

Complete Streets Demonstration Bike Innovations

The "Living Laboratory" will install innovative bike-way treatments, creating an interactive environment for cyclists to experience and provide feedback on how these treatments address their need for improved mobility, comfort and safety. Proposed demonstration projects include:

Cycle Track / Protected Bike Lane

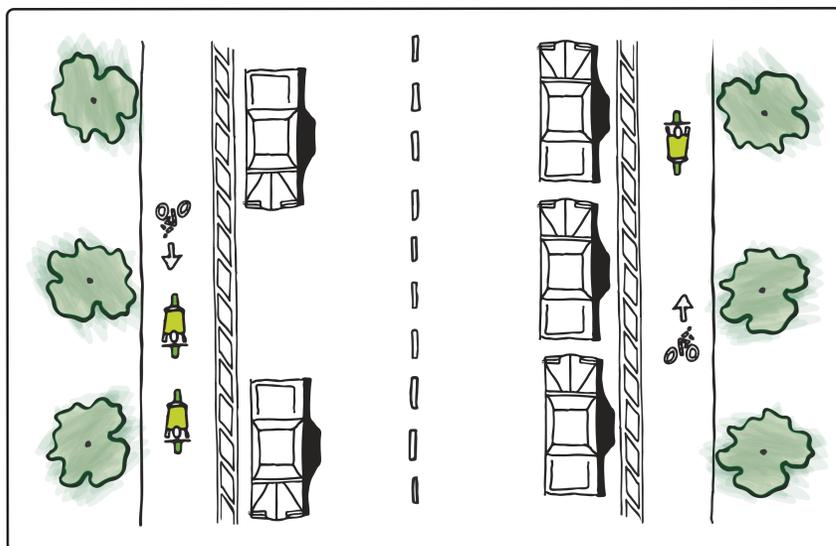
A Cycle Track is an on-street bicycle lane that is physically separated (often by a parking lane) from vehicular and pedestrian traffic. These lanes allow for bicyclists to feel more comfortable and protected while riding adjacent to traffic.

Suggested Location:

Baseline Road (30th Street to Foothills Parkway) summer 2013 and University (7th Street and Broadway) spring/summer 2014.



Several onstreet parking spaces along University would be removed to increase motorists' visibility of cyclists at intersections and driveways.



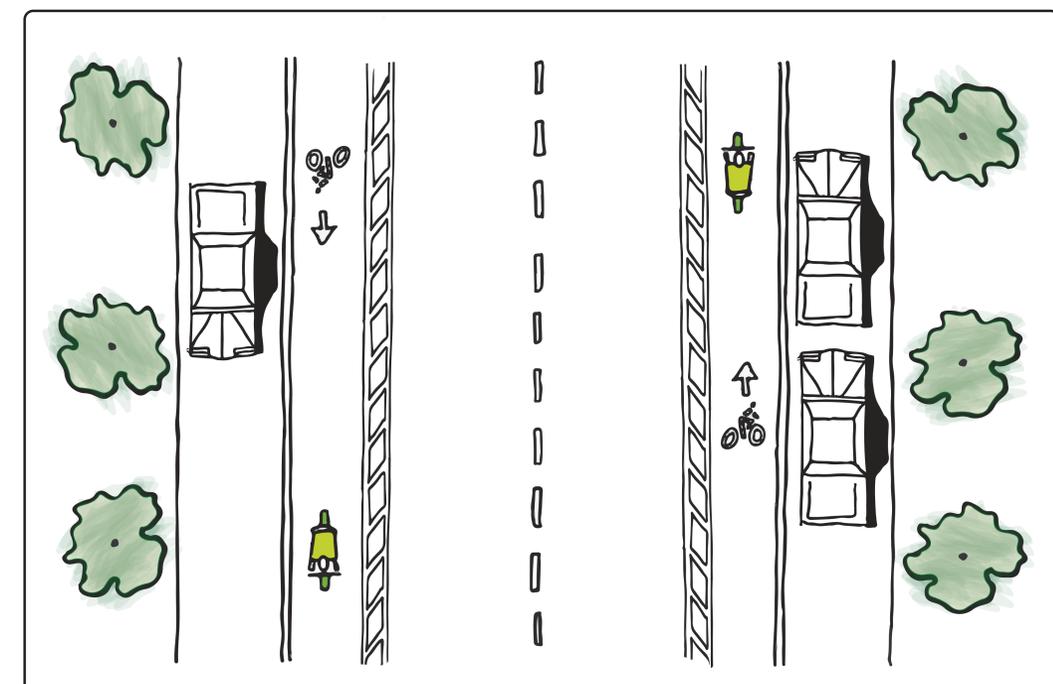
Buffered Bike Lane

A Buffered Bike Lane provides a more protected and comfortable space for cyclists than a conventional bike lane and does not have the same barriers to sight lines as a Cycle Track – where view of cyclists may be obstructed by parked cars.



Suggested Location:

University Avenue (west of Broadway)



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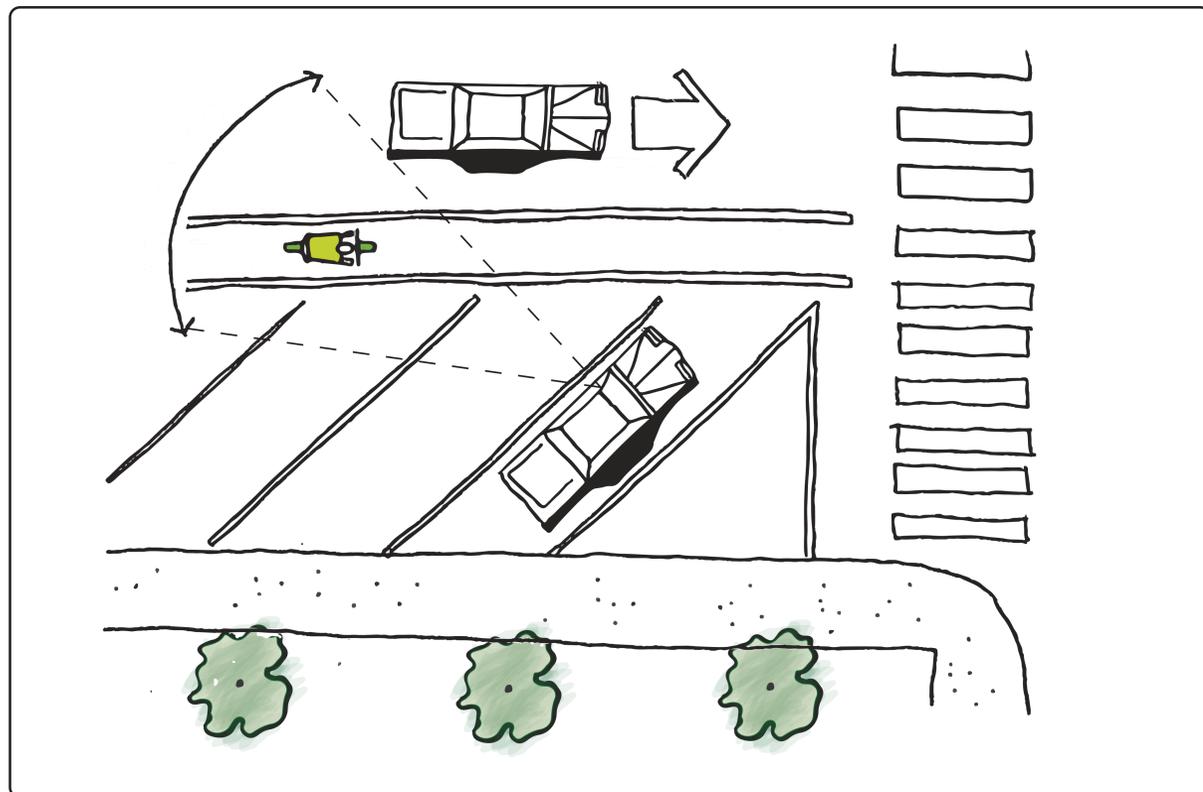
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Back-in-Angle Parking

Change angled parking to Back-in angled parking, in an effort to reduce the potential for conflict and documented collisions between cyclists and vehicles backing out blindly into the bike lane.

Suggested Location:

University Avenue
(east of Broadway)

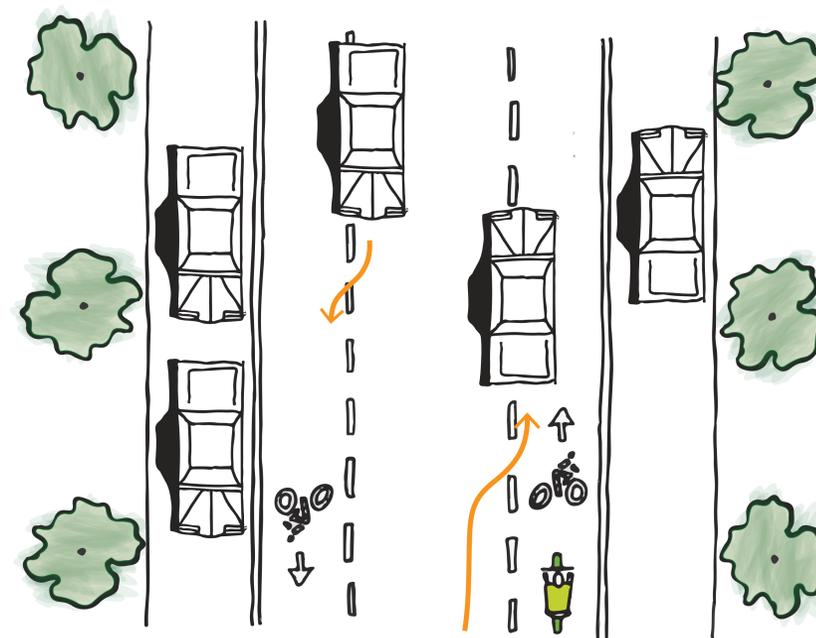


Advisory Bike Lane

Used on low volume streets that are too narrow for traditional bike lanes, this treatment is marked with a solid white line on the left (next to the parked cars) and a dotted line on the right. This on-street bike lane variation prioritizes space for cyclists while still allowing motorists to encroach into the bike lane if needed to pass oncoming traffic.

Suggested Location:

Harvard Lane (south of Dartmouth)



Center vehicle lane space would be reduced to anywhere between 14'-18' wide.

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Bike Boulevard

Bike Boulevards are residential streets with low volumes of auto traffic and low speeds where bicyclists, pedestrians, and local vehicular access are given the priority. By branding these streets as the best and lowest stress routes we can provide a safer and more relaxing place to ride and walk while encouraging mode share.

Suggested Location:

13th Street (Balsam to North Boulder Recreation Center)



Bike Box

A Bike Box is a designated, marked area at a signalized intersection that places bicycles at the front of the queue. Bike boxes increase the visibility of bicyclists and allow them to enter/clear the intersection before motor vehicles.

Suggested Location:

Folsom at Canyon (south bound)



Bike Parking Regulations

A three part strategy to improve bike parking is in the works: Bike Corral Expansion, Bike Parking Subsidy for existing development, and Bike Parking Regulations Update for new development. The objective is to better accommodate future bike parking demand by introducing a more diverse set of tools to provide bike parking.



Complete Streets Innovations For Future Consideration

The initiatives below require additional study or a public process to explore community and Board interest. Each are still under consideration and may be advanced as part of the living laboratory concept.

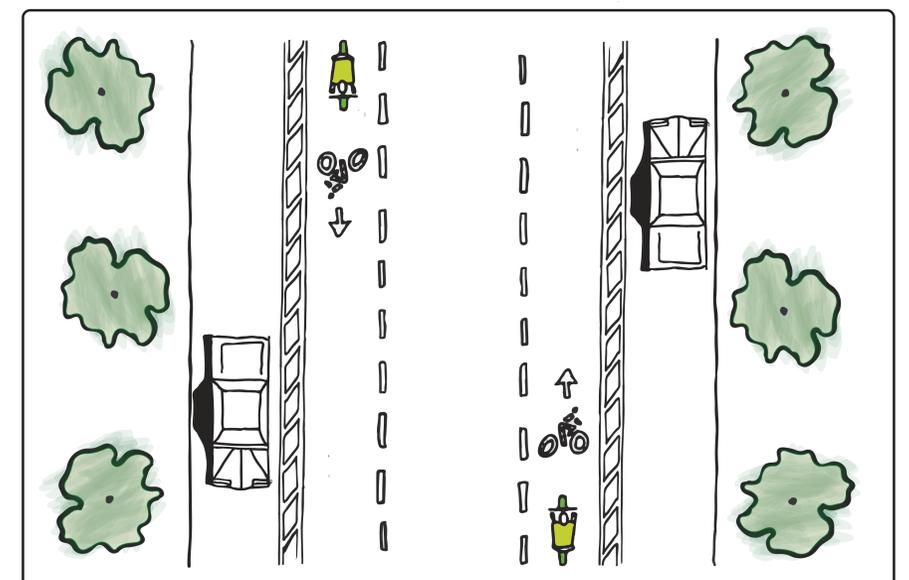
Spruce Street

This residential street between 15th Street and Folsom offers a good east/west connection that is often used by cyclists but currently lacks dedicated bicycle infrastructure. There is room within the roadway to dedicate space for cyclists. The City of Boulder's Transportation Departments is considering ways to improve this corridor for cyclist.

 Striped Bike Lanes
(standard treatment)

 Sign and stripe as a Bike Boulevard

 Create a new treatment called a "buffered advisory bike lane" or BABL
A BABL would create a narrow center area for motor vehicles (16' or so) and then the remaining space would be for buffered bike lanes and on-street parking



Complete Streets Innovations For Future Consideration

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Glow Paint for Multi-use Paths

Use photoluminescence paint that charges during the day and glows for up to 10 hours at night on multi-use paths to denote lanes and traffic markers at locations with limited site distance or other engineering constraints.

Suggested Location:

Boulder Creek Path at 29th Street entrance to Scott Carpenter Park; Bear Creek Path at Martin Drive underpass west approach.

Slip resistance of products must be confirmed before demo installation.

Electric-assist Bike Policy

Consider a trial period to test the use of electric-assist bicycles (e-bikes) upon off-street multi-use pathways. Local ordinance in the city of Boulder allows electric assisted bicycles to operate on streets and within designated bicycle lanes. But, e-bikes are currently prohibited from operating on paths and sidewalks. A public process is suggested to be convened this fall to explore the community interest in this innovation.

Slow Zones

Established in small, self-contained areas that consist primarily of local residential streets, neighborhood Slow Zones reduce the speed limit to 20 mph and add mitigation measures to change driver behavior. Additional public process is necessary to revisit the City's traffic mitigation program policies and procedures. This could be prioritized in 2014 or beyond.

Revisioning 30th Street Corridor

A comprehensive study is required and a proposed priority of the CU East Campus Connection project (see Integration with TMP Focus Areas). Reconfiguring the roadway segment from Baseline to Arapahoe roads by converting the four-lane roadway into a three-lane roadway. This treatment would allow new space to be dedicated to bike, pedestrian and transit improvements as well as context sensitive and urban design enhancements.

Complete Streets Evaluation & Project Schedule

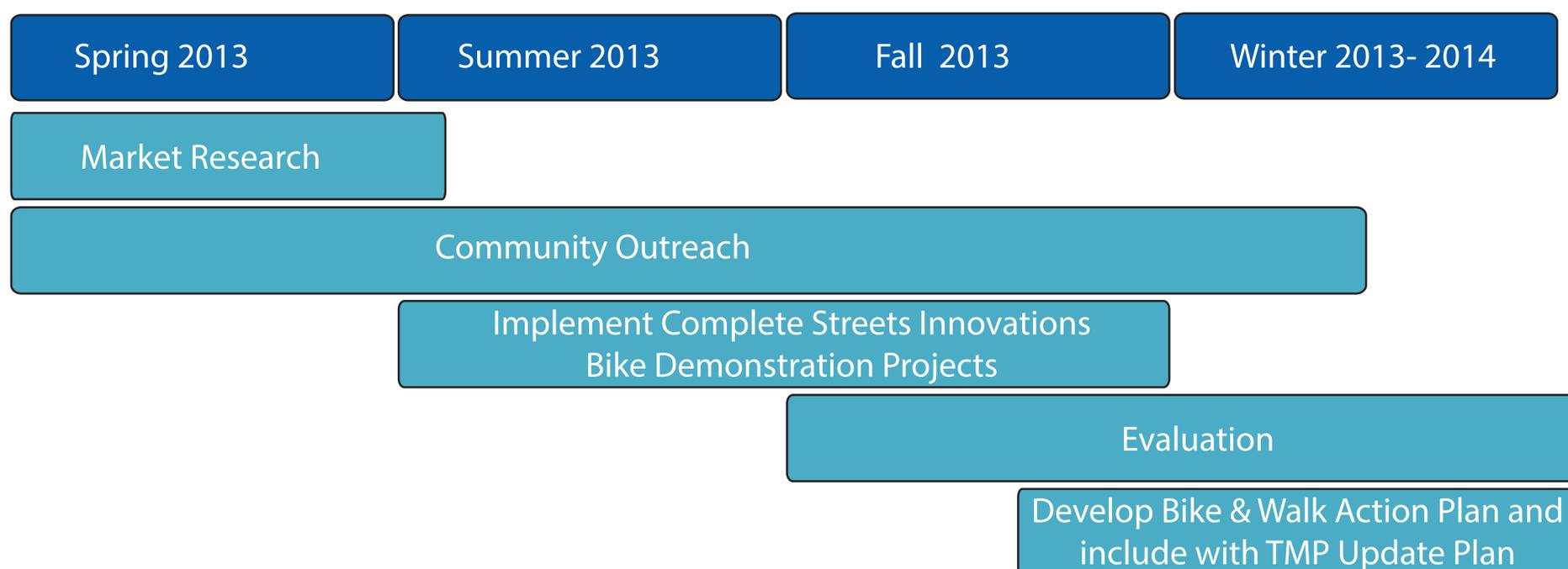
Evaluation

Performance monitoring of the living laboratory bike innovation demonstration projects will include several qualitative and quantitative measurements:

- Bike and Walk Audits, Focus Groups and a Feedback Panel are forums that have been established to offer community interaction and public input before, during and after treatments are installed.
- Transportation data will be collected and analyzed to provide a before/after comparison of modal traffic volume, vehicle speeds, and collision experience.
- Field observations to track driver and bicyclist behavior also will be conducted.
- Federal Highway Administration FHWA authorization is required to experiment with advisory Bike Lane innovation(s). Note: Evaluation criteria and Installation of this treatment depends on FHWA review and approval.

- A Low-stress bicycle network analysis will be conducted to evaluate before/after level of "traffic stress" and define whether treatments reduce stress level for bicyclists. High-stress streets are measured as those with high speed limits, limited or non-existent bike lanes and signage, and large distances to cross at intersections.
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Complete Streets Bike Innovations Project Schedule



TMP Update Schedule

The schedule for the TMP Update is being adjusted to reflect the city process and work load associated with a potential ballot initiative for transportation funding in November 2013. Staff will continue to move forward with TMP Update process accordance with City Council and Transportation Advisory Board guidance, incorporating TAB comments and community input, throughout 2013 and into 2014.