Northwest Rail Modeling and Parking Demand Meeting

April 2, 2009

Welcome

Meeting Purpose

- **Clarify what level of analysis is needed for the NWR EE**
- **Share most recent NWR modeling results for 2015 and 2035**
- **Share parking demand estimates for 2015 and 2035**
- **Allow for a corridor-wide stakeholder discussion**

Agenda

- **Northwest Rail Environmental Evaluation (EE) Modeling & Parking demand requirements and criteria**
- **Modeling Results**
- **Parking Demand Estimates**
- **Facilitated Discussion with Corridor Stakeholders**
- **Next Steps**

NWR EE Modeling and Parking Requirements and Criteria

NWR EE Requirements & Criteria

- Overview of NEPA and associated goals of NWR project
  - Define reasonable project footprint to accommodate implementation of NWR service
  - Identify potential impacts associated with implementing project (avoid & minimize where possible)
  - Identify mitigations from impacts associated with implementing project

NWR EE Requirements & Criteria

- Modeling is just <u>one</u> tool used in the development of the station concepts
  - FT Methodology considers other factors
    - Origins and destinations of transit trips to each station
    - Roadway connections to station target areas
    - Existing and projected traffic volumes/congestion level in station areas
    - Connectivity of bus routes to stations
    - Available land for the construction of parking
    - Available land adjacent to platforms
    - Parcel shape/size
    - Site accessibility and access characteristics of the station areas
    - Local planning/development plans and/or support for TOD
    - Community input from the station planning process
    - Surrounding land uses
    - Previous planning studies

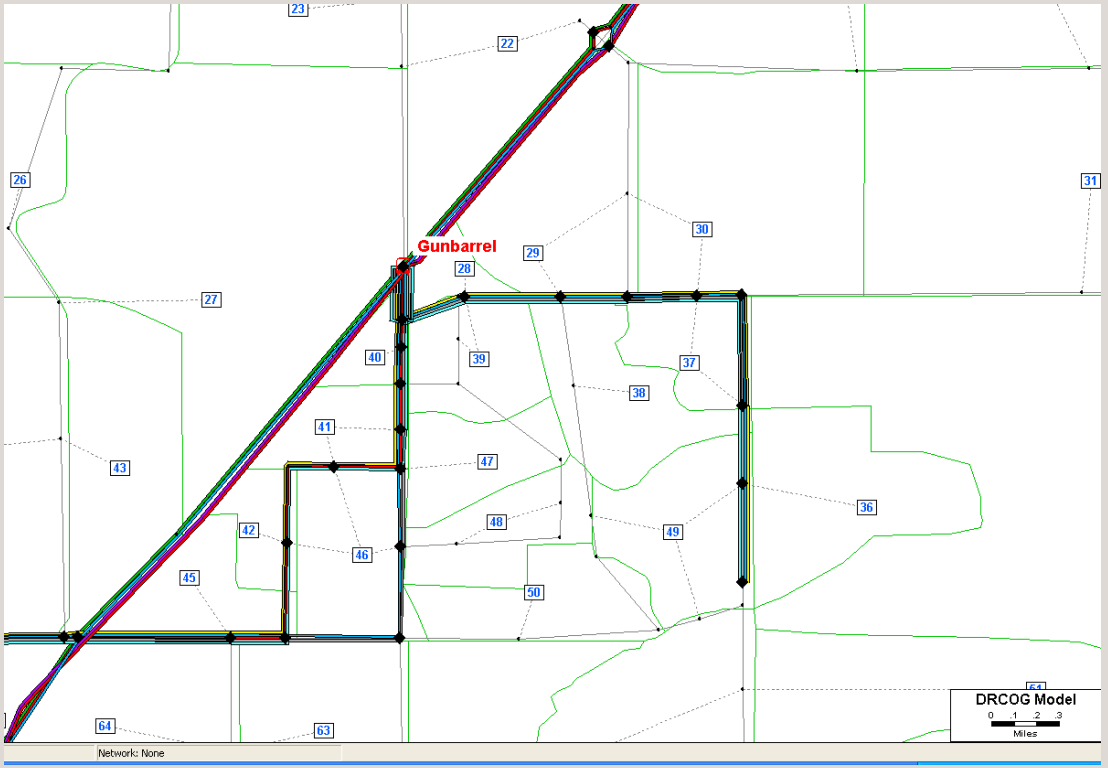
NWR EE Requirements & Criteria

- Not a Federal Transit Administration (FTA) project
  - Provides some more flexibility
- EE considers opening day (2015) and build-out (2035)
- Concept plans will be refined after EE and throughout final design

Modeling

NWR Modeling Inputs

- DRCOG Regional Travel Demand Model ("Compass v2.0")
- Socioeconomic data
- Transportation network
  - Highway
  - Transit



NWR EE Ridership

Year	Model	NWR Headway by Segment (Peak/Off-Peak)		NWR Ridership
		Denver - Boulder	Boulder - Longmont	
2015	FasTracks Only	30/60	30/60	1,200
2015	All Stations*	30/60	30/60	1,300
2035	FasTracks Only	15/30	30/30	6,900
2035	All Stations*	15/30	30/30	10,000

Most recent model includes Westminster Mall, Broomfield, E. Boulder, and Twin Peaks stations

Historic Ridership Comparison

#	Source	Model Program	Stations			Total Travel Time (minutes)[1]	
			Total # Stations	SH 119 Station	Northern Terminus	Denver-Boulder	Denver-Longmont
1	FasTracks (2025) *Run in 2004*	MinUTP	8	SH 52	Twin Peaks Mall	42.5	54.7
2	US 36 DEIS (2030) *Run in 2006*	TransCAD v4.7	11	Gunbarrel	1st/Terry	43.6	57.0
3	US 36 FEIS (2035) *Run in 2008*	TransCAD v4.8	8	Gunbarrel	1st/Terry	43.1	61.1
4	NWR EE (2035) FT Only	TransCAD v4.8	8	Gunbarrel	1st/Terry	43.1	61.1
	All Stations *Run in 2008*		12*	Gunbarrel	1st/Terry	48.0	67.5

*Twin Peaks Station added February 2009

[1] Comparable bus travel time in 2030 with US 36 improvements: Longmont to DUS = 85 min; Boulder to DUS = 43 min

Historic Ridership Comparison

#	Source	NWR Headway by Segment (Peak/Off-Peak)		Daily Ridership		
		Denver-Boulder	Boulder-Longmont	NWR	US 36 / SH 119 BRT	NWR + BRT*
1	FasTracks (2025) *Run in 2004*	15/30	30/30	8,600 – 10,100	16,900	25,500 – 27,000
2	US 36 DEIS (2030) *Run in 2006*	15/30	30/60	11,400 - 12,700	4,400 - 11,000	17,100 - 22,400
3	US 36 FEIS (2035) *Run in 2008*	15/30	30/30	8,200 – 9,500	3,800 - 10,600	13,300 - 18,800
4	NWR EE (2035) FT Only	15/30	30/30	6,900	9,600	16,500
	All Stations *Run in 2008*	15/30	30/30	10,000	8,300	18,300

*Range based on total rail and bus ridership across multiple packages

Additional Modeling Results

- Sensitivity test
  - 15-minute peak period headway Boulder-Longmont in 2035 (instead of 30-minute peak)
    - Increased overall NWR peak period ridership by 12%

Parking Demand

FasTracks Methodology

- Purpose
  - Make educated guess on potential parking needs
  - Be prepared for what actually happens
- Overview
  - Developed based on previous experience with other RTD rail corridors
  - Modeling is one piece of information used to identify parking demand
    - Good regional estimate, reasonable corridor estimate
    - Not as good at pnR level

NWR Parking Demand

- Corridor totals
  - FT Opening Day corridor total = 2,960
    - *Concept Plan Parking Target based on this number*
  - Model parking demand with FT methodology
    - 2015: 1,310 (FT Only)
    - 2035: 2,680 (FT Only)
  - Concept plans
    - 2015
      - FT Only: 2,630 – 2,850
      - Unfunded Stations: 1,630 – 2,240
      - Total: 4,260 – 5,090
    - 2035
      - FT Only: 3,330 – 3,580
      - Unfunded Stations: 1,630 – 2,240 (same as 2015)
      - Total: 4,960 – 5,820

NWR Parking Demand

- Parking Space Demand by Station (2035)

Year 2035 Station	FT Only Estimated Parking Demand (Spaces)	All Stations Estimated Parking Demand (Spaces)
S. Westminster	460 - 600	390 - 550
Westminster / 88th Avenue	-	*600 - 940*
Walnut Creek (Church Ranch)	330 - 440	190 - 300
Broomfield	-	*100 - 170*
FlatIron Crossing	130 - 140	110 - 120
Downtown Louisville	240 - 360	220 - 370
E. Boulder	-	*150 - 160*
Boulder Transit Village	400 - 1,000	410 - 930
Gunbarrel	60 - 100	70 - 100
Twin Peaks	-	*180 - 260*
Downtown Longmont	390 - 520	290 - 370
TOTAL	**2,010 - 3,160**	**2,710 - 4,270**
FT Only	2,010 - 3,160	1,680 - 2,740
Unfunded Stations	-	*1,030 - 1,530*

NWR Parking Demand

- Compared drive access demand for FT vs. All Stations
  - Don't see substantial diversion to other stations
    - Without Westminster / 88th Avenue
      - S. Westminster: 10 - 15% increase in parking demand
      - Church Ranch: 30 - 40% increase in parking demand
    - Without Broomfield
      - Church Ranch: 30 - 40% increase in parking demand
      - FlatIron Crossing: 15% increase in parking demand
    - Without E. Boulder
      - Downtown Louisville: < 5% increase in parking demand
      - Boulder Transit Village: < 10% increase in parking demand
    - Without Twin Peaks
      - Gunbarrel: No change
      - Downtown Longmont: 25 – 30% increase in parking demand
  - *Amount of parking in concept plans accommodates the expected demand if only the FT stations are built*

NWR Parking Demand

- FT Only Estimated Parking Demand compared to Concept Plans (2035)

Year 2035 Station	FT Only Est. Parking Demand (Spaces)	New Rail Parking in Concept Plans	Notes
S. Westminster	460 - 600	900 - 950	Consistent with previous planning
Westminster / 88th Avenue	-	*770 - 1,340*	
Walnut Creek (Church Ranch)	330 - 440	230 - 250	Combined BRT/rail parking should accommodate demand
Broomfield	-	*340 - 360*	
FlatIron Crossing	130 - 140	-	Combined BRT/rail parking should accommodate demand
Downtown Louisville	240 - 360	710 - 780	Opening Day (2015) parking is 430-500. Approximately 300 is existing / shared use parking E of Hwy 42.
E. Boulder	-	*520 - 540*	
Boulder Transit Village	400 - 1,000	280 - 300	Boulder wants limited parking to encourage access by alternative modes
Gunbarrel	60 - 100	210 - 250	Single parcel
Twin Peaks	-	-	*Shared parking should accommodate demand*
Downtown Longmont	390 - 520	1,000 - 1,050	Opening Day (2015) parking is 580-600
TOTAL	**2,010 - 3,160**	**4,960 - 5,820**	
FT Only	2,010 - 3,160	3,330 - 3,580	
Unfunded Stations	-	*1,630 - 2,240*	

Facilitated Discussion

Corridor Facilitated Discussion

- Is there additional clarification required for any of the information presented?
- What should RTD consider moving forward?

Next Steps