



# **Bicycle** Living Laboroatory

# Living Lab Demo Projects



## Living Laboratory Projects Include:

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| <ul style="list-style-type: none"> <li><b>1</b> Spruce Street Buffered Bike Lanes</li> <li><b>2</b> University Avenue Back-in-Angle Parking</li> <li><b>3</b> University Avenue Buffered Bike Lanes</li> </ul> | <ul style="list-style-type: none"> <li><b>4</b> Baseline Road Protected Cycle</li> <li><b>5</b> E-Bike Pilot Project<br/>To view a map of off-street Multi-Use Paths that allow the use of electric-assisted bicycles (E-bikes), visit <a href="http://tinyurl.com/EbikesBoulder">tinyurl.com/EbikesBoulder</a></li> </ul> | <p><i>Installation Planned For Summer 2014:</i></p> <ul style="list-style-type: none"> <li><b>6</b> 13th Street Bike Boulevard</li> <li><b>7</b> Canyon &amp; Folsom Bike Box</li> <li><b>8</b> Harvard Lane Advisory Bike Lane</li> </ul> |
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## E-Bike Pilot Project

Baseline Road (30th - 35th Street)

In February of 2014, the City of Boulder launched an Electric Assist Bike Pilot project that allows the use of E-bikes on off multi-use paths for one year. **E-bikes have the potential to make longer distance bike commutes more feasible for people of all ages and abilities.**

During the public process, **city staff learned that community members have concerns about traffic congestion on the paths, speed, etiquette of bicyclists and safety.** In particular, the behavior of existing bicyclists and a lack of enforcement were cited as concerns that may be compounded by e-bike users.



## Protected Cycle Track

Baseline Road (30th - 35th Street)



A protected cycle track is an on-street bicycle lane that is physically separated from pedestrian and vehicle traffic.

**Community members have shown support for the idea of protected bike lanes.** The city has heard mixed feedback on the aesthetics and design of the protected bike lane. Drivers have stated that the installation is distracting and camouflaged and cyclists have expressed concerns with left turn movement.

## Back-in-angled Parking

University Ave (Broadway - 17th Street)



In an effort to reduce the potential for conflict and documented collisions between cyclists and vehicles backing out blindly into the bike lane, the city is testing back-in-angled parking.

To help raise awareness on the new parking policy, staff produced an instructional video and installed signs at the site. **Compliance has improved over time through education and enforcement efforts.**

## Variations of Buffered Bike

Spruce Street (15th Street - Folsom)



A Buffered Bike Lane provides a designated 'buffer' separating the bike lane from the adjacent auto travel lane and/or parking lane.

The City is testing a couple variations of buffered bike lanes to **understand how effective each design is in raising awareness and improving safety** between cyclist and drivers in travel lanes or existing parked cars.

University Avenue (9th Street - Broadway)



The buffered bike lane treatments have been well received by the community. Cyclists have expressed support to continue the buffering in the "door zone".

# Bicycle Network Stress Level Analysis

Hold for Low Stress network Map

The city is conducting a city wide Low Stress Bicycling Network Connectivity Analysis to understand the functionality measure the stress level of the existing bike network.

An objective is to identify low-stress connectivity as well as barrier and opportunities to fine tune the network and increase the percentage of your system that offers a low stress riding opportunity. A before/after stress level analysis is being conducted to determine whether the Living Laboratory treatments reduce stress levels for bicyclists.

High-stress streets are measured as those with high speed limits, limited or non-existing bike lanes and signage, and large distances to cross at intersections.

# Complete Streets Bicycle

# Action Plan

## Strategies to increase bicycling trips in Boulder include:

- Continue Safe Streets Boulder initiative to ensure that all participants in the community's transportation system - pedestrians, bicyclists and drivers - practice safe travel behavior.
- Improve multi-use path safety and security
- Establish Travel Demand Management (TDM) strategies in support of bicycling and walking.
- Improve Bicycle Parking to better meet demand.
- Provide First and Final Mile Services
- Support more Bike & Walk events throughout Boulder, particularly events that serve women, older adults and families with children
- Offer Bicycle Skills and Safety Education training opportunities to community members
- Continue Bikeway Maintenance

Please see Bike Action Plan Handout for more details on the action items associated with each strategy

## 2.0 Bike Network

Develop a 2.0 Bike Network that provides a connected system of low-stress routes for bicyclists of all ages and abilities.

### Living Laboratory

Continue conducting pre/post evaluation and on-going analysis of pilot projects and programs. Identify additional treatments and programs to test bicycle facilities to see if they are appropriate for Boulder.

### Low-Stress Bicycle Network Analysis

Conduct low-stress connectivity analysis to complete analysis of existing system, identify deficiencies and develop scenarios to support a more complete, integrated and connected low stress network Refine the TMP project list to include additional corridor and location-specific enhancement project priorities that increase connectivity of a low-stress bicycle network.

### Corridor Studies

Support corridor studies along 30th Street, East Arapahoe Avenue, Colorado Avenue and Canyon Boulevard to evaluate and prioritize options for improved bicycle and pedestrian treatments

### Bicycle Facility Installation Guidelines

Develop guidelines to provide a set of criteria, procedures, and policies that guide the installation of bicycle facilities within the City of Boulder.

### Bicycle Byways

Promote local bike corridors along quiet neighborhood streets using low-cost, high-impact pavement markings and distinctive directional and wayfinding signs to brand these routes similar to a multi-use path or trail. Explore public art opportunities to make bike byways fun, inviting and appealing to cyclists of all ages, and abilities.

### Way Finding for pedestrians and bicyclists

Improve Way finding for pedestrian and cyclists by providing online resources (i.e. smart phone compatible maps) and sign along paths, trails, and corridors.

### Motor Vehicle Slow Zones

Conduct a needs assessment to establish zones with a 20 mph speed limit including around schools and shopping centers, and in neighborhoods. Explore use of traffic calming measures and low speed design principles to achieve higher compliance rates.

2.0 Bicycle  
Network  
Implementation