



## Appendix D

# Current and Recent Denver Metro Area Technology Pilot Projects

Agencies across the Denver metropolitan region are conducting pilot projects of new mobility technologies. The following is a sampling of recent or ongoing pilot projects identified during the course of conducting the Mobility Choice Blueprint study.

### Current and Recent Denver Metro Area Technology Pilot Projects

Emerging Mobility System	Technology Pilot Project	Description	Sponsor	Timeline	Anticipated Outcomes	Link
Shared Mobility	Easy Mile Pena Station	"EasyMile—a French-based developer of electric, self-driving buses—has established its North American headquarters at Peña Station NEXT. An autonomous shuttle will offer a first- and last-mile solution for getting to and from the train station and throughout Peña Station NEXT."	EasyMile	2018 Pilot, Implementation to occur with development of Peña Station Area	Providing First and Last Mile Connections to A-Line	<a href="https://www.denverpost.com/2017/12/04/denver-driverless-shuttle-test-easymile/">https://www.denverpost.com/2017/12/04/denver-driverless-shuttle-test-easymile/</a> <a href="https://www.coloradoindependent.com/2017/12/08/self-driving-cars-denver-colorado/">https://www.coloradoindependent.com/2017/12/08/self-driving-cars-denver-colorado/</a>
Shared Mobility	University of Denver Chariot MicroTransit	DU has partnered with Chariot to provide subsidized rides on-demand to 6 stops on campus including the light rail station and administrative building. Service operates from 7am-7pm. There are 2 shuttles, one is ADA-accessible	Transportation Solutions	Started 7/9/2018, no end date stated	First and Last Mile Connections to DU RTD LRT Station, and on-demand connections around campus	<a href="http://news.du.edu/university-of-denver-launches-new-shuttle-program/">http://news.du.edu/university-of-denver-launches-new-shuttle-program/</a>
Shared Mobility	Lone Tree Link on Demand/Uber	The City of Lone Tree is piloting UBER software to allow on-demand routing of its Lone Tree Link buses at Lincoln Station. The Link is a free shuttle service that connects key employment centers along Park Meadows	Charles Schwab, ParkRidge Corporate Center, Sky Ridge Medical Center, City of Lone Tree, and Denver South	No end data stated	Improve connections to destinations south of the Lincoln end-of-line RTD LRT stop while LRT line is being	<a href="http://www.lonetreeink.com/link-on-demand">http://www.lonetreeink.com/link-on-demand</a>

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		Drive with restaurants, retail, and the RTD transit system. With convenient service every 10 minutes, the Link brings employees from the Lincoln Light Rail Station to their place of employment.	TMA		extended	
Shared Mobility	Cherry Creek Chariot MicroTransit	Cherry Creek to Civic Center station route (through Capitol Hill). Similar partnership with Chariot as the DU route.	Transportation Solutions	Proposed project	Improve transit connections between Cherry Creek and Downtown Denver	<a href="#">n/a</a>
Shared Mobility	Lyft First and Last Mile	City of Centennial/Lyft first/last mile access pilot at Dry Creek Station, a public-private partnership (PPP) designed as an experiment to enhance and increase transit ridership.	Centennial and Lyft	August 2016 - February 2017	Increase transit ridership to rail station	<a href="http://go.centennial.co.gov/#benefits1">http://go.centennial.co.gov/#benefits1</a>
Shared Mobility	JUMP Bikes	Dockless mobility program with Uber JUMP bikes	CCD and Uber	Open August 2018	Our mission at JUMP is to get more people on bikes, so they have affordable and convenient ways to move around without needing a car	<a href="https://www.5280.com/2018/08/ubers-electric-bike-rentals-just-launched-in-denver/">https://www.5280.com/2018/08/ubers-electric-bike-rentals-just-launched-in-denver/</a>
Shared Mobility	Special Event Lyft service	Lyft partnership to improve service during events,	Kroenke Sports and	Initiated December 2016	Improved Lyft ridership and	<a href="https://blog.lyft.com/posts/2016/12/15/">https://blog.lyft.com/posts/2016/12/15/</a>

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		including a designated drop-off and pick-up location	Entertainment & Lyft		quality of event service; reduced parking	<a href="#">yft-is-the-official-rideshare-sponsor-of-pepsi-center</a>
Shared Mobility	Patient Ride Program	Improve the medical care experience by providing patients who cannot drive themselves a more convenient way to travel to and from appointments. UCHealth patients, visitors and employees are now eligible for a 30 percent discount for any Uber trip to or from more than 30 participating UCHealth facilities, up to five dollars off each trip	UC Health and Uber	Initiated March 2018	Helps return independence to the lives of patients and seniors who often rely on family members or alternate forms of transportation to get to and from their health appointments	<a href="https://www.uchealth.org/today/2018/03/13/uber-now-providing-discounts-on-rides-to-and-from-uchealth-locations/">https://www.uchealth.org/today/2018/03/13/uber-now-providing-discounts-on-rides-to-and-from-uchealth-locations/</a>
Shared Mobility	Call-n-Ride Service Delivery	RTD developing a program for a TNC or taxi could supplement CnR in peak hours or substitute for CnR vehicle in the off-peak at low per trip cost. Passengers would continue to book CnR trips on the web, mobile app, or via phone using the CnR's MobilityDR platform, which would schedule the passenger's trip onto CnR, TNC or taxi as appropriate through their respective APIs.	RTD	Under development	TNCs and CnR to complement one another to better meet customer needs and be more cost-effective.	n/a

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Shared Mobility	Trip Planning for Demand Responsive Services	On-demand services are not currently discoverable in trip planners. RTD is developing Mobility on Demand data using the new GTFS-Flex specification extension into the Open Trip Planner with partners IBI Group, Cambridge Systematics and DemandTrans	RTD	2019	Provide on-demand customers with transit service information	n/a
Shared Mobility	Ditch Your Car	Participants, who will be chosen at random, will get \$300 in Lyft shared credit, \$150 in Lyft Scooter credit, a one-month regional RTD pass valued at \$171 and a one-month Zipcar membership with a \$100 drive credit to use toward covering the distance from their homes and offices to a train or bus stop.	Lyft, Zipcar, and RTD	Oct - Nov 2018	Pilot to address first-mile, last-mile — the challenge of how to move people to and from a transit stop to their home and workplace without use of a private vehicle.	<a href="https://www.denverpost.com/2018/09/26/rtd-lyft-zipcar-ditch-your-car-campaign-in-denver/">https://www.denverpost.com/2018/09/26/rtd-lyft-zipcar-ditch-your-car-campaign-in-denver/</a>
Transportation Systems Optimization	Smart I-70	By the end of the year, 100 V2X roadside units will be in place along the I-70 Mountain Corridor from Golden to Vail. Units will communicate with CDOT fleet, and eventually any connected vehicle	CDOT & Panasonic	Installation complete by end of 2018	Once deployed, this system is projected to result in an 81 percent decrease in unimpaired multi-vehicle crashes, as well as more reliable	<a href="https://www.codot.gov/news/2018/july/cdot-and-panasonic-take-first-steps-to-turn-i-70-into-connected-roadway">https://www.codot.gov/news/2018/july/cdot-and-panasonic-take-first-steps-to-turn-i-70-into-connected-roadway</a> <a href="https://www.dropbox.com/sh/ihbbgleep/f7t3sg/AADC99vIB">https://www.dropbox.com/sh/ihbbgleep/f7t3sg/AADC99vIB</a>

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					travel times and, eventually, the ability to communicate with self-driving cars.	<a href="http://www.codot.gov/programs/roadx/projects-in-motion">GW0k-m8-fFb6qqga?dl=0</a>
Transportation Systems Optimization	Smart I-25	Australian Managed Motorways Coordinated Ramp Metering from University Blvd to Ridgegate Pkwy interchanges	CDOT	Beginning Fall 2017	1) Fewer crashes 2) More reliable trips and travel times 3) Reduction in stop-and-go traffic 4) More efficient flow of traffic without expanding the roadway	<a href="http://arapahoegov.com/AgendaCenter/ViewFile/Item/6899?fileID=10880">http://arapahoegov.com/AgendaCenter/ViewFile/Item/6899?fileID=10880</a> <a href="https://www.codot.gov/programs/roadx/projects-in-motion">https://www.codot.gov/programs/roadx/projects-in-motion</a>
Transportation Systems Optimization	Project Mercury Connected Intersections	Signal prioritization on Yosemite. Will include signal integration over time with Arapahoe and Douglas Counties and Greenwood Village	Lone Tree, Centennial, Denver South TMA	Late 2018/Early 2019	Improved traffic flow	n/a
Transportation Systems Optimization	Denver Connected Vehicles Advanced Transportation and Congestion Management	* Connected Freight: using smart signals to improve routing of delivery trucks and freight vehicles currently using local neighborhood roads * Connected vehicles: 1500	CCD	Initiated January 2018	To better understand how connected communication helps residents' commuting experience,	<a href="https://www.government-fleet.com/143845/denver-to-launch-1500-connected-vehicles">https://www.government-fleet.com/143845/denver-to-launch-1500-connected-vehicles</a>

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	Technologies Deployment Program (ATCMTD) Grant	city fleet vehicles to jump-start market penetration * Automated pedestrian detection and notification technology at intersections			upgrade the agency's traffic management system, and provide better data to citizens.	
Transportation Systems Optimization	Transit Signal Prioritization	Implementation of Transit Signal Prioritization for the 15L on East Colfax	RTD	Initiated June 2018	Improved transit travel times	<a href="#">n/a</a>
Transportation Systems Optimization	Bus Signal Priority	Federal, W. Colfax, N. Downing, E. 12th, E. 17th, E. 18th Avenues (17 intersections)	Denver & RTD	Initiated 2018	5 minute reduction in certain trip times	<a href="https://denver.streetblog.org/2018/04/12/rtd-denver-public-works-prep-to-speed-up-buses-on-seven-city-streets/">https://denver.streetblog.org/2018/04/12/rtd-denver-public-works-prep-to-speed-up-buses-on-seven-city-streets/</a>
Transportation Systems Optimization	Enterprise Data Management (EDM)	Developing a EDM that is secure for internal and external communications. Working closely with FHWA Joint Program Office JPO <a href="https://www.its.dot.gov/J2735">https://www.its.dot.gov/J2735</a> for DSRC protocol platform. Series of stepped tests of Bench tests, Demonstrations, and Pilots in place at several locations across city.	CCD	Ongoing development	Secure communications system	n/a
Transportation Systems Optimization	Networked Mobility Hub	Offering guidance for offering an array of transportation options,	DRCOG	Ongoing development	Maximize development/transit investment	n/a

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		especially to make first and final mile connections, near transit and high-density development			money, increase ridership	
Travel Information and Payment	RTD Mobile Ticketing app	Masabi mobile payment system; sale of day passes initiated in 2017. Currently developing an interface to seamlessly offer payment when booking a CallnRide trip	RTD	Initiated 2017	Improved customer experience	<a href="http://www.rtd-denver.com/mobileticket.html">http://www.rtd-denver.com/mobileticket.html</a>
Travel Information and Payment	(Veterans Transportation & Community Living Initiative) Human Service Transportation Trip Exchange	Electronic trip exchange (HUB) that provides a means to discover the availability of services and to exchange data about trips among providers and the ability to interchange information among software vendors through the use of data standards and application program interfaces (APIs)	DRCOG	Under development (Initial rollout anticipated Spring 2019)	<ul style="list-style-type: none"> <li>• Providers using resources more efficiently to provide trips</li> <li>• Connect individuals to the right ride to meet their individualized need</li> </ul>	n/a
Travel Information and Payment	MyWayToGo and Commute Tracker App	The site launched 4+ years ago and DRCOG improves functionality each year. In 2018, added overlays for traffic info, park n' ride lots, carshare and bikeshare and the Commute Tracker app. Currently more than 20,000 registered users on the site	DRCOG	Ongoing development	Easier trip planning across greater range of mobility services	<a href="https://waytogo.org/">https://waytogo.org/</a>
Travel	I-25 South Gap	Deploying a subsite of	DRCOG with	At least the	Reduce SOV	<a href="https://www.codot.g">https://www.codot.g</a>



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Information and Payment	Travel Demand Management	MyWayToGo microtargeted to this corridor. As proposed, new services to get people out of SOVs, including Waze Carpool (dynamic rideshare app), microtransit and add overlays for Bustang, along with the traditional ridematching for vanpool and carpool formation.	CDOT	duration of construction – 2-1/2 years		<a href="#">ov/projects/i25-south-gap</a>
Travel Information and Payment	GoDenver mobility app	A smartphone app that lets users evaluate all their options and compare the time it takes to use one of those options with another. The Denver Go app is similar to other transit apps, but it gives users even more information - like the availability of bicycles at bike-share stations, nearby Lyft drivers, close Car2Go vehicles and open parking spaces. In addition to finding the fastest mode, users can also sort results to find the cheapest or greenest options.	CCD & Xerox	February 2016 - 2017 (still live)	Pilot a new mobility platform designed to help residents and tourists make transportation choices more easily	<a href="https://itunes.apple.com/us/app/go-denver/id1082803569?mt=8">https://itunes.apple.com/us/app/go-denver/id1082803569?mt=8</a> <a href="http://www.itsinternational.com/sections/nafta/features/go-denver-opens-up-a-world-of-seamless-mobility-and-better-data-driven-decisions/">http://www.itsinternational.com/sections/nafta/features/go-denver-opens-up-a-world-of-seamless-mobility-and-better-data-driven-decisions/</a>
Travel Information and Payment	Waze Carpool	Working with Waze to bring their dynamic carpool app to the region	DRCOG	Launch event in October 2018	Reduce SOVs, provide trip options	n/a
Travel	RTD Account	RTD coordinating with UBER	RTD	Under	Improved	n/a

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Information and Payment	Based Payment Pilot	and Masabi. Goal is to enable RTD to move away from ticket vending machines and payment boxes.		investigation in September 2018	customer experience	