

Denver T-REX/RTD North Metro Light Rail Expansion



Proposal Outline

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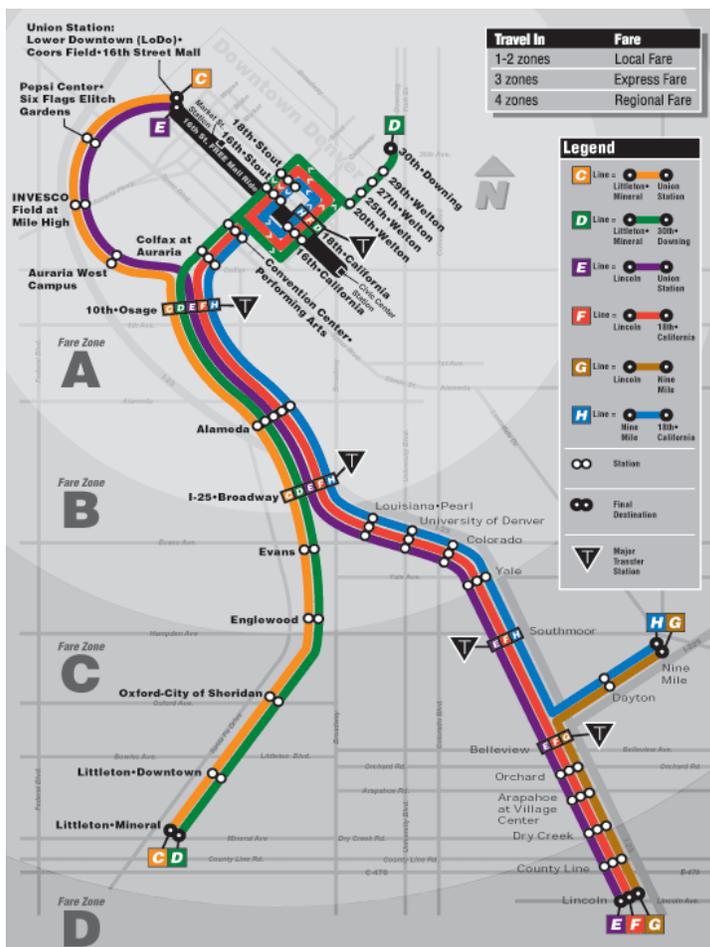
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Project Description / Problem

Over the last decade, the greater metropolitan area of Denver, Colorado, has seen construction of two major light rail commuter lines that extend to southwest Denver near the suburb of Littleton and to southeast Denver along Interstate 25 (I-25) near Aurora and Lone Tree. However, there are currently no light rail lines to anywhere but the southern suburbs of Denver. While there are several proposed lines to extend to the west, northwest, and east, the proposed North Metro light rail line has the biggest potential to serve Denver on the same scale as the existing routes. The designers have the line heading north along I-25, starting at the existing downtown hub of Union Station. Along the way, the line would have stops with access to places such as the University of Denver, Cherry Creek Shopping Center, University of Colorado Hospital, and the Denver Zoo.

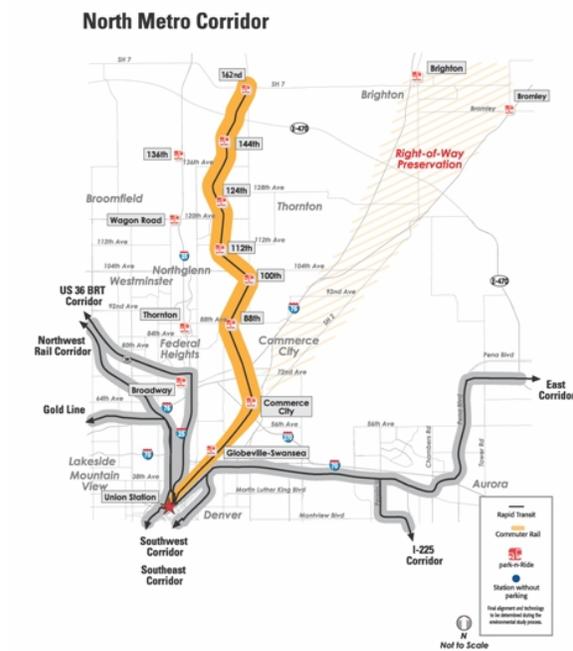
Original Design

The original light rail system for Denver (as of November 2006) prior to any construction of the North Metro line can be seen in the map below from Regional Transit District's (RTD) website www.rtd-denver.com:



Recommendation of Project

Because the northern suburbs of Denver have many attractions that could become stops along a new route and the population is growing rapidly in that area, studies show the “North Metro” line of the light rail system will likely be the most beneficial to construct of all proposed routes. Below is a map from www.denvergov.org:



Available Alternatives

The overall goal of the T-REX and North Metro projects is to build a light rail system for the entire Denver metropolitan area. Therefore, there are no alternatives to constructing new rail routes. The alternatives to the North Metro line as far as choosing which route to build next include the East Corridor, Gold Line, and Northwest Corridor, as seen in the map above.

Cost of Project

According to www.trexproject.com, here is some cost information of the T-REX joint light rail / Interstate highway construction project, also known as the southwest light rail line:

The total cost of the project was \$1.67 billion.

- The design-build contract with Southeast Corridor Constructors (SECC) was worth \$1.18 billion.
- The light rail component cost \$879 million. Forty percent of the light rail funds (\$437 million) came from the RTD budget and local matching funds. The FTA's \$525 million Full Funding Grant Agreement funded the remaining portion.
- The highway component cost \$795 million and was funded with a combination of Highway Users Tax Fund dollars, Senate Bill 97-01 money and bonding/federal revenues.

Technical and Non-technical Data

This project has little or no information regarding technical and non-technical data.

Advantages / Disadvantages

- Environmental advantages – pollution reduction, etc.
- Economical advantages – cheap mode of transport, brings customers to businesses
- Alleviates some traffic congestion

- High initial cost
- Surrounding neighborhood complaints from added noise

Graphics Illustrating Project



(Left): This is one of the electric RTD light rail trains. (www.rtd-denver.com)

(Right): This is the Colorado Boulevard station along the T-REX southwest line. Many stations along I-25 are similar to this one: down in a valley below the main road surface, allowing for some noise reduction (www.denvergov.org).



(Left): Union Station is the main hub for the light rail system (see two trains, one on the left and one on the right) and is conveniently located right in downtown Denver. Passengers can also connect here with two daily Amtrak trains for long-distance trips or the Ski Train to Winter Park, Colorado, during the winter months (www.metrodenver.com).

(Right): This is an artist's rendering of what the Commerce City light rail station might look like once the North Metro line is constructed. Commerce City would be one of the major station stops along the route (www.metrodenver.com).



Problems / Cost of Implementing

- If building adjacent to highway or Interstate, limited space to add railroad tracks
- Raising money from taxes to gain initial funding for construction
- Environmental impact on surroundings from runoff, etc.

Estimated Net Savings

- Immeasurable environmental benefits including reduction in air pollution from vehicles
- Faster transit times from suburbs to downtown, both via rail and road
- Save money in personal expenses from not having to operate as many motor vehicles

Other Items of Interest

- New service creates employment opportunities and other economical benefits

Summary

Although the initial costs of constructing a light rail system are high, the overall environmental and economic benefit to residents, tourists, and businesses will greatly outweigh the costs, especially over time. We will examine the exact costs of constructing a new route known as the North Metro line, and attempt to place a value on the benefits, even though it may not be possible to determine a suitable monetary value for everything.