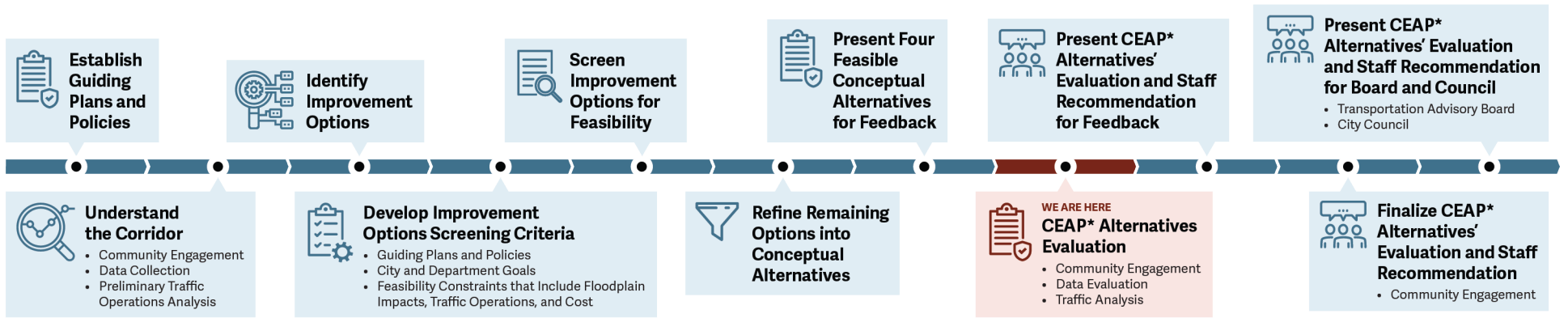




# ALTERNATIVES DEVELOPMENT



\*The Community and Environmental Assessment Process (CEAP) is a formal review process that assesses the potential impacts of capital improvement projects to help select the best alternative.

## How the 'Long List' of possible design options were developed

To develop the 'Long List' of possible design options, staff consulted best practices, design standards, and guidelines to identify all potential solutions to the issues identified by the data and community engagement.

### WHY THE 'LONG LIST' OF POSSIBLE DESIGN OPTIONS WERE CHOSEN

The 'Long List' included 13 possible designs with a range of bike and pedestrian facility types, including multi-use paths, as well as a range of lane configurations, from two to five vehicle lanes.

The designs were chosen because they supported plans, policies, and project and city goals and addressed the issues identified through community engagement, data analysis, and preliminary traffic operations analysis.







## The 'Long List' of possible design options were screened using the following considerations to develop four conceptual alternatives

Project staff consulted city partners including Boulder Fire-Rescue, Boulder Police, Parks and Recreation, Forestry, Utilities, and the Office of Disaster Management for the City of Boulder and Boulder County to apply the considerations for disaster response, existing public street trees, utility relocation, and stormwater drainage.

 <h3>Traffic Safety</h3> <p><b>What does this mean?</b> Potential to reduce speeds and severe crashes on the corridor.</p> <p><b>CONSIDERATIONS:</b></p> <ul style="list-style-type: none"> <li>Vehicle speed moderation</li> <li>Crash reduction</li> </ul>	 <h3>Transportation Operations</h3> <p><b>What does this mean?</b> Potential to impact vehicle travel time, vehicle turning movements, and emergency response.</p> <p><b>CONSIDERATIONS:</b></p> <ul style="list-style-type: none"> <li>Vehicle travel time along the corridor</li> <li>Vehicle turning movements</li> <li>Day-to-day emergency response</li> <li>Disaster emergency response</li> </ul>	 <h3>Sustaining Tree Canopy</h3> <p><b>What does this mean?</b> Potential to preserve existing street trees and maintain the current tree canopy.</p> <p><b>CONSIDERATIONS:</b></p> <ul style="list-style-type: none"> <li>Preserves existing trees</li> </ul>	 <h3>Implementation Feasibility</h3> <p><b>What does this mean?</b> The amount of time and cost needed to design and implement the project.</p> <p><b>CONSIDERATIONS:</b></p> <ul style="list-style-type: none"> <li>Time to design and implement</li> <li>Cost to implement</li> <li>Right-of-way and property acquisition</li> <li>Utility relocation (under- and above-ground)</li> <li>Stormwater drainage</li> </ul>	 <h3>Safe and Comfortable Connections</h3> <p><b>What does this mean?</b> Potential to enhance residential, neighborhood, and business access, low-stress walk and bike connections, and transit experience.</p> <p><b>CONSIDERATIONS:</b></p> <ul style="list-style-type: none"> <li>Walking comfort</li> <li>Biking comfort</li> <li>Opportunity for protected intersection elements</li> <li>Transit accessibility and reduction of bike/bus conflict</li> <li>Crossing safety and comfort</li> </ul>
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## For one or more of the following reasons, nine design options did not advance

 <h3>INFEASIBLE TRAFFIC OPERATIONS</h3> <p>Preliminary traffic analysis found impacts to vehicle travel that could not be mitigated, like vehicles waiting through several traffic signal cycles or back ups blocking multiple intersections.</p>	 <h3>FLOODPLAIN IMPACTS</h3> <p>Floodplain analysis determined a design caused a rise in the Twomile Canyon Creek floodplain. A rise in a floodplain is not permitted for any project in the City of Boulder.</p>	 <h3>RIGHT-OF-WAY IMPACTS</h3> <p>Analysis determined designs required large easements or had impacts to existing structures.</p>	 <h3>COST IMPACTS</h3> <p>Preliminary cost estimates of a design were beyond costs of comparable options with comparable benefits.</p>
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