



**Northwest Area Mobility Study and
US 36 BRT Update
SCI**

December 3, 2013



Northwest Area Mobility Study Update

Background

For stakeholders in North area, the Northwest Area Mobility Study (NAMS) will determine transit priorities in the region, taking into consideration conditions that have changed since approval of FasTracks program in 2004

- HNTB selected as consultant in March
- Governed by:
 - Technical Advisory Committee (TAC)
 - Policy Advisory Committee (PAC)

Northwest Area Mobility Study

Five Key Tasks:

1. Determine remaining BRT funding priorities for US 36
2. Evaluate feasibility and cost of constructing the Northwest Rail in segments
3. Evaluate potential for extending North Metro Line to Longmont
4. Evaluate potential mobility improvements in the area such as BRT on Diagonal and US 287
5. For I-25 Downtown Express HOV lanes, analyze potential alternatives to facilitate reverse commute between downtown Denver and US 36

Status of Key Tasks

1. Downtown Express / Reverse Commute Analysis.

Short Term Options

- Bus on Shoulder
- Downtown Circulation Improvements

Long Term Recommendations

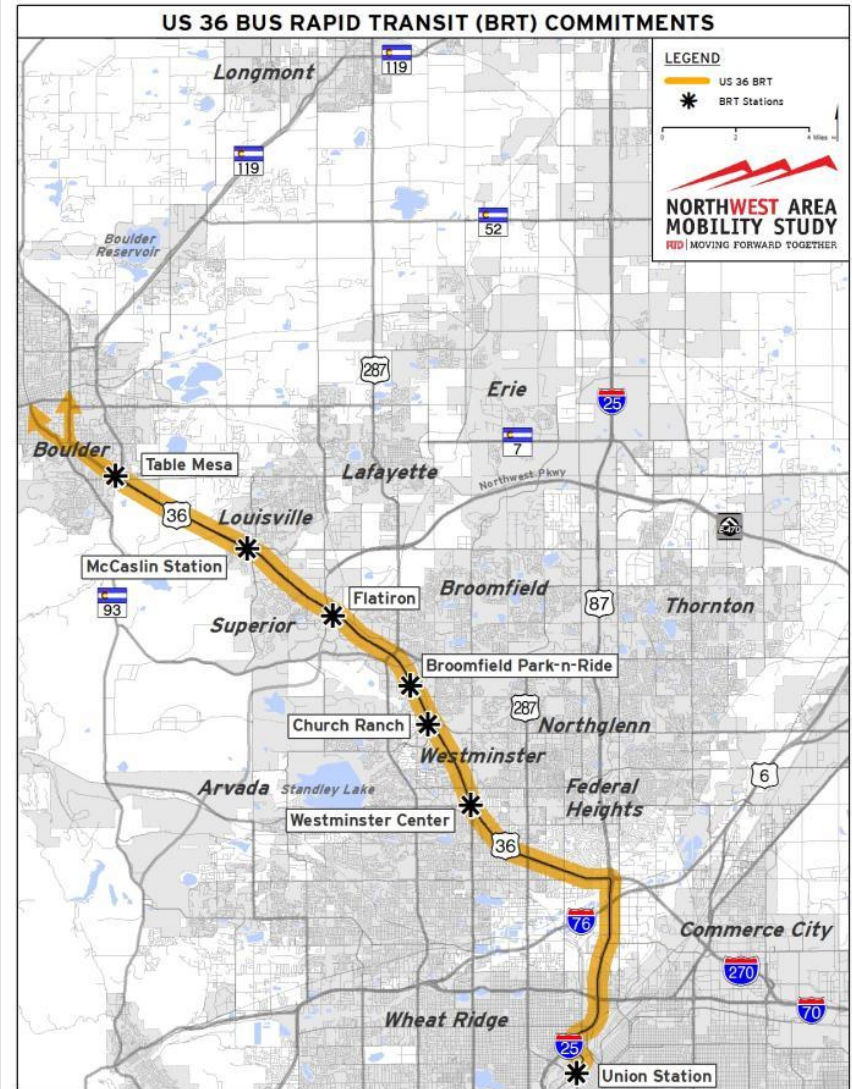
- Continue to monitor situation and determine if other long term planning efforts are needed.



Status of Key Tasks

2. Determine remaining BRT Funding Priorities for US 36.

- Consultant Team worked with RTD and stakeholders to:
 - Determine remaining elements needed to complete BRT in the US 36 Corridor
 - Validate cost of remaining BRT items needed to complete US 36 BRT
- RTD Board adopted remaining scope elements September 17

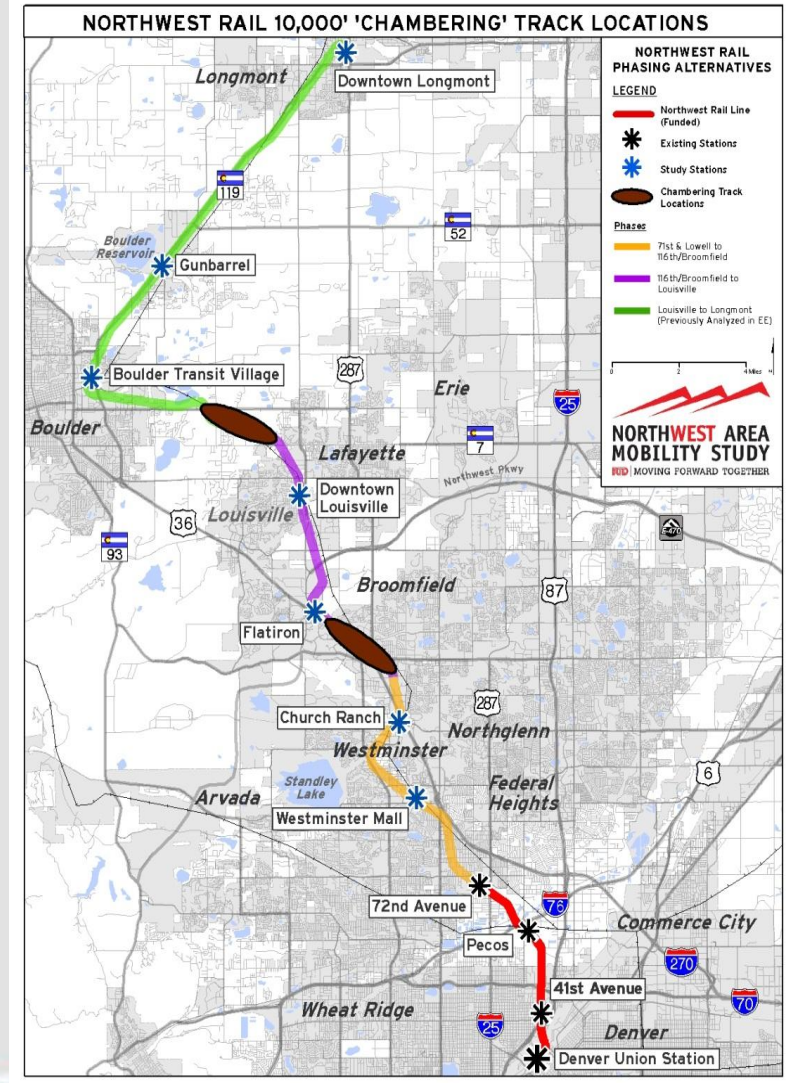


Status of Key Tasks

3. Evaluate feasibility of constructing the Northwest Rail in phases.

• Potential Phasing Options include:

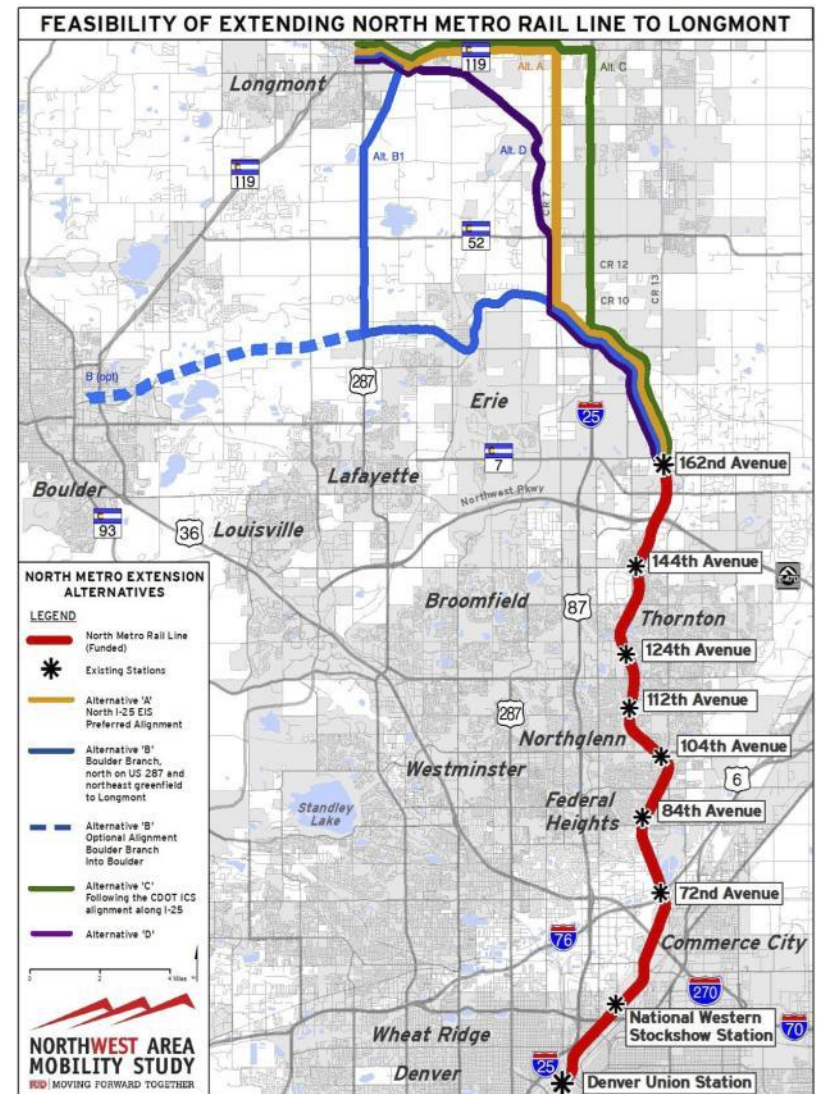
- Broomfield 116th
- Louisville
- Boulder (may not be technically feasible)



Status of Key Tasks

4. Evaluate feasibility of extending North Metro Corridor to Longmont

- Route assumption:
 - RTD-owned ROW from North Metro Corridor to
 - I-25 North to
 - County Road 7



Rail Capital Cost and Ridership Summary

Corridor	Capital Cost (2013 - \$ millions)		2035 Daily Boardings	
	Low	High	Low	High
Northwest Rail				
71 st Lowell to 116 th /Broomfield	\$ 557	\$ 681	2,100	3,400
116 th /Broomfield to Louisville	\$ 159	\$ 194	1,700	1,800
Louisville to Boulder Junction	\$ 241	\$ 295	2,000	2,100
Boulder Junction to Longmont	\$ 199	\$ 243	1,500	1,600
Full Corridor: 71st Lowell to Longmont	\$1,156	\$1,413		
North Metro Extension to Longmont	\$ 682	\$ 834	840	900

* Costs in millions of dollars (\$ 2013) and includes non-FasTracks stations \$140M).

** Costs for Segment 1 include the Maintenance Facility and BNSF Operating Rights for the entire NW Rail Corridor.

*** Cost per mile \$30.4M to \$37.2M/mile for Northwest Rail; \$35 to \$43M/mile for North Metro Rail Extension.

Status of Key Tasks

5. Evaluate potential mobility improvements in the area such as arterial BRT:

- All existing bus routes in the Northwest area under consideration as candidate BRT corridors
- Take highest performing routes/corridors to be advanced as potential BRT corridors.

BRT Summary

- Arterial BRT Corridors
 - SH 119; between Table Mesa p-n-R and Longmont (Bolt/Skip/205)
 - S. Boulder Rd. (Dash)
 - SH 7 (Jump/225)
 - US 287 (L/LX)
 - SH 42 (New Route)
 - 120th Ave (120)
- Capital Cost Range \$255-300M
- Ridership Range 2035: 16,300 - 26,600 Boardings/day

Next Steps

- Further refine Arterial BRT alternatives
- Develop list of project prioritization
- Develop potential financing options
- Continue public involvement
- Public Meetings in January



US 36 Bus Rapid Transit Update

US 36 Bus Rapid Transit

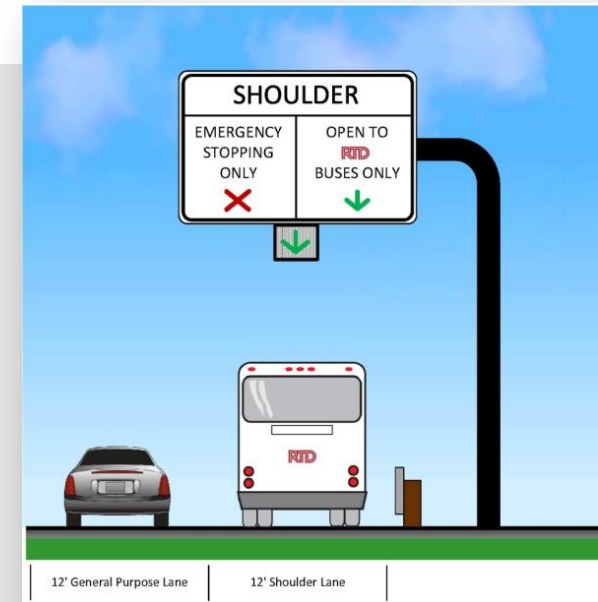
US 36 BUS RAPID TRANSIT



- Only non-rail, major corridor in FasTracks as requested by local jurisdictions in original FasTracks plan
- 18 miles between downtown Denver and Boulder
- 6 stations
- Daily ridership
 - Existing – 10,600
 - 2035 projected – 20,400
- 2035 Service:
 - 2 to 4 min. peak service
 - 6 to 10 min. off-peak

Transit Priority

- Managed lanes from Table Mesa to Downtown Denver for non-stop service
- Bus-on-shoulder operations for all-stop service
- Queue jumps at interchanges
- Transit signal priority at interchanges



Source: CDOT US 36 Managed Lanes –
Concept of Operations



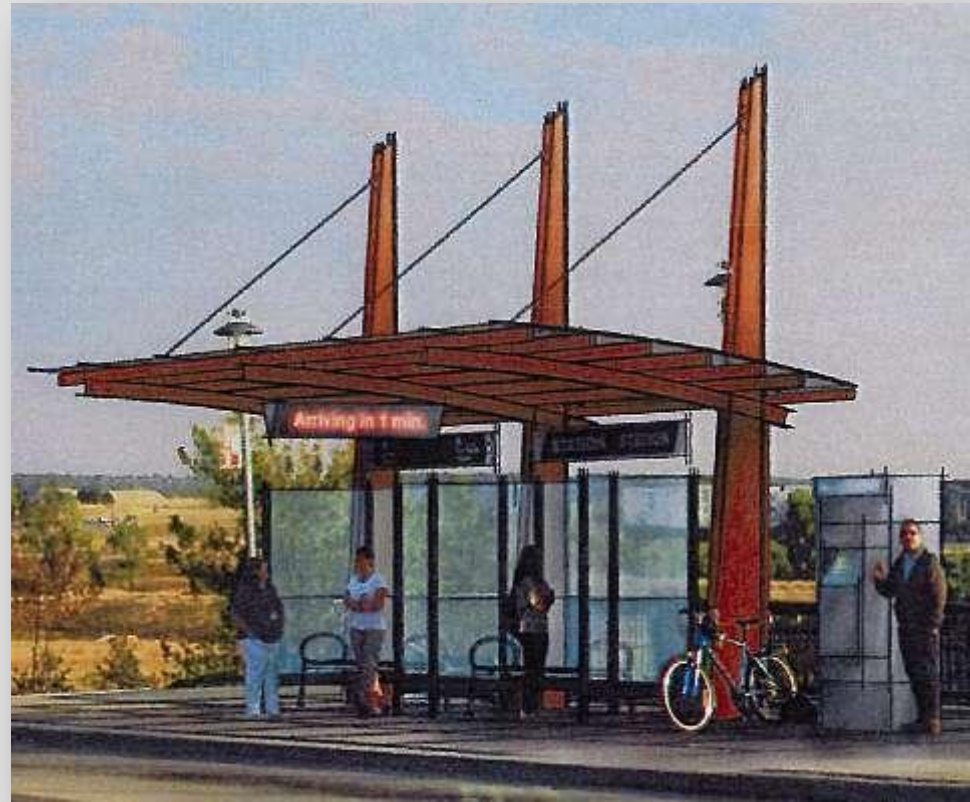
Premium Service

- Equal to or better than service on rail corridors
- Frequent service
 - All day
 - To all stations
 - Both directions
- Continue both express and all-stop service



Upgraded Stations

- Passenger canopies for more weather protection than standard canopy
- Ticket vending machines and SMART card readers for cashless fare collection
- Programmable Information Displays (PIDs) for transit schedule information



Selected station canopy design

Service Identity

- **Branding**
 - Workshops with local stakeholders underway to name the BRT service and determine brand application
- **Vehicles**
 - Workshops underway with local stakeholders to determine BRT vehicle characteristics
 - Vehicles will be branded



Improved Customer Interface

- Hi-tech improvements to enhance customer experience
 - Real time bus arrival information
 - On-board/station Wi-Fi



Intelligent Transportation System (ITS)/ Next Bus Info
Los Angeles



Ongoing Work

- Complete brand development – late 2013
- Complete vehicle workshops – late 2013
- Vehicle procurement – beginning 2014
- US 36 Express Lanes to 88th Street (Louisville) complete – late 2014
- US 36 Express Lanes to Table Mesa complete – late 2015



US 36/McCaslin Pedestrian Bridge

Questions?

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