

JUMP e-bike share in Davis and the Sacramento Region,
with a specific focus on its:

- **Age limit**
- **Speed limit**
- **Weight limit**
- **Parking capabilities and restrictions**



<https://tinyurl.com/ybye769h>

Four Commissioner's Reports

March 14, 2019

Todd Edelman

Member, Bicycling, Transportation & Street Safety Commission, City of Davis

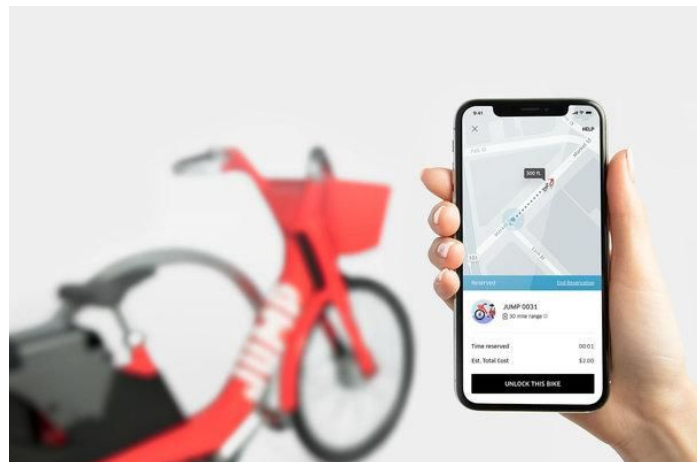
todd@deepstreets.org

415-613-0304



<https://tinyurl.com/ya6hzdq7>

working with the pedal-assist aspect of these bikes for some time, and riding them on flat ground is nearly effortless. The electric boost starts with your first pedal, and ramps up a significant amount when the gears are shifted up, to the point that you can hit up to 20 MPH without breaking a sweat. This means that for relatively flat SF neighborhoods, like the Mission, JUMP is a joy.



<https://tinyurl.com/ycxegfhd>

Introduction

Bikes are fun, e-bikes are funner. Bike share is fun, shared e-bikes are faster. Shared bikes are best when they're inclusive by design, and optimized for a balance of convenience, door-to-door speeds and safety. Shared bikes should reflect the culture and policies of Davis as a forward-thinking, bicycle-friendly and youth-friendly town.

Back in 2005, the advertising multi-national JCDecaux teamed up with the city administration of Lyon, the second largest city in France. The deal was this: JCDecaux would provide the first of a new type of bike share bikes - to be called Vélo'v - under the condition that they would receive a monopoly on advertising structures and related infrastructure in the city.

From that point some kind of private-public arrangement - normally with a primary or multiple title sponsors - has provided the overwhelmingly-preferred funding/business model in the USA starting in around 2010 with Citi Bike and continuing to the present day with e.g. Niketown in Portland, Oregon. It is typically-paired with docked bike architecture.

A variant in the technical sense in the very early 2000's, a number of years before Vélo'v, was the German Railway's [Call-a-Bike](#), a pre-smartphone non-GPS enabled bicycle with a thick cable that went through the rear of the bike and wheel, very similar to JUMP. In 2009, when I was living in Berlin, two Swedish consultancies and I developed a concept called [OPENbike](#) - links to a presentation I did soon after the event - that won a first prize in a field of 127 entrants in a competition run by Danish State Railways and the Cities of Copenhagen and Frederiksberg. This was, more or less, the modern dockless bicycle, which is part of systems which for the most part depend on a second model for financing, venture capital (or VC.)

Both models incorporate user fees. It is unlikely if either model is sustainable without title sponsorship or VC.

At some point the following boilerplate started to appear in the user or rental agreements of perhaps all the USA-based bike share operations (the following is [JUMP's](#)):

(e) Not a Common Carrier. You agree that We are not a common carrier. Alternative means of public and private transportation are available to the general public and to You individually, including public buses and light rail service, taxis, and pedestrian paths. We provide LEV(s) only as a convenience, and the Service is intended for those persons who are able and qualified to operate a LEV on their own and who have agreed to all terms and conditions of this Agreement.

Ever since Lyon the public has not, through taxes, supported bike share in the USA as it would city-run light rail services like RT in Sacramento, or a contracted-out regional bus services, such as

Yolo County does with Transdev for Yolobus. Bike share is not public transportation, it is not part of the Commons. (There are some exceptions, such as Metro Bike Share in Los Angeles.)

One result of this is that private entities - in our case JUMP, now owned by Uber - calls the shots on various rules without regard to social or any other kind of equity. Just like TNC's they have to be forced to give up data.

The missing equity component with JUMP in Davis, Sacramento, UC Davis and West Sacramento means that the system, exclusive for now, excludes perhaps $\frac{1}{3}$ of relatively normal people who can ride bikes: Everyone under 18 is not permitted to use the bikes, and neither are adults if they are men just over the overweight-obese BMI threshold, and for any women who similarly are above the weight limit of the bike.

In this set of "Commissioner's Reports" I do my best to address the above and other issues of the current bike share system in Davis and the region.

Thanks for reading and and thanks for your thoughts.

Commissioner's Report no. 1: Is any age limit for JUMP Bike a violation of Federal law (the Age Discrimination Act of 1975)?

March 14, 2019

Todd Edelman

Member, Bicycling, Transportation & Street Safety Commission, City of Davis

todd@deepstreets.org

415-613-0304

Contents:

Context, Thoughts, Ideas and Anecdotes... pages 1-3

Region-specific Background... pages 3-4

Federal Law: Age Discrimination Act of 1975... pages 4-5

Draft Motion... page 5

Context, Thoughts, Ideas and Anecdotes:

- JUMP bikeshare has an age 18 minimum for use in its operations in the USA, including in the Sacramento Region.
- There is at least one bike share system in the USA which one may join at age 12 (in Lincoln, NE), another that allows 13 year-olds (Austin, TX), and more at from age 16, such as Citi Bike in NYC and Niketown in Portland. Lime's e-bikes have a 16 min. age limit.
- A mixed group of 5 to 6 teens with ages below and over a system's min. Age limit who don't all have access to their own bikes but do have access to a car will likely use it instead of bikeshare since the whole group cannot use bike share.
- Mobility choice decreases in lower income households due to e.g. lack of cars, cost of bus fare etc. Even if youth from these households have e.g. reduced priced transit tickets, they have overall fewer mobility choices than the members of their own family and of youth of the same age in households which are not low-income. People of color are over-represented in low-income households. Thus, the 18-limit may be both economically and racially discriminatory.
- E-bikes help equalize the gender-split in cycle use; providing access to electric-assist bikes to minors likely produces and earlier continued benefits in gender equity in cycling.

THE BIGGEST JUMP MARKET YET.

Sacramento, meet JUMP. Electric assist bikes that provide a boost every time you pedal. JUMP Bikes is working with the cities of Sacramento, Davis, and West Sacramento to bring you 900 dockless e-bikes to help you go farther, get there faster, and have more fun.

From JUMP Sacramento website: The repeated “you” excludes minors, permitted by law to use Type 1 e-bikes, but who are nevertheless not helped by JUMP to “... go farther, get there faster and have more fun.”

<https://jump.com/cities/sacramento>.

	Eligibility	How to
12 months	The JUMP Student Plan is available to anyone currently enrolled in a college or university located within the JUMP-SACOG system area. Please reach out to support@jump.com if you have any questions about eligibility.	1. Download
per day		2. Sign up for
60 minutes		email add
g Fee		
apply		

From JUMP Sacramento website: “... anyone” excludes e.g 17 year-olds who might start higher education earlier than many. <https://jump.com/cities/sacramento/student-plan>

Details	Eligibility
<ul style="list-style-type: none">- \$5 signup fee for the first 12 months- 60 minutes of ride time per day- \$.07/minute after the initial 60 minutes- \$25 Out-of-System Parking Fee- \$5/month after 12 months- Taxes and applicable fees apply	<p>The JUMP Boost Plan in Sacramento is available to anyone currently enrolled in one of the following programs:</p> <ul style="list-style-type: none">- SMUD Energy Assistance Program- WIC- SHRA- PG&E CARE- Cal Fresh

From JUMP Sacramento website: Under 18’s from low-income households cannot take advantage of the \$60 annual membership - it’s \$240 for [Yolobus](#) - nor use JUMP for family outings with their parents.

<https://jump.com/cities/sacramento/boost-plan>

Commissioner’s Report: Is any age limit for JUMP Bike a violation of Federal law (the Age Discrimination Act of 1975)? March 14, 2019.

City & Region-Specific Background:

- The City ordinance in Davis - previous to the introduction of JUMP - requires that any bikes have to be locked to another object - e.g. a bike rack. The majority of other operators use “dockless bikes”, which *only* lock to themselves. (A specific new requirement in the amended City ordinance is that any bike parked in parks and open spaces in Davis must be locked to a bicycle rack - not a fence, pole, tree, etc. -)
 - JUMP bikes are able to be locked to themselves. The bikes that are parked this way which are parked in - but not locked to - bike racks:
 - Are indistinguishable to the system when view remotely, i.e. based on GPS. It is impossible for JUMP to have accurate information on the number of its bikes parked according to City ordinance.;
 - Are likely the result of the custom to park bikes head-in, which is required with some rack designs approved for use in Davis. The JUMP bike’s locking system is located at the rear of the bike and cannot be used to park a bike head-in.
 - Indicate the intention of the last user to store the bicycle responsibly in the public right of way. In other words, it is very likely that dockless bikes would be parked in the same manner.

It is impossible to determine actual use of the feature that differentiates JUMP from systems which allow youth as young as 13. Thus, the bicycle parking ordinance - modified to match the capabilities of JUMP - combined with JUMP’s rules has resulted in JUMP having no competing services in the City or the region, effectively preventing the ability of minors to use bike share in the region.

- The 18-min. age limit for JUMP likely reduces the chances for those who have not reached the age of majority to use a means of active travel in a City which claims to prioritize it.
- 16 year olds can drive themselves and drive others after a year of driving, but cannot use the city’s sole bike share system until they are 18. A student at Davis High School (DHS) can borrow their parents’ car and park at DHS for free, but cannot use their parents’ bike share membership (secured by credit card) to pay to ride a shared bike to the same destination.
- A group of two friends in the same grade, such as 12th, when one is 18 and the other is not, cannot travel together on JUMP bikes due to JUMP’s rule and the company’s monopoly..
- The 18-rule is contrary to city policy; the heavy promotion of cycling in town starts in elementary school makes this clear. Multiple operators of bike share in the country have a lower limit, yet teenagers in Davis, perhaps some of the most experienced cyclists of their age in the country, are not allowed to use the bike share system.
- Many under 18’s are using the system: Is there any indication that they are over-represented in bad parking or other violations? Is it likely that parents who allow use of their credit cards so that their minor children may use JUMP have better credit, i.e. are they less risk-averse? If so, would this not permitted use of the system be easy for higher-income households?

Federal Law: The Age Discrimination Act of 1975

[The Age Discrimination Act of 1975](#) supports the argument that the 18 limit is a violation of Federal law.

According to their 2018-19 budget, SACOG has and continues to receive Federal funding for the regional bike share operations, both for starting the system and continued administration. SACOG spent [Congestion Mitigation and Air Quality \(CMAQ\)](#) funds to start bike share. Funds were spent on staff hours and consultant contracts for planning and hub equipment purchases. More details about SACOG's spending in the Overall Work Plan and the Budget is [at this link](#). In the documents, the "Regional Bike Share Pilot Project" is described under project number 300-003-30.

Section 6102 of the Age Discrimination Act of 1975 states that: “... *no person in the United States shall, on the basis of age, be excluded from participation, in be denied the benefits of, or be subjected to discrimination under, any program or activity receiving Federal financial assistance.*”

Section 6104 includes the following: “(b) *Nonviolative actions; program or activity exemption.*
(1) *it shall not be a violation of any provision of this chapter, or of any regulation issued under this chapter, for any person to take any action otherwise prohibited by the provisions of section 6102 of this title if, in the program or activity involved--*

(A) *Such action reasonably takes into account age as a factor necessary to the normal operation or the achievement of any statutory objective of such program or activity; or*

(B) *the differentiation made by such action is based upon reasonable factors other than age.*”

My interpretation is that 6102 does apply as:

- 1) There is no minimum age limit to use Type 1 electric-assist bicycles in California.
- 2) Bicycling for persons below the age of majority is strongly promoted and supported by the City of Davis – and to some extent in partner cities in the bike share program. Cycling to junior high (grades 7 to 9) in Davis can reach 60% mode share and is often at least 30 to 40% and cycling in general is encouraged for this age group and their families for different City activities and everyday use. It is a common opinion that Davis is the “cycling capital of the USA”. In other words, the youth of Davis have some of the best conditions in the country for utilizing e-bikes.
- 3) Minors at least 13 years-old are allowed to use the bike share system in Alameda, CA. Here, bike share is integrated with the same commuter-regional rail service - *Capitol Corridor* - which serves both Davis and Sacramento, two of the cities that participate in JUMP.

[Frequently asked Questions and Answers concerning Bike Sharing Relative to the United States Department of Transportation](#)

See also:

[Independent Mobility in California from the First Day of Ninth Grade](#)

Draft Motion:

The Bicycling, Transportation and Street Safety Commission of the City of Davis recommends that the City Council take the following actions in relation to JUMP bikeshare:

1. Task the City of Davis's legal staff to:
 - a. Determine if the minimum 18 or any age-limit of JUMP is in violation of the Federal Age Discrimination Act of 1975 (Henceforth: "Act"), based on SACOG's past and continued Federal funding for both starting the regional bike share process and for continuing administration.
 - b. Determine if there is any legal justification based on the Act that would prohibit use, aside from an inability to ride bicycles due to their size.
2. Task the Human Resources Commission and the Social Services Commission to provide advice to the City Council regarding the minimum 18 age-limit of JUMP, based on the Act itself, the legal analysis (as above) and the analysis provided in this Commissioner's Report.
3. Ask SACOG, the City of Sacramento, the City of West Sacramento, and UC Davis to undertake in similar manner and detail the tasks listed above.

Commissioner’s Report no. 2: The 15 mph-assistance limit for e-bikes in Davis (and the Sacramento Region).

March 14, 2019

Todd Edelman

Member, Bicycling, Transportation & Street Safety Commission, City of Davis

todd@deepstreets.org

415-613-0304

Contents:

Background... pages 1-4

Draft Motion... page 4

Background:

The maximum assist speed of Type 1 e-bikes – 20 mph - that was established in California about four years ago followed much discussion by actors in government, industry and advocacy. Whereas Type 2 e-bikes have the same assist speed with a throttle, and Type 3 e-bikes have a maximum assist speed of 28 mph, Type 1 e-bikes are more or less normal bicycles whose riders always have - so to speak - a moderate wind at their back. It’s mostly useful for starting from a dead stop - perhaps even more so significantly-crowned roads, and for decreasing effort at cruising speeds. In general - also in Davis and the Sacramento region - they are permitted in the same places as a normal bike. Type 1 and 2 bikes have no age restrictions. A rider needs to be only 16 to ride a Type 3 e-bike.

CALIFORNIA ELECTRIC BICYCLE POLICY										
VEHICLE TYPE	VEHICLE			USER			BIKEWAY ACCESS			
	PEDAL OPERATED	MAXIMUM MOTOR-ASSISTED SPEED (MPH)	MINIMUM AGE (YEARS)	DRIVER'S LICENSE	LICENSE PLATE	HELMET	CLASS I BIKE PATH	CLASS II BIKE LANE	CLASS III BIKE ROUTE	CLASS IV PROTECTED LANE
BICYCLE	YES	N/A	N/A	NO	NO	17 AND UNDER	YES	YES	YES	YES
TYPE 1 E-BIKE*	YES	20	N/A	NO	NO	17 AND UNDER	YES	YES	YES	YES
TYPE 2 E-BIKE*	NO	20	N/A	NO	NO	17 AND UNDER	YES	YES	YES	YES
TYPE 3 E-BIKE*	YES	28	16	NO	NO	YES	NO	YES	YES	YES
MOPED	NO	N/A	16	YES	YES	YES	NO	YES	YES	NO

*YES/NO/NO-2016





The JUMP bike share bikes are Type 1 e-bikes. JUMP - purchased by Uber early in 2018 - in the Sacramento Region has a 25% assist reduction, down to 15 mph. When the JUMP system started to operate in spring of last year, City of Davis staff - and as far as I know none of their counterparts at SACOG or in Sacramento or West Sacramento - never presented any information that any deaths or injuries were clearly a result of the differential between a 15 mph and 20 mph speed assist. Clearly, JUMP was and is confident that 20 mph is a safe speed, as out eleven of their current operations in the USA, only Seattle also has the 15 mph limit.

There has also not been any evidence presented that someone who is an angel on a 15 mph e-bike turns into its nemesis on a 20 mph bike. My understanding is that the City of Sacramento - which has a bicycle modal share 1/3 of Davis on a good day - was the first to push for the limit, and that 15 mph speed limit on UC Davis campus and the 10 mph speed limit on the Greenbelt paths in Davis were seen as justification for going along with “big fish” Sacramento calling the shots here.

Anyone who really wants to can get on their own Type 1 e-bike on Davis Greenbelt paths or UC Davis campus and... obey the speed limits. No other form of legal road transport has a similar mechanical restriction on the roads of Davis and campus, including cars.



From the JUMP Denver website: Speed as a selling point. Denver is higher, Davis is hotter. Denver is big. Davis is smaller, Sacramento is not. A journey from east to West Sacramento is long. <https://jump.com/cities/denver>

Cycling to UC Davis destinations has the highest adult modal share in Davis; according to data from a recent survey amongst JUMP users in Davis coordinated by [Dillon Fitch-Pulse of UC Davis](#), about 70% of JUMP users (in a small sample) are university age students¹. That's great, but it's crucial that the City exploits every opportunity to increase non-student bicycle modal share. It is necessary to promote bike share use to other areas and by other users. The 15 mph max assist is considerably lower than the typical 25 to 30 mph speed on local streets – this is a disincentive for both safety - e.g. when a cyclist wants to make a vehicular left turn - and replacing car journeys with bicycle journeys, not to mention the off-campus part of journeys to campus. Let's not forget that the posted speed limit was raised recently on from 25 mph to 30 mph on Anderson Road, a very popular route for trips to campus.

The UCD Survey also shows that only 1 out of 36 respondents in Davis did not appreciate that they would get less sweaty² on the bikes and the same number – one – did not appreciate the faster acceleration and overall speed than conventional bikes. Likely both of these answers are in error, and everyone likes the

lack of sweat and the supply of speed. Do they want *more* speed? No one asked, but I would assume so, as driving - with faster peak speeds at least - is very popular when parking is free and unrestricted.³

Davis residents are amongst the most proficient urban cyclists in the country in their particular City's context, and so it seems like they are actually the last ones who should have restrictions.

It's also curious that JUMP seems to be happy enough to restrict the bikes here, as it could make the bikes seem slow if a user accustomed to the speed of the bike in JUMP's other operating areas, such as San Francisco -- or perhaps not so serious if one of the main objectives of Uber is to harvest digital desire lines, which can also be done with slower scooters. It's also an interesting question if the speed exception in Sacramento and Seattle might confuse riders used to doing something at a certain speed, or other roads users who know the capabilities of a Type 1 e-bike.

Finally, e-scooter share is being considered for Davis -- one of the new technical capabilities of these devices is that their speed assist can be controlled based on GPS coordinates. Incorporating this into Type 3 or other e-bike architecture could allow these types of bikes - owned or shared - to be used on Class I paths or anywhere with a speed restriction under the capability of the device. It could make sense to use a similar system on other e-bikes if there is evidence that slower assistance speed is proven to be a source of injury reduction in certain contexts.

My argument for a fully-functioning Type 1 e-bike share in Davis and the Sacramento region is based on the sum of all the above: The majority of relevant actors around the state and the country considers 20 mph a safe assistance speed, there's no evidence that 20 is worse by any standard measure compared to 15 mph in regards to safety (and annoyance), exactly zero other vehicles - including Ubers - have the same restrictions as e-bikes based on urban location (In the highway context, U-Haul trucks have limiters; Zipcar vehicles do not.)

I suggest that in all of the region JUMP bike share bikes - and those of other operators - are allowed to be fully-functioning Type 1 e-bikes for a period of a year, just to see what happens, both good and bad.

Footnotes:

1. Survey Question: Are you currently a student?
"Full-time student" 38
"Not a student" 19
"Part-time student" 1
2. Survey Question: JUMP bikes allow me to arrive less sweaty.:
"Neither agree nor disagree" 3
"Somewhat agree" 9
"Somewhat disagree" 1
"Strongly agree" 23
"Strongly disagree" 0
3. Survey Question: I can accelerate away from cars more easily with a JUMP bike:
"Neither agree nor disagree" 9
"Somewhat agree" 15
"Somewhat disagree" 1

"Strongly agree" 11
"Strongly disagree" 0

Survey Question: I ride faster on a JUMP bike
"Neither agree nor disagree" 3
"Somewhat agree" 10
"Somewhat disagree" 6
"Strongly agree" 16
"Strongly disagree" 1

Draft Motion:

The Bicycling, Transportation and Street Safety Commission recommends that the City Council take the following actions in relation to the bike share ordinance:

- 1. Allow JUMP bike share assist speed to be raised to 20 mph for a trial period of one-year from the time when all bikes are modified. If after a year there is, in Davis, determined - by the BTSSC, followed by Council - to be a significant increase in objective safety problems (injuries and deaths) proven to be primarily caused by speed, the speed assist shall be reduced to 15 mph. During the pilot bike share operators will be required to change gearing as necessary so that pedaling the bikes at 20 mph is safe and stable.**
- 2. Propose to UC Davis to join the City of Davis in implementing the trial as above with the JUMP bikes assigned to the City of Davis and UC Davis.**
- 3. Propose to the City of Sacramento and the City of West Sacramento to implement the trial as above with JUMP bikes assigned to these areas.**
- 4. Propose to SACOG in conjunction with other relevant authorities and the private sector the creation of a framework for GPS-based, location-specific, speed assist limits for shared e-bikes of all types.**

Commissioner's Report no. 3: Is the weight limit for JUMP bike reasonable, and who does it exclude?

March 14, 2019

Todd Edelman

Member, Bicycling, Transportation & Street Safety Commission, City of Davis

todd@deepstreets.org

415-613-0304

Contents:

Background... pages 1-2

Draft Motion... page 2

General Background and Context:

- JUMP bikeshare has a [210 lb limit for all its bikes](#), including those in the Sacramento Region.
- There is no individual determination if a user is compliant; the issue would likely only come up during a legal action, e.g. to determine if a user's weight in excess of the limit contributed to a injury caused by the operation of the bike.
- Different bike share operations use different bikes, and many designs are proprietary. It is not reasonable to base the weight limit for JUMP on those of other systems. That said, many bike share systems do not have weight limits for their bikes, such as [Metro Bike Share](#) (Los Angeles), and some have a considerably higher limit, such as [Biketown \(Portland\)](#), a 275 lb limit.
- [The Body Mass Index \(BMI\)](#) for a male of [average height and weight in the USA, 5 ft. 9 in and 195.7 lbs.](#), is 28.9, classified as "overweight". The BMI for a male of average height at the Jup limit is 31.0, at the bottom of the "obese" category.

As the max. weight for JUMP is less than 15 lbs. above the national average for a male of average height, it seems to fair to say that that a high percentage of people are excluded from this program on the basis of weight alone. JUMP set their limit right around the overweight/obese threshold, and many of these persons could make bike share part of a plan to reduce their weight. But due to JUMP's rule they are not able to do it in the Sacramento area. A 210 lb. person can walk into any bicycle shop and buy a tremendous variety of bikes with zero concerns about damaging them.

For many months I've heard that JUMP staff has pushed for a higher official weight limit; it's hard to tell if Uber's acquisition has had any effect on this.

Again, a better tendering process would have required a bicycle with more specific capabilities. What we are left with is unsubstantiated claims getting the way of our goals for bicycle modal share and sustainable transport use.

Draft Motion:

The Bicycling, Transportation and Street Safety Commission of the City of Davis recommends that the City Council take the following actions in relation to bikeshare (not only JUMP):

- 1. Request that SACOG ask JUMP to implement a third-party, objective study by an engineering or similar firm, bicycle builder, industry expert etc. to determine the maximum weight allowance of the current JUMP bikes.**
- 2. Direct Staff - with external experts as necessary - determine a reasonable maximum weight limit for any bike share operator in Davis, i.e. one outside of the contract with SACOG or the other original partners.**
- 3. Ask the City of Sacramento, the City of West Sacramento, and UC Davis to undertake in similar manner and detail the tasks listed above.**

Commissioner's Report no. 4: Additional system and technical modifications for JUMP bike and other potential bike share systems

March 14, 2019

Todd Edelman

Member, Bicycling, Transportation & Street Safety Commission, City of Davis

todd@deepstreets.org

415-613-0304

Contents:

Parking... pages 1-2

Parking, Draft Motion... page 2

JUMP bicycle gearing... page 3

JUMP bicycle lighting... page 3

Parking

- JUMP bikes are technically-capable of being locked to an object or to themselves.
- There is no way to establish remotely if a locked JUMP bike is actually locked to an object.
- JUMP bikes can only be parking rear-end in if it's desired to secure them to the City's most common, modern bicycle rack designs. This is the opposite of how owned bikes are parked, and as a result a high number of JUMP bikes are parked head in, and thus not locked to the rack.
- Based on JUMP's own information, the vast majority of JUMP bikes are parked responsibly at the end of a journey. This is whether or not they are locked to a rack or other object.
- JUMP bikes are a huge hassle to steal due to their GPS, unique design properties and likely other proprietary features. As a result, very few seem to disappear.
- JUMP management itself is not concerned that the bikes are locked to an object or not - based on an interview with a member of their technical staff.
- The City of Davis has a good policy to distribute bicycle parking racks supported by fees from operators such as JUMP, but this cannot always match the proximity of a user's desire parking spot. While there are some locations where density and e.g. a bus interface indicate a substantial number of rack spaces makes sense, most of Davis is low density, and one location is often as good as any other. A typical parking situation at end-of-journey is on the edge of a front lawn of a presumed JUMP user, far from any rack. This is what makes a bike a bike, after all, and it's not

ideal - and contrary to to City of Davis policy to favor active transportation - if a TNC vehicle (e.g. Lyft or Uber) can get a user closer to their destination than any bicycle.



JUMP bikes parked responsibly in Davis in the traditional head in manner at Nugget Market (Covell) and (far right) at Trader Joe's, December 2018.

- While it's beyond the City's mandate, bicycle parking on UC Davis is often close to or at maximum capacity. The ability to securely lock a bicycle to itself - such as is possible with JUMP - frees up existing parking for owned bicycles.
- The City's recent report on cycling development in the Netherlands acknowledges that the ability to easily lock a bike to itself - principally by immobilizing the rear wheel in a few seconds - is a common feature on bicycles in that country. Useful bikes tend to be heavy - whether they are JUMP bikes or owned cargo bikes - and it should be up to their owner to determine if a particular situation is safe or not.
- It's in the best interest of users and all involved parties if parking policy for all bicycles - or at least shared bicycles - is consistent within all SACOG cities.

Draft Motion:

The **Bicycling, Transportation and Street Safety Commission of the City of Davis** recommends that the **City Council** take the following actions:

1. **Modify City ordinance(s) to *allow any* bicycle to be**
 - a. **Locked to itself**
 - b. **Parked outside of the part of the public right-of-way used for pedestrian movement.**
2. **Recommend that the City of Sacramento, the City of West Sacramento, and UC Davis to create or modify their ordinances as necessary to allow any bicycle to be locked to itself outside of the part of the public right-of-way used for pedestrian movement.**

JUMP bicycle gearing

JUMP bicycles are available in two variants in regards to drive train: A three-speed model and an eight-speed model. The three-speed model is under-gearred, so that very little torque is possible once a bicycle reaches its top assist speed of 15 mph.

The gear range of both bikes should be as similar as possible, with an identical high gear ratio, especially if the bikes are allowed to operate with allowable Type 1 e-bike assist.

It's understood that the eight-speed model's equipment is more difficult to source, but the three-speed range is adequate for Davis. The installation of particular chain rings and rear cogs is independent of the choice of gear system.

JUMP bicycle lighting

The front lights on JUMP bikes are of the "be seen" type only - they do not illuminate the bikeway, street or road.

As JUMP bikes are powered, the lights on the bicycle should be modified to take advantage of this, and a more powerful front light should be installed on each bicycle.