

AGENDA
Metro Vision Planning Advisory Committee (MVPAC)
Wednesday, May 15, 2013
9:30 a.m. – 11:00 a.m.
1290 Broadway
Independence Pass Board Room

1. Call to Order
2. Public Comment
3. April 24, 2013 Meeting Summary
(Attachment A)

ACTION ITEMS

4. **Motion to recommend to the Board of Directors two initial scenarios to begin the Metro Vision scenario analysis process.** (40 minutes)
(Attachment B)
Brad Calvert

INFORMATIONAL ITEMS

5. Urban Centers Initial Analysis (25 minutes)
(Attachment C)
Eric Ross
6. Regional Equity Atlas Version 2 Overview (5 minutes)
(Attachment D)
Brad Calvert

ADMINISTRATIVE ITEMS

7. MVPAC – Committee Check-in (15 minutes)
8. Announcements (5 minutes)
 - MVPAC Small Group Meetings
 - Metro Vision 2040 Project Management worksheet
9. Next Meeting – June 19, 2013 (Potential Agenda Items Below)
 - Mile High Connects Jobs Working Group Presentation
10. Other Matters by Members
11. Adjournment

Disabled attendees are asked to notify DRCOG at least 48 hours in advance of the need for auxiliary aids or services

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ATTACHMENT A

MEETING SUMMARY Metro Vision Planning Advisory Committee (MVPAC) Wednesday, April 24, 2013

MEMBERS PRESENT:

Gretchen Armijo	CO Dept. of Public Health & Environment
Christopher Auxier	Adams Cty. Housing Authority
Kim Burnett	Mile High Connects
Lesli Ellis	City of Boulder
Erin Fosdick	City of Longmont
Steve Glueck	City of Golden
Steve Gordon	City and County of Denver
Randy Harrison	RW Harrison & Associates
Steve Hebert	City of Lone Tree
Leanne Jeffers	Regional Instit. for Health & Envrnmntl. Leadership
Steve Klausing	Denver South Econ. Dev. Partnership
Glenda Lainis	City of Thornton
Kyle Legleiter	The Colorado Health Foundation
Ann Norton	Ann Norton Law Offices
Katherine (Kati) Rider	Douglas County
Frederick Rollenhagen	Clear Creek County
Will Toor	Southwest Energy Efficiency Project
Bill Van Meter	Regional Transportation District
Robert Watkins	City of Aurora
Brad Weinig	Enterprise Community Partners

DRCOG staff: Teri Whitmore, Brad Calvert, Nicole Klepadlo, Casey Collins

Call to Order

Steve Glueck, Chair, called the meeting to order at 9:31 a.m.

Public Comment

There was no public comment given.

Summary of March 20, 2013 Meeting

The meeting summary was accepted with revision in wording on Page 3, in bullet 2 under *Key Findings of MDEDC group polling*/Member Comments to read as: A member said the MDEDC felt some elements of the aerospace, energy, technology, and financial centers job sectors may not be compatible with urban centers.

ACTION ITEMS

Recommendations regarding call for projects for FY14 and FY15 Station Area Master Plan or Urban Centers studies; specifically related to “pooling” funds, project eligibility, and project evaluation.

Brad Calvert presented and asked the committee if it supports establishing a funding pool for Station Area Master Plan (STAMPs) and Urban Center Studies within the *FY12-17 Transportation Improvement Program (TIP)*; and if so, to make recommendations on the staff-proposed project eligibility rules and evaluation criteria for the project selection process. The amount available for this pool is \$1.985 million in FYs14 and 15.

Steve Glueck asked for committee consensus to recommend a funding pool and the committee was in agreement.

The recommendations made would be reflected in the TIP Policy criteria (replacing the current Table 15) after approval by the Board. Brad reviewed the eligibility and evaluation recommendations:

- Four study types are eligible (corridor-wide, urban center and station area plans, next step, and area implementation activities).
- DRCOG staff determines project eligibility.
- If requests are *less than or equal to* funds available, all eligible projects will be programmed into either FY14 or FY15. If requests *exceed* funding available, two evaluation criteria methods will be applied: 1. Identification of regional priorities within each type, and 2. a second DRCOG staff and external committee evaluation.
- Sponsors are limited to 2 studies per fiscal year.
- No more than \$200,000 in federal funds in aggregate can be awarded for transportation-related planning activities at an individual station and/or urban center (over ALL TIP cycles).
- Minimum request for studies is \$75,000, with a required minimum 20% local match.
- Eligible applicants are county and municipal governments, regional agencies, and the State.

Member comments

- Many communities need assistance “marketing” station areas rather than defining market feasibility.
- Is there an overlap of area implementation activities with TDM projects. Brad said there is plenty of need, and that overlap supports mutually needed elements.
- The funds appear to support traditional transportation and land use studies rather than more comprehensive strategies that may explore housing and economic development issues. Brad noted that the funding is federal transportation funds and must be directed to studies with a clear and unambiguous connecting to transportation.
- What about major stakeholder involvement. Brad said it is an important component and is included in the required scope elements proposed.
- Several committee members asked if the only rail transit corridors would be considered eligible. It was further noted that high capacity bus service should be eligible as well. Steve Glueck clarified the question the group should consider: “... (should we be) expanding to other types of corridors, i.e., the Colfax corridor?”
- It was suggested that there is opportunity for creative ideas to be used for defining several low income, underserved disconnected neighborhoods that have four new rail stations opening up on different rail corridors. Brad noted that type of circumstance is why area implementation activities are suggested as new eligible activity.
- Consider renaming area implementation activities as “target area”, or perhaps reference the issue (i.e., “low-income”).
- Why is the number of applications limited? Brad noted there is significant need for planning assistance in a variety of communities – the limit is to ensure that a wide cross-section of communities can access the funds. Even with the proposed limitations a single eligible sponsor could receive funding for a total of four studies over the two year period.
- It was noted that applying the evaluation criteria only if funding requests may result on in only superficially eligible projects being funded, rather than exemplary studies that are directly responsive to responsive to Metro Vision priorities. It was noted that STAMPs have historically been thoughtfully design studies.
- There was concern about open-ended requirements and eligible activities. Brad clarified that minimum requirements are necessary for the original studies scope. The “next steps”

studies have more flexibility as each sponsor will have completed an initial planning study and will have a better understanding of the need for a more detailed, targeted study.

- Is there a need for additional housing criteria would be added to the eligibility and evaluation criteria?
- Scope elements should not only indicate financing, but “financing and partnership strategies”.
- The small group of MVPAC members that met to discuss equity talked about thinking of urban centers as “opportunity centers” and asked to have the concept of “access to opportunity for all” under B1 (second to last bullet on Placemaking) and under B2 (last bullet – suggested “*provide opportunities for reliable mobility for all*”).
- Some expressed concern with the proposed evaluation criteria (i.e., *stations that are currently open to the public or expect to be open with 5 years*) saying this would be negative for the North area. Steve Glueck noted that all of the next steps studies have a shelf life, but others noted that development can occur even though the station isn’t there. Brad clarified that the project would be still be eligible, but the priority would be for planning studies that responding to stations that are currently open or will be so in the very near future.
- There should be equity testing, as long as it is understood it’s a broad test.
- There was concern that the proposed criteria were “looser” than the previous criteria in current TIP policy.

The MVPAC Chair asked for consensus voting:

1. Recommendation of the pool (the committee agreed)
2. Looking at whether to broaden eligible corridors to include high frequency bus corridors (the committee was not unanimous, but a majority)
3. Emphasize partnership as much as financing, marketing as much as market feasibility, and opportunity as well as access. (the committee agreed)
4. Is there a desire to prioritize next step studies for stations that are currently open to the public or expect to be open with 5 years? And is there a desire to take out the time requirement for original station area plans? (the committee opted to remove the 5-year priority for “original” studies, but keep for “next steps” studies)

Next Steps

- Forward recommendations to MVIC, then Board
- Develop application for call for projects
- Solicit applications (early summer, 2013)
- Evaluations and recommendations of funding awards to MVIC (late summer 2013)

INFORMATIONAL ITEMS

Local Government Survey – First Draft

Brad Calvert presented the first draft of the local government survey, as attached in the agenda. He asked for the group’s review and comment on the draft survey within the next two weeks. He asked for volunteers among the local government members to have their principal planning staff test the survey to get feedback on its usability, i.e., how long it took to take, etc. A member noted it would be useful to have a place to identify the position of the person taking the survey. Local government volunteers to test the survey included Fred Rollenhagen (Clear Creek County), Kati Rider (Douglas County), Steve Gordon (Denver), Steve Hebert (Lone Tree), Lesli Ellis (Boulder), and Steve Gordon (Golden).

Crafting Regional Scenarios – Metro Vision 2040

Brad Calvert continued the discussion to refine potential scenarios for modeling. Brad reviewed previous discussion, noting committee members suggested specific outcomes to consider in scenario evaluation, such as:

- Transit access in urban centers
- Per capita cost of infrastructure (“regional system” transportation facilities)
- Degree of mixed land uses (e.g., zoning as predictor)
- Housing affordability relative to income (e.g., 50% AMI)
- Housing & Transportation (H+T) costs
- Increase in transit ridership relative to expansion of service

Brad asked the committee to keep in mind previous Board guidance that scenarios should make different assumptions about “external” factors (things that we have less control over, but still part of a plausible future, i.e., gas prices), and understanding how scenarios are performing relative to existing adopted policies and goals (i.e., 50% new housing and 75% new employment).

Brad asked the committee to consider:

- the magnitude of the variation in the factor (e.g., double, triple, 10X base assumption, etc.)?
- How many factor variations within a single scenario?

He noted DRCOG staff will evaluate:

- Which factors can be reasonably modeled based on current tools?
- Which factors should be combined to create plausible scenarios?

Brad relayed a “sense of the committee” from the April 22 Transportation Advisory Committee (TAC) meeting discussion, including the following:

- little support for the illustrative Scenarios C and D that adjust population and employment estimates,
- Scenario A had too few factor variations and Scenario B too many,
- variations of Scenario B are a good place to start (e.g. adjust road miles from base, but use consistent external factors), and
- urban centers and other policy assumptions are critical in Scenario E (e.g., forced 50%/75% scenario)

Member comments:

- Steve Glueck commented that there absolutely needs to be a Scenario E (needed to reach MV goals). He said Scenarios C and D (population/employment estimates) are necessary and disagreed with TAC’s committee sense of little support.
- The Board’s intent was to have a set of scenarios that reflect different policy choices, (i.e., land use access and transportation access, from more to less compact land use, from more transit-oriented to more highway-oriented use, etc.) in order to do sensitivity analysis. Growth rate is not that useful (just changes ‘what’ year)--the question is ‘what are the policy choices at work’. Policy choice scenarios need to be distinct enough to really see the differences. Put different land use assumptions into the different scenarios, and also larger differences in RTP assumptions, perhaps change base RTP.
- Water supply should be factored in; Steve Glueck commented this could possibly be under the growth/development factors.
- How will policy changes factored in the scenarios (i.e., how to reflect a change in the 50/75 policy, etc.)

- A member that attended TAC felt there was not necessarily consensus to eliminate population and employment variables. There is uncertainty of the correlations of some variables and how the model works.
- More discussion at the next meeting was requested. Brad noted that ideally, this topic is scheduled to go to the Board May 15th to simply get the scenario analysis process started, and more committee discussion is planned. Brad noted the model takes two weeks to run a scenario.
- Steve Glueck summarized comments to have distinct enough factors to test policy recommendations and policy base. Steve said more discussion is needed and asked for more confirmation that starting the analysis process (by Board approval in May) would allow for continuing input by the committee.
- Steve Glueck clarified that the modeling small group that is being planned is more to discuss the capabilities of the modeling process, not to discuss policy and recommendations on how the model gets run.
- A critical conversation is needed on what the relationships are between the factors and the magnitude of change.
- Urban centers boundaries could be analyzed.
- Steve Glueck asked if share in urban centers was an output or input factor.

Next Steps

- MVIC and Board weigh-in on scenario analysis in May
- DRCOG staff will finalize 2040 base scenario
- Initial equity assessment of base scenario
- Potential joint meeting of TAC and MVPAC (July)
 - Review initial scenario results
 - Craft Scenario E
 - Discuss links between non-scenario outcomes and scenario results

ADMINISTRATIVE ITEMS

Steve Glueck noted that local governments are doing the Regional Vision Network exercise that is due to DRCOG by May 17.

Brad noted the status of the MVPAC small groups:

- Incorporating Equity Measures has met. May and June MVPAC agenda items were added as a result. The group will meet again in 3-5 months. A summary will be emailed to the committee.
- Quantifying Fiscal Impacts – the April 16 @ 9:00 a.m. meeting was postponed (due to weather). A Doodle poll has been emailed to determine new date.
- Modeling 101 small group meeting date is to be determined.

Ann Norton asked that all members be emailed on notices for the small group meetings.

The meeting was adjourned at 11:11 a.m. The next scheduled meeting is May 15, 2013.

ATTACHMENT B

To: Chair and Members of the Metro Vision Planning Advisory Committee

From: Brad Calvert, Senior Planner, Regional Planning and Operations
303 480-6839 or bcalvert@drcog.org

Subject: **Crafting Regional Scenarios – Metro Vision 2040**

Meeting Date	Agenda Category	Agenda Item #
May 15, 2013	Action	4

REQUESTED ACTION

Recommend to DRCOG Board of Directors two initial scenarios to begin the Metro Vision scenario analysis process.

SUMMARY

Key efforts to date to inform Metro Vision 2040 scenario analysis:

• Metro Vision 2040 scenario planning workshop	June 2012
• Evaluation of past DRCOG scenario analysis efforts and potential new strategies to consider by scenario planning experts	June 2012
• DRCOG Board direction on scenario analysis approach	August 2012
• MVIC feedback on scenario analysis, specifically, outcomes that are important in scenario evaluation	December 2012
• DRCOG staff develops illustrative outcome measures	January 2013
• MVPAC feedback on outcome topic areas and refined measures to use in scenario evaluation	January and February 2013
• DRCOG staff develops illustrative factors and scenario packages to facilitate TAC and MVPAC input	March 2013
• Initial MVPAC feedback on scenario factors and packaging factors into scenarios to test	April 2013
• MVIC update and guidance	May 2013

MVIC direction to DRCOG staff and MVPAC

- Scenario analysis needs to proceed with Scenarios A and B. The process to create and analyze these scenarios will inform additional scenario analysis activities over the coming months.
- MVIC recommended changes to the attached table (Table 1) – changes included the deletion of “external” factors such as increasing the price of gasoline in the future (Scenario B).
- MVPAC will review Scenarios A and B in May and recommend final versions of Scenarios A and B to the DRCOG Board of Directors.

Next Steps

- DRCOG staff will finalize 2040 base scenario.
- DRCOG Board will consider MVPAC recommended scenarios (A and B) in May 2013 and direct staff to begin scenario analysis.
- If recommended scenarios include transportation facilities not in the region’s current RTP, staff will work with TAC to identify specific facilities to include in the modeled network.

Crafting Regional Scenarios – Metro Vision 2040

May 15, 2013

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- DRCOG staff will share initial results at a joint meeting of TAC and MVPAC and gather input on additional analysis to pursue.

PRIOR BOARD ACTION

- May 2011 – Approval of Metro Vision 2040 Framework
- May 2012 – Approval of 2012-2013 Strategic Plan, including Metro Vision 2040 activities
- August 2012 – Approval of approach to using scenario analysis to inform the Metro Vision 2040 plan update process
- December 2012 – Feedback on proposed scenario outcome measures (MVIC)
- May 2013 – MVIC guidance to staff and MVPAC

FINANCIAL CONSIDERATIONS

N/A

ALTERNATIVES

N/A

PROPOSED ACTION/RECOMMENDATIONS

N/A

BACKGROUND INFORMATION

- Table 1: Draft 2040 Example Scenarios - Per May 1 MVIC Discussion

Table 1
Draft 2040 Example Scenarios - Per May 1 MVIC Discussion
 May 2, 2013

Example Factors	2040 BASE Scenario	Scenario A Roadway & Managed Lanes Focus	Scenario B Transit, Bicycle, Pedestrian Focus	Scenario C Really High Pop Growth w/ Base Transp. System	Scenario D "What Will it Take"? to Meet MV goals **
SOCIOECONOMIC/DEMOGRAPHIC		Change From Base 2040 Scenario			
Population Growth (2010 to 2040)	1,350,000	same as base	same as base	2,000,000	same as base
Employment Growth (2010 to 2040)	765,000	same	same	1,300,000	same
Household Growth (2010 to 2040)	611,000	same	same	841,805	same
TRANSPORTATION SYSTEM					
Rapid Transit System-Rail miles (2035 FasTracks)	110	same	All FasTracks (= +50)	same	↑
Rapid Transit - Bus/HOV Center Line (CL) miles	47	+100 miles managed lanes	+ 50 miles managed lanes	same	
Bus Service Levels (annual hours)	2,970,000		20% increase	same	
Bus Service Levels (annual miles)	35,600,000		20% increase	same	
Cost (fares) for Transit	Inflation		reduce price / reflect more free transit use	same	
Additional Roadway Lane Miles (LM): - new Regional System (non-toll) LM	800	+ 200 In. miles	reduce to +400 LMs	same	
Toll / Managed Lane CL miles	committed system	+ 100 miles	+ 50 miles ?	same	
Other Fees, etc.					
Cost of Gasoline (e.g. \$3.80 @ 2%/yr inflation)	~\$6.75/gal		~\$13.50/gal	same	
Additional "Cost of Driving"	Inflation		double	same	
Miles of Bicycle Facilities	2,000		3,000	same	Adjust any of these factors as desired
Acceptance (Utility Factor) of Walk/Bicycling			"double" ?	same	
Share of Pop. "Driving" / Auto availability	1.74 autos/HH		reduce # autos/HH	same	
Location/Amount of Free or Pay Parking			Add costs in additional areas?		
GROWTH & DEVELOPMENT					
UGB/UGA Addditional Area (sq. miles)	260	?	?	350 ?	↓
Share / Amount of Growth in Urban Centers					
- Housing Units	17%			50%	
- Employment	48%			75%	
Share Infill vs. Greenfield New Development					
OTHER					
Level of Teleworking (work at home)	6.3%				
Average Household Size	2.376				
Age Cohort Distribution (e.g. % > age 65)	25%				

Goals: **10% less VMT/capita
 **10% less GHG/capita
 ** 50% of HH, 75% employment growth in urban centers

ATTACHMENT C

To: Chair and Members of the Metro Vision Planning Advisory Committee

From: Eric Ross, Planner II, Regional Planning and Operations
303 480-6728 or eross@drcog.org

Subject: **Urban Centers – Initial Analysis**

Meeting Date	Agenda Category	Agenda Item #
May 15, 2013	Information	5

REQUESTED ACTION

No action required. This item is for information and discussion.

SUMMARY

Background

- At the February 20, 2013 MVPAC meeting, DRCOG staff provided an overview of requested amendments to the Metro Vision 2035 Plan received by DRCOG during the 2012 Cycle 2 Plan Assessment. The proposed amendments included several new and revised urban centers.
- Several MVPAC members noted the importance of urban centers in the region's efforts to meet multiple regional goals (e.g., VMT and GHG reductions) and suggested urban centers as a key issue to begin exploring.
- Metro Vision 2035 calls for the Denver metro region to become an international model for healthy, livable communities by developing vibrant urban centers connected by a robust multimodal network throughout the metro area. While each urban center will be unique, all urban centers will be:
 - Active, pedestrian-, bicycle-, and transit-friendly places that are more dense and mixed in use than surrounding areas;
 - Allow people of all ages, incomes and abilities to access a range of housing, employment, and service opportunities without sole reliance on having to drive;
 - Promote regional sustainability by reducing per capita vehicle miles traveled, air pollution, greenhouse gas emissions and water consumption; and
 - Respect and support existing neighborhoods.
- DRCOG staff has developed an initial set of indicators to measure current performance of urban centers. Additionally, staff has used these indicators to conduct a preliminary assessment of urban centers.
- Based on the results of the preliminary analysis, DRCOG identified a number of urban centers that are performing well.
- The attached documents provide highlights of the initial analysis performed by DRCOG staff.

Today's Discussion

- What other types of analysis would be valuable as MVPAC considers the role of urban centers in the Metro Vision 2040 planning process?

Next Steps

- Staff will continue to bring urban centers data and information to MVPAC based on committee guidance.
- DRCOG will develop urban centers survey later in 2013.

Urban Centers – Initial Analysis

May 15, 2013

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PRIOR BOARD ACTION

- February 2011 – Board adoption of Metro Vision 2035 (including revised urban center vision, goal, and policies)
- January 2012 – Board adoption of Metro Vision Growth and Development Supplement (urban center designation process)

FINANCIAL CONSIDERATIONS

N/A

ALTERNATIVES

N/A

PROPOSED ACTION/RECOMMENDATIONS

N/A

BACKGROUND INFORMATION

Attachments:

- C1. Initial Analysis of Urban Centers
- C2. Metro Vision excerpt – Urban centers vision, goal and policies

Attachment C1 – Initial Urban Centers Analysis

The concept of connected, mixed use, urban centers has been part of Metro Vision since the original guiding vision was adopted in 1992. Urban centers were central to the original Metro Vision (adopted in 1997) and have remained through the current version of Metro Vision. DRCOG does not identify urban centers. Instead, local communities identify areas that meet established regional criteria. There are currently 103 designated urban centers in the DRCOG region in 25 member jurisdictions.

DRCOG compiled 30+ indicators to assist with an initial analysis of the characteristics of urban centers that are likely to contribute to achieving other regional goals outlined in Metro Vision (e.g. per capita VMT reductions). See Table 2 for a list of indicators and definitions.

Correlation Analysis

DRCOG staff performed a simple Pearson Correlation Coefficients analysis on all the indicators measured for the 103 Urban Centers. Many of the measurements have significant relationships.

- **Vehicle Miles Traveled (VMT) variables** – average household VMT and average employee VMT (workers in the urban center) correlate with many measurements. They are also positively correlated with each other: urban centers with low household VMT also have low employee VMT.
 - The higher the internal trip capture an urban center has, the lower the VMT for both households and employees.
 - Urban centers with a high percentage of household SOV use also have high resident VMT, and vice versa.
 - Higher household and employment density urban centers have lower VMT and lower density urban centers have higher VMT, however, the relationship is stronger for household VMT.
 - High VMT urban centers have less mixed use, whereas low VMT areas have more mixed use.
 - Urban centers with high intersection density have lower VMT among households
 - Areas with good accessibility to transit for both jobs and households have low VMT measures for both households and employees.

Attachment C1 – Initial Urban Centers Analysis

- **Internal Trip Capture** also correlates with other measurements. Internal trip capture was analyzed in two ways: trips captured within a single urban center and trips from an urban center to another urban center.
 - Households in an urban center have low SOV mode share when most of their trips are within the same or all urban centers.
 - Urban centers with higher household and higher employment density have a higher percentage of trips that occur within the same or all urban centers.
 - Urban centers with higher intersection density have more trips that occur within the same or all urban centers.
- **Single Occupancy Vehicle (SOV) measures for** urban center households have stronger relationships with other variables than for urban centers employees.
 - Growing areas have high SOV use, where areas that are already built out or are not forecasted to grow as much have lower SOV use.
 - Areas with a higher density of households and employees have lower rates of SOV use.
 - Areas with high intersection density have low rates of SOV use.
 - Urban centers with high accessibility via transit have lower SOV rates.
- **Household and Employment Density** strongly correlate with each other, meaning places of high household density also have high employment densities and vice versa.
 - Areas that have high household density do not necessarily have a mix of other kinds of buildings, such as retail establishments.
 - Areas that are mainly employment centers lack housing, contributing to low jobs-housing balance.
 - Areas with density have better transit accessibility.
 - More underutilized parcels result in lower household and employment density.
- **Accessibility**
 - Centers with more mixed use zoning have higher accessibility to jobs.
 - Urban centers with high intersection density are also deemed to be transit accessible.

What this analysis may indicate:

- Urban centers are supporting non-SOV trips, both within the center, but also center-to-center trips – they may be “connected” as called for in Metro Vision
- Higher density urban centers have lower VMT, but housing is a key component
- Intersection density is related to both internal trip capture and improved transit access
- “Planned” urban centers are often located in “high SOV” areas – lowering SOV share will require numerous strategies

Attachment C1 – Initial Urban Centers Analysis

Walkability Index as a Proxy

Evaluating urban centers using this array of indicators presents a number of challenges, including the interpretation of the results of such a diverse dataset. Developing indices that take into account several indicators at once is one way to simplify the process while maintaining integrity. One such index – walkability – has potential as a proxy for several of these indicators.

DRCOG adapted a walkability index that takes a number of the indicators described in Table 2 into account and calculates walkability for each urban center based on the following inputs:

- Net residential density (a proxy for households)
- Intersection density (a proxy for accessibility)
- Land use mix (a proxy for land use – distribution of building square footage by use)
- Retail floor-area ratio (a proxy for retail characteristics)

The resulting analysis shows that walkability correlates well with several travel characteristics, including: vehicle miles traveled (VMT) by residents and workers; percentage of residents and workers commuting as single-occupancy vehicles (SOV); and internal trip capture – the number of trips either within the same urban center, or from one urban center to another center:

- The **Walkability Index** is highly correlated with many of the other variables.
 - The *more* "walkable" an urban center is, the *lower* the VMT for that urban center.
 - The *more* "walkable" the urban center the *larger* the percentage of trips that stay within that particular urban center or within other urban centers around the region (the relationship is stronger for the "all urban centers" variable).
 - The *more* "walkable" the area is, *fewer* people use an SOV to get to work (this relationship is not as strong for employees in the urban center / stronger for households in the urban center).
 - The *more* "walkable" urban centers have *higher* numbers of households and jobs per acre than those that are not deemed as "walkable."
 - The *more* "walkable" areas have *higher* numbers of households that are accessible to transit and jobs that are accessible by transit.

Given the correlation between the walkability index and desired travel characteristics of urban centers the index may serve as single valid measure of the potential of urban centers to contribute to larger regional goals. Based on this index the following urban centers were identified as the most "walkable" (Table 1).

Attachment C1 – Initial Urban Centers Analysis

Table 1: Top 25 Walkability Scores				
Name	Jurisdiction	Classification*	Acres	Walkability Index
Colorado Blvd Health Care Dist	Denver	Emerging	137	7.64
MLK Town Center	Denver	Planned	27	6.58
Colfax Avenue	Aurora	Existing	336	6.03
East Colfax Main Street	Denver	Existing	559	5.88
Downtown Boulder	Boulder	Existing	382	5.75
Golden Downtown	Golden	Existing	132	4.85
Sheridan Station	Denver	Emerging	168	4.67
St. Anthony's Urban Center	Denver	Emerging	30	4.45
29th Ave. Town Center	Denver	Emerging	90	4.12
Cherry Creek	Denver	Existing	603	4.00
Central Business District	Denver	Emerging	1705	3.77
Olde Town/New Town	Arvada	Existing	158	3.48
Broadway	Denver	Existing	142	2.61
Colorado Station	Denver	Existing	171	2.52
13th Avenue	Aurora	Emerging	179	2.14
Lincoln Station TOD	Lone Tree	Emerging	61	2.03
Wadsworth Boulevard	Lakewood	Existing	294	1.97
Glendale City Center	Glendale	Existing	353	1.91
Lowry Town Center	Denver	Existing	122	1.91
University Hill	Boulder	Existing	542	1.75
Downtown Louisville	Louisville	Existing	357	1.74
Buckingham Center	Aurora	Existing	414	1.65
CBD of Longmont	Longmont	Existing	591	1.54
Hampden Town Center	Aurora	Emerging	105	1.53
Colorado Blvd and Smith Road	Denver	Emerging	78	1.27

**Urban centers are classified based on the following criteria established in the Metro Vision 2035 Growth and Development Supplement:*

- *Emerging centers are expecting significant growth relative to existing conditions (more than 50% growth in combined jobs and housing units).*
- *Existing centers have substantial existing development. These centers are expecting less than 50% growth in combined jobs and housing units.*
- *Planned urban centers are largely undeveloped, but will become intensely developed over time. These areas have less than 100 housing units and less than 100 jobs.*

Attachment C1 – Initial Urban Centers Analysis

Table 2: Indicators and Definitions	
Indicator	Definition
Households 2010	Estimated number of households in 2010
Jobs 2010	Estimated number of jobs in 2010
Household Density 2010	Households / Acre
Employment Density 2010	Jobs / Acre
Retail Jobs	2010 Retail Jobs
Retail - Housing Mix	Retail Jobs / (Retail Jobs + Households)
Retail - Other Jobs Mix	Retail Jobs / (Retail Jobs + Other Jobs)
Jobs / Housing Balance	Housing Units / (Housing Units + All Jobs)
Intersection Density	Intersection / Acre
Zoning in Support of Development	Percent Mixed-Use/High Density Zoning
Vacant Parcels	Percent vacant parcels
Underutilized Parcels	Percent underutilized parcels
Average Accessible Households	Urban Center Transit Accessibility: Peak walk to transit: Within 55 minutes
Average Accessible Jobs	Urban Center Transit Accessibility: Peak walk to transit: Within 55 minutes
Average Household Vehicle Miles Traveled	VMT per HH live in Urban Center by urban center (all trips miles by auto)
Average Employee Vehicle Miles Traveled	VMT per Employee/workers work in Urban Center (all trips miles by auto)
Percentage Internal Trip Capture - Same Urban Center	Internal Trip share that originate in and destined to the same Urban Center (all trips and all mode for all people)
Percentage Internal Trip Capture - All Urban Centers	Internal Trip share that originate in Urban Center and destined to All Urban Center (including itself) (all trips and all mode for all people)
Percent Drive Alone Resident Commuters	Percent of Drive Alone commute trips by people who lives in the urban center and works outside home (only work trips destined to the regular work location)
Percent Drive Alone Employee Commuters	Percent of Drive Alone commute trips by people who works in the urban center and works outside home (only work trips destined to the regular work location)

Attachment C1 – Initial Urban Centers Analysis

Analysis of floor-area ratio (FAR)

DRCOG staff analyzed allowable density by building types in urban centers, within the 2035 urban growth boundary, and within the entire region. Analysis of many building types did not yield statistically significant results, particularly those buildings at the lower end of the FAR spectrum. Notable results from this analysis are described below.

- **Residential Low Density FAR (observed):** when compared to non-urban center parcels within the UGB, it is only 2% higher.
- **Residential High Density FAR (observed):** when compared to non-urban center parcels within the UGB, it is 13% higher.
- **Commercial General** is 67% higher in urban centers than the regional average.
 - **Commercial Retail** is 22% higher
 - **Mixed Use Commercial** is 57% higher
 - **Mixed Use Residential** is 48% higher
 - **Office Low Density** is 76% higher.

What this analysis may indicate:

- Lower density housing products within urban centers may not be altogether different than similar product within the UGB
- Higher density housing products may be more dense within urban centers than the region as a whole *and* within the UGB (the definition of “high” density is likely different within urban centers)
- Commercial densities are elevated within urban centers – the connection of floor area and parking ratio may be driving this to some degree (i.e. parking space per square foot of commercial)

Urban Centers

Vision: The Denver metro region will become an international model for healthy, livable communities by developing vibrant urban centers connected by a robust multi-modal network throughout the metro area. While each urban center will be unique, all urban centers will:

- be active, pedestrian-, bicycle-, and transit-friendly places that are more dense and mixed in use than surrounding areas;
- allow people of all ages, incomes and abilities to access a range of housing, employment, and service opportunities without sole reliance on having to drive;
- promote regional sustainability by reducing per capita vehicle miles traveled, air pollution, greenhouse gas emissions and water consumption; and
- respect and support existing neighborhoods.

Goal: *Urban centers will accommodate 50 percent of new housing and 75 percent of new employment between 2005 and 2035. (See Appendix B for a list of recognized urban centers)*

Policies

- 1. Regional Advocacy and Investment.** DRCOG will take a proactive role in identifying opportunities, providing resources and directing investment toward programs and infrastructure improvements that help local governments and the private sector develop successful urban centers.
- 2. Minimization of Harmful Competition.** The region will advocate for changes to tax structure to minimize detrimental competition among local governments for revenues and support collaborative progress toward the urban center vision.
- 3. Location.** Metro Vision encourages the development of urban centers at infill and redevelopment sites within the UGB/A throughout the metro area, while recognizing the unique significance of the Denver central business district. Metro Vision prioritizes urban centers around existing or proposed transit stations or with high-frequency bus service.
- 4. Multimodal Connectivity.** Urban centers will have high levels of internal connectivity and will be well-connected to the region at large.

- 5. Housing Options.** Urban centers will support housing suitable for a wide range of incomes and the full spectrum of life stages and physical abilities, providing good links to jobs, services and other opportunities and reducing the combined cost of housing and transportation.
- 6. Transportation Options.** Modes such as walking, bicycling and transit will be equally competitive with driving within urban centers.
- 7. Design:** Innovative planning, zoning and urban design strategies will promote higher-density, mixed-use development, pedestrian activity and accessible public space within urban centers. Parking management strategies, such as parking maximums and pricing strategies where appropriate, will minimize the potential negative effects of parking on urban center development and multimodal access.

ATTACHMENT D

To: Chair and Members of the Metro Vision Planning Advisory Committee

From: Brad Calvert, Senior Planner, Regional Planning and Operations
303 480-6839 or bcalvert@drcog.org

Subject: **Regional Equity Atlas Version 2 Overview**

Meeting Date	Agenda Category	Agenda Item #
May 15, 2013	Information	6

REQUESTED ACTION

There is no action requested on this item.

SUMMARY

Background

- To raise awareness among a wide range of stakeholders about the benefits and opportunities of a robust public transportation network, Mile High Connects developed a Regional Equity Atlas. The information in the Atlas emphasizes the need to ensure access to opportunity for everyone in the region, especially improving connections for the region's most economically disadvantaged residents.
- The following five topics form the organizational structure for the initial atlas:
 1. Population and Demographic Characteristics
 2. Access to Affordable, Quality Housing Options
 3. Access to Jobs, Economic and Workforce Development Opportunities
 4. Access to Educational Opportunities
 5. Access to Health Care, Healthy Foods, and Recreational Facilities
- The first phase of the Equity Atlas was completed in April 2012 and is available on the Mile High Connects website. The Equity Atlas is being used by practitioners and community members alike as a tool to explore the relationship between different issue areas (housing, education, jobs and health), guiding investment decisions, grant-making and community outreach.
- The Atlas has received national attention for its innovative approach to visually representing the region's opportunities and challenges in relation to transit, and several other regions are now considering developing similar products.
- DRCOG's Sustainable Communities Initiative (SCI) provides funding to turn the Equity Atlas into an interactive mapping tool with new features such as the ability to zoom in on particular parts of the region, layer different data in the same map and download the data that underlies the maps.
- The Piton Foundation has committed cash and in-kind matching resources to assist with the creation of the second phase. DRCOG and Mile High Connects will continue to work together to ensure the successful implementation of this important piece of the SCI work.

Next Steps

- DRCOG and Mile High Connects are developing a scope of work for the second phase of the Equity Atlas, with key steps listed below.
 - Review the data in the Equity Atlas and identify any gaps or new data needed for the interactive tool (January 2013 and ongoing as necessary)

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- Convene a larger group of regional stakeholders who are current or potential users of the Equity Atlas to identify their needs for the tool (April 2013)
- Convene a technical advisory group to discuss technical requirements (May 2013)
- Retain a consultant team to create the interactive website
- Beta test the new interactive mapping tool in late 2013 with key stakeholders
- Release the new Equity Atlas in late 2013/early 2014

MVPAC Feedback

- This item is provided for committee review and comment. Committee members are encouraged to review the Background Information below and provide feedback to DRCOG staff. Questions to consider include:
 - Who is the audience for an on-line, interactive mapping tool?
 - What key features should be included in the on-line tool (e.g., generate reports, share work with others, ability to create individual work space, etc.)?
 - What types of data should be included?
- For more information on the second phase of the Equity Atlas please contact Eric Ross—eross@drcog.org or (303) 480-6728.

PRIOR BOARD ACTION

N/A

FINANCIAL CONSIDERATIONS

N/A

ALTERNATIVES

N/A

PROPOSED ACTION/RECOMMENDATIONS

N/A

BACKGROUND INFORMATION

- Link to current **Denver Regional Equity Atlas**
<http://www.reconnectingamerica.org/resource-center/books-and-reports/2012/the-denver-regional-equity-atlas-mapping-opportunity-at-the-regional-scale/>

- Links to sample interactive tools:

EPA EJView

<http://epamap14.epa.gov/ejmap/ejmap.aspx?wherestr=Denver,%20CO>

<http://epamap14.epa.gov/ejmap/help/help.html?tab=8>

Maricopa Association of Governments

<http://ims.azmaq.gov/>

Lakewood exMap

<http://maps.lakewood.org/>

Census Data Mapper

<http://tigerweb.geo.census.gov/datamapper/map.html>