



ADVANCED  
MOBILITY  
PARTNERSHIP

**Agenda**  
**Working Group**  
**Tuesday, April 2, 2024**  
**2:30 p.m.**

**Remote meeting**

Please register and join via Zoom.

Persons in need of auxiliary aids or services, such as interpretation services or assisted listening devices, are asked to contact the Denver Regional Council of Governments at least 48 hours in advance of the meeting. If you have difficulty using this document's content, please email [access@drcog.org](mailto:access@drcog.org) or call 303-455-1000.

1. Welcome and introductions
  - a. Electric vehicles Menti
2. Informational briefings
  - a. Accelerating Innovation Mobility Demonstration Program  
Charlie Standfield, Regional Transportation District
  - b. Colorado Department of Transportation's Digital Mobility Hub update  
Suzanne Carulo, Colorado Department of Transportation
3. Partner agency updates and other matters
4. Adjourn  
Next meeting – June 4, 2024





ADVANCED  
MOBILITY  
PARTNERSHIP

**Meeting Summary  
Working Group  
Tuesday, February 6, 2024  
2:30 p.m.  
Held remotely via Zoom**

**Attendees**

Miriam Aranoff, CDOT	Pavlo Krokidis, DRCOG
Kyle Arnold, CDOT	Emily Lindsey, DRCOG
Clara Bechtel, RTD	Greg MacKinnon, DRCOG
Hilarie Brockmeyer, Arapahoe County	John Marcantonio, CDOT
Kelly Brown, CTIO	Carson Priest, Smart Commute
Anna Bunce, City of Centennial	Flo Raitano, DRCOG
Steve Cook, DRCOG	Josh Schwenk, DRCOG
Jay Decker, City and County of Denver	Daesha Smith, CDOT
Kalie Fallon, DRCOG	Alvin Stamp, CDOT
Derek Fern, City of Arvada	Lisa Streisfeld, CDOT
John Gardocki, RTD	Stefi Szrek, Jefferson County
Andy Geleske, CDOT	Kellee Van Bruggen, City of Arvada
William Haas, FHWA	Aaron Villere, DRCOG
Michael King, CDOT	Melanie Ward, City of Centennial

**Welcome and introductions**

Emily Lindsey, Chair, welcomed attendees to the Advanced Mobility Partnership Working Group.

**Artificial intelligence and advanced camera technology panel**

**City of Centennial Derq Project**

Anna Bunce, City of Centennial, gave an overview of the City's pilot projects with artificial intelligence and intelligent transportation systems software. The city is currently piloting three different software programs, including Derq Insights, Terra Sound and Iris.



**COLORADO**  
Department of Transportation





The Derq Insights platform works with existing city hardware, with the option to connect the software to the city's signal controller interface. The dashboard provides various data points of specific locations chosen by the city, which currently includes two intersections. Available data points provided by the dashboard include an overall safety score, near miss heat map, pedestrian compliance analysis, vehicle violation events such as wrong way driving and various traffic data points such as vehicle counts, turning movement counts, vulnerable road users count, speed distribution, density graphs and more. The dashboard allows for the user to define data thresholds and use filters of various categories including day of the week, hours of the day, direction, severity and type.

The data from the Derq dashboard allows the city to better understand potential crash patterns and mitigate problems before they become widespread. The data also allows the city to inform infrastructure investments, future budgeting and enforcement distributions. The city will continue to pilot the Derq Insights platform for a few more months. Afterwards, the city is looking forward to scaling the pilot, comparing more intersections and exploring more connections to various camera feeds, radar detection and other interfaces.

Additionally, the city is piloting data collection through Terra Sound. The Terra Sound software connects to existing city fibers, turning the fibers themselves into a microphone. The software is then able to collect and analyze information such as aggregate vehicle speeds and traffic flow. The system is also able to send the city an alert if someone starts to dig too close to the fiber, which allows the city to protect its significant capital investments. In the future, the city is looking to scale this software and potentially pilot active incident management and pavement condition reporting.

Finally, the city is also piloting a program with software called Iris. The Iris software comes with camera hardware that is installed in city vehicles and is subsequently able to collect, analyze and report on various asset and maintenance data while vehicles are being driven around the city. For example, the software is able to collect data on roadway conditions such as potholes, cracks, or needed curb and sidewalk repairs. It is also able to collect and flag data on infrastructure maintenance needs such as missing signs, improperly oriented signs or graffiti. This allows the city to streamline asset management and inventory.





## Colorado Transportation Investment Office Express Lane Camera Enforcement

Kelly Brown, Colorado Transportation Investment Office, gave an overview of Colorado’s lane diversion detection technology application to improve safety within express lanes. The express lanes of concern include the mountain express lanes on I-70, in which there were several unsafe driver behaviors and a higher-than-normal crash rate due to drivers weaving in and out of the express lanes to avoid traffic and tolls. To address these issues, the Colorado Transportation Investment Office decided on a two-pronged safety enforcement program, which includes both legislation and technology enforcement solutions.

Regarding legislative solutions, in September 2021, House Bill 22-1074 allowed CTIO to issue civil penalties to the drivers of vehicles displaying unsafe driving behaviors through the use of toll equipment and other automatic vehicle identification cameras. The bill was signed into official law by the governor in March 2022. The technology solutions included a camera sensor system, named “Wally”, that allows dynamic toll pricing and simultaneously, weaving enforcement. The office conducted a pilot project on the mountain express lanes with the technology in 2022.

Unfortunately, due to technical difficulties with internet connectivity, Ms. Brown’s presentation was cut short. The Advanced Mobility Partnership will reschedule Ms. Brown to finish the presentation during a future meeting.

## Arapahoe County CityROVER Project

Hilaire Brockmeyer, Arapahoe County, gave an overview of the county’s future pilot project with CityROVER. The county is currently in the planning process of the pilot and has not yet deployed the technology. The CityROVER pilot will be a free, six-month road issue detection pilot.

The pilot will include artificial intelligence integrated cameras that will be able to detect and report potholes, manholes, sign issues and encampment violations. Arapahoe County has a goal of having 85% of all county roads in excellent-good-fair condition. However, currently only 60% of county roads are in excellent-good-fair condition, and the county has seen a steady decrease in county road conditions due to budget restraints.





Additionally, the county is unable to meet industry standards for sign replacements. The data collected in the pilot will include high resolution images, GPS coordinates, nearest address, direction of travel, size and depth estimates of the deficiency, and date and time.

The pilot will help the county with accurate asset management and maintenance, provide insights to Public Works and Development and promote cross-departmental collaboration. CityROVER was also selected as a part of the 2023 Smart Cities Alliance Connected Colorado Challenge in collaboration with Arapahoe County.

### **Working Group leadership**

Ms. Lindsey asked Advanced Mobility Partnership agencies to please reach out to her if available and interested in a leadership role.

### **Partner agency updates and other matters**

Andy Geleske, Colorado Department of Transportation Office of Innovative Mobility, announced that the Office of Innovative Mobility has opened the second round of grants. There are four grant opportunities: transportation management association seed funding grants, transportation demand management innovation grants, zero emissions workforce development and e-mobility education and awareness grant. Grant applications are open until March 29, 2024. More information is available online.

Emily Lindsey, Denver Regional Council of Governments, gave an update on the Innovative Mobility Set-Aside grant opportunity. The grant opportunity will explore a variety of innovative transportation topics and will not require matching funds.

John Gardocki, Regional Transportation District, announced that the Regional Transportation District is working through finalizing the first round of Partnership Program agreements. More information about the second round of Partnership Program grants will be released shortly.

Mike King, Colorado Department of Transportation, gave an update on the Federal Charging and Fueling Infrastructure grant awards. In Colorado, Boulder County and Colorado State University won grants for 2023. The next round of grants is expected to open Spring 2024. Mr. King encouraged local governments and councils of governments to apply and offered support and partnership from the Colorado Department of





Transportation. There is also a general innovation, mobility and energy grant opportunity upcoming from the Department of Energy.

Kalie Fallon, Denver Regional Council of Governments, announced several upcoming federal grant opportunities, including the Rebuilding American Infrastructure with Sustainability and Equity program, the Federal Transit Administration's Low to No Emission Competitive program and the Federal Highway Administration's Congestion Relief program.

### **Next meeting and adjournment**

Ms. Lindsey thanked everyone for participating in the meeting. The next meeting is April 2, 2024.

