Livable Cities: EcoMobility in Boulder, CO, USA

EcoMobility Congress 2017
Kaohsiung, Taiwan
October 2, 2017
About Boulder
GOALS FOR CREATING A MORE LIVABLE CITY
SUSTAINABILITY IN BOULDER

Community Sustainability Framework

- Environmentally Sustainable Community
- Safe Community
- Economically Vital Community
- Good Governance
- Livable Community
- Accessible & Connected Community
- Healthy & Socially Thriving Community

Boulder Valley Comprehensive Plan

- Priority-Based Budgeting
- Department Strategic/Master Plans
- Subcommunity and Area Plans

- Operating Budget
- Capital Improvements Program
- Development Standards and Zoning

SUSTAINABILITY IN ACTION
TRANSPORTATION MASTER PLAN
CITY OF BOULDER
Setting Course for a Low-Carbon Future: Boulder’s Climate Commitment
Transportation Master Plan (TMP)

• Policy foundation for:
  • multimodal transport system
  • integrate with land use
  • climate commitment
  • Vision Zero
Monitoring How We Are Doing

- No Growth in Long Term Vehicle Traffic
- Reduce SOV to 25% of Trips
- Reduce Mobile Source Emissions
- Max of 20% roadways at failing Level of Service
- Expand Fiscally Viable Alternatives for Residents & Employees
- Increase Alternatives with rate of Employee Growth

Safety
neighborhood Accessibility
VMT per Capita
## Community Report Card

### TMP Objectives for 2035

<table>
<thead>
<tr>
<th>Objective</th>
<th>Baseline</th>
<th>Progress</th>
<th>Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Reduce vehicle miles of travel (VMT) in the Boulder Valley by 20 percent by 2035</td>
<td>1994 level of 2.44 million daily VMT for the Boulder Valley; target now 1.9 million daily VMT</td>
<td>Est. 2.42 million daily VMT for the Boulder Valley in 2014</td>
<td>Static, needs 20 percent further reduction in daily VMT</td>
</tr>
<tr>
<td>2. Reduce single occupant vehicle travel to 20 percent of all trips for residents and to 60 percent of work trips for nonresidents</td>
<td>1990 44 percent SOV mode share for residents</td>
<td>Reduced to 36.5 percent in 2015 for residents</td>
<td>Positive but needs to accelerate</td>
</tr>
<tr>
<td>3. Achieve a 16 percent reduction in greenhouse gas emissions and continued reduction in mobile source emissions of other air pollutants</td>
<td>1991 81 percent nonresident SOV commute mode share</td>
<td>Remains at 80 percent in 2014 for nonresident employees</td>
<td>Static, needs significant change</td>
</tr>
<tr>
<td>4. No more than 20 percent of roadways congested at level of service F</td>
<td>23 percent in 1998</td>
<td>9 percent in 2015</td>
<td>Positive</td>
</tr>
<tr>
<td>Expand fiscally viable transportation options for all Boulder residents and employees, including older adults and people with disabilities</td>
<td>2002 - $160,000 city support to Via</td>
<td>2015 - $290,546 city support to Via</td>
<td>6.3 percent annual increase</td>
</tr>
<tr>
<td>Increase transportation alternatives commensurate with the rate of employee growth</td>
<td>2002 - 3,822 est. residents eligible for Neighborhood EcoPass</td>
<td>2015 - 11,922 est. residents eligible for Neighborhood EcoPass</td>
<td>16.3 percent annual increase</td>
</tr>
</tbody>
</table>

### Commuter Transit Mode Share

<table>
<thead>
<tr>
<th>Year</th>
<th>Mode Share 2002</th>
<th>Mode Share 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>VMT</td>
<td>84,530</td>
<td>98,510</td>
</tr>
<tr>
<td>Local Transit Service Hours</td>
<td>215,074</td>
<td>199,205</td>
</tr>
<tr>
<td>Avg. Local Weekday Ridership</td>
<td>18,831</td>
<td>20,347</td>
</tr>
<tr>
<td>Regional Transit Service Hours</td>
<td>100,956</td>
<td>131,402</td>
</tr>
<tr>
<td>Avg. Regional Weekday Ridership</td>
<td>7,446</td>
<td>11,713</td>
</tr>
<tr>
<td>Centerline miles of bike system</td>
<td>138</td>
<td>163</td>
</tr>
</tbody>
</table>
Vehicle Miles Traveled

- Estimated VMT under the TMP
- Projected VMT at Regional Rate
- 2014 TMP Target: 1.9 million VMT by 2035
The TMP sets ambitious yet realistic mode share goals of:

- 30% **BIKE**
- 25% **WALK**
- 10% **TRANSIT**

for all trips taken within the city

<table>
<thead>
<tr>
<th>City</th>
<th>Bike</th>
<th>Walk</th>
<th>Transit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boulder, CO, USA</td>
<td>11%</td>
<td>20%</td>
<td>9%</td>
</tr>
<tr>
<td>London, UK</td>
<td>2%</td>
<td>21%</td>
<td>44%</td>
</tr>
<tr>
<td>Auckland, AU</td>
<td>1%</td>
<td>3%</td>
<td>6%</td>
</tr>
<tr>
<td>Amsterdam, NL</td>
<td>40%</td>
<td>4%</td>
<td>29%</td>
</tr>
<tr>
<td>Portland, OR, USA</td>
<td>7%</td>
<td>6%</td>
<td>13%</td>
</tr>
<tr>
<td>Vienna, Austria</td>
<td>7%</td>
<td>26%</td>
<td>39%</td>
</tr>
</tbody>
</table>
CREATING BETTER STREETS & MOBILITY OPTIONS FOR PEOPLE
Tale of Two Cities

- Sensitive infill
- Transformative redevelopment
Transformative Redevelopment: Accessibility AND Mobility

• Parking and TDM districts
• Integration of land use & transportation
• Public Private Partnership
15-minute Neighborhoods

Accessibility measure
- Ease by which people can travel to daily activities using different modal systems
- Green = best access
- Orange = least access
Bike and Walking – off street
Biking and Walking – at grade

• Over 160 centerline miles of bike facilities
• 95% of Boulder’s arterial streets accommodate bicycles
Bike Low Stress Network

Attracting the “Interested But Concerned Cyclists”
Safe Streets Boulder
Moving Toward Vision Zero

Engineering
Education
Enforcement
Evaluation

From 2009-2014, approximately 3,275 collisions were reported to the Boulder Police Department each year.

Collisions that resulted in a serious injury or fatality have been relatively flat at 2% of total collisions in the past six years.

Bicyclists & Pedestrians are overrepresented in collisions that result in serious injuries or fatalities, only 8% of all traffic collisions in the City of Boulder involve bicyclists or pedestrians. They account for approximately 60% of serious injuries and fatalities.

Impaired persons are overrepresented, especially those involving bicyclists and pedestrians resulting in serious injuries or fatalities. Approximately 3% of total collisions involve an impaired person 12% of serious injuries and 38% of fatalities involve an impaired person.
Safety: Vision Zero

Action Items

- Enforcement
- Evaluation
- Education

Enforcement Diagram

Images of traffic enforcement, crosswalks, and safety signs.
• Enhance on-street system to be more **safe and comfortable** to all users

• Test **innovative** engineering treatments and programs

• Provide **interactive ‘real world’ user experience**
Community Transit Network
Transit – What’s Next
Transportation Challenges & Opportunities

- Diminishing returns, no more “low-hanging fruit” for mode shift
- Overcoming local and regional land use patterns
- Finding new funding sources
- Integrating with city-wide sustainability & Climate Commitment goals
- Learning from each other
By the Community, for the Community, to Create Community

- Extensive Engagement
- Coalition Approach
Thank You

Contact Information:

City of Boulder Transportation:
www.bouldertransportation.net

Mayor Suzanne Jones, Boulder, CO, USA
jonesS@bouldercolorado.gov