Access Management and Parking Strategy

City Council Study Session

June 10, 2014

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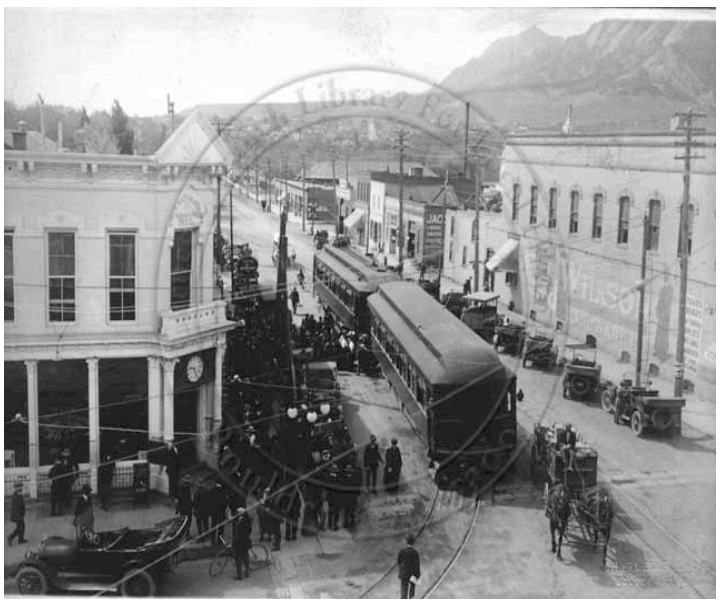
Kathleen Bracke GO Boulder / Transportation

Jay Sugnet, Community Planning & Sustainability / Division of Housing

Purpose of study session

- Receive feedback on the draft project purpose, goals, and guiding principles
- Review progress since 2013
- Receive feedback on proposed 2014 schedule and work program



Project Approach

- A strategy, not a plan
- Citywide coordination and collaboration
- Two pronged approach

    1. Evaluation of existing district programs
    2. New city-wide strategies

Purpose

Develop tools and strategies to evolve Boulder's access and parking management to a state of the art system reflecting the city's sustainability goals.

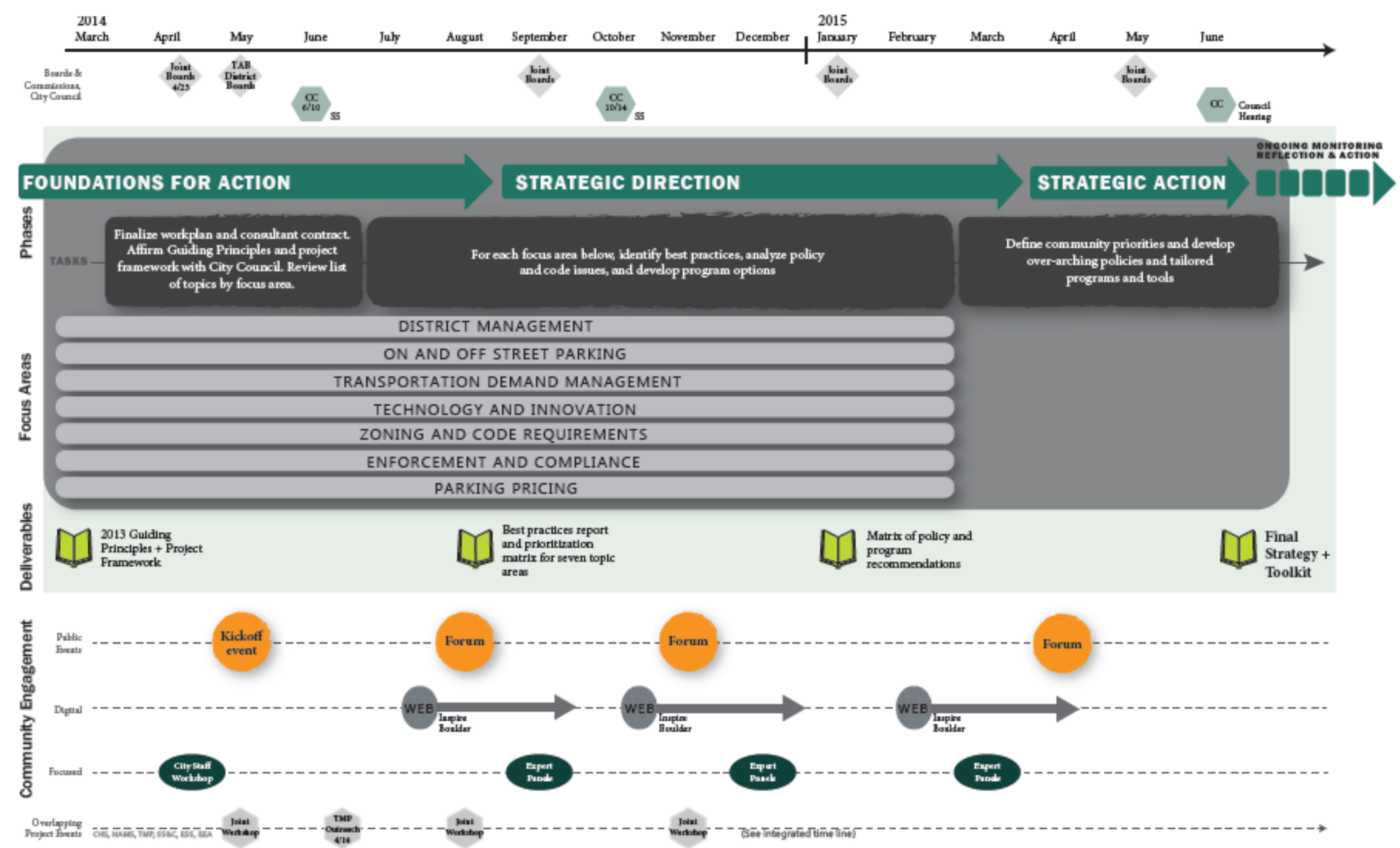
Goals

- Consistency with city goals and sustainability framework: citywide guiding principles
- Integrated, interdepartmental approach
- Adapt to present and future while providing predictability
- Reflect city values

Guiding Principles

- Provide for All Transportation Modes
- Customize Tools by Area
- Support a Diversity of People
- Seek Solutions with Co-Benefits
- Plan for the Present and Future
- Cultivate Partnerships

AMPS


2014
March
April
May
June
July
August
September
October
November
December
2015
January
February
March
April
May
June
Boards & Commissions, City Council
Joint Boards 4/23
TAB District Boards
CC 6/10
SS
Joint Boards
CC 10/14
SS
Joint Boards
Joint Boards
CC
Council Hearing
ONGOING MONITORING REFLECTION & ACTION
Phases
FOUNDATIONS FOR ACTION
STRATEGIC DIRECTION
STRATEGIC ACTION
TASKS
Finalize workplan and consultant contract. Affirm Guiding Principles and project framework with City Council. Review list of topics by focus area.
For each focus area below, identify best practices, analyze policy and code issues, and develop program options
Define community priorities and develop over-arching policies and tailored programs and tools
Focus Areas
DISTRICT MANAGEMENT
ON AND OFF STREET PARKING
TRANSPORTATION DEMAND MANAGEMENT
TECHNOLOGY AND INNOVATION
ZONING AND CODE REQUIREMENTS
ENFORCEMENT AND COMPLIANCE
PARKING PRICING
Deliverables
2013 Guiding Principles + Project Framework
Best practices report and prioritization matrix for seven topic areas
Matrix of policy and program recommendations
Final Strategy + Toolkit
Community Engagement
Public Events
Kickoff event
Forum
Forum
Forum
Digital
WEB
Inspire Boulder
WEB
Inspire Boulder
WEB
Inspire Boulder
Focused
City Staff Workshop
Expert Panels
Expert Panels
Expert Panels
Overlapping Project Events
CHS, HAMS, TMP, SSBC, ESS, BEA
Joint Workshop
TMP Outreach 4/14
Joint Workshop
Joint Workshop
(See integrated time line)

Work to Date

- Joint board workshops & board outreach
- Created comprehensive list of work items in 7 focus areas
- Selected a project consultant
- Developed assessment matrix
- Work plan development and prioritization in each focus area
- Early action items

AMPS Focus Areas

- District Management
- On and Off Street Parking
- Transportation Demand Management (TDM)
- Technology and Innovation
- Code Requirements
- Enforcement
- Parking Pricing

2014 Work Program Highlights

- Code Changes
  - Quick Fixes (ADA compliance, bike parking, warehouse, air craft hangers)
  - Parking Maximums, context/TODs
  - E-vehicles & Carshare
- TDM
  - Tool Kit for new development
- Best Practice Review in All Areas
- Garage Technology & Equipment Analysis
- Pilot Projects

Board Feedback

- Downtown Management Commission
  - Reinforce urban vitality and experience
  - Address needs of variety of visitors
  - Endorses DBI’s concerns and recommendations

Board Feedback:

- Boulder Junction Access Districts Commissions:
  - Ensure safety and access of all modes; don’t value one over another
- University Hill Management Commission:
  - Use innovation and be flexible
  - Consider the millenials
  - Need more parking on the hill with marketing

Board Feedback

- Planning Board:
  - Include measurable objectives
  - Need to consider neighborhood livability
- Transportation Advisory Board:
  - Stress connection with TMP and land use planning
  - Involve developers and the business community

Downtown Feedback

- Downtown Boulder Inc.:
  - Consider additional parking including “edge” or satellite parking
  - Use education, promotion and incentives for customers
- Downtown Boulder Business Improvement District:
  - Downtown needs more parking including satellite lots
  - Consider parking pricing to be competitive

Joint Board Feedback

- Consider all modes and last mile options
- Balance incentive/disincentives
- Use innovation to create user convenience
- Consider economic impact of decisions
- Land use and density play a role in access options
- Expand district concept to other areas
- Consider changes to the NPP

Public Feedback

- Diversity of modes key; customize solutions
- Partnerships are important
- Consider subsidy for disadvantaged

Early Action Item
Technology: Pay by Cell

- Installed in May
- Citywide
- Another payment option

Early Action Item
Variable messaging signage

- Indicates when garages are full
- Directs customers to other garages

Early Action Item

Solar Powered EV Station

Broadway & Spruce Lot

Early Action Item

Parklet on the Hill

- Pilot project through October
- Input for Parklet Plan
- Designed by local architects
- 33 submissions

Ongoing Work Items

Public Private Partnerships

- Hill: 14th Street Parking Lot mixed use project redevelopment
- Downtown: Trinity Commons shared parking negotiations
- Boulder Junction: Depot Square

Ongoing: Other

- Coordination with the Civic Area Plan
- Coordination with North Boulder Plan Update
- Downtown garage art plan
- On street car share policy

eGo CarShare

Early Action Item: TDM Tool Kit
coordination with TMP Update

- Evaluate & refine existing program
- Best practice review by UrbanTrans
- Enhance packages & options for new development
- Evaluate effectiveness
- Eco Pass program and bikeshare plus carshare
- Boulder Transportation Connections
  - Partnership opportunities

TDM Toolkit Best Practices Report

- Location and size triggers
- Ordinances with required trip reduction targets
- Fees paid to TMAs or City/County to provide services
- Technical assistance for non-compliance versus fines or retention of financial guarantees
- Special TDM Districts
- Required elements versus negotiated plans
- Required TMA membership
- Required annual reports with standard metrics
  - Average Vehicle Rate (AVR)
  - Peak hour vehicle counts

Early Action Items

(targeted completion: Summer-Fall 2014)

- Quick Fix code changes
  - Update parking requirements for low parking demand use (i.e., warehouse, self-storage& aircraft hanger uses)
  - Simplify restaurant and tavern vs. retail parking requirements in shopping centers
  - Eliminate excessive parking requirement within the RH-1 high density residential zoning district and apply other high density residential requirements (by bedroom).
  - Permit legal driveway parking space in RL-2 zones like all other single-family zones
  - Add RH-6 parking requirements (not current in code)
  - Align accessible ADA parking standards with national standards
- Update bike parking

Community Engagement

- Outreach phases: listening & learning, testing & reviewing, feedback on options
- Tailored engagement techniques:
  - Open Houses
  - Surveys, Focus groups
  - Online options: mind-mixer, website
  - “Salons” at coffee houses
  - Interviews
  - Expert panel sessions

AMPS Next Steps

Summer

- Short term code changes
- Best practices report on AMPS focus areas
- Community outreach
- Garage access equipment replacement
- TDM Tool Kit/coordination with TMP Update

AMPS Next Steps

Fall / Winter

- Policy analysis phase and draft recommendations
- Continued community engagement
- Return to boards (September)
- City Council study session (October)

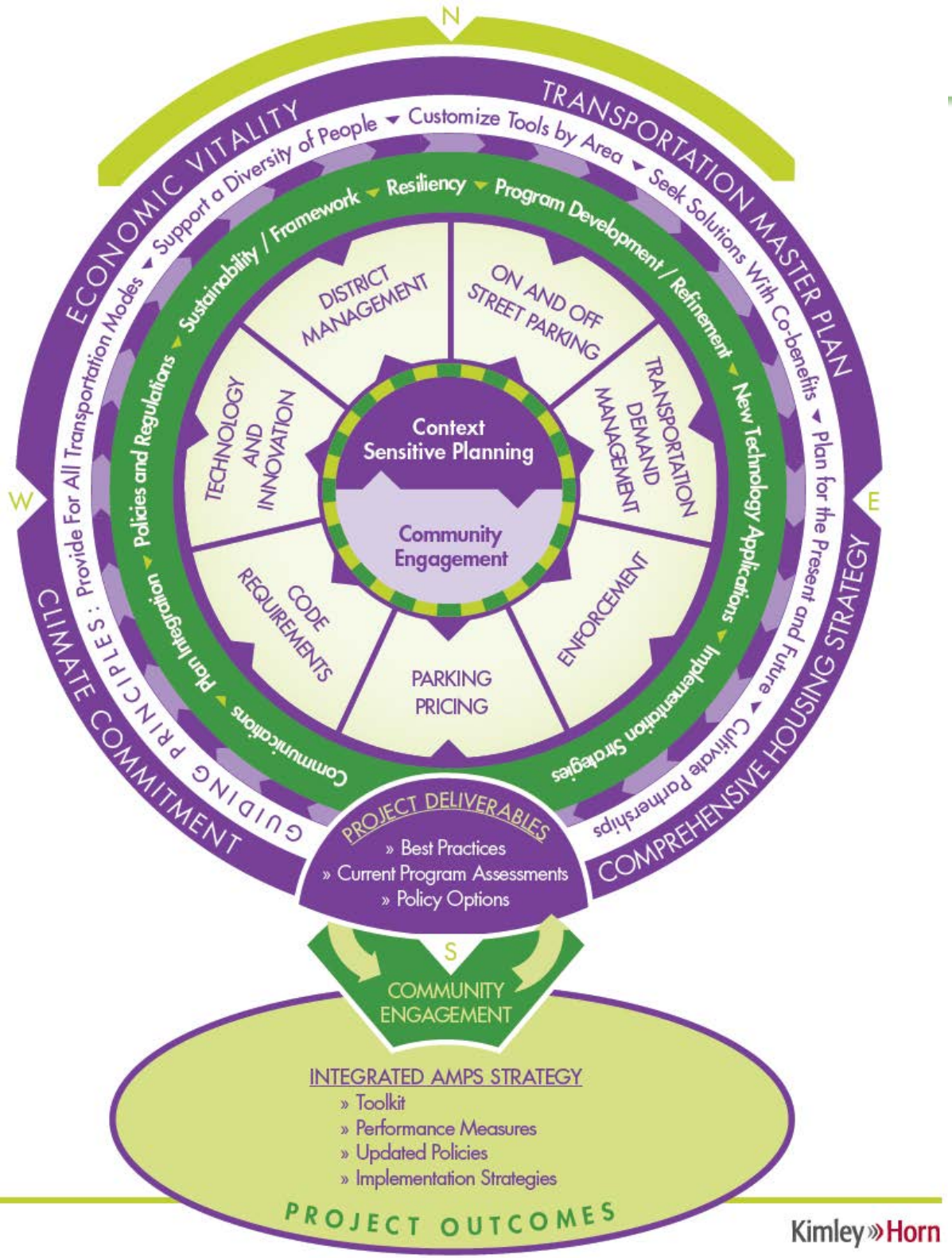
Questions for City Council:

- Do you have feedback regarding the draft project purpose, goals, and guiding principles?
- Do you have questions or feedback on the proposed approach and timeline for AMPS?
- Do you have feedback on the AMPS list of 2014 work program topics? Are any missing?

Questions?

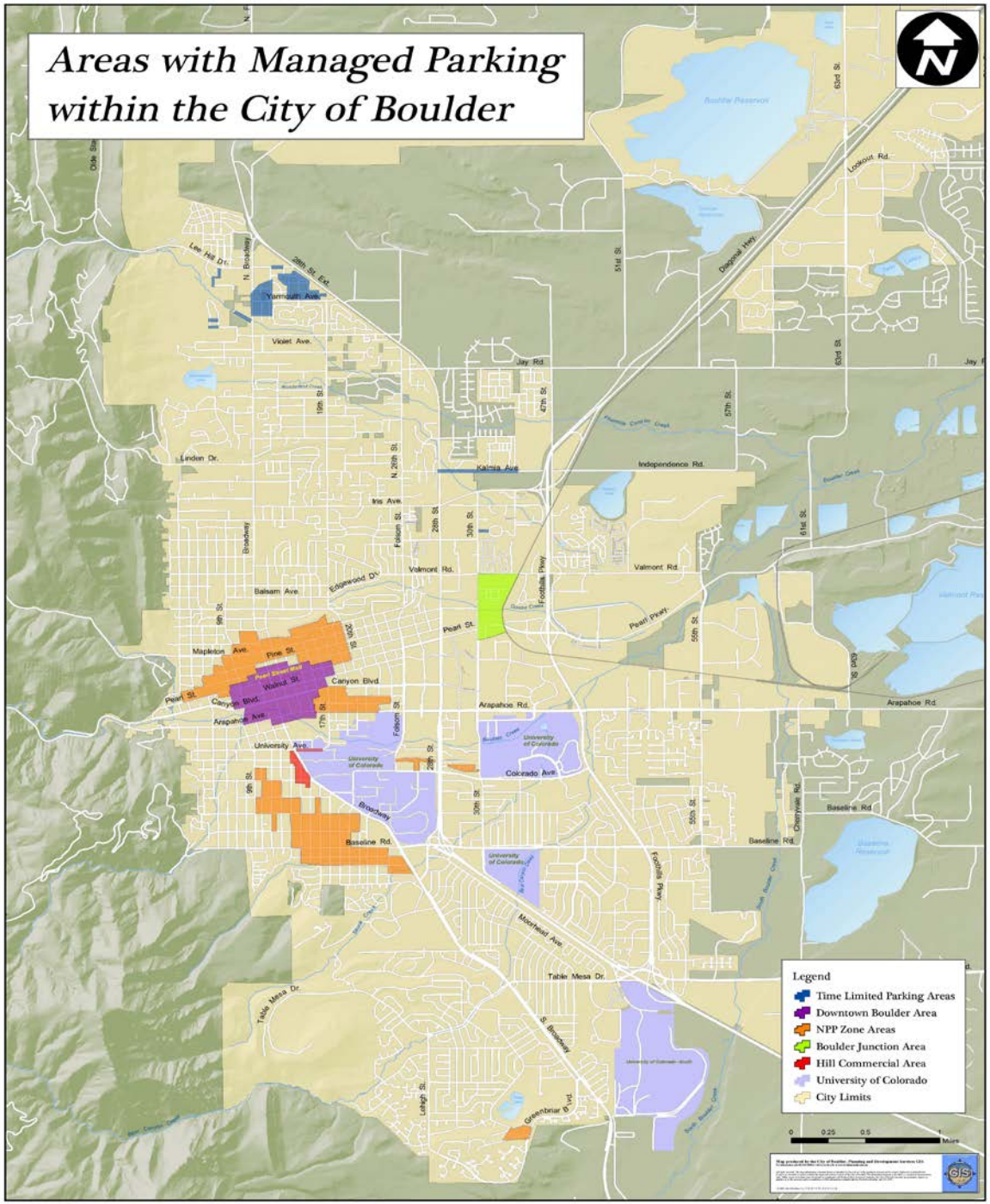
Reference slides

AMPS

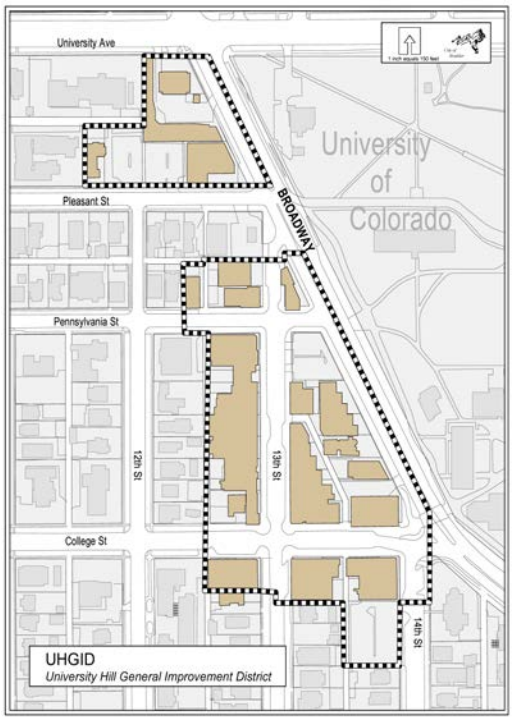


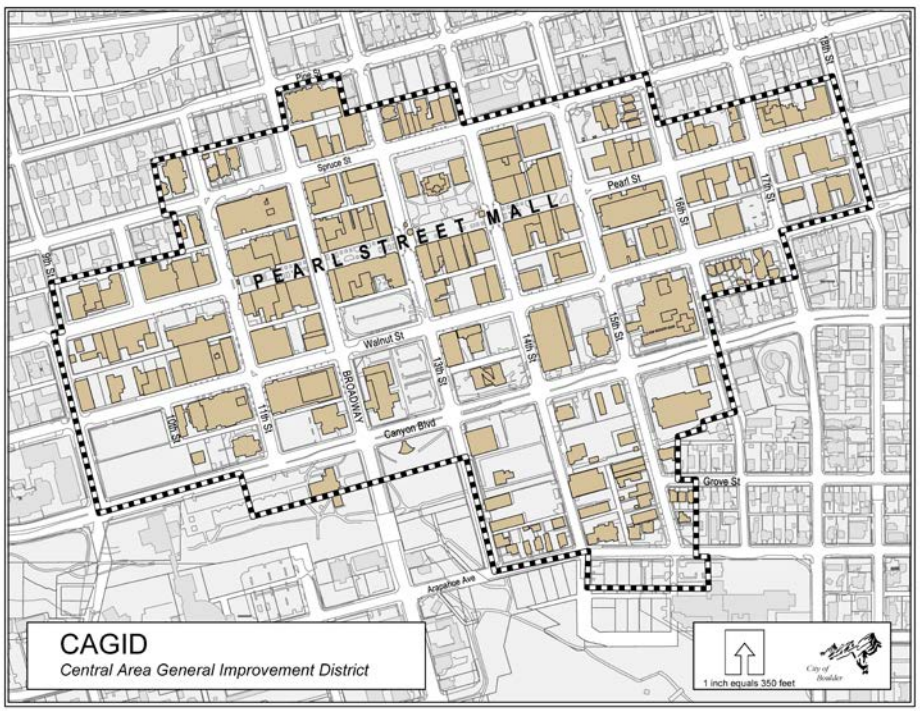
Kimley»Horn

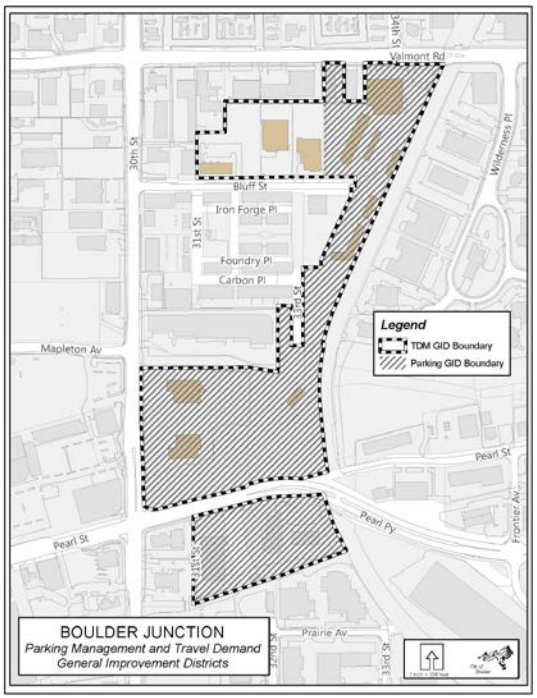
Existing Management Areas



Creating Tools: Districts







- Taxing districts for parking with bonding capacity
- No parking requirement for commercial uses

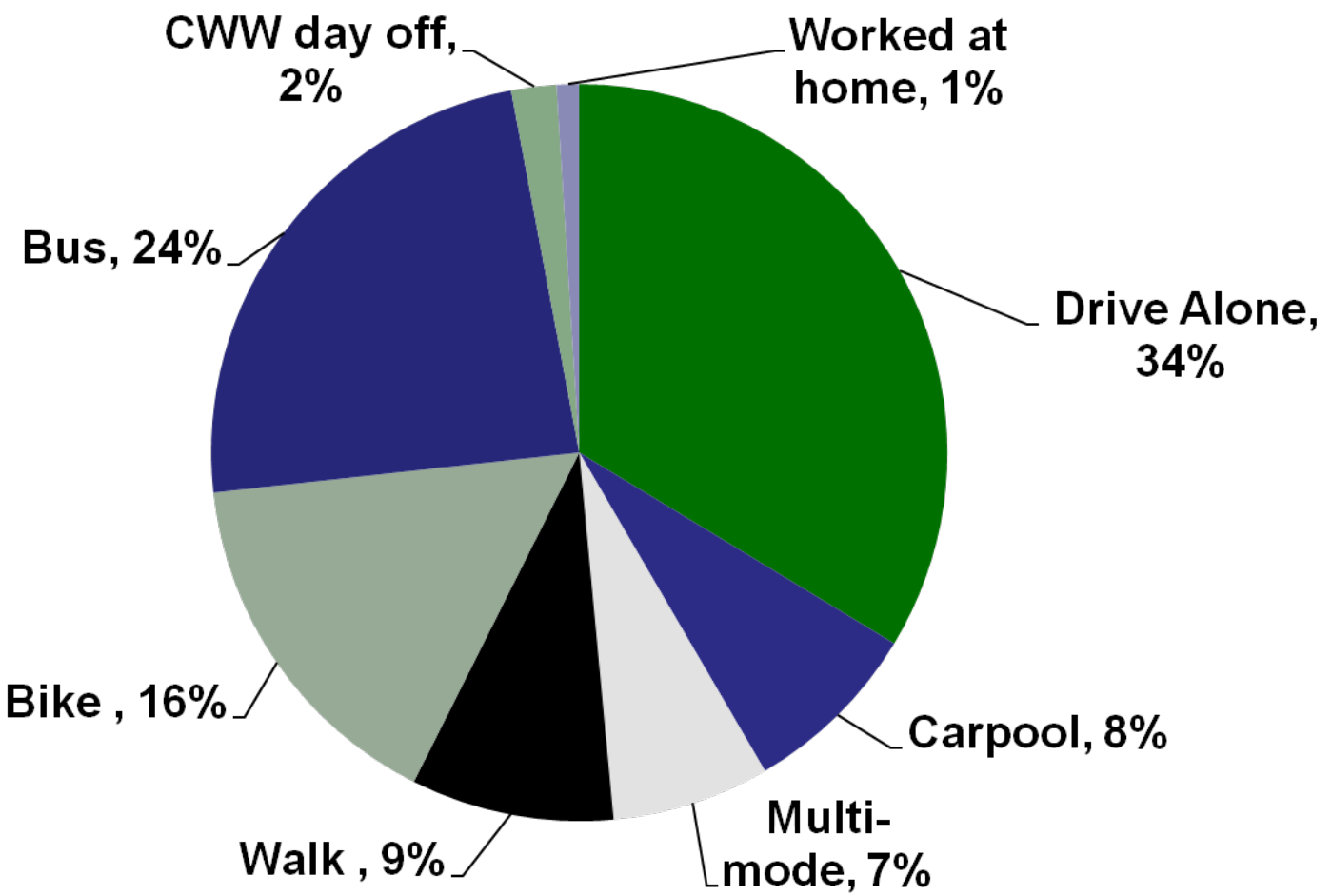
Multi-Modal Access: TDM

Downtown Employee Alt Mode Share

Primary Mode	2011	2008	2005	1999	1997	1995	Shift
Drove alone	43%	34%	36%	59%	51%	56%	-13%
Carpooled	5%	6%	9%	8%	7%	7%	-2%
Walked	10%	8%	8%	8%	10%	10%	-1%
Bike	14%	13%	6%	8%	11%	11%	+3%
Bus	22%	29%	34%	14%	19%	15%	+7%
Multi-modal	6%	9%	6%	1%	2%	n/a	n/a
At home	0%	0%	0%	n/a	n/a	n/a	n/a
Other	<1%	1%	1%	2%	1%	1%	-<1%
Total	100	100	100%	100%	100%	100%	

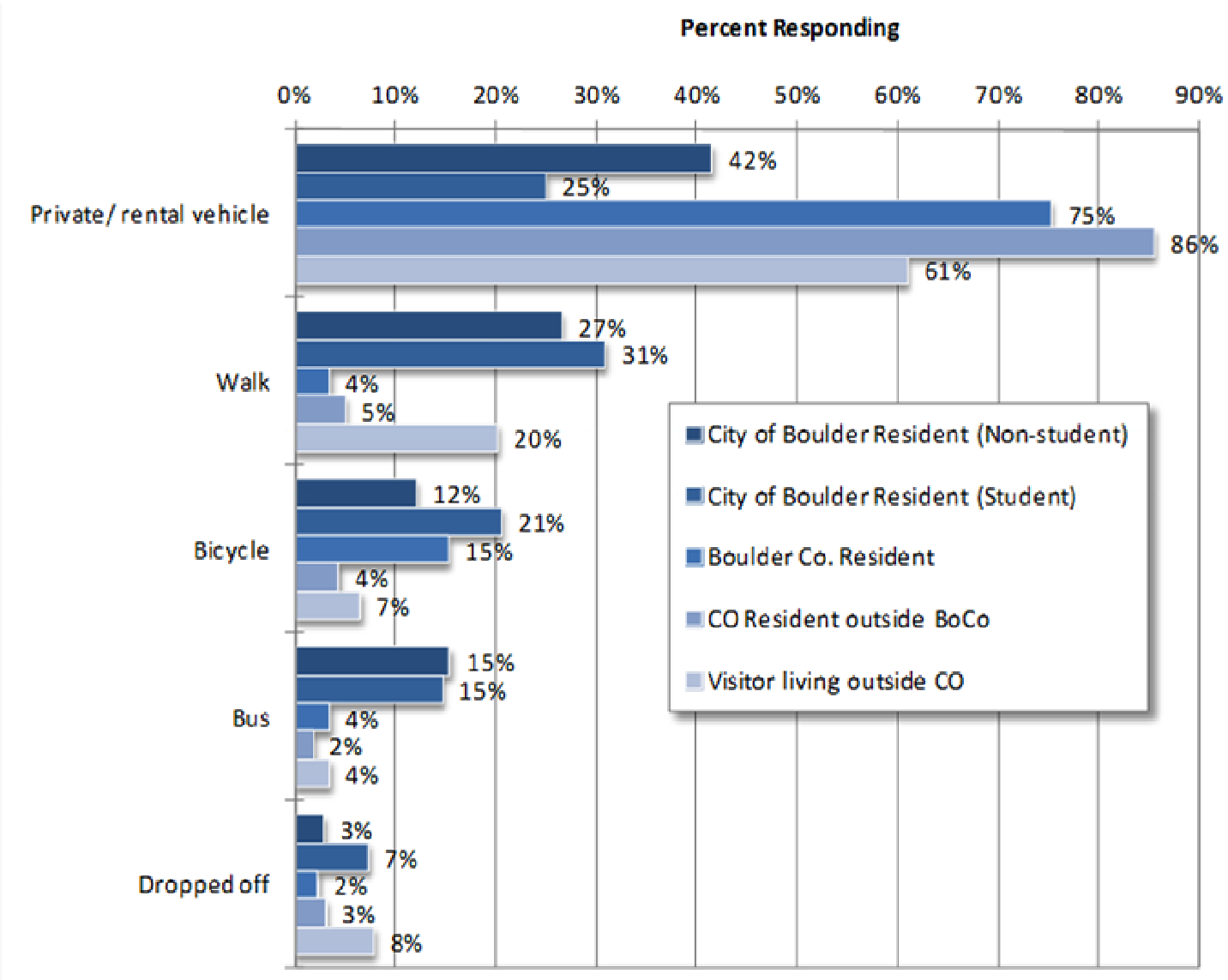
Travel mode used for work commute on the survey day

Multi-Modal Access: TDM



Source: 2012 Boulder Valley Employee Survey, Mode Split for Typical Week

Mode of Transportation to Downtown by Visitor Type 2012



Feedback

- Intradepartmental Staff Kickoff Workshop
- Boards:
  - Transportation Advisory Board
  - Planning Board
  - Downtown Management Commission
  - Boulder Junction Access District Commission
  - Downtown Boulder boards: BID & DBI

Feedback: Themes

- Existing system is working:
  - Districts, integration with alt modes, SUMP
- Technology can play a larger role in access and parking
- Parking policies shape development
- Higher level of integration needed

Projects Underway:

Variable message signage at the garages

Back-in parking on University

Electrical charging stations

Depot Square and BJAD Districts

Projects Underway, con't.

- Renewable Energy Assessemnt of Garages
- Pilot Parklet on the hill
- Development of citywide guiding principles
  - Joint advisory board meeting
  - Update to City Council in the fall
- Assessment of existing programs and policies including prioritization matrix
- Ongoing coordination with plans (TMP, CAP)
- Inventory of future planning efforts

Where we have been:

- Developed 7 focus areas
- Selected a consultant
- Joint Board meeting August 2013
  - Development of citywide guiding principles
    - Joint advisory board meeting
    - Update to City Council in the fall
  - Assessment of existing programs and policies including prioritization matrix
  - Ongoing coordination with plans (TMP, CAP)

Future: AMPS Schedule

Phase One: 2013

- Development of citywide guiding principles
  - Joint advisory board meeting
  - Update to City Council in the fall
- Assessment of existing programs and policies including prioritization matrix
- Ongoing coordination with plans (TMP, CAP)
- Inventory of future planning efforts

Future: AMPS Schedule

Phase Two: 2014 and beyond

- Implementation of changes based on guiding principles and prioritization matrix
- Continue TMP and CAP coordination
- Development of tool box of citywide strategies
- Application of AMPS to new planning efforts

Thank you!

CAGID Parking Analysis

Downtown Boulder Parking Study

Table 3. Total Public and Private Parking in Downtown Boulder[1]

Quadrant[2]	Public Parking Spaces				Private Parking Spaces				All Public and Private Parking Spaces
	Long Term	Short Term	NPP Commuter	Total Public	Surface Lots	Parking Structures	Alleys	Total Private	
Northwest	189	499	113	801	372	269	125	766	1,567
Southwest	458	476	0	934	0	587	5	592	1,526
Southeast	396	292	17	705	387	357	108	852	1,557
Northeast	385	617	217	1,219	529	560	93	1,182	2,401
Total	**1,428**	**1,884**	**347**	**3,659**	**1,288**	**1,773**	**331**	**3,392**	**7,051**

Notes:

1. Includes CAGID area and private lots at the edge of CAGID (church, Boulderado, Boulder County). Does not include Civic Campus outside of CAGID.
2. Quadrants are divided by Walnut Street and 13th Street

CAGID Parking Analysis

Existing Land Use:

- 3,100,000 sq. ft. of non-residential space
- 235 dwelling units
- 7,300 FTEs

Projected additional development at “buildout”:

- 1,265,00 sq. ft. of non-residential space
- 180 dwelling units

CAGID Parking Analysis

Existing Parking Supply and Demand

CAGID:

- 3,659 spaces
- 74% occupied – typical weekday daytime

Private:

- 3392 spaces
- 61% occupied – typical weekday daytime

Total:

- 7,051 spaces
- 68% occupied – typical weekday daytime

CAGID Parking Analysis

Calculated Parking Demand Rates:

- 1.48 spaces per 1,000 sq. ft. non-res. floor area
- 35% of comparable ITE parking demand rates

- 0.97 spaces per dwelling unit
- approx. equal to ITE rate

Buildout non-residential parking demand increase:

- 1,871 spaces
- 221 existing spaces displaced by new development
- 2,092 additional parking spaces needed at today's rates

CAGID Parking Analysis

Accommodating Additional Parking Demand

Mitigating Parking Demand Increases:

- TDM to increase alternative mode use (parking space equivalents – PSEs)

  60% non-driver today in the future?

- Increase CAGID parking space utilization in structures

  73% now in the future?

- Increase Private parking space utilization

  61% now in the future?

CAGID Parking Analysis

Accommodating Additional Parking Demand – Continued

Build Additional Parking:

- Private spaces (Daily Camera, Wells Fargo?)
- New CAGID parking structure (200 spaces at Broadway/Spruce?)
- CAGID / Private joint venture?

CAGID Parking Analysis

Parking Model:

- project future parking demand in 5 year increments
- test the effectiveness of various TDM and demand reduction strategies

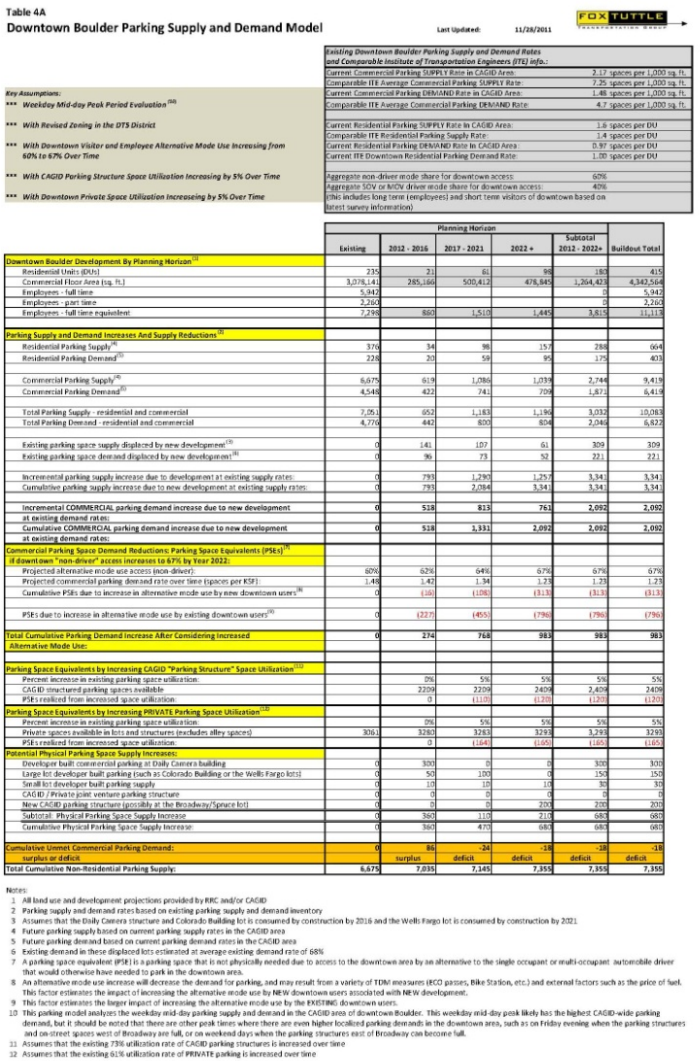


Table 4A
Downtown Boulder Parking Supply and Demand Model

Last Updated: 11/28/2011

FOX TUTTLE Transportation Group

Existing Downtown Boulder Parking Supply and Demand Rates and Comparable Institute of Transportation Engineers (ITE) info.:	
Current Commercial Parking SUPPLY Rate in CAGID Area:	2.17 spaces per 1,000 sq. ft.
Comparable ITE Average Commercial Parking SUPPLY Rate:	2.25 spaces per 1,000 sq. ft.
Current Commercial Parking DEMAND Rate in CAGID Area:	1.48 spaces per 1,000 sq. ft.
Comparable ITE Average Commercial Parking DEMAND Rate:	4.7 spaces per 1,000 sq. ft.
Current Residential Parking SUPPLY Rate in CAGID Area:	1.6 spaces per DU
Comparable ITE Residential Parking Supply Rate:	1.4 spaces per DU
Current Residential Parking DEMAND Rate in CAGID Area:	0.97 spaces per DU
Current ITE Downtown Residential Parking Demand Rate:	1.00 spaces per DU
Aggregate non-driver mode share for downtown access:	60%
Aggregate SOV or MOV driver mode share for downtown access:	40%
(this includes long term (employees) and short term visitors of downtown based on latest survey information)	

Key Assumptions:
*** Weekday Mid-day Peak Period Evaluation [10]
*** With Revised Zoning in the DTS District
*** With Downtown Visitor and Employee Alternative Mode Use Increasing from 60% to 67% Over Time
*** With CAGID Parking Structure Space Utilization Increasing by 5% Over Time
*** With Downtown Private Space Utilization Increasing by 5% Over Time

	Planning Horizon					
	Existing	2012 - 2016	2017 - 2021	2022 +	Subtotal 2012 - 2022+	Buildout Total
Downtown Boulder Development By Planning Horizon [1]						
Residential Units (DUs)	235	21	61	86	183	418
Commercial Floor Area (sq. ft.)	3,078,141	285,166	500,412	478,845	1,264,423	4,342,564
Employees - full time	5,942				0	5,942
Employees - part time	2,260				0	2,260
Employees - full time equivalent	7,298	660	1,510	1,445	3,615	11,113
Parking Supply and Demand Increases And Supply Reductions [2]						
Residential Parking Supply [4]	376	34	98	157	288	664
Residential Parking Demand [5]	228	20	59	95	175	403
Commercial Parking Supply [4]	6,675	619	1,086	1,039	2,744	9,419
Commercial Parking Demand [5]	4,548	422	741	709	1,871	6,419
Total Parking Supply - residential and commercial	7,051	652	1,183	1,196	3,032	10,083
Total Parking Demand - residential and commercial	4,776	442	800	804	2,046	6,822
Existing parking space supply displaced by new development [3]	0	141	107	61	309	309
Existing parking space demand displaced by new development [6]	0	96	73	52	221	221
Incremental parking supply increase due to development at existing supply rates:	0	793	1,290	1,257	3,341	3,341
Cumulative parking supply increase due to new development at existing supply rates:	0	793	2,084	3,341	3,341	3,341
Incremental COMMERCIAL parking demand increase due to new development at existing demand rates:	0	518	813	761	2,092	2,092
Cumulative COMMERCIAL parking demand increase due to new development at existing demand rates:	0	518	1,331	2,092	2,092	2,092
Commercial Parking Space Demand Reductions: Parking Space Equivalents (PSEs) [7]						
If downtown "non-driver" access increases to 67% by Year 2022:						
Projected alternative mode use access (non-driver):	60%	62%	64%	67%	67%	67%
Projected commercial parking demand rate over time (spaces per KSF):	1.48	1.42	1.34	1.23	1.23	1.23
Cumulative PSEs due to increase in alternative mode use by new downtown users [8]	0	(38)	(108)	(313)	(313)	(313)
PSEs due to increase in alternative mode use by existing downtown users [9]	0	(227)	(455)	(796)	(796)	(796)
Total Cumulative Parking Demand Increase After Considering Increased Alternative Mode Use:	0	274	768	983	983	983
Parking Space Equivalents by Increasing CAGID "Parking Structure" Space Utilization [11]						
Percent increase in existing parking space utilization:		0%	5%	5%	5%	5%
CAGID structured parking spaces available		2209	2209	2409	2,409	2409
PSEs realized from increased space utilization:		0	(110)	(120)	(120)	(120)
Parking Space Equivalents by Increasing PRIVATE Parking Space Utilization [12]						
Percent increase in existing parking space utilization:		0%	5%	5%	5%	5%
Private spaces available in lots and structures (excludes alley spaces)	3261	3261	3261	3293	3,293	3293
PSEs realized from increased space utilization:		0	(164)	(165)	(165)	(165)
Potential Physical Parking Space Supply Increases:						
Developer built commercial parking at Daily Camera building	0	300	0	0	300	300
Large lot developer built parking (such as Colorado Building or the Wells Fargo lots)	0	50	100	0	150	150
Small lot developer built parking supply	0	10	15	10	35	35
CAGID / Private joint venture parking structure	0	0	0	0	0	0
New CAGID parking structure (possibly at the Broadway/Spruce lot)	0	0	0	200	200	200
Subtotal: Physical Parking Space Supply Increase	0	360	115	210	685	685
Cumulative Physical Parking Space Supply Increase:	0	360	475	685	685	685
Cumulative Unmet Commercial Parking Demand:	0	86	-24	-18	-18	-18
surplus or deficit		surplus	deficit	deficit	deficit	deficit
Total Cumulative Non-Residential Parking Supply:	6,675	7,035	7,145	7,355	7,355	7,355

Notes:
1. All land use and development projections provided by RRC and/or CAGID
2. Parking supply and demand rates based on existing parking supply and demand inventory
3. Assumes that the Daily Camera structure and Colorado Building lot is consumed by construction by 2016 and the Wells Fargo lot is consumed by construction by 2021
4. Future parking supply based on current parking supply rates in the CAGID area
5. Future parking demand based on current parking demand rates in the CAGID area
6. Existing demand in these displaced lots estimated at average existing demand rate of 68%
7. A parking space equivalent (PSE) is a parking space that is not physically needed due to access to the downtown area by an alternative to the single occupant or multi-occupant automobile driver that would otherwise have needed to park in the downtown area.
8. An alternative mode use increase will decrease the demand for parking, and may result from a variety of TDM measures (ECO passes, Bike Station, etc.) and external factors such as the price of fuel. This factor estimates the impact of increasing the alternative mode use by NEW downtown users associated with NEW development.
9. This factor estimates the larger impact of increasing the alternative mode use by the EXISTING downtown users.
10. This parking model analyzes the weekday mid-day parking supply and demand in the CAGID area of downtown Boulder. This weekday mid-day peak likely has the highest CAGID-wide parking demand, but it should be noted that there are other peak times where there are even higher localized parking demands in the downtown area, such as on Friday evening when the parking structures and on-street spaces west of Broadway are full, or on weekend days when the parking structures east of Broadway can become full.
11. Assumes that the existing 73% utilization rate of CAGID parking structures is increased over time
12. Assumes that the existing 61% utilization rate of PRIVATE parking is increased over time

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TRANSPORTATION GROUP

CAGID Parking Analysis

Five alternatives tested using the parking model:

Scenario / Table	Land Use Increase	Alt. Mode Use Increase	CAGID Structure Utilization Increase	Private Lot and Structure Utilization Increase	Additional Parking Spaces Constructed	Year 2016 Surplus or Deficit	Year 2021 Surplus or Deficit	Buildout Surplus or Deficit
4A	Yes	Yes	Yes 5%	Yes 5%	680	86	-24	-18
4B	Yes	Yes	Yes 10%	No	**480**	86	87	-118
4C	Yes	Yes	Yes 5%	No	680	86	-188	-183
4D	Yes	Yes	No	No	680	86	-298	-303
4E	Yes	No	No	No	680	-158	-861	-1,412

CAGID Parking Analysis

Existing Land Use:

- 3,100,000 sq. ft. of non-residential space
- 235 dwelling units
- 7,300 FTEs

Projected additional development at “buildout”:

- 1,265,00 sq. ft. of non-residential space
- 180 dwelling units