MEMORANDUM

To: Transportation Advisory Board (TAB)
Planning Board (PB)
Downtown Management Commission (DMC)
University Hill Commercial Area Management Commission (UHCAMC)
Boulder Junction Access and Parking Districts Commissions (BJAD)

From: Molly Winter, Director, Downtown and University Hill Management Division/ Parking Services
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Date: October 6, 2014

Subject: Update on the Access Management and Parking Strategy (AMPS)

EXECUTIVE SUMMARY

The purpose of the briefings to the various city boards is to:

1. Review the best practices and innovations research;
2. Seek input on options for Transportation Demand Management policies for new development;
3. Provide an overall project update and status report on the short term parking and bike parking code changes; and
4. Share on-going work plan items.

AMPS is reviewing and updating the current access and parking management policies and programs and developing a new, overarching citywide strategy in alignment with city goals. The project goal is to evolve and continuously improve Boulder's citywide access and parking management policies, strategies and programs tailored to address the unique character and needs of the different parts of the city. The project purpose, goals and guiding principles are shown in **Attachment A**.

Outreach to the city advisory boards and the public is essential with the dual purpose of educating the community about the multi-modal access system and seeking input and ideas about the future opportunities for enhancements. City Council is holding a Study Session on the AMPS project on October 28, 2014. Staff will share feedback from the October Board meetings with City Council as part of the October Study Session.

The primary focus of the board briefings is on the best practices and innovation research; however staff is also looking for more detailed input on two early phase components of the AMPS work program: TDM Plan policies for New Private Development and associated code changes. Staff is gathering input from the community, boards and commissions to help identify priorities for further research and community discussion. Board members are welcome to attend an AMPS open house tentatively scheduled for October 20 to provide additional input. Board members may also provide input directly to staff through your board liaison. A future joint board workshop will also be scheduled in January to provide an opportunity for all of the various board members to collaborate on the next stage of the AMPS process.

Questions for Board Members

1. Does the Board have feedback regarding the best practices and innovation research? Specifically, is anything missing?
2. What is the Board's input on the seven key aspects of TDM Plan policies for new private developments?
3. Does the Board have any feedback regarding the short term code changes?
4. Does the Board have any feedback regarding the on-going work plan items?

MEMO ORGANIZATION

I. Background
II. Community, Board and Commission Feedback
III. Best Practices and Innovation Research
IV. Travel Demand Management Plans for New Private Development
V. Short Term Code Changes
VI. Other Ongoing Work Related to AMPS
VII. Timeline
VIII. Next Steps

I. BACKGROUND

The City of Boulder's parking management and parking district system has a long history. Parking meters were first installed on Pearl Street in 1946. Over the past decades, Boulder's parking system has evolved into a nationally recognized, district-based, multi-modal access system incorporating transit, bicycling and pedestrians along with automobile parking in order to meet city goals, support the viability of the city's historic commercial centers and maintain the livability of its neighborhoods. Districts currently are in place in three areas of the community: Downtown, University Hill and Boulder Junction.

The AMPS project approach emphasizes collaboration among city departments and acknowledges the numerous current and anticipated planning efforts and initiatives such as the Transportation Master Plan (TMP) Update, Economic Sustainability Strategy, and Climate Commitment. In addition of considering enhancements to existing district, AMPS will be examining parking and access policies and strategies outside of the districts including parking requirements by land use, bicycle parking requirements, neighborhood parking permit program, and on-street parking.

Elements of the AMPS project approach are:

- AMPS is a strategy which is defined as an integrated planning approach coordinated with other master planning efforts which focuses on a particular set of goals and guiding principles that are cross-cutting and create an adaptable set of tools and methods allowing the city to continually improve and innovate to achieve its goals.
- Evaluating existing and new parking and access management policies and practices within existing districts and across the community including for on- and off-street and public and private parking areas.
- Developing context appropriate strategies using the existing districts as role models for other transitioning areas within the community and incorporating national best practices research.

City Council held study sessions on June 10 and July 29 to review work to date on the seven focus areas (District Management, On & Off Street Parking, Technology, Transportation Demand Management, Code Changes, Parking Pricing, and Enforcement) and provide overall direction on the approach for AMPS, as well as short term code changes. A summary of the two study sessions is available here.

This memo contains a summary of the best practices and innovation research, TDM Plans for new private development, a summary of the short term code changes, updates on other efforts related to AMPS and an updated timeline.

II. COMMUNITY, BOARD AND COMMISSION FEEDBACK

Staff is compiling community, board and commission feedback for inclusion in the October 28 study session. Over late summer and continuing into the fall staff is conducting outreach to residents and commuters through the project website, Inspire Boulder, and a series of coffee talks throughout Boulder to help develop a good understanding of how the community currently views parking and access management. The feedback to date, from the public and boards, although many interviewed are happy with parking and access in the city and did not indicate they would make any changes, others made suggestions based on the following themes:

- Build more parking downtown;
- Expand pay-for-parking approaches in the community;
- Strengthen travel demand management programs;
- Expand approaches to share, unbundle, manage and price parking;
- Convert parking minimums to parking maximums;

- Do not build more parking downtown. Instead better manage public and private parking through ideas such as dynamic pricing, increased bike racks and other infrastructure for non-automotive transportation; and
- Expand innovative approaches to on-street parking such as parklets, bike corrals, carshare parking, etc.
- Improve public transit, primarily the regional service to Boulder with more direct routes and increase service frequency.

These are themes based on initial outreach. Additional events are scheduled as follows:

- October 20 – Open House with special invitation to City Board members
- October 28 – City Council Study Session
- November – City Staff workshop
- 1st Quarter 2015 – Joint Board Meeting
- 1st Quarter 2015 – City Council Study Session
- Spring 2015 – AMPS recommendations for consideration by Boards and City Council

III. BEST PRACTICES AND INNOVATION RESEARCH

This phase of the AMPS project considers best practices in other communities in all the different focus areas. The information gathered from the best practices will provide staff and the communities with approaches and ideas that will inform the AMPS process about how we can "raise the bar" on our existing access and parking management programs, as well as consider new programs throughout the city. Click here to view the full report compiled by Kimley-Horn. **Attachment E** is a summary list of all best practices in the report and **Attachment F** is a list of peer cities. Below are some highlights by focus area.

District Management

Boulder has well defined and successful parking and access management districts in the downtown and University Hill. Elements of these districts have been adapted to create the new access and parking management districts in the Boulder Junction transit oriented development area. The district management focus area will both further enhancement and evolution of existing access and parking districts as well as consider new districts that could be formed to address the specific issues and opportunities in other areas of the city such as North Boulder and along the East Arapahoe Corridor. A tool kit of policies, implementation strategies and operational procedures will be developed to assist in the creation of new districts.

Edge Parking as a Potential Commuter Parking Strategy: Seattle, Washington, Santa Clara Valley, California (Best Practice # 10)

The concept of providing shared remote parking within mixed use development associated with transit oriented development and/or mobility hubs. The plans include coordination with existing districts to develop shared parking options for employees in edge locations with "last mile" transit and bike options. Parking spaces could be shared to maximum benefit with off-site employee parking during the day and residential parking at night.

Neighborhood Parking Management Plans and Benefit Districts – Houston and Austin, Texas (Best Practice # 34 and 35)

These communities are examples of an engagement strategy with neighborhoods, both commercial and residential, to develop specific parking solutions and parking/transportation related investments. Applications have varied in different types of neighborhoods. Strategies include the option of revenue sharing of parking revenues for community benefit.

Integration with Broader Community Planning Strategies – Vancouver, British Columbia, Seattle, Washington and Portland, Oregon (Best Practices #32, 36 and 37)
These cities have taken very broad comprehensive and holistic approach to integrated planning including transportation through either a cluster or district approach addressing multiple sustainability components.

Neighborhood Parking Permit Program Permit Pricing – Seattle, Washington and Charlotte, North Carolina (Best Practice #39)
The different parking permit pricing structures will be reviewed and evaluated with the program goals and pricing, including regional pricing. Potential relationship to the Neighborhood Parking Benefit District Best Practice will be considered.

On & Off Street Parking
One of the significant issues for providing good access to a community is how we allocate our limited curb-side (on-street) space. This space tends to used as unrestricted parking on most roadways, with restricted (either time restricted by sign or meter) in commercial areas like the downtown, University Hill and the North Boulder commercial area. However, there are a lot of other uses for this curb-side space which compete with these general uses. These other uses include handicapped-only designated parking; commercial loading zones; passenger loading zones; taxi stops; RTD bus stops; Bicycle parking corrals; and Parklets, as well as new ideas such as possible on-street B-cycle stations; possible on-street Electric Vehicle (EV) charging stations; or possible designated Car-share parking spaces. The challenge is how to balance the needs for all these different uses of the curb-side space with the limited curb-side supply in a fair and equitable manner which meets the City's various goals and objectives. Staff is pursuing the creation of a "Policy Document" which would guide staff in making these decisions about balancing the use of curb-side space.

Also in this focus area is the off-street parking; either in parking lots or garages. The on-street and off-street parking resources work together to provide a variety of parking access options. On-street is focused on the convenience for the short term parker and the off street parking provides both short term parking and long term, permit parking for employees. Coordinated management of the two different resources is essential to providing access to the variety of different commercial area users and the viability of our commercial areas.

72 Hour On-street Parking: (Best Practice #5)
Currently the B.R.C. restricts on-street parking to no more than 72 hours at a time. A parked vehicle must be moved from the street every 72 hours. This restriction is in place for a variety of reasons. It is used to ensure that vehicles are not left abandoned in the public right-of-way with no resource for removal. It is also used to denote the time requirement in advance of a construction project or special event that "temporary parking restriction" signing be placed on a roadway. If a vehicle must be moved every 72 hours then temporary signing restricting parking

for such events need only be placed 72 hours in advance. It has been suggested that this restriction should be either modified or eliminated. One reason suggested is that a requirement to move a vehicle every 72 hours is counter to some of our transportation (less driving) and environmental (better air quality) goals. Staff is investigating the need for modifying or eliminating this 72 hour restriction, and options for doing so if that is the policy direction.

Coordinated Private Parking Systems: Seattle, Washington (Best Practice #7)
Seattle has addressed the challenge of reduced parking from the waterfront viaduct project by developing a program that provides consistent public access to private parking facilities including coordinated marketing and branding. This approach maximizes utilization of existing parking resources.

Parking Garage Management: San Francisco CA, Seattle WA, Denver CO
Staff will also be considering the off street parking approaches of SF Park, Seattle Free Float Car Share, and Denver Strategic Parking Plan.

Technology
Technology has become an integral part of access and parking management strategies. Currently Boulder has adopted a variety of technologies to make parking more convenient and efficient. Those include a variable messaging system in the downtown garages to monitoring garage occupancy, the on-street parking kiosks and pay by phone. As new technologies evolve, staff will be considering cost-effective, customer-oriented and sustainable apps and systems to enhance the parking and access experience. In addition, the garage gate access and permitting technology systems will be replaced in 2015 and a request for proposal process is underway. (See section VI of the memo).

Parking Apps: Phoenix, Arizona, San Francisco and Los Angeles, California (Best Practice #14)
Parking applications for smart phones, tablets and other electronic devices are valuable tools. Currently we do not have an adequately accurate data base to provide reliable service to our patrons. As we move through the AMPS process, we will be working on developing that data base. The PARCS equipment project for the garages is one means to achieve a consistent count and provide the data base link. Our current level of sophistication with our on-street parking management can provide a lower level of information. In later phases of AMPS we will look at what technology (GIS and transaction data) can provide to provide real time information for available on street parking. We will be looking at what other cities utilizing similar equipment to us to learn from best practices.

Transportation Demand Management
Transportation Demand Management (TDM) involves all programs that reduce single occupant vehicle trips including travel by transit, bikes, walking and car and van pool programs. In addition there are strategies for telecommuting and parking pricing. The TDM focus area includes three primary components; the integration of TDM with Access and Parking Management; refinement of the policies, implementation, and evaluation of TDM Plans in Development Review for private development; and the management of TDM programs in Districts (existing and new/city-wide). The city of Boulder's downtown has a robust and successful employee TDM program which has contributed to a major mode shift of downtown

employees in this high-density area. The free downtown employee EcoPass, support of bike and car share, and providing public bike parking area all elements of our current success.

TDM for New Private Development
This element of the TDM focus area has been a priority and an early work plan item as it is a part of the recently updated Transportation Master Plan (TMP). Staff has worked with Urban Trans, a sub consultant on the project, and detailed information regarding TDM Plan policy options are described later in the memo and in **Attachment B**.

Enhancements to Existing TDM Programs: Ann Arbor, Michigan and Arlington County, VA (Best Practices # 31 and 33)
The best practices research from those two communities focuses on additional opportunities for outreach, education and program development to enhance existing programs and engage constituents. Each community also has an educational component to share information about travel options and evaluation results.

Code Changes (Best Practice #25)
Planning staff is working on updates to the land use code for parking requirements citywide (e.g., adding special parking requirements for uses with low parking demand such as the airport and warehouses where current parking requirements require too much, updating the code to meet ADA requirements). Longer term code changes would respond to recent changes in travel behavior (e.g. increased bicycling and transit use) with changes including but not limited to, increased use of unbundled parking, shared parking requirements, parking maximums, automatic parking reductions and special parking requirements for transit corridors.

The following options are best practices being considered in the Phase II (long-term) parking code changes:

Analyzing current parking requirements to assess whether the appropriate amount of parking is being provided based on contemporary conditions;

Maximum parking requirements in addition to minimum parking requirements;

Allowance of shared parking between properties through agreements if demonstrated that parking needs would be met for land uses on both sites based on different hours of usage;

Considering new parking standards specific to land use rather than generalized per zoning district;

Creation of district specific parking standards such as overlays, special requirements along transit corridors, unbundled parking, transit-oriented development (TOD) areas etc. based on shared parking characteristics of an area (similar to how parking requirements are required and managed in downtown Boulder);

Exploring automatic parking reductions based on set conditions (e.g., car share, transit access, bike parking above required amounts etc.);

Reassessing the city's current parking design standards to determine if alternative car stall sizes are warranted among other design considerations; and

Requiring car charging stations

Communities that have initiated some or all of the above and are being analyzed as part of the process: Fort Collins CO, Arlington VA, Ann Arbor MI, Largo FL, Eugene OR, Portland, OR, Madison WI.

Parking Pricing

Parking pricing and parking enforcement fines will be reviewed and analyzed along with comparisons with other local and regional communities. The SUMP parking principles – shared, unbundled, managed and paid – are the basis for our parking management strategies. It will be important to "right price" the parking in the various areas of the community to meet multiple objectives: manage parking, provide convenient access, encourage multi-modal use, maintain neighborhood livability and ensure economic viability. Public outreach and education will be a major component of the process. This effort will be coordinated with the review of parking enforcement fines. Pricing for both long term (permit) and short term parking will be considered. The following are some parking pricing best practices that will be analyzed.

Performance Based and/or Variable Pricing: Seattle, Washington; San Francisco, Los Angeles and Redwood City, California (Best Practice #22)
Pricing parking based on parking demand – locations with greater demands will have a higher rate, whereas locations with less demand have a lower rate. The intent is balanced parking management and providing availability and turnover in high demand areas. Parking rates can change by time period or location. An optimal industry standard is 85% occupancy.

Progressive Pricing: Albany, New York (Best Practice #23)
Rates in a progressive pricing structure are determined by the length of time a person remains parked. The intent is to provide flexibility by allowing those who wish to park longer to do so at a progressively higher rate. The elevated rate structure deters people from parking long periods of time, thus creating more availability.

Coordinate On and Off Street Parking Rates (Best Practice #4)
On and off street parking rates should be coordinated so that the parking facilities work together as a comprehensive system to achieve a common goal: to encourage longer term parkers to use off street facilities and short term parkers to use the more convenient on-street parking. Higher rates on-street will also encourage greater turnover.

Parking Tax: San Francisco, CA, Pittsburgh, PA, Vancouver, British Columbia, and Sydney, Australia (Best Practice #24)
There are a variety of types of parking taxes. Commercial parking taxes are a special tax applied to parking rental transactions; per space parking levies are a special property tax applied to

parking facilities. Parking taxes can raise funds and help achieve various planning objectives including more compact development and increased use of alternative modes. Additional taxes can be unpopular.

Enforcement
Enforcement is a key to balancing parking access and management through education, customer service and regulation in an effort to better serve those who live, work and visit the City of Boulder.

Development of a Parking Enforcement Manual: variety of communities (Best Practice # 20)
We continue to evaluate current policies and have been provided sample policies from the consultant as best practices gathered from a variety of communities. Kimley-Horn developed a Sample Parking Enforcement Operations Manual and a Sample Parking Enforcement Audit Checklist.

Parking Enforcement Fines: Ft. Collins, Colorado (Best Practice # 19)
While certain parking fines have been increased overtime, the overtime at meter rates have not been increased in at least 20 years. During the AMPS project, a detailed review will be conducted of other peer communities, as well as an analysis of the relationship to the short term parking rates. Graduated or escalating parking fines is an approach used in different communities that focuses on fining repeat violators rather than people who occasionally receive tickets, such as tourists.

Evaluation
Arlington County, Virginia (Best Practice #31)
An essential component of AMPS will be evaluation. First determining the appropriate goals for the different focus areas and then the refinement and enhancement of our methods to determine and evaluate how successful we will be in meeting them, as well as alignment with the AMPS guiding principles. We currently have a variety of surveys – Boulder Travel Survey, Downtown Boulder Employee Travel Survey, Downtown Intercept survey, downtown bike occupancy survey – and other data regarding parking utilization and revenues that provide us with statistics our access and parking management performance. How we use this data to evaluate our success and share it with the public will be an outcome of the AMPS project.

The Arlington County Commuter Services Performance Report is an excellent example of an annual report that tracks their performance and progress towards achieving their defined objectives and goals. They include drive alone commute mode share, average weekday vehicle trips and miles in Arlington, and transit usage in Arlington. Additionally they track bicycle usage, bike share memberships, number of employers with the Arlington Transportation Partners, resident awareness of TDM services and greenhouse gas emission reductions attributed to their programs.

IV. TRAVEL DEMAND MANAGEMENT PLANS FOR PRIVATE DEVELOPMENT

Under current city code which sets policies for Site Review, commercial and residential developments that generate additional vehicle trips over specific amounts are required to submit a Travel Demand Management (TDM) Plan. The TDM Plan demonstrates how they intend to "significantly" reduce vehicle trip generation. The city provides a TDM Toolkit and staff assistance to guide applicants through the Site Review process and develop a TDM Plan. As part of the Transportation Master Plan (TMP) update and the AMPS work program, staff is working to make changes to Site Review TDM Plan policies and process and updating the TDM Toolkit for new developments. The options presented by staff include findings from a review of peer cities and municipalities that have regulated TDM plan for new developments through ordinance. The draft report compiled by UrbanTrans and Kimley Horn's for the AMPS work program can be found at www.bouldertransportation.net.

During City Council study sessions on the TMP and AMPS in June and July of 2014, council members expressed the concept of implementing a TDM program for new developments "with teeth." To implement such a program with "teeth", that being one that is guided by ordinance, monitored and enforced, several key aspects need to be determined including:

- The specific goals and objectives of the TDM plans;
- The target level of the measurable objective(s);
- The trigger(s) for when such plans are required;
- The TDM Plan design;
- The timing and duration of monitoring;
- The enforcement to meet TDM Plan objectives; and
- Program staffing and funding evaluation program.

Attachment B of the memo contains background and questions related to policy options for TDM Plans for new private developments. It is based on current practice in the City of Boulder and our traditional peer cities, as well as municipalities that have ordinances in place to guide the design, implementation, evaluation and enforcement of TDM plans that mitigate the impacts of new developments. **Attachment C** contains the current language of the Design and Construction Standards which currently dictate the TDM Plan process for Site Review in the City of Boulder. **Attachment D** provides a list of potential TDM plan elements that could be included or required as part of TDM Plans.

At this early phase of re-thinking TDM Plans for new developments and modification of the TDM Toolkit, staff is seeking initial feedback from members of our Boards and City Council in regard to the following questions based on the information provided in **Attachment B**:

<u>Measuring Success:</u>

1. Which measurable objective should determine the success of a TDM plan for new developments?
2. Which factors should be taken into account when calculating target levels for the measureable objective?

<u>Triggers and Thresholds:</u>

3. What triggers (and thresholds) should be considered in a regulatory approach to TDM Plans for new developments?

4. Are there TDM Plan elements that should be required based on the characteristics of the development?

Monitoring and Enforcement:

5. What should be the timing and duration of TDM Plan monitoring?
6. What kind of "teeth" and how much "teeth" is right for Boulder?

Funding

7. How will a regulated TDM Plan program be funded and staffed?

V. SHORT TERM CODE CHANGES

As part of the Access Management and Parking Strategy (AMPS) process, staff is bringing forward ordinances that would:

1. Update vehicle parking standards to simplify and correct parts of the vehicle parking requirements that either require too much parking, contain errors or are difficult to implement. Some examples are reducing parking requirements for low parking demand uses (i.e., warehouses, self-storage, and aircraft hangers), simplifying requirements for restaurants and retail in large retail centers, and other clean up items and updates,
2. Revise bike parking requirements for new development to base bike parking requirements on land use type and require both short and long-term bike parking, and
3. Amend the DCS related to bicycle parking design standards.

The report to Planning Board has additional details and the ordinances are scheduled for a Second Reading at City Council on November 6.

VI. OTHER ONGOING WORK RELATED TO AMPS

- Staff is developing with assistance from Kimley Horn a request for proposal for the replacement of downtown garage access and revenue control and permitting systems to a state of the art system that will coordinate with other technologies such as the variable messaging system.
- Negotiations are continuing for a shared parking option between the Central Area General Improvement District (CAGID) and Trinity Lutheran Church in downtown and a public private partnership redevelopment of the University Hill General Improvement District (UHGID) 14th Street parking lot on the Hill with Del Mar interests.
- As one of the action items from the recently updated Transportation Master Plan, the city is exploring the concept of a mobility hub for North Boulder, at the intersection of North Broadway and US36. The mobility hub could include opportunities for enhancing transit station, bike parking, bikeshare/carshare, and potential for edge parking (park & ride), kiss & ride, etc. City is working with CDOT, RTD, Boulder County, and area property owners to develop concept sketches for consideration through fall 2014. In a related effort, staff is in initial discussions with a developer regarding a public private partnership of a shared parking garage that could be used as edge parking for downtown employees.
- Downtown CAGID long term parking permit rate increases are proposed in the 2015 budget for both the downtown and the Hill surface lots and garages. These proposed rates are in line with the private parking rates.
- Potential policy recommendations for on-street car share are under consideration in order to provide the flexibility with new car share programs.

- Implementation of the bi-annual community-wide and downtown employee travel survey is underway this fall. The survey has been done bi-annually for many years and provides valuable information to evaluate and monitor our access and parking management programs.
- Preliminary discussions are underway with the Steelyards Association regarding the potential of a coordinated parking management and TDM program for the mixed use neighborhood in anticipation of the completion of Depot Square
- Parking staff is coordinating with SWEEP and Climate Commitment staff regarding Electric Vehicle charging stations in parking facilities.
- A study is underway to determine potential criteria and locations for parklets in the downtown. The evaluation of the pilot parklet on University Hill will be completed this fall and provide valuable information for the development of future parklets.
- Coordination is ongoing with CP&S and Transportation staff and consultants regarding the parking and access projections for Civic Area planning effort and the integration of future TDM programs and additional parking.
- The downtown bike rack occupancy count was completed in August. This survey provides valuable information and informs staff of locations for additional bike racks. The final report will be distributed in late October.

VII. TIMELINE

Attachment G includes a timeline of the project – along with major milestones and outreach activities.

VIII. NEXT STEPS

A public open house is scheduled for October 20 and boards are encouraged to attend. Input from the community and the Boards will be incorporated into a staff memo for an October 28 City Council study session. A multi-department staff meeting will be scheduled in November to review and plan the next steps including future work plan items and identify areas for policy recommendations. In the first quarter staff will schedule a joint board workshop and Council study session to provide an update on next steps and policy recommendations. Community engagement and outreach will continue to ensure public feedback and participation regarding AMPS.

For more information, please contact Molly Winter at winterm@bouldercolorado.gov, or Kathleen Bracke at brackek@bouldercolorado.gov or www.bouldercolorado.gov/amps.

ATTACHMENTS

A. Project Purpose, Goals and Guiding Principles
B. TDM Plan Policy Options for Private New Developments
C. Design and Construction Standards and TDM Plans
D. TDM Plan Elements
E. Summary List of Best Practices Documentation
F. Peer Cities Matrix
G. Project Timeline

ATTACHMENT A: PROJECT PURPOSE, GOALS, AND GUIDING PRINCIPLES

Purpose

Building on the foundation of the successful multi-modal, district-based access and parking system, the Access Management and Parking Strategy (AMPS) will define priorities and develop over-arching policies, and tailored programs and tools to address citywide access management in a manner consistent with the community's social, economic and environmental sustainability principles.

Goals

The Access Management and Parking Strategy (AMPS) will:

- Be consistent with and support the city's sustainability framework: safety and community well-being, community character, mobility, energy and climate, natural environment, economic vitality, and good governance.
- Be an interdepartmental effort that aligns with and supports the implementation of the city's master plans, policies, and codes.
- Be flexible and adapt to support the present and future we want while providing predictability.
- Reflect the city's values: service excellence for an inspired future through customer service, collaboration, innovation, integrity, and respect.

Guiding Principles

1. Provide for All Transportation Modes: Support a balance of all modes of access in our transportation system: pedestrian, bicycle, transit, and multiple forms of motorized vehicles—with the pedestrian at the center.
2. Support a Diversity of People: Address the transportation needs of different people at all ages and stages of life and with different levels of mobility – residents, employees, employers, seniors, business owners, students and visitors.
3. Customize Tools by Area: Use of a toolbox with a variety of programs, policies, and initiatives customized for the unique needs and character of the city's diverse neighborhoods both residential and commercial.
4. Seek Solutions with Co-Benefits: Find common ground and address tradeoffs between community character, economic vitality, and community well-being with elegant solutions—those that achieve multiple objectives and have co-benefits.
5. Plan for the Present and Future: While focusing on today's needs, develop solutions that address future demographic, economic, travel, and community design needs.
6. Cultivate Partnerships: Be open to collaboration and public and private partnerships to achieve desired outcomes.

ATTACHMENT B: TRANSPORTATION DEMAND MANAGEMENT (TDM) PLAN POLICY OPTIONS FOR PRIVATE NEW DEVELOPMENT

MEASURING SUCCESS:

Goals and Measurable Objectives TDM Plans for New Developments

The overarching reasons for incorporating TDM into the Site Review process and regulating implementation and evaluation is to meet the goals and objectives of the Boulder Valley Comprehensive Plan, the City of Boulder's Sustainability Framework and the Transportation Master Plan. However, when designing a new set of policies and a TDM toolkit, it is important to understand the *specific* reasons in terms of new developments.

Currently, the City focuses on vehicle trip reduction as the key measurable objectives of TDM plans. The Design and Construction Standards state that when a commercial development is expected to exceed 100 vehicle trips at peak hour or 20 vehicle trips at peak hour for residential developments, a traffic study is required. See Attachment C for additional background. One element of the traffic study is the design of a TDM Plan, which provides an outline of site design amenities and vehicle trip reduction strategies to mitigate traffic impacts. To be approved, the TDM plan must be judged to provide a "significant" reduction in vehicle trips. However, what is meant by "significant" trip reduction is not defined by ordinance, nor is there any regulatory mechanism to enforce the implementation of the plan or penalties for failing to meet the plan objectives.

In Boulder Junction, the Trip Generation Allowance ordinance is more specific and focuses on allowing just 45 percent of all trips in single-occupant vehicles within the TDM Access District as a whole. It is up to the District to implement, monitor, and intensify the TDM strategies designed to meet the ordinance. As properties redevelop in Boulder Junction, payment-in-lieu-of-taxes (PILOT) fees and property taxes are collected to fund the Boulder Junction TDM program. The funds are being used to provide RTD Eco Passes to all residents and employees within the District, free carshare memberships and subsidized bikeshare memberships. As more properties redevelop and join the District, staff will begin to monitor SOV trips and make adjustments as necessary to meet the target.

In designing a TDM program for new developments with a regulatory approach, policy makers will need to determine what will be the measurable objective that will determine whether a TDM plan is successful or not. A review of peer cities and municipalities that have ordinances in place reveal a limited number of key measures. These include:

- Vehicle trips,
- Single-occupant vehicle trips, more specifically, and
- Average vehicle ridership (AVR)

Typically, the target level of vehicle trip reduction is based on a percent reduction from peak hour ITE trip generation rates based on size and land-use. Our current Site Review traffic studies estimate the number of vehicle trips that a specific-sized land use will generate and the City could determine what percent reduction will align with our wider transportation and sustainability goals. In Fairfax County, Virginia for example, vehicle trip reduction targets vary

based on size and location, specifically proximity to transit oriented development (TOD) locations.

In places where reducing SOV trips is the basis of a TDM ordinance for new developments, the target is generally set by wider city or county goals. For example, our TMP objective is to have just 25 percent of all trips by residents in SOVs by 2025 and currently in Boulder Junction TDM Access District the target is to have just 45 percent of all trips by residents and employees immediately. In Cambridge, Massachusetts TDM plans are required to meet a 10 percent reduction in the SOV mode share from overall drive alone mode share of the census track in which the development is located.

Average vehicle ridership (AVR) is typically found in California where air quality regulations require TDM plans for new and existing developments. AVR is calculated by dividing the number of persons traveling by all persons trips (including transit riders) by the number of private vehicle trips, while taking into account the average vehicle ridership of multiple-occupant vehicles. In Pasadena, California, the peak hour AVR targets range from 1.5 to 1.75 for large commercial developments depending on location and proximity to TOD locations. In California, TDM plans and targets must meet the regional Air Quality Management District's regulations and monitoring requirements as well.

When deciding which measurable objective to use it is important to consider the time and cost to collect the necessary data from property managers, residents and employees. While vehicle trip generation can be measured with driveway counts, SOV mode share and AVR require the administration of surveys to collect the necessary data.

Question for Boards and Council: Which measurable objective should determine the success of a TDM plan for new developments?

Staff Considerations: *Staff is considering using SOV mode share as the primary objective since it is also used as a TMP objective and the key metric of the existing Boulder Junction Trip Generation Allowance ordinance. Tracking of this measurable objective would be accomplished through survey of employees/residents of the development. Staff also is considering the collection of vehicle trip generation data through traffic counts to validate survey findings through the use of pneumatic tube counters at entrances of the development.*

<u>Setting Target Levels</u>

Once a measurable objective is identified, setting the target levels can be a difficult process considering of the level of complexity that can be generated if the calculation of target levels varies based on the characteristics of development. Based on the review of peer cities and municipalities with ordinances in places there is a potentially a large number of characteristics that could influence the target level of the measureable objective. The report on peer cities and existing ordinances provides examples of specific target levels for locations with ordinances in place.

For both commercial and residential developments, the most frequently used characteristics include land-use, size and location. Location is often related to proximity to a TOD location or

transit level of service in general. In our case, the City may also want to consider proximity to our Community Transit Network (CTN) routes and future bus rapid transit (BRT) service specifically, as well as location in a current or future parking management or TDM district. Also, depending what changes, if any, are made to the City's parking code, it may be necessary to include parking supply as an additional factor given the frequency of requests for parking reductions.

For the City, it will be important to align targets with the BVCP, TMP and Sustainability Framework objectives related to SOV mode share, VMT, transportation-related GHG emissions. An option to consider is have targets change over time to match the trajectory of the necessary reductions to meet the goal of an 80 percent reduction in GHG by 2050.

Question for Boards and Council: Which factors should be taken into account when calculating target levels for the measureable objective?

Staff Considerations*: Staff is considering using land-use, size, proximity to CTN or BRT service, location in an existing Parking or TDM Access District, and parking supply in relation to reductions from minimum parking requirements as the key factors in determining specific target levels for the measurable objective(s). For multi-family residential, location in an existing Neighborhood Eco Pass program could also impact specific target levels.*

TRIGGERS AND THRESHOLDS

Triggers for TDM Plan Requirement

In all places with TDM ordinances for new development, there are some projects that are exempt from the requirements. Typically, this is based on size or estimated ITE trip generation rates. As previously stated, the Design and Construction Standards state that when a commercial development is expected to exceed 100 vehicle trips at peak hour or 20 vehicle trips at peak hour for residential developments an approved TDM Plan needs to be submitted. The City may want to revisit these figures and raise or lower the thresholds based on staff feedback on the frequency of exempted Site Review developments.

While trip generation or size measured in square feet, or number of bedrooms for residential, are most typically used, the City may want to consider some other triggers which either exempt or automatically require a regulated TDM plan. As mentioned, a request for parking reduction could automatically trigger the need for a plan. Other options to consider include location within a TOD or sub-plan area or in an existing district such as CAGID or UHGID. Under current code, any property that redevelops in Boulder Junction is already required to meet the Trip Generation Allowance through the District or independently.

Question for Boards and Council: What triggers (and thresholds) should be considered in a regulatory approach to TDM Plans for new developments?

Staff Considerations: *Staff is not considering changing the trip generation thresholds currently in place. Staff is also considering the inclusion of parking reduction requests as a trigger for*

requiring TDM Plans as well as location in an existing parking or TDM Access District, or in an existing or future TOD site.

TDM Plan Design

Once a TDM plan is required for a new development, the plan must be designed through a collaborative process with city staff and the applicants. One of the key aspects to consider in regard to plan design is whether or not there are required elements. For example, parking cash-out programs, in which an employee is financially compensated for not using a parking space, were frequently required in regional California Air Quality Management Districts. On the other side of the spectrum, plans could be flexible and customized to each development without any required elements. TDM plan ordinances that do not require specific elements still meet the overall goals through monitoring and enforcement. When developments are not meeting the target levels are typically required to submit modified plans until the target is reached and in some areas are subject to financial penalties.

In Boulder, RTD Eco Passes for residents or employees could be a required element based on the characteristics of the development. In locations underserved by transit, the unbundling of parking could be a required element of multi-tenant commercial properties or attached multi-family residential projects. There is a long list of TDM plan elements that could be required in addition to Eco Pass and unbundled parking. Attachment D contains a list of residential and commercial TDM plan elements which could be required in certain cases.

Question for Boards and Council: Are there TDM Plan elements that should be required based on the characteristics of the development?

Staff Considerations: *Staff's preference would be to have very few required TDM Plan elements required which would allow TDM Plans to be more flexible and customized for each particular site. If a development is located in an existing District such as CAGID or Boulder Junction for example, participation in certain programs like the Eco Pass would be automatic. However, staff does not recommend that Eco Pass participation be a required element, with the exception of a residential development being located within an existing Neighborhood Eco Pass program. Since Eco Pass participation has proven to be one of the most effective strategies for changing travel behavior it is highly likely that it will be a necessary element to be in compliance with a TDM Plan ordinance wherever transit level of service is adequate.*

The few elements that could be required include:

- *Facilitation of scheduled TDM Plan evaluations or submission of required reporting*
- *Appointment of ETC as a point of contact for commercial developments or residential properties*

Additional elements to consider include:

- *Unbundled parking for multi-tenant commercial or multi-family residential properties with possible size thresholds*
- *Showers and Changing Facilities for commercial developments with possible size thresholds*

- *Neighborhood Eco Pass program participation if development is located within existing program boundaries*
- *Transportation Management Organization (TMO) membership as a way to secure services to meet TDM Plan requirements.*

MONITORING AND ENFORCEMENT

Timing and Duration of TDM Plan Monitoring

Once regulated TDM plans have been implemented they need to be monitored to ensure that the target levels of the measurable objectives are being met. In designing a TDM ordinance for new developments, decisions need to be made about how often and for how long the effectiveness of the TDM plan is evaluated. The review of peer cities and current ordinances in place reveal that plans are typically evaluated annually for a certain number of years. After that period, often three to five years, the requirement either ends or compliance with the ordinance continues but with less periodic monitoring.

A frequent question of Boards and Council specifically concerns the duration of required Eco Pass participation, which in practice has been three years in time. With an ordinance in place that requires permanent compliance to a specific target, the "required duration" of any specific TDM Plan element becomes moot.

Developments are sometimes required to submit annual reports that are based on data collected by themselves or consultants or in some areas by city or county staff. Who actually is responsible for submitting reports and collecting data often depends on staff resources and the number of TDM plans that are required to be monitored.

When a development is not meeting their targets annual evaluations can continue beyond the initial time period. If targets are being met, require annual evaluations can cease or evaluations requirements can change. For example in Cambridge, when a development has been met its objective three years in a row, their file is set aside in a pool of projects that can be randomly selected for a special evaluation every five years.

Question for Boards and Council: What should be the timing and duration of TDM Plan monitoring?

Staff Consideration: *Staff is considering an approach in which compliance to the TDM Plan ordinance is permanent. Developments would have three years to be in compliance and to meet the measurable objective target. During those first three years, annual evaluations would be conducted or annual reporting would be required. If a development is non-compliant in any of the first three years, then action is taken to modify the existing TDM Plan with assistance from GO Boulder and/or Boulder Transportation Connections (BTC), the city's local transportation management organization (TMO).*

If after the initial three years the development is still non-compliant, then additional measures are taken and possible fines or fees are levied. Any fines, fees, or escrowed funds are then reinvested into the development to provide additional programs, services or incentives to

motivate travel behavior change until the development is in compliance. Any development that is in compliance three years in a row would still be required to meet the target, but would no longer be required to be annually evaluated or submit annual reports. Instead the development would be placed in a pool subject to random or periodic review to check for compliance similar to the process used in Cambridge.

TDM Plan Enforcement

The difference in the City's current approach to TDM Plans for new developments and a regulatory approach is the ability to actually enforce that target objectives be met and outline a course of action if targets are not met. There is a wide spectrum of options for how TDM Plans can be enforced. In some areas, developments simply have to make "a good faith effort" to achieve the target levels. In others, like Cambridge, MA, properties face a $10 per parking space per day fine if in non-compliance with the ordinance and the city also has a right to revoke the landowner's parking permits if non-compliance continues. Without the willingness to enforce it, a TDM ordinance is not worth pursuing.

Like in Cambridge, TDM Plan requirements are most often enforced through the use of fines, with a few exceptions. In Fairfax County, letters of credit are held and developments that fail to meet the vehicle trip reduction goals are required to use those funds to implement additional TDM plan elements or strategies. Continued failure to reduction goals in Fairfax County can result in the assessment of fines against the penalty fund. In Bloomington, MN the city requires financial guarantees valued at $50 per parking space. In both places the letter of credit or escrow account funds are returned if the development meets the plan objectives for the required consecutive years. Under current practice in the City, letters of credit or escrowed financial guarantees are used to ensure that commercial developments participate in the Eco Pass programs they have agreed to provide.

In Montgomery County, Maryland and in the Warner Center of Los Angeles, new developments required to have TDM Plans must join their local transportation demand management organization/association (TMO or TMA). In exchange for annual membership fees, the TMO provides programs and services to assist in meeting the target levels. The TMO fees are collected as part of the property's tax assessment. Locally, Boulder Transportation Connections (BTC), in conjunction with DRCOG's Way to GO regional TDM program, could fill a similar role in providing outreach services to assist in the implementation and monitoring of TDM Plans for new developments, which at the same time securing needed funding and cultivating relationships with employers and employees. Instead of membership fees going directly to BTC, any fines imposed on a property could be used to fund BTC outreach to developments that are not meeting their targets. BTC's 2014 scope of work with the city includes conducting evaluations of existing TDM Plans and will commence with evaluations of Two-Nine North on 29th Street and the Whole Foods on Pearl Street this fall.

As the report illustrates, there are a variety of ways to enforce a TDM ordinance and policy makers will need to decide how much "teeth" is the right amount. Before deciding on an enforcement approach, Colorado state and local laws need to be thoroughly reviewed to determine their legality.

Question for Boards and Council: What kind of "teeth" and how much "teeth" is right for Boulder?

Staff Consideration: *The issue of enforcement and just how much "teeth" is the right amount will be one of the more challenging aspects of a TDM Plan ordinance for new developments. Staff is considering an approach based on the use of escrowed financial guarantees that are set aside by developments. The escrowed funds or financial guarantees would be used to pay for additional programs, services or incentives if a development is in non-compliance with the ordinance. The funds could also be released to the local TMO to be used to provide assistance to the development in question. The level of the financial guarantee would need to be high enough to ramp up a development's TDM Plan when there is persistent non-compliance or include additional fees if original financial guarantee is spent. Input from the City Attorney's Office will be critical in development of the ordinance and enforcement procedures.*

FUNDING AND STAFFING

If Boulder were to pass a TDM ordinance for new developments, staffing and funding of the program also need to be taken into account. The ability to monitor, evaluate, enforce, and assist improving TDM plans requires time and money. The City should consider how to provide a sustainable source of funding for the evaluation and enforcement of TDM plans. As previously mentioned some places with ordinance in place, the use of financial guarantees or development impact fees can offset some or all of the cost of monitoring and enforcement. Membership fees to a TMO can also provide funding for evaluation as well as plan modification or the provision of additional services if targets are not being met.

Following the successful ballot initiative for transportation, additional funds from GO Boulder will be used to expand the programs and services provided through BTC including TDM Plan evaluation which is to begin in fall 2014. With staffing limitations with city staff, BTC is a key partner in providing TDM programs and services in Boulder and regionally in conjunction with Boulder County, DRCOG's Way to GO program, 36 Commuting Solutions and Front Range MPO's SmartTrips.

Question for Boards and Council: How will a regulated TDM Plan program be funded and staffed?

Staff Considerations: *One option to consider is using a portion of the required financial guarantee referenced above to fund the TDM Plan program evaluation which could be performed by the City or the local TMO. Staff considers maximizing the use of BTC for TDM Plan evaluation and monitoring. For example, funds could be funneled directly to BTC to perform the evaluations. Another option could be to fund the annual evaluations through required annual membership fees to BTC. If the City wanted program evaluation funds to be separated from TDM Plan financial guarantees, funding could come from increased development excise taxes or impact fees.*

ATTACHMENT C: DESIGN AND CONSTRUCTION STANDARDS: TDM PLANS

The foundation for TDM Plans within the Development Process is located in the Boulder Revised Code 9-2 Review Process under 9-2-14-d-16 of the Site Review section where it states that a traffic study required by city of Boulder Design and Construction Standards.

In section 2.02 of the city of Boulder Design and Construction Standards, it states:

> **(A) Traffic Assessment**
> The Director will require an applicant to submit a Traffic Assessment in order to adequately assess the impacts of any development proposal on the existing and planned transportation system. The Assessment shall include a peak hour trip generation study projection (Refer to 2.03(J)) and may require additional information as determined by the Director.
>
> **(B) Traffic Study Requirements**
> For any development proposal where trip generation from the development during the peak hour of the adjacent street is expected to exceed 100 vehicles for nonresidential applications, or 20 vehicles for residential applications the Director will require an applicant to submit a Traffic Study to evaluate the traffic impacts of any development proposal required to undergo a concept review as set forth in Section 9-4-10, "Concept Plan Review and Comment," B.R.C. 1981. The traffic study may include the information required in Subsections (A) through (K), of Section 2.03, "Traffic Study Format," of these Standards at the discretion of the Director.

The TDM Plan requirements are specifically referred to in section I of Chapter 2:

> **(I) Travel Demand Management Strategies**
> Include an outline of travel demand management strategies to mitigate traffic impacts created by proposed development and implementable measures for promoting alternate modes travel, including but not limited to the following:
> (1) **Site Design:** Incorporate design features that facilitate walking, biking, and use of transit services to access a proposed development, including features such as transit shelters and benches site amenities, site design layouts, orientations and connections to increase convenience for alternate modes and reduce multiple trips to and from the site, and direct connections to existing offsite pedestrian, bicycle, and transit systems.
> (2) **Programs and Education:** Incorporate alternate modes programs, such as providing transit passes to employees and residents, van pooling to the site by a major employer, ride-sharing, parking pricing, and planned delivery services, and educational measures such, as promoting telecommuting, distributing transit schedules and trails maps, signing alternate travel routes, and providing an onsite transportation coordinator or plan to educate and assist residents, employees, and customers in using alternate modes.

ATTACHMENT D: TDM PLAN ELEMENTS

Residential Development Elements	**Commercial Development Elements**
Parking	Parking
Managed On-Site Parking	Managed On-street Parking
Unbundled Parking	Unbundled Parking
Short-term bicycle parking	Short-term Bicycle Parking
Long-term bicycle parking	Long-term Bicycle Parking
Electric Vehicle Parking/Charging	Electric Vehicle Parking/Charging
Carshare Vehicle Parking	Carshare Vehicle Parking
	Preferential Parking
	Employee Paid Parking
	Parking Cash-out Program
Infrastructure/Amenities	Infrastructure/Amenities
Pedestrian Access/Safety Enhancements	Pedestrian Access/Safety Enhancements
Bicycle Access/Safety Enhancements	Bicycle Access/Safety Enhancements
Transit Enhancements	Transit enhancements
Onsite Amenities	Onsite Amenities
Transportation Information Center	Transportation Information Center
	Showers
	Changing Facilities/Lockers
Programs	Programs
NECO Pass Program	BECO Pass Program Participation
Alternative Transportation Subsidy Fund	Alternative Transportation Subsidy Fund
Resident Orientation Packets	Employee/Tenant Orientation Packets
Carshare Membership Subsidy Program	Carshare Membership Subsidy Program
Bikeshare Membership Subsidy Program	Bikeshare Membership Subsidy Program
Pool Bike Program	Pool Bike Program
	Transportation Management Organization Membership
	Financial Incentive/Pre-tax Programs
	Alternative Work Schedules and Policies
	ETC Appointment
	Walk and Bike Month Participation
	Walk and Bike Month Sponsorship
Evaluation	Evaluation
Scheduled TDM Plan Evaluation	Scheduled TDM Plan Evaluation

ATTACHMENT E: SUMMARY LIST OF BEST PRACTICES DOCUMENTATION

PARKING MANAGEMENT STRATEGIES – ON-STREET

1. Evaluate the use and management of loading zones to improve loading efficiency and access to businesses
2. Review implications of new federal regulations related to Accessible (ADA) Parking
3. Assess the use of time zones as a parking management tool in lower demand zones
4. Coordinate on- and off- street parking rates
5. Reassess Boulder's 72 hour on-street parking limitation (abandoned vehicles)
6. Repurpose on-street parking spaces

PARKING MANGEMENT STRATEGIES – OFF-STREET

7. Develop relationships/potential partnerships with private parking providers
8. Evaluate the use of one day parking permits
9. Develop a parking and access management program strategic communication plan and annual report
10. Explore the concept of "edge parking" as potential commuter parking strategy
11. Use parking to create a sense of place
12. Explore "brackets" systems of shared parking

TECHNOLOGY AND INNOVATION STRATEGIES

13. Develop an overview of currently available parking technology options
14. Research the latest developments in parking apps
15. Multi-modal apps and payment options
16. Explore emerging best practices in electric charging stations
17. Automated parking garages
18. Preparing for "driverless cars"

PARKING ENFORCEMENT STRATEGIES

19. Escalating parking fine structures
20. Develop enhanced parking enforcement operations and training manual
21. Develop parking enforcement checklist

PARKING PRICING STRATEGIES

22. Performance based or variable pricing
23. Progressive on-street parking pricing
24. Parking Taxes

PARKING CODE STRATEGIES

25. Review and update parking codes

TDM STRATEGIES

26. Explore "first and last mile" strategies
27. Trip reduction or trip generation allowance
28. Explore the concept of increasing availability by decreasing demand
29. Local government's role in promoting car share

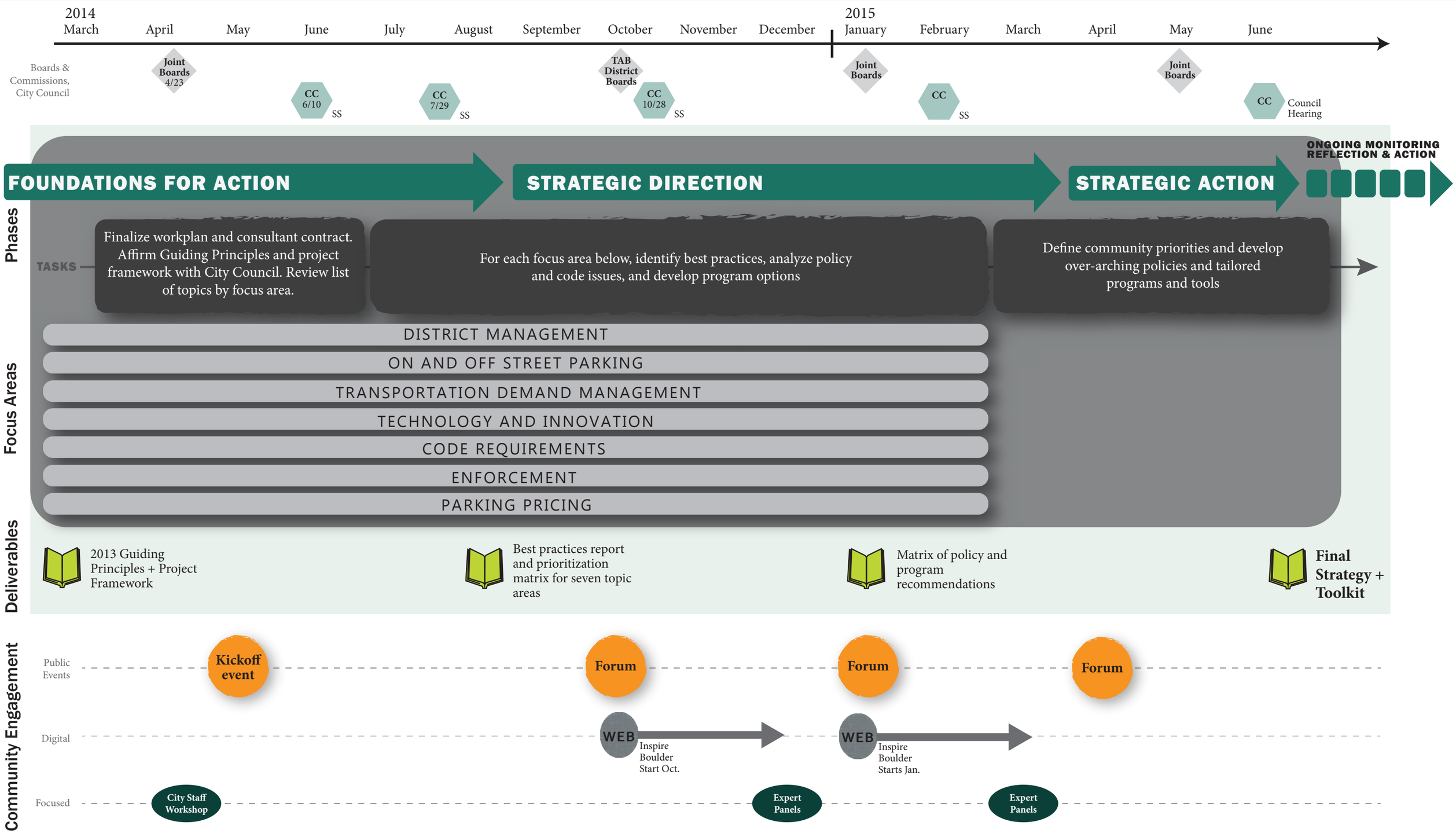
30. Parking cash out options
31. Adopt a research and educational mission to promote all modes of transportation

DISTRICT MANAGEMENT STRATEGIES

32. Livable neighborhood plans
33. Integrated downtown management and TDM programs
34. Neighborhood partnership program
35. Neighborhood district parking management plans and benefit districts
36. Seattle's Urban Village strategy for neighborhood development
37. Industry cluster development
38. Innovation districts
39. Neighborhood parking programs
40. Transit oriented corridor
41. District Trolley

ATTACHMENT F: PEER CITY MATRIX
Access Management and Parking Strategies
Best Practices Research

Access Management & Parking Strategies
AMPS

	District Management	On & Off Street Parking: Parking and Access Management	Trans. Demand Management	Technology and Innovation	Zoning and Code Requirements	Enforcement and Compliance	Performance-Based Pricing
Peer Cities							
Ann Arbor, MI	X	x	X	x	X	x	
Austin, TX		x	x		x		
Berkeley, CA		x	x	x			
Burlington, VT							
Ft. Collins, CO		x			X		
Madison, WI		x	x		x		
Palo Alto, CA		x	x				
Santa Monica, CA		x	x	x	x		x
Cities we can learn from							
Portland, OR	x	x	x		x		
San Francisco, CA	x	x	x	x	x		X
Seattle, WA	x	x	x	x	x	X	X
Potential Additions							
Arlington County, VA			x				
Washington, DC		x	x				X
Los Angeles, CA				x			X
Charlotte, NC		x	x		x		
Raleigh, NC					x		
International?							
Odense, Denmark		x	x		x		x
Frieberg, Germany		x	x		x		x

AMPS Access Management and Parking Strategy Timeline