CITY OF BOULDER
TRANSPORTATION ADVISORY BOARD
AGENDA ITEM

MEETING DATE: April 13, 2015

AGENDA TITLE: Staff briefing and TAB input regarding the Complete Streets Phase II Living Laboratory program

PRESENTERS:
Michael Gardner-Sweeney, Acting Director of Public Works for Transportation
Bill Cowern, Transportation Operations Engineer
Kathleen Bracke, GO Boulder Manager
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EXECUTIVE SUMMARY

This item provides a status report, check in and opportunity for the Transportation Advisory Board (TAB) to provide input on the Complete Streets Living Laboratory Phase II program. At the April 13 TAB meeting staff will brief the Board on planning, technical analysis and proposed community engagement strategies in preparing to pilot corridor-based complete street repurposing (rightsizing) projects and request input on these elements in preparation for the TAB hosted Open House to be scheduled in May.

City Council feedback from the Feb. 24 study session supported an "enhanced and focused" approach for the Phase II Living Lab public process for piloting the right-sizing of candidate "Complete Street" corridors, including Iris, Folsom, 55th, and 63rd streets. Public input along with the technical analysis and financial considerations will guide a staff recommendation regarding the installation of potential pilot projects along these corridors in summer 2015. Stakeholder meetings, social media and a TAB hosted public open house are a few of the communications plan elements being developed to gather public input on potential Phase II pilot projects.

TAB ACTION REQUESTED

Review and provide feedback on the Complete Streets Living Laboratory or "Living Lab" Phase II planning process and proposed public engagement strategies, including the format and materials proposed for the TAB hosted Open House to be scheduled in May.

BACKGROUND

The vision of the 2014 Transportation Master Plan (TMP) is to a create and maintain safe and efficient multimodal transportation system meeting the sustainability goals of the community and accommodating increased person trips by providing travel choices and reducing the mode share of single occupant vehicles. TMP objectives include safety improvements for people using all modes of transportation working "Toward Vision Zero" for fatal and serious injury crashes. The 2014 TMP enhanced objectives include reducing single occupant vehicle travel to 20 percent of all trips for residents and to 60 percent of work trips for non-residents and reducing vehicle miles traveled for both residents and non-resident employees. In addition, the TMP increases the goals for walking, biking, and transit mode share. Currently, Boulder residents ride the bus at twice the national average, walk three times as much and bicycle at 21 times the national average. The TMP sets ambitious yet realistic mode share goals of 30 percent bike, 25 percent walk, and 10 percent transit mode share for all trips taken within the city. To accomplish these goals, the TMP's Complete Streets focus area supports innovative approaches to enhance walking, biking and transit opportunities for people who live, work, and visit Boulder, with an emphasis to increase walk and bike trips by women, older adults and families.

Living Lab Program

The Living Lab pilot projects program began as part of the Transportation Master Plan (TMP) update to enhance the existing system for cyclists of all ages and riding abilities. The Living Lab program is being deployed in phases of pilot projects, with qualitative and quantitative analysis, including extensive community feedback, to evaluate the potential for long-term application in Boulder.

The first phase of Living Lab projects have provided an excellent forum for testing new, innovative facilities and contemporary treatments to improve Boulder's existing bicycle infrastructure. Phase I projects have been opportunistic, with a focused public engagement process prior to installations and a robust evaluation process after installation including community feedback, technical evaluation, and field "before and after" behavior observations.

Phase II – Complete Streets Corridors

Responding to input from the community, boards, and City Council during the 2014 Transportation Master Plan update, staff is developing 2015 Phase II Living Lab projects. Phase II projects include a 'rightsizing' approach to enhance four candidate corridors, including Iris, Folsom, 55th and 63rd. These projects are primarily comprised of restriping and signing the streets to increase comfort and safety of the corridor for people using all modes of transportation.

In Feb. 2015, the TAB provided input regarding the development of design options and community public engagement processes. At the Feb. 24, City Council study session discussion, staff received guidance from Council to continue the Living Lab approach of piloting

innovations and use the "enhanced and focused" public process approach for the Phase II arterial candidate corridors right-sizing planning efforts. TAB input was considered as part of the discussion.

STAFF ANALYSIS

(New material: Sections highlighted in yellow)

Phase II selection process for candidate corridors

An initial analysis of multimodal transportation operational criteria was used to identify the corridors, including bicycle level of stress, bicycle and motor vehicle volume, travel time, speed (posted and actual), land use, and connectivity to primary activity centers. The corridors listed below surfaced to the top as a result of the analysis:

- 55th Street – Arapahoe Avenue to Pearl Parkway
- 63rd Street – Gunbarrel Avenue/Nautilus Drive to Lookout Road
- Folsom Street – Arapahoe to Valmont avenues
- Iris Avenue – Broadway to Folsom Street

Existing conditions

- **55th Street** – On-street standard width bicycle lanes, two general purpose lanes in each direction and a continuous left turn lane or raised center median. The roadway widens at key intersections to provide right and left turn lanes. This roadway connects high frequency transit service on Arapahoe and the neighborhood to the south of Arapahoe with numerous businesses along the 55th Street corridor.
- **63rd Street** –Two general purpose lanes in each direction and a raised center median or left turn lane (at intersections). There is a wide center median separating northbound and southbound traffic. This roadway connects numerous businesses along 63rd Street to the Gunbarrel Center on Lookout Road.
- **Iris Avenue** – On-street Sub-standard bicycle lanes and two general purpose lanes in each direction. The roadway widens at key intersections to provide left turn lanes. There is no median or center turn lane. This roadway provides connection between commercial business on the east end and numerous residences along the corridor. There is also connection to the Foothill Elementary School and the Broadway/13th Street bicycle corridor.
- **Folsom Street** – On-street Sub-standard bicycle lanes and two general purpose lanes in each direction. The roadway widens at key intersections to provide left turn lanes. A raised center median exists from Arapahoe Avenue to Canyon Boulevard and at key intersections between Canyon Boulevard and Spruce Street. Folsom Street is a major bike corridor, connecting the University of Colorado campus, numerous business and housing uses and the east end of the Downtown area. Consequently, Folsom Street is one of the highest bike ridership corridors in the City. See Attachment A photos of existing conditions.

Planning and Design Process

The Transportation Division has conducted a technical analysis of the current conditions along these corridors and is developing conceptual design options based upon the TMP goals of enhancing the bicycling, walking and transit experience, improving safety, and managing potential vehicle travel time delays.

The "rightsizing" process includes options to reallocate street space to better serve people using all modes of transportation. Rightsizing a street can encompass a broad array of design treatments and strategies such as:

- *Midblock Crossings and Crossing Markings* – Evaluation of treatments for enhancing pedestrian crossings and sidewalks along the corridors.

- *Enhanced bicycle facilities* – Opportunities to enhance bicycle facilities by widening bike lanes and creating a buffered space between the bike lane and the travel lanes. Additionally, staff is exploring the option of installing protected bike lanes by erecting flexible bollards or delineators in the buffered space between the bike lane and travel lane.

- *Access to transit* – Staff is examining transit stops along the corridor and how buses will interact with the potential street design changes, including buses accessing transit stops as well as improving pedestrian access to/from transit stops.

- *Vehicular lane conversions* – Examples include converting a four-lane road to a three-lane road with a center two-way left turn lane; or, to a two-lane road with designated left turn and/or right turn lanes at specific intersections. Staff conducted turning movement counts at intersections along the corridors and utilized traffic modeling software to run traffic scenarios to help us compare and understand the pros and cons of the two types of lane conversions and extensions associated with Phase II candidate corridors.

- *Narrowing vehicle travel Lanes* - Staff is examining the possibility of narrowing the existing travel lanes to 10 feet. Lane widths of 10 feet are appropriate in urban areas and have a positive impact on a street's safety without impacting traffic operations.

- *Right turn treatments at signalized intersections* - Intersections along the candidate corridors experience a diverse volume of right turning vehicles (autos and bicycles).

Staff is examining which types of right turning treatments work best to improve safety, comfort, and efficiency for bicyclists and motor vehicle drivers based upon turning movement volumes.

Public Engagement Process

Based on guidance from City Council provided during the Feb. 24 study session discussion, the Transportation Division is proceeding with an enhanced and focused public process approach to present and gather public input on the technical review and design options for Phase II Complete Streets corridor rightsizing pilot projects.

Given the complexity of proposed Phase II project design alternatives, staff proposes to hold a series of stakeholder meetings and a public open house during the month of May. In early May, two stakeholder meetings will be held to gather input from adjacent properties and the greater Boulder community. An *East Boulder Corridors* stakeholder meeting will focus on seeking input on the design options for the 55th Street and 63rd Street corridors. The Folsom Street and Iris Avenue corridors will be the focus for a *West Boulder Corridors* stakeholder meeting. To increase participation from adjacent properities, it is proposed that these meetings be held at a location along a candidate corridor on a weeknight from 4 to 6 p.m. Additional stakeholder meetings will be convened with the Chamber of Commerce, Better Boulder, Boulder-based businesses, Community Cycles and other community organizations based on interest and availability. Social media platforms and scheduled corridor walk/bike audits also will provide forums for community engagement.

A TAB hosted Open House meeting would be scheduled mid-May at BMoCA to coincide with a Wednesday Boulder County Farmer's Market event. A draft outline of the materials presented as the Open House and all stakeholder meetings is provided in **Attachment B**. Existing and potential cross-sections, aerial plans of the proposed lane configurations and select design treatment renderings will be designed for display to help communicate the technical analysis and design options and provide opportunities for public input. **Attachment C** details preliminary graphics for the Folsom Street corridor as an example of the type of materials that would be developed for all four corridors.

Public input along with the technical analysis and financial considerations will guide the development of a staff recommendation on the proposed Phase II candidate corridors and design options. The staff recommendation will be presented to the TAB in June for consideration of a recommendation to City Council. Based on TAB and Council direction, installation of selected pilot projects will be scheduled in Summer 2015.

There will also be an active, on-going community engagement process throughout the duration of the Living Laboratory Phase II program to seek on-going feedback from the community on their experiences using the new street configurations. This community feedback will be used along with the technical analysis of the Phase II projects to determine future phases for the Living Lab program.

Key Questions for TAB:

1. Does the TAB have input on the proposed community engagement process proposed to advance the Phase II Living Lab Complete Street repurposing and right sizing experiments?
2. Does TAB have input regarding the technical work guiding the planning and development of design options for Phase II Complete Streets candidate corridor pilot projects?

3. Is there additional information and/or analysis that TAB would like to see to help evaluate and select the 2015 Living Lab Phase II projects in advance of the May and June TAB meetings?

NEXT STEPS

The Transportation Division will conduct outreach to adjacent property owners and residents in the area of the candidate corridors for Phase II pilot projects to invite their participation in upcoming public forums. These forums will be convened during early and mid-May.

A public hearing and consideration of the Phase II Living Lab corridor pilot projects is planned for the TAB meeting in June. Based on input from the community engagement process, the recommendation from TAB and direction from Council, Phase II projects would be scheduled for installation in July and August.

Timeline for Phase II Living Lab pilot projects:

April:	TAB update
May:	Public Outreach (Stakeholder Meetings/Open House) and TAB update on design options
June:	TAB public hearing regarding Phase II Living Lab pilot projects
July:	City Council consideration of Phase II Living Lab pilot projects
August:	Installation of selected Phase II projects (based on TAB recommendation/Council direction)
Summer 2015 – Winter 2016:	Evaluation of Phase II projects

Attachments:

Attachment A	Existing conditions photos
Attachment B	Open House outline
Attachment C	Example corridor graphics for open house meeting

Attachment A

55th Street – Existing Conditions

Iris Avenue – Existing Conditions

Folsom Street – Existing Conditions

63rd Street – Existing Conditions

Living Laboratory Program
Phase II Complete Streets Corridor rightsizing pilot project
Open House/Stakeholder Meeting format

A. Background

1. About the Living Laboratory – TMP objectives, target market etc.
2. Living Laboratory Phase I update
   - *a) University Avenue maintenance update*
   - *b) Schedule for installation of next wave of projects*
   - *c) Phase I is helping inform Phase II*
3. Living Laboratory Phase II description
   - *a) Right sizing arterial corridors*
   - *b) Mayor's Challenge & peer community review*
   - *c) Selection criteria and process to identify top four candidate corridors*
   - *d) Design considerations to develop right sizing options for each candidate*

B. Candidate Corridor Designs

(Aerial Plans and renderings or Streetmix cross sections)

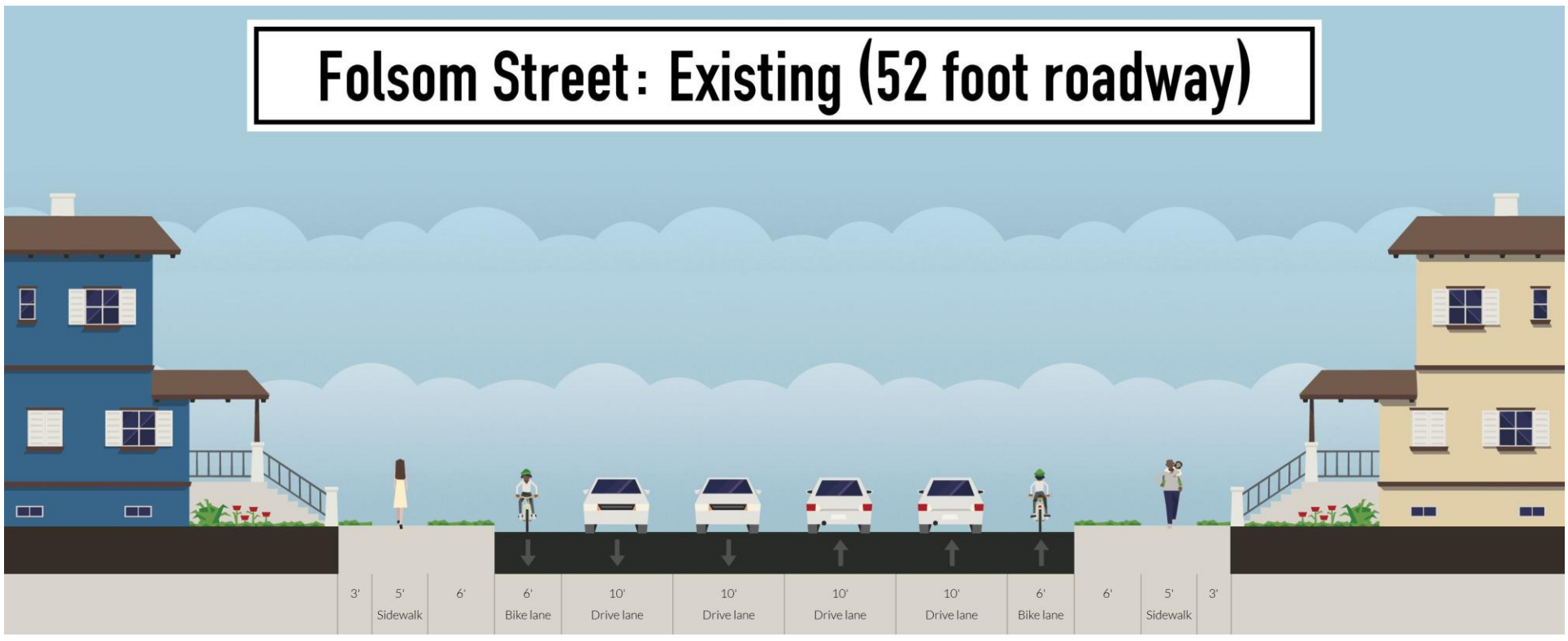
- *a) Iris (Broadway to Folsom)*
- *b) Folsom (Iris to Arapahoe)*
- *c) 55th Street (Arapahoe to Pearl)*
- *d) 63rd Street (Gunbarrel/Nautilus to Lookout)*

C. Project schedule

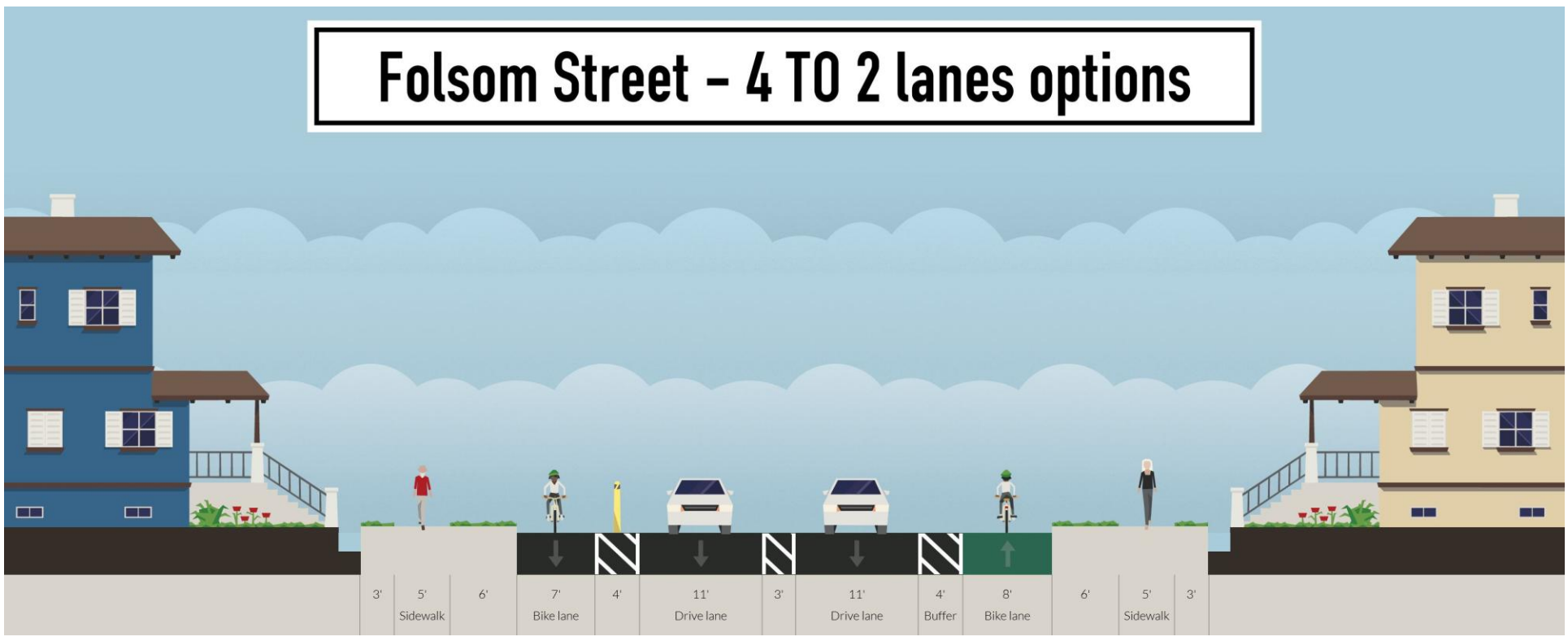
- *a) Stakeholder Meetings and Open House in May*
- *b) TAB public hearing in June*
- *c) Council update in June or July*
- *d) Installation in August*
  - *(1) Expectations on the number of corridors we could install in 2015*
  - *(2) Considerations guiding selection of 2015 installations*
  - *(3) Overlay schedule, public input, costs*
  - *(4) Rolling verses concurrent installations*

D. Pilot Project evaluation (elements and explanation)

- *a) Technical transportation data: speed, volume, travel time (all modes)*
- *b) Field observations of user behavior*
- *c) Community feedback on user experience*


Folsom Street: Existing (52 foot roadway)
3'
5' Sidewalk
6'
6' Bike lane
10' Drive lane
10' Drive lane
10' Drive lane
10' Drive lane
6' Bike lane
6'
5' Sidewalk
3'

Folsom Street 4 to 3 lane options
3'
5' Sidewalk
6'
8' Bike lane
3'
10' Drive lane
10' Center turn lane
10' Drive lane
3'
8' Bike lane
6'
5' Sidewalk
3'


Folsom Street - 4 TO 2 lanes options
3'
5' Sidewalk
6'
7' Bike lane
4'
11' Drive lane
3'
11' Drive lane
4' Buffer
8' Bike lane
6'
5' Sidewalk
3'