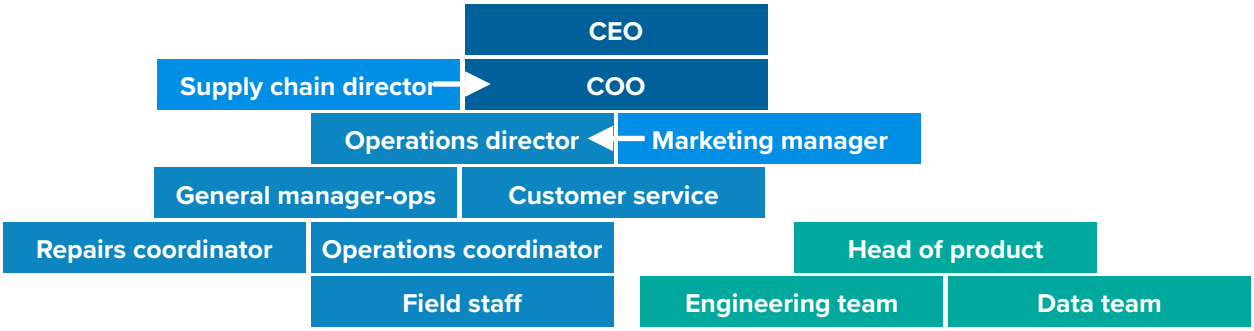
We will be investing in or partnering with a local bike shop for the fleet maintenance needs. We believe in hiring local and are open to working with any existing leads that the city may already have. We also tap into bike enthusiast groups and part time labour here. Drop's HQ team will be on site to provide detailed training of the bike mechanical and electrical parts prior to launch.

Operations field-staff have access to mobile apps that allow them to view detailed vehicle status and system status reports, as well as receive notifications for maintenance/system alerts. The field staff are scheduled for the maintenance of various vehicles, ensuring that each vehicle in the fleet is maintained at least once per week. This maintenance check list includes, but is not limited to checking the chain, tires, lights, saddle, gear shifters, brakes, basket, bell, and overall condition of the bike. As mentioned previously, field staff are alerted to any and all bikes that are low on battery, and swap those batteries. It is a common practice in our operations for field staff to also run through a maintenance check of the bikes when they swap the batteries.

The operations team is able to detect if vehicles have been damaged and are in need of more immediate attention either through our customer service channel where concerns may have arisen, or bike monitoring the condition of bikes in the end-trip review process. Each day through our 12 ours of field staff coverage, they receive an automated report that provides them with information on which bikes are in need of maintenance, any reported breaks, and any bikes out of the service zone.

Drop hires and trains staff with knowledge of bike maintenance and equips them with spare parts and necessary tools. A specialized mechanic deals with more significant damage back at the workshop. Our field team is in constant contact with our HQ data team to service any bikes that are having additional software/ app issues.

# Staff Qualifications




*A sample operations organization chart*

At Drop we believe in a good blend of HQ staff and local hires to achieve success on bike share program deployments. When we enter a new market, we typically operate on a 12 week planning period before launch.

Drop has a vigorous hiring process for our Project Manager, and we source candidates with multiple years of project management experience in active transportation. In addition to that, we look for a candidate who is smart, personable, is a bike enthusiast, and who knows the city well. Our project manager for each market is hired locally, where we look for seasoned professionals with the passion and enthusiasm to lead our team on the ground . The project manager is hired on a full time basis, and is hired close to the beginning of the 12-week preparation period,  giving them sufficient time to be trained and onboarded.

# Firm Qualifications

**Dropbike, Corp d/b/a Drop Mobility**

(Mailing) 548 Market St, PMB 64073 , San Francisco, CA 94104-5401

(Corporate) 1209 Orange St, Wilmington, DE, 19801

**https://www.dropmobility.com/**

**Primary Contact: Dipesh Dar, COO**

**dipesh@dropmobility.com, +1 647 621 7191**

We currently have partnerships and bikeshare contracts in over a dozen cities across North America, and additionally provide software products that support bikeshare in multiple other cities across the globe. Some of our most notable partnerships in the North America are expressed below.

1. **Colorado Springs, CO.** We launched here in spring 2019 in partnership with PikeRide, the local non-profit bike share operator. Currently there are close to 250 electric pedal assist bikes and the fleet size is expected to grow to new regions, university campuses, etc reaching 500+ e-bikes, scooters, etc in 2021.

2. **Kansas City, MO.** We launched a fully electric system of 700+ e-bikes, pedal bikes and scooters here in early 2019, working in tandem with the existing docking station system in partnership with the transit authority, RideKC, and the existing bike share non-profit, BikeWalkKC. We have further co-branded the software platform and integrated into the transit service and continue to build on this partnership. The planned system size is 1000+ vehicles which includes electric bikes, scooters and pedal bikes.

3. **Tulsa**, **OK.** Launched 200+ electric assist bikes this summer in partnership with “This Machine” replacing the older pedal bikes. This system is expected to grow to 500+ vehicles in the next 2 years.

*Some pictures of Drop e-bikes and scooters in action at cities in MO, CO and OK*

# Marketing/System Launch

We engage in a variety of outreach and community engagement activities through the course of the program. This includes but is not limited to partnerships with the local biking community, transit, businesses, corporations, schools, etc. We leverage potential sponsors for these activations as well. Following the launch, we engage in additional marketing and promotions through the course of the program.

**The following is a budget breakdown with projected costs for marketing and community engagement:**

| Description | Year 1 | Years 2-5 | 5 year total (US$) |
|---|---|---|---|
| **Launch event** | US$5,000 | US$0 | US$5,000 |
| **Press outreach** | US$2,500 | US$1,000 | US$6,500 |
| **Design and printing of marketing collateral, in both English and Spanish** | US$10,000 | US$2,500 | US$20,000 |
| **Campaigns and promotions** | US$15,000 | US$3,500 | US$29,000 |
| **Partnership outreach: non-profits, community organizers, and sustainability organizations** | US$14,000 | US$1,000 | US$18,000 |
| **Employer outreach: offer information and memberships to businesses and employers** | US$2,000 | US$1,000 | US$6,000 |
| **Social media ads** | US$10,000 | US$2,500 | US$20,000 |
| **Radio promotion** | US$5,000 | US$2,500 | US$15,000 |
| **Misc marketing budget** | US$500 | US$0 | US$500 |
| **Totals** | **US$64,000** | **US$14,000** | **US$120,000** |

# Price Structure

We work with city stakeholders to find ways to engage different geographic and demographic consumers, including students, older adults, lower income residents, neighborhoods of color, and other traditionally underserved populations.

Below are a list of our typical pricing products for e-bikes, although these can be modified based on our conversations and engagement with our partners.

- **Pay as you go option**- $1 to unlock + 15 cents per minute
- **Memberships**- $20 per month, $50 quarterly and $100 annual
- **Passes**- $10 for a 24 hour pass or subsidized weekly passes, seasonal passes
- **Discounted access**- subsidized student, equity pricing, etc
- **Special access**- sponsors, city staff, corporate partners, etc
- **Others**- event pricing, coupons, etc

With a heavy emphasis on collaboration and partnership rather than forcing our model on cities, Drop works with city stakeholders in order to determine the most effective pricing options for ensuring equitable access and sustainability of the program.

# Equity Offerings

At Drop, we believe in a system that is accessible to all, regardless of income or access to financial services. In each and every market in which we operate, we have built out a robust and comprehensive equity program that addresses the local needs of the market. To do this, we first work directly with public leadership during a discovery period to determine the local needs of the community, build out the goals of the program, and define the criteria for qualification. We then partner to identify communication channels to the equity markets, and form a plan for outreach and engagement.

Drop utilizes a number of options to promote equitable access to the service. We often leverage or build upon existing city equity programs. We are able to allow users to take out a vehicle without having a smartphone, or having a credit card or bank affiliation, and in some special cases using dial in or text or coupon based unlock features. For example, in Kansas City, MO we are working with the city to provide discounted, non-mobile phone bike usage options through their low income program where city and Drop staff aid these individuals in using bicycles. Additionally, the local operations team is advised to maintain a certain minimum density of bikes in low income neighorhoods or neighborhoods without adequate transportation lines.

For Rialto, we understand the top priorities are: offering an affordable membership for those who qualify financially, providing access for non smart phone users and riders who prefer to pay in cash, and communicating the service and equity program in both English and Spanish.

In order to address these needs, we will initially provide 2 products:

## Subsidized equity memberships

- Low cost memberships for financially approved/qualified users
  - A $20 annual equity membership that gives 60 free minutes of riding time per day
  - Beyond 60 minutes, regular rates per minute apply
  - Never a fee to unlock
- Coupon based program, will need smartphone and credit card/debit/prepaid card to access via app
- City to build a qualification process or provide a list of qualified residents

## Equity access for non smartphone and unbanked users

- A text based unlock system
- Involves a cash payment at a desk
  - To be managed by city staff
- Requires a phone or internet to text
  - City could also provide this service

In the future, after at least 6 months of ridership data, we may introduce a third product.

## RFID/NFC card access for non phone and unbanked users

- Users can purchase this card at a desk or at retail stores, using cash
- Tap to unlock bikes
- Subsidized memberships or pay per ride rates

This third product requires substantial investment and makes sense to offer only if there is significant interest in the Equity Program. All programs and informational collateral will be communicated in both English and Spanish.

## Tracking Progress

In addition to the system dashboard access and multiple periodic reports to the city, we also track system progress through certain metrics/KPIs:

Some of the standard KPI's that we evaluate the system based on are as follows:

- Number of app downloads and signups
- Number of users taken at least 1 ride
- Number of vehicles deployed and active
- System downtime
- Number of memberships and passes purchased
- Trips per vehicle/day
- Revenue numbers
- Operational efficiency data
- Hubs utilization
- Equity user contribution

We will continue to build on the above basis system performance and rider feedback.

# Related Experience and References

In addition to the relevant experience mentioned above, here are some customer references

| Reference #1 | |
|---|---|
| **Partner Name** | BikeWalkKC |
| **Location** | Kansas City, MO |
| **Contact** | Eric Vaughan<br>Director of Bikeshare<br>1106 E 30th St Suite G, Kansas City, MO 64109, USA<br>eric.vaughan@bikewalkkc.org<br>+1 (573) 690-0409 |
| **Project Description** | Kansas City is the world's first transit authority + micromobility partnership. Drop is partnered with KCATA and BikeWalkKC to develop and launch e-assist bike and e-scooter sharing for the residents of Kansas City, Missouri. Beginning of 2019, we are currently scaling to upwards of 1000 vehicles in the fully electric fleet. |
| **Reference #2** | |
| **Partner Name** | PikeRide |
| **Location** | Colorado Springs, CO |
| **Contact** | Jolie Nesmith<br>Executive Director<br>739 E. Pikes Peak Ave., Colorado Springs, CO, USA, 80903<br>jolie@pikeride.com<br>719-235-5862 |
| **Project Description** | Drop is partnered with PikeRide and the Downtown Partnership of Colorado Springs to launch e-assist bikes and scooters for the residents and tourists of Colorado Springs. We are currently scaling up to 500+ electric vehicles. |
| **Reference #3** | |
| **Partner Name** | Tusla Bikeshare |
| **Location** | Tulsa, OK |
| **Contact** | Katie Sawicki<br>Executive Director, This Machine<br>1020 S Rockford Ave Suite G, Tulsa, OK, USA, 74120<br>katie@thismachinetulsa.co<br>920-475-5206 |
| **Project Description** | Launched in the summer of 2020 with 200+ e-bikes in partnership with This Machine |

## Rendition of a Drop e-bike in Rialto city livery for reference