Welcome!

2050 Metro Vision Regional Transportation Plan
Civic Advisory Group
Tonight's agenda

- Introductions
- March meeting recap
- DRCOG scenario planning results
- Investment priorities budget game
- Coordinated transit plan
- Transit activity
- Wrap up
Introductions
Reminder of why you’re here....

• DRCOG is committed to meaningful public engagement of ALL the region’s residents

• New public engagement plan focus on engaging those not typically involved in transportation planning process

• We are planning for our regional transportation system all the way to 2050 – it will be our system

• Hear from a wide range of perspectives while developing the plan, provide ability to influence the process early and often

• Help us determine best approach for larger scale public involvement
MVRTP overview

Region’s Multimodal Vision

Fiscally-Constrained (Cost Feasible)

Capacity Projects (Road & Transit) for TIP Funding

Implements Metro Vision

Updated Every 4-Years/Amended Frequently

Federal Requirements (MPO Function)
Last meeting, we focused on...

Scenario planning

March Madness: which are the most important measures to use to evaluate scenario results
What did we do with your input?

1. More people have good access to transit & jobs
2. More low income people have good access to transit & jobs
3. Fewer greenhouse gas emissions
4. More walking/rolling trips

Winner: More people have good access to transit & jobs
The “Final Four” - Top Priority Measures

Youth Advisory Panel:
- Fewer deaths on roads
- More electric vehicles
- Fewer greenhouse gas emissions
- More people have good access to *electric* transit & jobs

Civic Advisory Group:
- More low-income people have good access to transit & jobs
- More walking/rolling trips
- Fewer greenhouse gas emissions
- More people have good access to transit & jobs
Draft 2050 Scenario Outcome Results
DRCOG’s Approach

Explores “what if” alternative futures

Relative comparisons between scenarios and baseline

Not rigorous evaluation of scenarios, nor choosing/judging scenarios

Choices & tradeoffs from individual scenarios

Provide guidance and direction for plan development
Scenario Analysis

Land Use Scenarios
- 2050 Base
  - Infill
  - Centers

Transportation Scenarios
- 2050 Base (2040 FCRTP)
  - Off-Peak Congestion
  - Managed Lanes & Operations
  - Travel Choices
  - Transit
  - Automated/Connected Vehicles

Automated/Connected Vehicles
- Transit
- Off-Peak Congestion
- Managed Lanes & Operations
- Travel Choices
- Transit
- Automated/Connected Vehicles
DRCOG Region Demographic Data

Population

Employment

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Employment</th>
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</thead>
<tbody>
<tr>
<td>2020</td>
<td>3,362,000</td>
<td>2,168,000</td>
</tr>
<tr>
<td>2030</td>
<td>3,802,000</td>
<td>2,451,000</td>
</tr>
<tr>
<td>2040</td>
<td>4,170,000</td>
<td>2,714,000</td>
</tr>
<tr>
<td>2050</td>
<td>4,387,000</td>
<td>2,979,000</td>
</tr>
</tbody>
</table>
2040 Fiscally Constrained Networks
2050 Base

Roadway Capacity Projects

Rapid Transit System
Scenario Combinations Summary

- 2050 Base Transportation
- Off-Peak Congestion
- Managed Lanes & Operations
- Travel Choices
- Transit

- Infill
- 2050 Base Transportation
- Travel Choices

- Centers
- 2050 Base Transportation
- Transit
Off-Peak Congestion Outcomes

Compared to the 2050 Base

Less than 1% change in vehicle miles traveled and transit trips

>(Regional person delay decreases by 3%)

<table>
<thead>
<tr>
<th></th>
<th>AM Peak I-25 from C-470 (Lone Tree) to SH-7 (Broomfield)</th>
<th>Daily Volume I-25 @ Speer</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020 Base</td>
<td>70 minutes</td>
<td>260,000</td>
</tr>
<tr>
<td>2050 Base</td>
<td>88 minutes</td>
<td>330,000</td>
</tr>
<tr>
<td>Off-Peak Congestion Scenario</td>
<td>79 minutes</td>
<td>380,000</td>
</tr>
</tbody>
</table>

Some traffic is diverted from arterial streets onto I-70 and I-25.

While there are few changes at the regional level, some specific corridors have significant impacts.
People in vehicles experience **25% less delay** on average.

**3% increase** in vehicle miles traveled

(~800,000 more daily VMT compared to the 2050 Base)

**Travel reliability increases significantly on the region’s freeways.**

**Fewer secondary crashes and improved safety due to enhanced incident management.**
Travel Choices Outcomes

Compared to the 2050 Base

More than **twice** as many teleworkers

**400,000 fewer** drive alone work trips every day

**50% increase** in bicycle/pedestrian trips

*(Slight decrease in transit trips)*

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Due to safer roadway design there are fewer crashes, injuries, and fatalities.

Even with reduced speed limits, there is less total delay.
Transit Outcomes

Compared to the 2050 Base

- **79% of households** have good transit access to jobs
  *(Compared to 58% in the 2050 Base)*

- **76% more** transit trips
  *(Small decrease in walk and bike trips)*

- **100,000 more** households use transit
  *(14% of all households)*

Free transit provides personal, mobility, and equity benefits.
There is a 2% decrease in vehicle miles traveled.
SCENARIO COMPARISONS
OUTCOMES & METRO VISION TARGETS
Vehicle Miles Traveled (% Change from 2020)

- 2050 Base/Off-Peak Congestion: 45%
- Managed Lanes & Operations: 49%
- Travel Choices: 37%
- Transit: 43%
Transit, Walk, & Bicycle Trips (% Change from 2020)

- 2050 Base/Off-Peak Congestion: 47%
- Managed Lanes & Operations: 45%
- Travel Choices: 101%
- Transit: 64%
Vehicle Hours of Delay (% Change from 2020)

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Percent Change from 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>2050 Base/Off-Peak Congestion</td>
<td>98%</td>
</tr>
<tr>
<td>Managed Lanes &amp; Operations</td>
<td>51%</td>
</tr>
<tr>
<td>Travel Choices</td>
<td>73%</td>
</tr>
<tr>
<td>Transit</td>
<td>87%</td>
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</tbody>
</table>
# Transportation Scenarios

## Metro Vision Targets

<table>
<thead>
<tr>
<th>Negative Trend</th>
<th>No Change</th>
<th>Positive Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Major Decrease</strong></td>
<td><strong>No Change</strong></td>
<td><strong>Major Increase</strong></td>
</tr>
</tbody>
</table>

### Scenario Overview

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Scenario Cost (FY 20 Billions)</th>
<th>Vehicle Miles Traveled</th>
<th>Transit Trips</th>
<th>Walk &amp; Bicycle Trips</th>
<th>Person Hours of Delay</th>
<th>Reduce Daily VMT per Capita</th>
<th>Reduce SOV Mode Share to Work</th>
<th>Minimize Increase of Daily PHD per Capita</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off-Peak Congestion</td>
<td>$4.0</td>
<td>![Increase]</td>
<td>![Increase]</td>
<td>![Increase]</td>
<td>![Increase]</td>
<td>![Negative]</td>
<td>![Negative]</td>
<td>![Negative]</td>
</tr>
<tr>
<td>Build out the freeway/interstate system to address off-peak congestion.</td>
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</tr>
<tr>
<td>Managed Lanes &amp; Operations</td>
<td>$7.5</td>
<td>![Decrease]</td>
<td>![Decrease]</td>
<td>![Decrease]</td>
<td>![Decrease]</td>
<td>![Negative]</td>
<td>![Negative]</td>
<td>![Yes]</td>
</tr>
<tr>
<td>Improve operations &amp; traffic flow on region’s highways/freeways.</td>
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<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travel Choices</td>
<td>$3.0</td>
<td>![Decrease]</td>
<td>![Decrease]</td>
<td>![Increase]</td>
<td>![Decrease]</td>
<td>![Negative]</td>
<td>![Negative]</td>
<td>![Yes]</td>
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<tr>
<td>Increase travel &amp; mobility choices along region’s major arterials.</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Transit</td>
<td>$6.0</td>
<td>![Decrease]</td>
<td>![Increase]</td>
<td>![Increase]</td>
<td>![Decrease]</td>
<td>![Negative]</td>
<td>![Negative]</td>
<td>![Negative]</td>
</tr>
<tr>
<td>Improve/expand the region's transit network and service. (+$1.0 Operations) Annually</td>
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</tbody>
</table>
Land Use Scenarios
Households & Employment

- Regional Household Growth to 2050
- Regional Job Growth to 2050
- Anchored to Local Zoning and Permitted Plats
- Location Choice Models’ Calibration
Land Use Scenarios
Households & Employment

Sourced from our shared vision

Baseline

Infill

Centers
Infill Outcomes

Compared to the 2050 Base

**6% decrease** in vehicle miles traveled

People in vehicles experience **11% less delay** on average

Almost **twice** as many transit trips
*(and a 50% increase in walk and bike trips)*

A range of housing options across the region benefits individuals and families and can improve the economic vitality and diversity of local communities.

Commercial vehicle trips decrease with consolidation of stops.
Infill + Travel Choices Outcomes

Vehicle miles traveled decreases by 14.5 million each day (~11% less VMT compared to the 2050 Base)

Twice as many walking and biking trips (~16% of all trips taken in the region)

Compared to the 2050 Base

A range of housing options across the region benefits individuals and families and can improve the economic vitality and diversity of local communities.

More transit trips than in the “Transit” Scenario.
Centers Outcomes

8% decrease in vehicle miles traveled

Over 3 times as many transit trips

Over twice as many walk and bicycle trips

Connected urban centers across the region accommodate a growing share of the region’s housing and employment and support existing neighborhoods.

Average Person Delay per Trip decreases by 27%. Some localized areas experience more congestion.
Centers + Transit Outcomes

Compared to the 2050 Base

Vehicle miles traveled **decrease 24%**

- **3 times** as many walk and bicycle trips
- **6 times** as many transit trips
  
  *(2.4 million transit trips daily)*

**Connected urban centers across the region accommodate a growing share of the region’s housing and employment and support existing neighborhoods.**

**More total person trips since there is more free-time for short trips.**

**People in vehicles experience 50% less delay on average.**
Scenario Comparisons
Change from 2020

### Vehicle Miles Traveled

- **2050 Base**: 45%
- **Centers**: 43%
- **Centers + Transit + Costs**: 31%
- **2020**: 26%

### Transit, Walk, and Bicycle Trips

- **Transit**: 10%
- **Centers**: 47%
- **Centers + Transit**: 64%
- **2020**: 368%
Vehicle Miles Traveled (% Change from 2020)

<table>
<thead>
<tr>
<th>Scenario</th>
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</tr>
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<tbody>
<tr>
<td>2050 Base</td>
<td>45%</td>
</tr>
<tr>
<td>Infill</td>
<td>36%</td>
</tr>
<tr>
<td>Centers</td>
<td>33%</td>
</tr>
<tr>
<td>Infill + Travel Choices</td>
<td>28%</td>
</tr>
<tr>
<td>Centers + Transit</td>
<td>10%</td>
</tr>
</tbody>
</table>
Transit, Walk, & Bicycle Trips (% Change from 2020)

- 2050 Base: 47%
- Infill: 119%
- Centers: 257%
- Infill + Travel Choices: 178%
- Centers + Transit: 368%
Vehicle Hours of Delay (% Change from 2020)

- 2050 Base: 98%
- Infill: 78%
- Centers: 51%
- Infill + Travel Choices: 53%
- Centers + Transit: -15%
<table>
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<tr>
<th>Scenario Overview</th>
<th>Scenario Cost (FY 20 Billions)</th>
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</thead>
<tbody>
<tr>
<td>Infill</td>
<td>NA</td>
<td>🟢</td>
<td>🟢</td>
<td>🟢</td>
<td>🟢</td>
<td>N</td>
<td>N</td>
<td>Y</td>
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<tr>
<td>Local governments allow for more urban and suburban redevelopment and infill.</td>
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<td></td>
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</tr>
<tr>
<td>Centers</td>
<td>NA</td>
<td>🟢</td>
<td>🟢</td>
<td>🟢</td>
<td>🟢</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Local governments focus opportunity for development around key centers and corridors?</td>
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<tr>
<td>Infill + Travel Choices</td>
<td>$3.0</td>
<td>🟢</td>
<td>🟢</td>
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<td>Centers + Transit</td>
<td>$7.0</td>
<td>🟢</td>
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<td>🟢</td>
<td>🟢</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
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ELECTRIC & AUTOMATED VEHICLES
EV Adoption Rates
Metro Vision Targets

Reduce Daily Transportation GHG per Capita
by Electric Vehicle Share of All Vehicles

Daily Pounds of GHG per Capita

<table>
<thead>
<tr>
<th>Year</th>
<th>Current Estimate</th>
<th>25% EVs</th>
<th>75% EVs</th>
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<tbody>
<tr>
<td>2020</td>
<td>24.6</td>
<td>16.4</td>
<td>12.3</td>
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<tr>
<td>2050 Base</td>
<td>15.3</td>
<td>11.5</td>
<td>4.1</td>
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<tr>
<td>Infill</td>
<td>14.7</td>
<td>11.0</td>
<td>3.8</td>
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<tr>
<td>Centers</td>
<td>14.4</td>
<td>10.8</td>
<td>3.7</td>
</tr>
<tr>
<td>Infill + Travel Choices</td>
<td>12.3</td>
<td>9.2</td>
<td>3.1</td>
</tr>
<tr>
<td>Centers + Transit</td>
<td>9.2</td>
<td></td>
<td></td>
</tr>
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</table>

2040 MV Target: 10
ACTIVITY
Next phase of public engagement

- Virtual engagement
- Need to understand people’s reactions to the scenario results and what choices and tradeoffs to be made
- Next step is creating investment priorities, which will then inform the project selection that goes into the plan
- Developed a new engagement site, budget game
- We want to hear what you think – about investment priorities and about the game!
Investment priorities activity

• Go to bit.ly/cag-mvrtp on your phone or computer
• Scroll to “Get Involved” section, read instructions
• Submit your budget and fill out survey
• Come back together
  • Discuss your responses
  • How to improve the tool? Did it make sense? Were the amounts hard to work with?
COORDINATED TRANSIT PLAN
2050 Metro Vision Regional Transportation Plan: Coordinated Transit

Civic Advisory Group Meeting
COORDINATED PUBLIC TRANSIT HUMAN SERVICES TRANSPORTATION PLAN (CPTHSTP)
CPTHSTP - “Coordinated Transit Plan”

- Required by FAST ACT federal legislation
- Incorporated into 2050 MVRTP – scheduled for Spring 2021 adoption
- Describes existing coordinated transportation activities
- Analyzes available data, recent surveys (such as CASOA, AHC, RTD)
- Identifies gaps, needs, strategies
- Outlines future coordinated transportation activities
- Helps define eligible FTA 5310 projects
  - New role for DRCOG as administrator
Coordinated Transit Plan does not...

- Fund specific projects
- Preclude local coordination plans
Current plan identified needs & gaps

- **Access**
  - Affordable fares, especially for older adults, individuals with disabilities and/or low incomes
  - Increase service areas, frequency, service hours (nights and weekends) where gaps exist
  - Remove barriers to ride fixed route, including improving access to bus stops and rail stations and providing travel training

- **Coordination**
  - More cross-jurisdictional trips, better trip coordination, and more accessibility
  - Better regional coordination to build on improving local coordination

- **Service expansion**
  - Meet increasing demand for transportation as the population increases and ages
  - Expand volunteer driver programs
  - Increase transportation options for quality of life trips such as hair appointments and social visits
  - Improve access to healthcare for non-emergent visits

- **Other**
  - Accessible and understandable transportation information and referral services
  - Make sure that veterans have access to transportation
Current plan strategies to address needs & gaps

- Infrastructure improvements such as curb cuts
- Transit-supportive land use
- First-last mile connections
- Travel training
- Affordable fares programs
- Pilot new technology and practices to improve mobility
- Coordination
  - Spend local, regional, state, and federal funds more efficiently
  - Increase human service transportation coordination efforts
  - Address cross-jurisdictional, cross service boundary, and interregional trips
  - Improve access to key services such as healthcare and employment through coordination
Plan engagement

- Questionnaire to local governments, TMAs, Local Coordinating Councils, County Councils on Aging, Accountable Health Communities (AHC) Advisory Board and AHC Provider Group members

- DRCOG Advisory Committee on Aging

- MVRTP Youth Advisory Panel & Civic Advisory Group

- Colorado Access meetings (if possible)

- Local Coordinating Council meetings

- 2050 MVRTP engagement: Draft plan review in early 2021
In which county do you reside?

- Adams: 2
- Arapahoe: 1
- Broomfield: 0
- Denver: 4
- Jefferson: 1
- Douglas: 2
- Other: 0
- Weld: 0
How often do you use public transportation to get somewhere in the Denver region?

- 40% More than once a week
- 40% A few times a month
- 10% A few times a year
- 10% Never
What types of public transportation have you used?

- Access-a-Ride: 1
- Bus: 4
- Light rail: 5

Total respondents: 10
What do you think are the main barriers to Denver region residents using public transportation more?

1. Proximity to work/school
2. Safety concerns
3. Habit of driving
4. Frequency of service
5. Proximity to home
6. Reliability of service
7. Long travel time
8. Needing to make multiple connections
9. Lack of direct transport

- [Images of circles with numbers and text]
Which Denver region residents do you feel have the greatest need to be served by transit?

- Older adults: 2
- Individuals with disabilities: 3
- Low-income individuals: 7
- All residents: 4
Are there any specific places in the region that don't currently have rapid transit that you think should be served by it?

- Leetsdale and Quebec area. It's a full dead zone
- Longmont to Boulder
- Brighton and The Ranch complex near Loveland
- Red Rocks.
- Last mile connecting regions like El Paso County or Boulder or for that matter mtns
- Northeast Adams County
- Rural areas
- Red rocks
- Commerce city
Are there any specific places in the region that don't currently have rapid transit that you think should be served by it?

- Rural areas
- Commerce City, Montbello
- Anything between Colorado Blvd, 70, and 225
- Mile High Flea Market, Red Rocks, ski resorts, and every single major artery in Aurora
- Westminster (after major commute times)
- Along Colfax into Aurora. Both low income and immigrants differ because of it. Getting to jobs takes 3 buses
- C-470
- Federal heights
Next steps
Next steps

- Committees and Board of Directors reviewing scenario results
- Will put out information about budget tool when it is ready for general public – **please help share!**
- Investment priorities will inform project selection, plan drafting this summer/fall
- Next Civic Advisory Group meeting – Sept. or Oct.