



DENVER'S MOBILITY HUB TYPOLOGY



University of Colorado **Denver**

MAY 2021
ANNIE RICE

EXECUTIVE SUMMARY

The suite of mobility options available to consumers has expanded dramatically in recent years, with shared vehicles, shared micromobility, electric vehicles, and other emerging technology offering exciting new ways to travel. Mobility hubs, a relatively new transportation planning concept, unite emerging and traditional mobility options around transit.

Mobility hubs are central locations (usually high frequency transit

stations) where multiple mobility options converge in order to make it easier for people to navigate the transportation system and expand service coverage by providing first and last mile connections. Crucially, hubs advance climate and equity goals by widening transportation choices for consumers beyond single occupancy vehicle travel and by improving access to opportunity for all users.

Planners in the Denver region have begun proactively thinking about mobility hubs, with CDOT and DRCOG funding hub development along key regional corridors, RTD outlining applicable hub amenities

based on station contexts, and the City and County of Denver and Transportation Solutions conducting station area mobility hub planning studies along the southeast rail line.

However, the City and County of Denver lacks an overarching plan that prioritizes hub selection, categorizes hubs, and specifies needed amenities based on the scale and context of the hub.

This report examines existing mobility hub models in Europe, Canada, and the U.S. in order to glean implementation strategies for Denver. It reviews forward-thinking local work on mobility hubs by CDOT, DRCOG, RTD, the City and County of Denver, and Transportation Solutions. Based on other U.S. peer typologies, local efforts, and station area contexts, it outlines a typology of mobility hubs for Denver.

Ultimately, this study prioritizes 34 stations for mobility hub implementation based on daily ridership, density, and equity factors. It also classifies each station as a Neighborhood, Central, or Regional hub using Blueprint Denver Future Place Type, current land use, and density.

The report identifies necessary and optional amenities at each hub type. It visualizes each of the three hub types at example stations, imagining amenities needed at each model (a Regional hub at Ball Arena/Elitch Gardens, a Central hub at 13th and Lincoln in the Golden Triangle, and a Neighborhood hub at 30th and Downing). Finally, it considers factors for phasing hub development, and incorporates first-hand lessons from experts involved in Denver's mobility hub space.

This study builds upon the typologies already begun by RTD and City and County of Denver and incorporates peer city findings in order to establish a typology for Denver to apply consistently across hubs citywide - rather than planning hubs and their amenities piecemeal.

This research will be invaluable to Denver planners as they consider a holistic approach to mobility hub implementation beyond the southeast rail corridor. As the City and County of Denver evaluates the

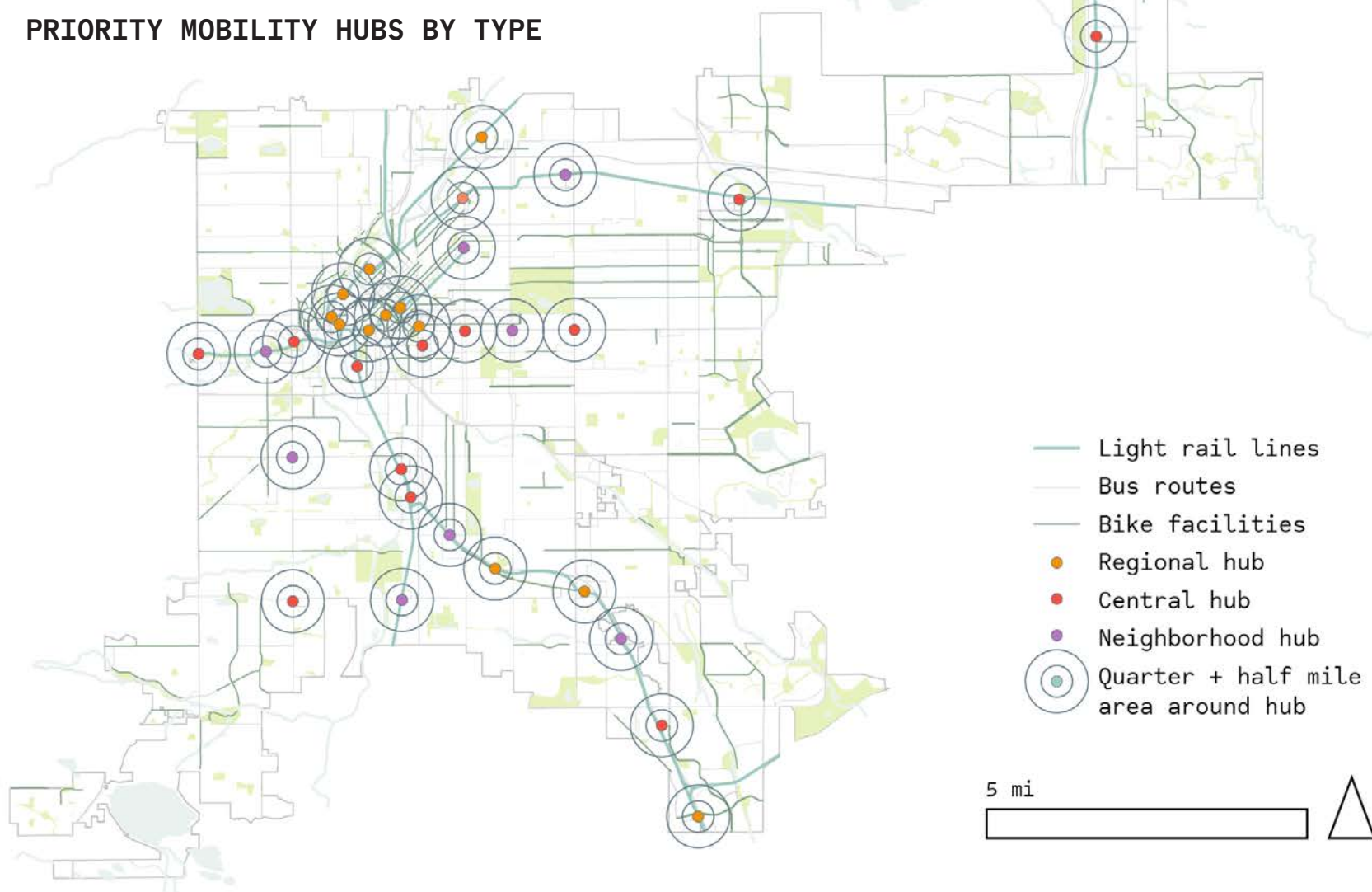
next places to incorporate mobility hub elements, this will be a useful guide to quickly decide which stations most need which amenities.

In order for this vision to be realized, actors including CDOT, DRCOG, RTD, City and County of Denver, TMAs/TMOs, TNCs, micromobility operators, developers, business districts and coalitions, public health organizations, community groups, and local artists must establish new partnerships to fund, install, and maintain new station amenities.

In the short term, mobility hubs have the potential to dramatically reinvent transit as a relevant choice for consumers and aid RTD's recovery as Denver emerges from the COVID-19 pandemic. Beyond that, mobility hubs hand Denver residents the freedom to travel via safe, affordable, reliable, convenient transportation. In an environment in which users have many transportation options, including private vehicles and other enticing new travel technology, mobility hubs improve access to economic opportunity while reducing impacts on the environment.

This typology will be useful to the City and County of Denver and RTD as they respond to new challenges and opportunities: providing essential transit service to workers and residents reliant upon it, maintaining or improving ridership, supporting alternate modes of transportation to reduce vehicle miles traveled and greenhouse gas emissions, expanding electric vehicle infrastructure, incorporating new technologies that improve real time information and decision making, seamlessly integrating an increasing number of transportation options, and ensuring equitable, safe outcomes for all users.

PRIORITY MOBILITY HUBS BY TYPE



Neighborhood
Smaller local ancillary hubs in lower-density residential areas or by community centers, libraries, or schools

Central
Mid-size stations in urban, dense context that support or overlap with regional hubs of greater significance

Regional
Large scale station areas in either dense urban areas or end of line stations where they connect to other regional transit providers, supported by a high density land use environment, adjacent to major destinations like airports, educational institutions, concentrated employment, museums, parks, stadiums, and shopping areas