



2012 Annual Program Evaluation (APE)

January 17, 2012

Presentation Overview

- **Status of 2012 Annual Program Evaluation (APE) activities to date**
- **Review key inputs into RTD's 2012 financial plan**
- **Provide results of the APE assuming our base case of delaying Northwest Rail to 2023 – 2025**
- **Provide information concerning two additional options for RTD Board consideration**
- **Request RTD Board direction on next steps to finalize the 2012 APE**

Status of 2012 Annual Program Evaluation (APE) Activities to Date

- **On November 22, 2011 the RTD Board provided clarification to staff on the assumptions to be used for the 2012 APE, including**
 - FasTracks corridor construction phasing consistent with the current Board adopted 2011 APE
- **On December 6, 2011, staff presented updated costs for the Northwest Rail corridor (based on inputs from BNSF)**
 - Staff indicated at that time that completion of the Northwest Rail corridor would likely have to be delayed to 2023 – 2025 to match RTD's cash flow constraints
- **Since December 6, 2011, RTD stakeholders have raised concerns about the increased costs and schedule risk for Northwest Rail**

Status of 2012 APE Activities to Date (cont.)

- **In response to stakeholder concerns, staff identified the following options for RTD Board consideration**
 1. Delay completion of Northwest Rail 3 - 5 years to match RTD's cash flow requirements
 - Base case with financial results to be presented tonight
 2. Delay completion of Northwest Rail 3 - 5 years to match RTD's cash flow requirements, but accelerate select capital projects and increase funding for bus service for Northwest Rail and U.S. 36 Bus Rapid Transit Corridor Service Areas
 - Based on a request from U.S. 36 Mayors and Commissioners Coalition received on December 5th
 3. Remove Northwest Rail from the FasTracks plan and commit remaining Northwest Rail project funds, capped at \$894.6 million, for expanded/enhanced Bus Rapid Transit in the Northwest Corridor area

Review of Key Inputs into RTD's 2012 Financial Plan

Overview of 2012 Annual Program Evaluation (APE)

- **Staff updated all inputs into RTD's financial plan, including:**
 - Sales and use tax forecasts
 - Construction inflation assumptions
 - Operations and maintenance (O&M) costs
 - Capital costs
- **As in previous years, RTD sought help and advice from industry experts and regional partners**
 - Regional Sales and Use Tax Working Group held on October 27, 2011
 - Construction Inflation Workshop held on November 1, 2011

Results of Regional Sales and Use Tax Working Group

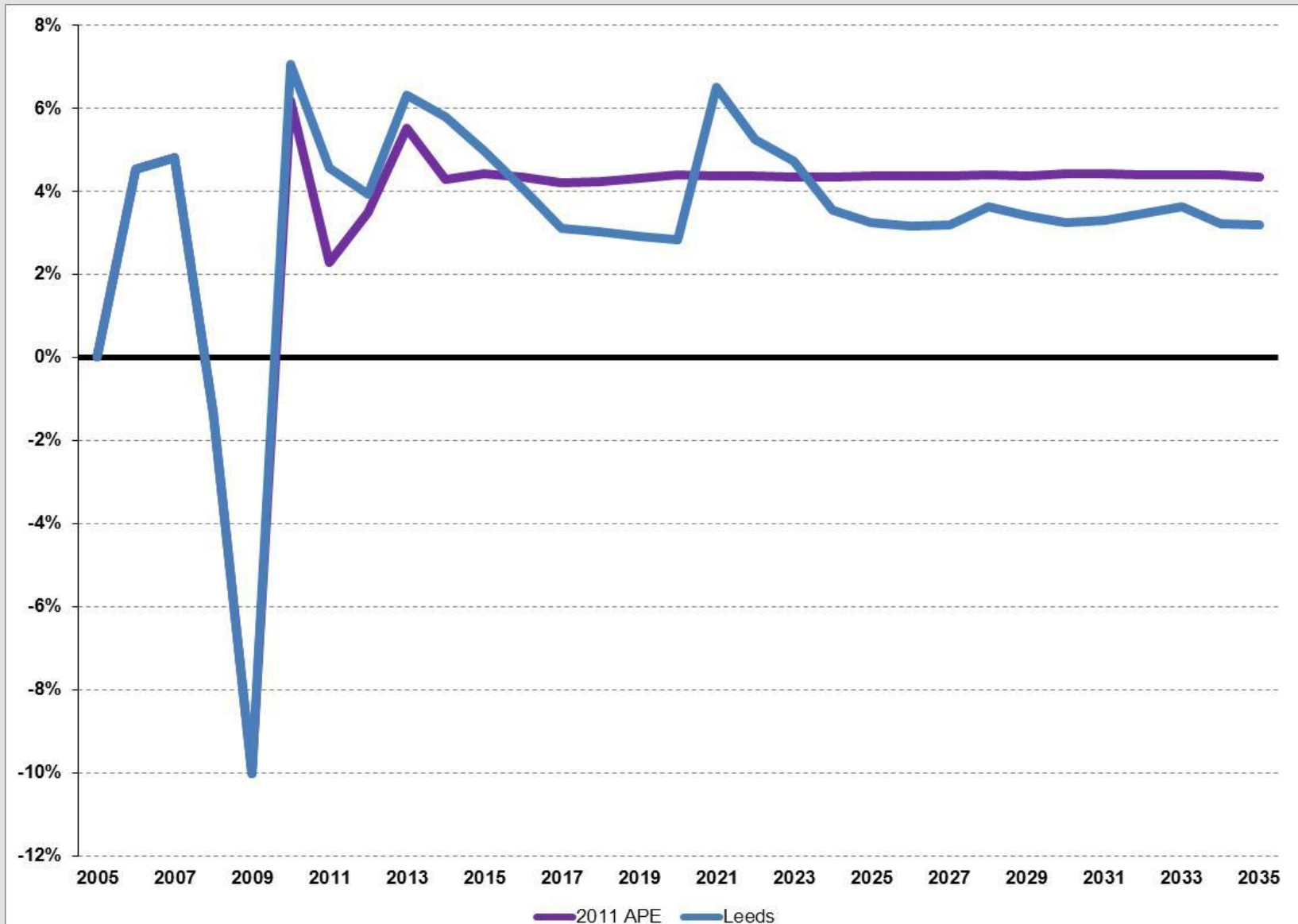
- **For this year's APE, RTD hired the Business Research Division of CU Leeds School of Business to develop third party sales and use tax forecasts**
 - Medium-term and long-term forecasting methodology and results developed by the Leeds School of Business were reviewed with the Regional Sales and Use Tax Working Group on October 27, 2011
 - Forecasts are updated quarterly – information has been updated since the last meeting with the Regional Sales and Use Tax Working Group

	2011 APE	2012 APE
Total Sales and Use Tax Collections: 2005-2035 (\$M)	\$8,004	\$7,992
Average Annual Growth Rate		
2005-2035	3.66%	3.39%
2011-2035	4.36%	3.89%

Leeds Sales & Use Tax Forecast

Growth Rates as Compared to 2011 APE

RTD **FasTracks**



FasTracks Sales and Use Tax Collections – 2005-2011

Year	Total Sales and Use Tax (\$M)	Percent Change from Prior Year
2005	\$152.8	N/A
2006	\$159.7	4.5%
2007	\$167.4	4.8%
2008	\$165.1	-1.3%
2009	\$148.6	-10.0%
2010	\$159.0	7.0%
2011 (projected)*	\$165.8	4.3%

* The actual year-over-year percent increase through November 2011 is 5.5%

Results of Construction Inflation Workshop

- **Cost escalation assumptions changed only slightly from last year's APE**
- **Current assumptions include:**
 - Materials cost escalation of 5.1% per year through 2024
 - Labor – Denver-Boulder Consumer Price Index (CPI)
 - Composite 40%-Labor / 60%-Material

Cost Escalation – Comparison with Other Transit Agencies

RTD is assuming higher cost escalation than 16 other agencies surveyed

Agency:	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Average
San Diego (SANDAG)	0.00%	1.00%	2.00%	2.80%	2.80%	2.80%	2.80%	2.80%	2.80%	2.80%	2.80%	2.80%	2.80%	2.38%
Los Angeles (Metro)	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Sacramento (SACRT)	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%
Utah (UTA)	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Phoenix (Valley Metro)	2.34%	2.90%	3.14%	3.24%	3.33%	3.43%	3.52%	3.64%	3.74%	3.73%	3.73%	3.73%	3.73%	3.40%
New Jersey (NJT)	3.20%	3.20%	3.20%	3.20%	3.20%	3.20%	3.20%	3.20%	3.20%	3.20%	3.20%	3.20%	3.20%	3.20%
Philadelphia (SEPTA)	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
San Francisco (SFMTA)	3.30%	3.30%	3.30%	3.30%	3.30%	3.30%	3.30%	3.30%	3.30%	3.30%	3.30%	3.30%	3.30%	3.30%
Houston (Metro)	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
Atlanta (MARTA)	3.20%	3.20%	3.20%	3.20%	3.20%	3.20%	3.20%	3.20%	3.20%	3.20%	3.20%	3.20%	3.20%	3.20%
Santa Clara (VTA)	2.97%	3.25%	3.25%	3.31%	3.34%	3.30%	3.31%	3.29%	3.26%	3.24%	3.21%	3.20%	3.18%	3.24%
Seattle (Sound Transit)	2.18%	2.40%	2.48%	2.66%	2.66%	2.77%	2.82%	2.84%	2.89%	3.09%	3.16%	3.21%	3.28%	2.80%
Chicago (CTA)	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%
Dallas (DART)	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Washington, D.C. (WMATA)	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
CDOT	3.70%	3.70%	3.70%	3.70%	3.70%	3.70%	3.70%	3.70%	3.70%	3.70%	3.70%	3.70%	3.70%	3.70%
Average from above	3.02%	3.15%	3.24%	3.31%	3.31%	3.32%	3.33%	3.34%	3.35%	3.36%	3.36%	3.36%	3.37%	3.30%
RTD FasTracks	4.21%	4.52%	4.60%	4.35%	4.19%	4.22%	4.19%	4.16%	4.15%	4.17%	4.17%	4.17%	4.16%	4.25%

Capital Cost Estimates – Current **Year Dollars**

- **The capital cost estimates for all corridors that are not already under contract were updated in today's dollars with current prices for labor, equipment, materials and subcontracts**
- **Each project was then time-phased, with inflation factors applied to each current dollar year estimate to calculate year of expenditure (YOE) costs**

Capital Cost Estimates – Current Year Dollars (cont.)

- The following table provides the cost in current year dollars for each corridor as compared to last year's APE

Corridor	2011 APE (\$millions)	2012 APE (\$millions)	Delta \$'s (\$millions)	Delta %
EAGLE*	2,185.0	2,185.0	0.0	0.0%
West Corridor*	684.3	684.3	0.0	0.0%
North Metro	729.3	802.1	72.8	10.0%
Northwest Rail Segment 2	668.7	1,098.3	429.6	64.2%
I-225	618.7	630.1	11.4	1.8%
SEC Extension	175.2	180.3	5.1	2.9%
SWC Extension	142.0	142.6	0.5	0.4%
CC Extension	60.6	52.9	-7.7	-12.7%

*Contract bid cost in year of expenditure

Operations and Maintenance (O&M) Assumptions

- **O&M estimates for each FasTracks line were updated based on latest operating and design assumptions**
- **Staff also updated unit costs for light rail and bus O&M based on actual RTD experience**
- **In addition to the capital construction projects, the original FasTracks plan included a commitment to increase rubber tire service over time**
 - FasTracks contribution to rubber tire service over time has reduced the need for cuts to base system service

FasTracks Historic Contribution to Rubber Tire Service

Year	FasTracks Contribution to Rubber Tire Service
2006	\$1.9 M
2007	\$4.0 M
2008	\$6.4 M
2009	\$8.2 M
2010	\$10.2 M
2011 (budgeted)	\$12.3 M
2012 (budgeted)	\$14.3 M
Total	\$57.3 M

- **FasTracks-funded rubber tire service increases continue through 2035**

Project Funding Assumptions - 2012 APE

- **Currently committed FTA Full Funding Grant Agreements: \$1.3 B**
- **Other projected grant funding, excluding Denver Union Station:**
 - FTA Small Starts: \$75 M
 - Other federal capital funding: \$117 M
 - State SB1 capital funding: \$3.5 M
- **Other funding sources:**
 - Bonds issued to date: \$979 M
 - COPs issued to date: \$264 M
 - Transportation Infrastructure Finance and Innovation Act (TIFIA) loan for Eagle Project: \$280 M

Transportation Infrastructure Finance and Innovation Act (TIFIA) Loan

- **On December 1st, RTD received a \$280 M federal TIFIA loan for the Eagle P3 commuter rail project**
- **A TIFIA loan offers the following benefits to RTD:**
 - Attractive, locked-in interest rate
 - Ability to defer interest and draw funds only when needed
 - Ability to refinance the loan at any time
 - Allows for increased capital borrowing and provides additional flexibility under the Taxpayers Bill of Rights (TABOR) – allowing RTD to move forward with the \$305 M projects immediately
- **If RTD executed the same financing in the bond market, it would have increased the present value of the financing cost for the program by more than \$164 M**

FasTracks Reserve Assumptions

- **As part of the 2012 APE, staff recommends the establishment of two fund balances for the FasTracks program to ensure that the program is fiscally sustainable**
 - Management Reserve – for initial construction
 - Fund Balances – for ongoing operations
- **Establishing these funds will allow RTD to maintain both corridor capital construction and ongoing operations in case of a severe economic downturn, without sacrificing one for the other**

FasTracks Management Reserve for Construction

- **Provide greater assurance that the program will be able to stay on schedule if there is an additional downturn in the economy or rapid escalation in commodities or construction costs**
- **No corridor or project would be allowed to access the Management Reserve until all project contingency has been expended**
- **Use of Management Reserve would be subject to Board approval**
- **Examples of uses for a Management Reserve include**
 - Unexpected construction cost escalation
 - Sales and use tax receipts lower than expected
 - Increased costs due to changes in regulatory requirements (i.e., new Federal Transit Administration rules) or unknown site conditions

FasTracks Management Reserve for Construction (cont.)

- **The current \$30 M FasTracks Contingency Reserve will be reclassified into the Management Reserve in 2013**
 - The fund balance will increase by approximately \$30 M per year until it reaches 3% of the projected remaining cost of the FasTracks program as of January 2012
- **RTD will work with stakeholders to develop a recommendation concerning the use of any funds remaining after the entire program is complete**
- **Options could include:**
 - Fulfilling outstanding commitments allowed by the original FasTracks plan
 - Paying down the existing bonds so that the additional 0.4% sales and use tax can sunset earlier than anticipated

Revised Fund Balance Policy for O&M - FasTracks

- **Change to match base system fund balance policies adopted by the Board in October 2011**
- **Support sustainability of ongoing FasTracks operations**
- **Purpose and intended uses are the same as for the base system:**
 - Avoid cash flow interruptions
 - Reduce the need for short-term borrowing
 - Assist in maintaining an investment-grade bond rating
- **Will be funded in 2013 to cover three months of O&M costs for the FasTracks program**
 - Will include reclassification of the current 5% FasTracks Operating Reserve
 - Required balances would increase as more lines are placed into service

Results of the APE Assuming Our Base Case of Delaying Northwest Rail to 2023 – 2025

Overview of Project Costs – Base Case

- **The following slides provide a summary of the capital costs for the FasTracks program assuming a delay for the Northwest Rail corridor of 3 – 5 years**
 - Costs represent the amount needed to construct the entire FasTracks program and include costs incurred since the beginning of the program
- **Assuming the Northwest Rail Line is completed in 2024, the financial plan works well within RTD's cash flow constraints**
 - Including a cushion if revenues fall below current projections
- **Capital cost for the full build out of the FasTracks program has increased from last year's APE by \$968.3 M to \$7.8 B (YOE)**
 - 85% of this increase was due to updated Northwest Rail costs
- **These costs assume a successful sales and use tax election in 2012, with Northwest Rail completed by 2024, and all other projects completed by 2020**

Northwest Rail Update

- **The most up-to-date cost estimates for the Northwest Rail Line represent a significant increase compared to costs estimated by RTD last year**
 - Total project cost assuming a 2020 completion date was \$1.4 B (YOE)
 - Assuming a 2024 completion date, the cost of Northwest Rail increases to \$1.7 B (YOE)
- **While there are a number of complex reasons for the Northwest Rail cost increase, the change is primarily related to two key factors:**
 - BNSF and RTD now have the benefit of 30 percent engineering
 - RTD's initial scope assumptions and cost estimates were prepared without the availability of formal BNSF input

Northwest Rail Update (cont.)

- **The major scope changes between previous and current estimates include the following:**
 - Increased need for corridor rights-of-way
 - Increased cost for environmental mitigation and utility relocations due to larger right-of-way needs
 - Additional vehicles needed to meet BNSF requirements
 - Upfront BNSF cost for operating time slots in perpetuity

Overview of Other Major Changes in Project Cost Estimates

- **\$17.3 M (YOE) increase in costs due to the addition of the Downtown Denver Circulator**
 - The project was previously assumed to be part of ongoing bus service cost, now it includes a mix of buses and capital improvements along the alignment
 - \$3.9M FASTER grant received in 2011 will help fund this project
- **\$68.6 M (YOE) increase in North Metro costs due to better definition of costs resulting from more advanced engineering (e.g., rights-of-way, sitework, systems, safety egress, etc.)**
- **\$76.4 M (YOE) increase in Other FasTracks Costs due to**
 - Extending program management costs to 2024 to cover program close-out
 - Reallocating costs for program-wide systems support
 - Increasing program-wide hazardous material mitigation fund

2012 Project Cost and Schedule Summary – Base Case

FasTracks Projected Costs by Corridor and Assumed Year of Completion
(In Millions of Year of Expenditure Dollars)

Corridor	2012 APE	Assumed Year of Completion*
West Corridor	\$684.3	2013
Total Eagle Project Costs	\$2,185.0	2016
I-225 Corridor	\$748.5	2020
Northwest Rail Corridor (S. Westminster to Longmont)	\$1,714.8	2024
North Metro Corridor	\$972.9	2020
Central Corridor Extension	\$60.3	2017
Southeast Corridor Extension	\$209.1	2017
Southwest Corridor Extension	\$182.2	2020
U.S. 36 BRT – Phase 1	\$19.0	Complete
U.S. 36 BRT – Phase 2	\$220.4	2015
Denver Union Station	\$287.3	2014
Light Rail Maintenance Facility	\$18.2	Complete
Downtown Denver Circulator	\$17.3	2014
Other FasTracks Project Costs	\$500.5	Various
Total FasTracks Program Costs	\$7,819.8	

*** No changes to corridor completion dates outside of Northwest Rail**

FasTracks Funding Source Summary – Base Case

FasTracks Projected Capital Funding Sources through 2024 (In Millions of Year of Expenditure Dollars)

Funding Source	2012 APE	Percent of Total
Revenue Bond Proceeds	\$2,236.8	28.6%
COPs Proceeds	\$251.5	3.2%
TIFIA Loan Proceeds	\$280.0	3.6%
Denver Union Station Note Proceeds	\$168.0	2.1%
Pay-as-you-go Capital	\$2,601.9	33.3%
Federal New Start Grants	\$1,339.1	17.1%
Federal Small Start Grants	\$75.0	1.0%
Other Federal Grants	\$202.6	2.6%
Local Match Funding	\$154.9	2.0%
Other Local Funding	\$22.2	0.3%
Public-Private Partnerships	\$487.8	6.2%
Total FasTracks Program Funding	\$7,819.8	100.0%

Additional Options for RTD Board Consideration

Additional Options - Background

- **Northwest Rail Line is currently assumed to be the last line to be completed as part of the FasTracks program**
 - Due to the higher capital and operations and maintenance (O&M) costs, opening Northwest Rail earlier would delay completion of the rest of the program
- **RTD's Base Case for the 2012 APE includes delaying completion of the Northwest Rail corridor until 2024**
- **Given their stated concerns on the increased cost and risk related to being the last line to be constructed, RTD's stakeholders have requested additional options for completing the FasTracks program**
- **The following presentation describes two additional options for RTD Board consideration**

Option #2: Overview

- **Delay completion of Northwest Rail to 2024 to match RTD's cash flow requirements, but accelerate select capital projects and increase funding for bus service for Northwest Rail and U.S. 36 Bus Rapid Transit (BRT) Corridor Service Areas**
- **Increase overall service along the US 36 BRT corridor starting in 2015**
- **Build (and provide bus service to) future Northwest Rail park-n-Rides at the following locations:**
 - Louisville
 - Gunbarrel
 - Longmont (Current investment of \$17 M plus additional bus service)
- **Provide the remaining Phase 2 funding for the US 36 Bus Rapid Transit project by 2015**

Option #2: Proposed US 36 Opening Day BRT Service

Route	Direction	Headways (min)						Notes
		AM Peak		PM Peak		Off-Peak		
		Existing	US 36 BRT Opening Day	Existing	US 36 BRT Opening Day	Existing	US 36 BRT Opening Day	
BV/BX	EB	6 min	6 min	7.5 min	6 min	20 min	12 min	*Maintain or improve existing peak period service levels *Increase in all-stop service *Decrease in travel times on all routes with managed lanes *Increase in off-peak service
	WB	7 min	6 min	7 min	6 min	20 min	12 min	
HV/HX	EB	15 min	10 min	---	10 min	---	---	
	WB	---	10 min	15 min	10 min	---	---	
Note: Additional bus service provided on US 36 by routes: 86X, DD, DM, L, LX, T, S, AB. Service from additional routes is not expected to change due to US-36 BRT implementation. Additional routes will also benefit from the travel time savings of the Managed Lane investment.								

- **Bi-directional, all-day service**
- **This service can be accommodated with our existing fleet of regional buses and still maintain a 20% spare ratio**

Option #2: Proposed Interim Northwest Rail Bus Service

- **Increased service from Longmont**
 - Bi-directional, all-day service at 30 min peak and 60 min off-peak headways to match rail service levels
- **Three New Routes:**
 - Louisville ➡ DUS, Express
 - Louisville ➡ Boulder, Express
 - Gunbarrel ➡ DUS via Boulder Transit Village and Table Mesa

Option #2: Impact to Other FasTracks Corridors

- Based on preliminary analyses – the impact of this alternative scenario would be an approximately 6 month delay in the opening of all other partially-funded corridors

Partially Funded Corridor Project	Completion Date Identified During Last Year's APE	New Estimated Completion Date
North Metro	Middle 2020	End of year 2020
Northwest Rail	End of year 2020	End of year 2024
I-225	Early 2020	Middle to late 2020
SEC Extension	Middle 2017	Late 2017/Early 2018
SWC Extension	Middle to late 2020	Late 2020 to early 2021
Central Corridor Extension	Early 2017	Middle 2017

Option #2: Summary

- **Provides early tangible benefits to the corridor that is “last in line” and most at risk**
- **Opening day bus service frequency every 15 – 30 minutes peak; 60 minutes off-peak (combined US 36 BRT and interim bus service for Northwest Rail service area)**
- **Increases risk to project/program because delay in implementation means RTD would have to re-open BNSF negotiations at a later date**
- **Results in a delay to all other partially funded corridors by approximately 6 months**

Option #3: Overview

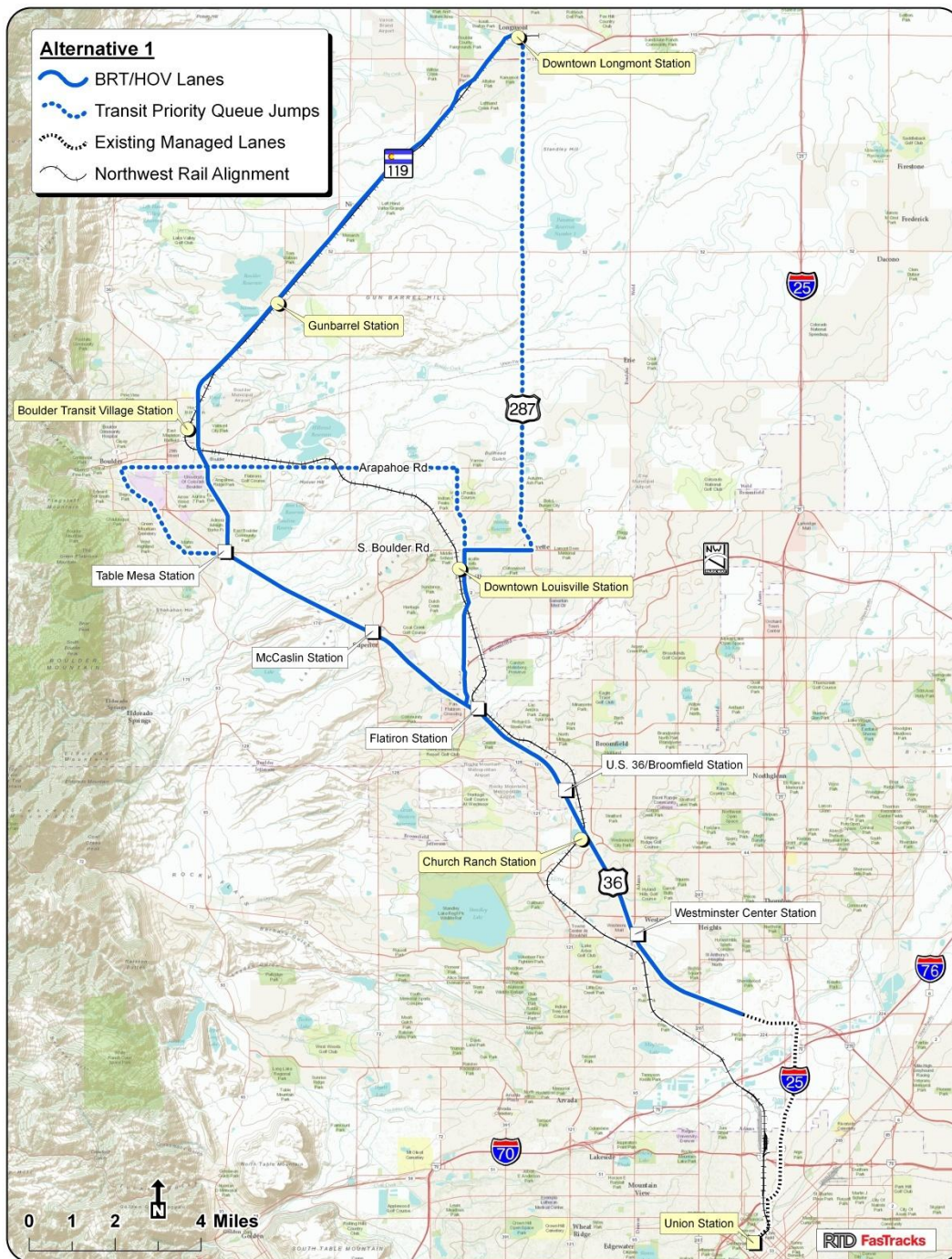
- **Remove Northwest Rail from the FasTracks plan and commit remaining Northwest Rail project funds for expanded BRT in the Northwest Corridor area**
 - Total investment in the corridor, including prior expenditures and current commitments, would be capped at \$894.6 M (YOE) (the Northwest Rail cost estimated as part of last year's APE)
- **Before an exact alignment could be established, RTD and CDOT would be required to conduct an Environmental Assessment/Environmental Impact Statement for any additional segments of BRT outside of the US 36 BRT corridor that include state highways**

Option #3: Overview (cont.)

- **If the RTD Board of Directors chooses to move forward with this scenario, RTD, CDOT and our stakeholders would work together through the environmental process to determine the exact type, location and timing of improvements in this service area**
- **The following maps provide examples of potential alignments for BRT in this service area**

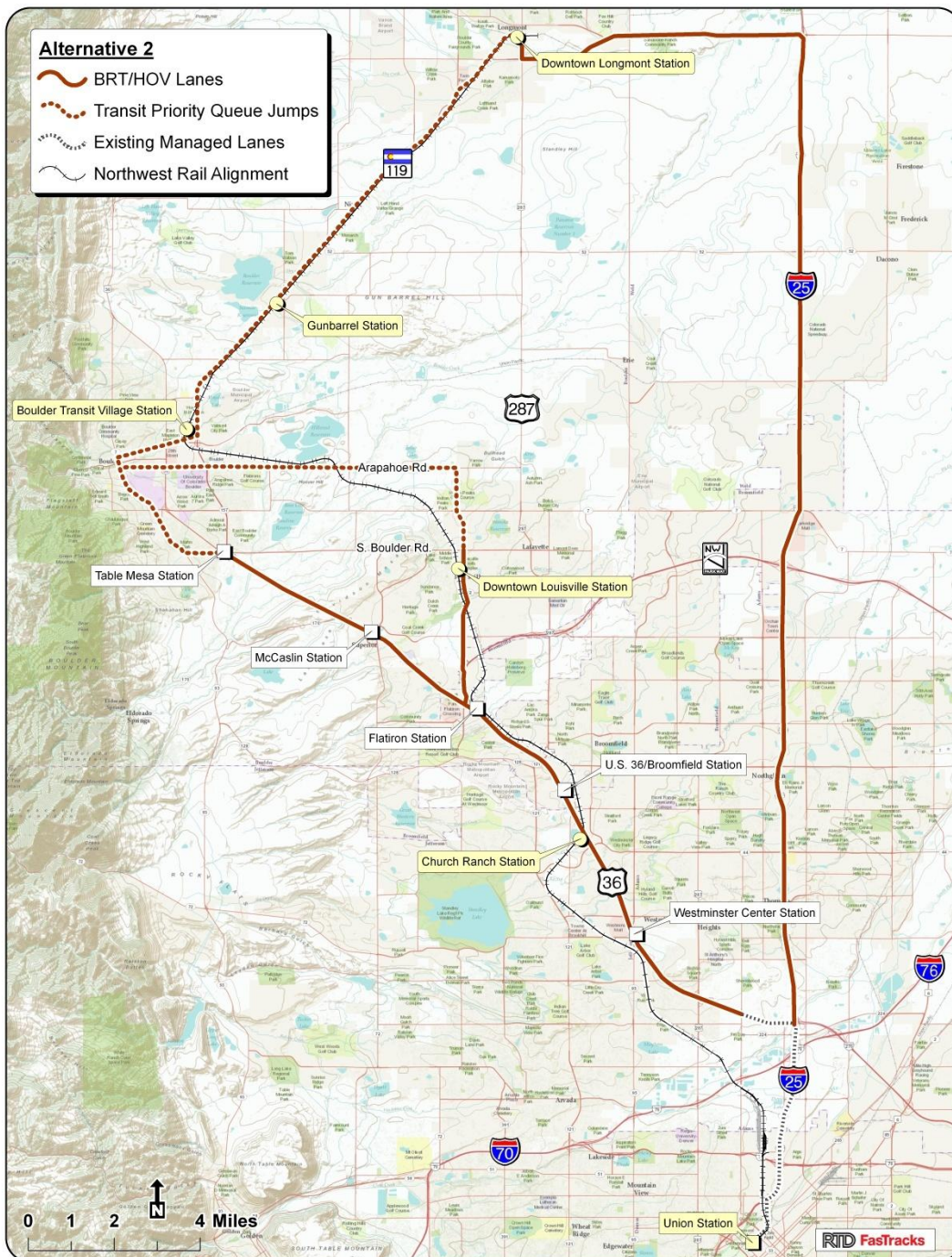
Alternative #1

- Assumes BRT/HOV lanes along US 36, through Boulder, along SH 119 (Diagonal Highway) and along SH 42/96th Street to downtown Louisville – a piece of South Boulder Road from Louisville to US 287 is also included
- Assumes transit priority queue jumps along SH 287 to Longmont and Arapahoe Road to downtown Boulder



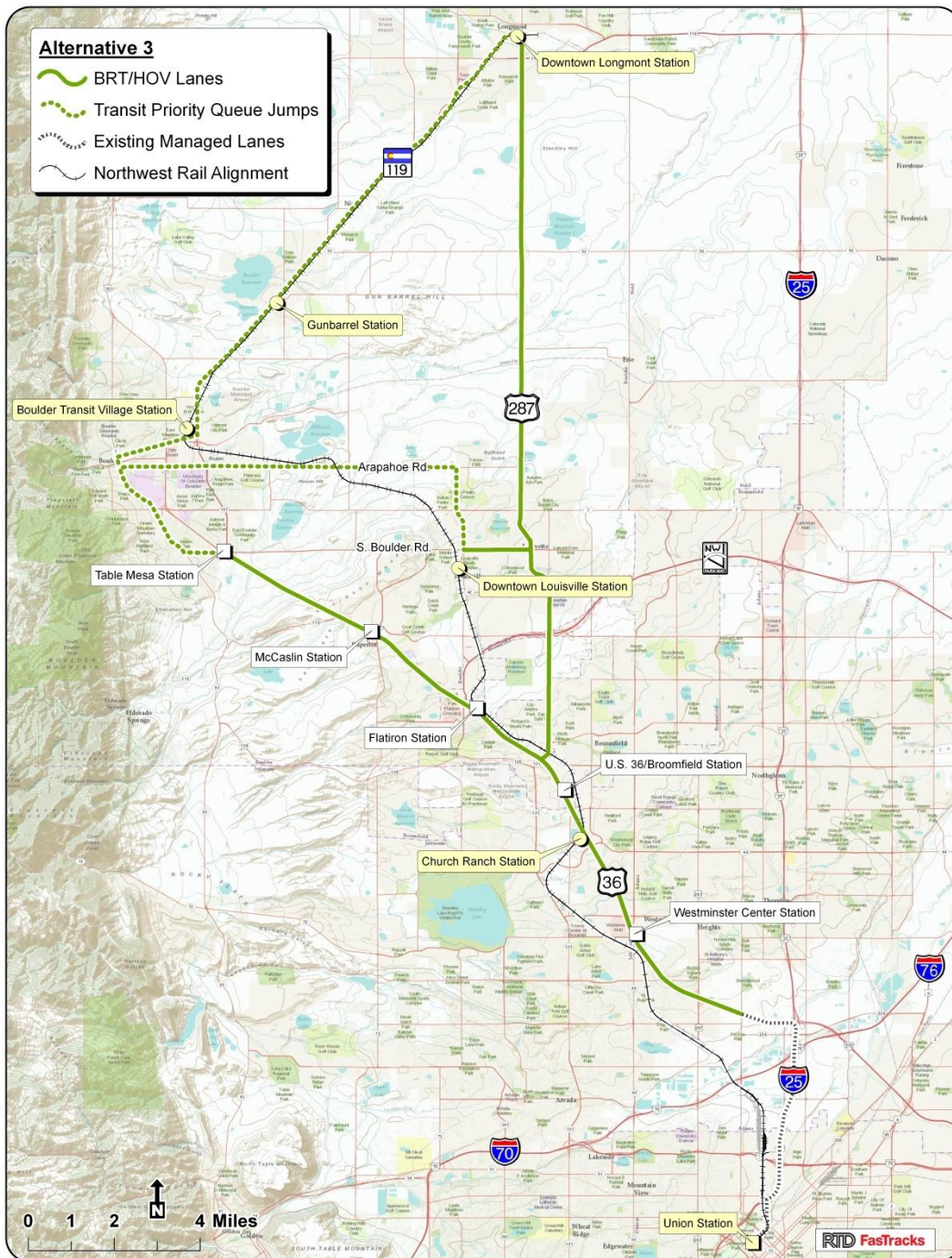
Alternative #2

- Assumes managed lanes along US 36 to Table Mesa and North I-25, and SH 119 (I-25 to Longmont)
- Assumes BRT/HOV lanes along SH 42/96th Street to Louisville
- Assumes transit priority queue jumps north of downtown Louisville and along Arapahoe Road to downtown Boulder



Alternative #3

- Assumes managed lanes along US 36 to Table Mesa
- Assumes BRT/HOV lanes along SH 287 from US 36 to Longmont and SH 42 to US 287
- Assumes transit priority queue jumps along SH 119 (Diagonal Highway) and along Arapahoe Road to downtown Boulder



Option #3: Summary

- **Would remove the Northwest Rail Line from the FasTracks program, and replace the commuter rail with expanded BRT in the service area**
- **Significantly lower cost capped at \$894.6 M (YOE) provides greater funding certainty**
 - Capability to complete funding commitments earlier
 - Eliminates uncertainty related to BNSF negotiations

Option #3: Summary (cont.)

- **BRT would provide more peak and off-peak service than could be provided by the rail**
 - 7 – 12 minute service for key locations compared with 15 - 30 minute peak train frequencies
 - 15 min all day, bi-directional service for key locations compared with 60 minute off-peak train frequencies
 - Ability to provide single-seat service to more areas than rail
- **Still have ability to implement TOD plans with significant investment in BRT stations**
 - Station investments would be similar to rail

Request for RTD Board Direction on Next Steps to Finalize the 2012 APE

Our Challenge

- **The RTD Board of Directors are considering a sales and use tax election in 2012 to fully fund the FasTracks program**
 - RTD Board of Directors need to approve the 2012 APE financial plan no later than March, 2012
 - Delay in the APE and SB 208 processes would negatively impact the RTD's ability to move forward in 2012

Staff Recommendation

- **Staff recommends that the RTD Board of Directors direct staff to perform technical/financial analyses for Options 2 and 3 described in this presentation and return with additional information on March 6, 2012**
 - March 1, 2012 would be the deadline for stakeholder feedback on Option 1 (Base Case) and Options 2 and 3

Other Alternatives for RTD Board **FasTracks** Consideration

- **Alternative #1: RTD Board of Directors does not request additional technical/financial analyses and approves the Option 1 (Base Case) 2012 financial plan tonight for full board consideration on January 24, 2012**
 - Not recommended because it does not allow for more time to consider additional options
- **Alternative #2: RTD Board of Directors directs staff to develop additional options for consideration (beyond what is included in this presentation)**
 - Not recommended because it would delay the SB 208 process, and could endanger the RTD Board's ability to go to an election in 2012

Next Steps – Assuming Staff Recommendation

- **March 1, 2012**: Deadline for stakeholder feedback on Option 1 (Base Case) and Options 2 and 3
- **March 6, 2012**: Presentation to FasTracks Monitoring Committee of additional technical/financial analyses for Options 2 and 3
- **March 8, 2012**: RTD Board selection of either Option 1 (Base Case), 2 or 3 at a special board meeting
- **March 20, 2012**: FasTracks Monitoring Committee recommendation to approve 2012 APE financial plan and release of SB 208 report to DRCOG

Next Steps – Assuming Staff Recommendation (cont.)

- **March 27, 2012**: Board approval of 2012 APE financial plan and SB 208
- **June 2012**: DRCOG approval of SB 208 Report

Next Step - Sensitivity Analyses

- **Once the 2012 Financial Plan has been approved by the RTD Board of Directors, the following sensitivity analyses will be completed:**
 - How low can sales and use tax growth projections fall without impacting the construction schedule?
 - How high can construction inflation rise without impacting the construction schedule?
 - How long would it take to complete the program if no additional sales and use tax is identified for the program?

Attachment #1

FasTracks Project Costs Assuming Our “Base Case” of Delaying Northwest Rail to 2024

West Rail Line Cost Summary (YOE \$, in millions)

2011 Working Estimate	\$684.3
2012 Annual Program Evaluation Changes	-\$0.0
Current Project Budget	\$684.3

Major Changes (2011 – 2012):

- Construction on the Wadsworth and Sheridan parking structures will start in the first quarter of 2012

Challenges, Opportunities & Accomplishments:

- The project is on schedule, within budget and 89% complete
- All bridge structures are complete
- System construction 75% complete
- Station work is 75% complete
- Trackwork is 91% complete
- Jeffco parking structure is 98% complete
- Federal Center parking lot is substantially complete
- Wadsworth and Sheridan parking garages are under contract and design is underway



**Location of Federal Center Station
and Surface Parking Lot**

Eagle Project Cost Summary (YOE \$, in millions)

2011 APE	\$2,185.0
2012 Annual Program Evaluation Changes	-\$0.0
Current Project Budget	\$2,185.0

Major Changes (2011 – 2012):

- Executed Design/Build contract options and changes with the concessionaire (Denver Transit Partners)

Challenges, Opportunities & Accomplishments:

- Received Full Funding Grant Agreement (FFGA) for \$1.03 B and \$285 million TIFIA loan for project
- Executed Intergovernmental Agreements (IGAs) with Aurora, E-470, CCD, DIA, Adams County, Arvada and Wheat Ridge [deleted Westminster]
- Acquired 67% of ROW (by acreage)
- Design advanced to approximately 85% level
- Executed options for base Pena Boulevard bridge, grade separation of 40th Avenue and storm water drainage project for City and County of Denver
- Initiated construction and utility relocations
- Continued risk due to coordination with stakeholders
- Negotiating change to incorporate Denver investments



Construction in Coors Field parking lot

I-225 Rail Line Cost Summary (YOE \$, in millions)

2011 Working Estimate	\$750.8
2012 Annual Program Evaluation Changes	-\$2.3
Current Working Estimate	\$748.5

Challenges, Opportunities & Accomplishments:

- Developed RTD/CDOT joint construction procurement package for civil elements of Segment 1 from Nine Mile to Iliff
- Developing separate construction procurement package for track, stations, electrical systems elements, and Park-n-Ride
- Detailed estimate for Segment 1 based on 100% design
- Bottoms-up estimate based on 30% design updated for Segment 2, Iliff to end-of-line
- Segment 1 civil elements were bid in December 2011, with award in first quarter of 2012

Major Changes (2011– 2012):

- Split Segment 1 quantities and estimate based on scope for RTD/CDOT joint construction project
- Increase in design and construction management for both Segment 1 and Segment 2 based on revised staffing assumptions
- Decrease in costs for light rail systems elements based on current materials price
- Decrease in right-of-way estimate based on 100% design drawings for Segment 1

Northwest Rail – South Westminster to Longmont (YOE \$, in millions)

2011 Working Estimate	\$894.6
2012 Annual Program Evaluation Changes	+\$820.2
Current Working Estimate	\$1,714.8

Challenges, Opportunities & Accomplishments:

- In February 2011, RTD paid the BNSF \$650K to begin 30% design and evaluate operating assumptions for Segment 2
- As part of this agreement, in December, BNSF provided RTD with information on the feasibility and cost for a Northwest Rail Line operating easement,
- Continued risk related to railroad negotiations with BNSF – cost is not finalized
- Due to the increase in the cost of the corridor, the schedule for Northwest Rail was extended to 2024 to match RTD's cash flow constraints

Major Changes (2011-2012):

Major scope changes resulting from BNSF's preliminary engineering plans include:

- Increased need for right-of-way
 - Double tracking between Boulder and Longmont
 - Additional set-out tracks (sidings) for shared commuter/freight operations
 - Need for additional right-of-way for sound walls
- Increased cost for environmental mitigation and utility relocations due to increased project footprint
- Additional vehicles for BNSF 12-axle rule
- Upfront BNSF cost for operating time slots in perpetuity (versus RTD's previous assumption that this would be an annual charge)

North Metro Rail Line Cost Summary (YOE \$, in millions)

2011 Working Estimate	\$904.3
2012 Annual Program Evaluation Changes	+ \$68.6
Current Working Estimate	\$972.9

Challenges, Opportunities & Accomplishments:

- Working with jurisdictions and agency stakeholders
 - Local contribution
 - Timely permits
 - Distribution of DRCOG funds
- Timely acquisition of ROW
- Coordinating civil and systems contracts

Major Changes (2011 – 2012):

- Available funding has allowed RTD to proceed with procurement for a design/build contract for Segment 1 from Denver Union Station to National Western Stock Show Station
- Revised track materials to match Eagle to improve consistency of the Commuter Rail Network
- Added the CRMF future build out to accommodate North Metro
- Further defined Civil Elements for overall corridor design
- Advanced engineering to produce ROW plans for Segment 1 – better defined ROW throughout
- Advanced engineering for systems design – matching Eagle for Commuter Rail Network consistency
- Performed detailed hazardous materials estimate for entire corridor

Central Rail Line Extension Cost Summary (YOE \$, in millions)

2011 Working Estimate	\$70.6
2012 Annual Program Evaluation Changes	-\$10.3
Current Working Estimate	\$60.3

Challenges, Opportunities & Accomplishments:

- Environmental evaluation and 30% basic engineering are complete
- Potential opportunity to convert to streetcar technology on Downing Street
- Additional study began fall of 2011, opportunity to advance engineering, operations and planning work in conjunction with local stakeholders

Major Changes (2011 – 2012):

- Decrease in costs due to ongoing scope refinements
- Decrease in costs for hazardous materials due to more detailed analysis of potential risk
- Detailed review of drainage and utilities estimates decreased costs due to the identification of overlapping scope elements

Southeast Rail Line Extension Cost Summary (YOE \$, in millions)

2011 Working Estimate	\$209.1
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2012 Annual Program Evaluation Changes	\$0.0
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Current Working Estimate	\$209.1
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Major Changes (2011 – 2012):

- Further review and refinement of cost estimate resulted in general increases and decreases throughout the estimate

Challenges, Opportunities & Accomplishments:

- Environmental evaluation and 30% basic engineering are complete
- In anticipation of submitting a Small Starts application in 2012, additional design and environmental work began in 4th quarter of 2011

Southwest Rail Line Extension Cost Summary (YOE \$, in millions)

2011 Working Estimate	\$185.1
2012 Annual Program Evaluation Changes	-\$2.9
Current Working Estimate	\$182.2

Challenges, Opportunities & Accomplishments:

- Environmental evaluation and 30% basic engineering are complete
- Relocation of Union Pacific Railroad to begin in 2013 as part of \$305 million expenditure

Major Changes (2011 – 2012):

- Further review and refinement of cost estimate resulted in minor decrease to project costs
- Most significant decreases occurred through refinements in noise mitigation, systems elements, and staffing, although no one category was significant

US 36 Bus Rapid Transit – Phase 1 (YOE \$, in millions)

2011 Working Estimate	\$21.3
2012 Annual Program Evaluation Changes	-\$2.3
Current Project Budget	\$19.0

Major Changes (2011-2012):

- None, all U.S. 36 Phase 1 BRT projects are complete
- \$2.3 M of remaining budget transferred to Phase 2

Challenges, Opportunities & Accomplishments:

- RTD has completed all of the following Phase 1 projects:
 - Broomfield - Slip Ramps, Pedestrian Bridge, Bus Turnaround
 - McCaslin – park-n-Ride and Pedestrian Bridge
 - Church Ranch – park-n-Ride

US 36 Bus Rapid Transit – Phase 2 (YOE \$, in millions)

2011 Working Estimate	\$218.1
2012 Annual Program Evaluation Changes	+\$2.3
Current Working Estimate	\$220.4

Major Changes (2010-2011):

- Remaining US 36 BRT budget is \$77.9M plus \$2.3M under-run from US 36 BRT Phase 1 (total of \$80.2M)

Challenges, Opportunities & Accomplishments:

- Partnered with CDOT on US36 Managed Lanes Design Build Project (in procurement phase) including securing a TIFIA loan. RTD has committed \$120M to the Project. Construction to begin in 2012. CDOT is pursuing a PPP to complete the corridor to Table Mesa.
- RTD continues to work with Stakeholders to define and implement BRT on the corridor
- Table Mesa pedestrian bridge under construction
- Queue jumps under construction in 2012

Denver Union Station

Cost Summary (YOE \$, in millions)

2011 Working Estimate	\$283.3
2012 Annual Program Evaluation Changes	+\$4.0
Current Project Budget	\$287.3

Major Changes (2011 – 2012):

- RTD contribution increase due to receipt of \$4 M FASTER grant for core and shell improvements such as upgrades to bring the building up to code and for Amtrak relocation
 - Because the increase is paid for by the FASTER grant funding – this is not an increase in RTD's overall contribution

Challenges, Opportunities & Accomplishments:

- Design surpassed the 90% level
- New light rail platform was completed and opened for service in August 2011
- Final completion of the bus facility and commuter rail platform scheduled for 2014
- DUS was awarded \$4M FASTER funds for Amtrak related tenant improvements within the DUS historical building



Construction at Denver Union Station

Downtown Denver Circulator Cost Summary (YOE \$, in millions)

2011 Working Estimate	\$17.3
<i>2012 Annual Program Evaluation Changes</i>	<i>\$0.0</i>
Current Working Estimate	\$17.3

Major Changes (2011-2012):

- Costs for this project have always been included in the FasTracks financial plan
- The project was previously assumed to be part of ongoing bus service cost, now it includes a mix of buses and capital improvements along the alignment
- Since the project is moving into preliminary engineering, RTD is presenting the project separately for tracking purposes

Challenges, Opportunities & Accomplishments:

- Project will begin service in 2014 with the opening of the Denver Union Station Bus Box
- RTD has made a financial commitment to this corridor – funds will be used to purchase buses and construct bus bulbs at proposed stops
- Preliminary and final design will begin in 2012 with construction in 2013

Other FasTracks Project Cost Summary (YOE \$, in millions)

2011 Working Estimate	\$424.1
2012 Annual Program Evaluation Changes	+\$76.4
Current Working Estimate	\$500.5

Project Description:

Other FasTracks Project Costs include all non-corridor specific commitments from the original FasTracks plan, and project components that are shared across multiple corridors. Projects include:

- North Metro I-25/144th Ave. bus Park-n-Ride
- US 36 bike pedestrian access
- Program-wide management oversight
- US 85 ROW preservation/Next Steps Study
- North Metro UPRR ROW (outside of corridor limits)
- Required and emerging railroad safety enhancements
- DUS track changes
- Colfax crossover
- Communication system upgrades
- Program-wide hazardous materials mitigation
- Light-rail vehicles
- Four car platform and system upgrades
- Lincoln Park-n-Ride
- Bates Station
- Union Ave Bridge in-fill and pedestrian enhancements
- Englewood Park-n-Ride

Major Changes (2011 – 2012):

- Extending program management costs through 2024 to cover program completion and close-out
- Reallocation of program-wide systems support costs (for non-corridor specific support)
- Increase in program-wide hazardous materials mitigation fund

Questions?