



# NORTHWEST RAIL GOVERNMENTS TEAM

## MEETING SUMMARY

**DATE:** September 13, 2007, 7:30 a.m. to 9:30 a.m.

**LOCATION:** Courtroom #1, NITA Building, Louisville

## MEETING GOALS & AGENDA

### Goals:

- Follow up on action items from July Meeting and provide updates on select project issues
- Present and discuss findings of Commuter Rail Technology analysis
- Present preliminary project recommendations on Commuter Rail Technology
- Gather NWR Governments Team input on approach to upcoming Public Workshops (September 19, 20, and 24)
- Prepare NWR Governments Team to provide comment on preliminary project recommendations on Commuter Rail Technology (September 27 meeting)
- Identify next steps and future agenda items for the NWR Governments Team

### Agenda

1. Welcome & Introductions
2. Follow Up Items and Update on Project Issues
  - Incorporation of NWR stations into Regional Transportation Plan
  - RTD Fencing Policy
  - Project Schedule and Activities
3. Commuter Rail Technology
  - Evaluation Criteria and Analysis
  - Preliminary Project Recommendations
  - September Public Workshops
  - Comment period for NWR Governments Team (September 13-28)
4. Summary and Next Steps

## SUMMARY

### Welcome & Introductions

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Chris Quinn, RTD FasTracks Northwest Rail Project Manager, greeted the Governments Team. This was followed by self-introductions of participants.

### Follow up Items and Update on Project Issues

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#### *Incorporation of NWR stations into the Regional Transportation Plan*

Chris Quinn explained that the incorporation of the Northwest Rail stations into the Regional Transportation Plan (RTP) has been discussed with DRCOG (Denver Regional Council of Governments) and that he is awaiting a definitive answer. Based on preliminary discussions with DRCOG, it appears that RTD could submit the revised station locations for inclusion into the RTP when we have reached a draft document.

#### *RTD Fencing Policy*

An internal RTD FasTracks group has been assigned to look at the fencing issue from a programmatic perspective and will be contacting representatives from some of the jurisdictions over the next week to gain an understanding of site-specific issues. They will also be researching how this issue is addressed at other transit properties and will then make a recommendation to the RTD Safety Committee.

#### *Project Schedule and Activities*

The first round of technology-focused public meetings will be held in the next two weeks (September 19, 20, and 24, 2007). In January 2008, the Project Team will present the recommendations on station locations and alignment issues, which will be followed by a subsequent round of related public meetings.

### Commuter Rail Vehicle Technology

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Tim Baldwin, Consultant Project Manager (URS), presented the results of the commuter rail vehicle technology analysis and preliminary recommendations. He began by reviewing the history of vehicle technology since the completion of the Major Investment Study on US 36 in 2001 up through the 2007 initial costs-benefits analysis of DMU vs. EMU technology on FasTracks corridors.

#### *Evaluation Criteria and Analysis*

The following seven evaluation criteria were analyzed as a part of the commuter rail technology evaluation: noise, vibration, air quality, visual impacts, cost-effectiveness, complexity, and community input. Along each of these dimensions, the Governments Team shared their feedback and the Project Team replied to concerns, as summarized in the table below:

CRITERIA	TEAM COMMENTS, QUESTIONS	PROJECT TEAM RESPONSE
NOISE	Noise Analysis	

CRITERIA	TEAM COMMENTS, QUESTIONS	PROJECT TEAM RESPONSE
	<ul style="list-style-type: none"> <li>• Desire to understand the methodology and assumptions that went into the technical analysis of the noise issue (City of Boulder, City of Louisville)</li> <li>• What exactly is meant by severe and moderate noise levels? (Define these for the public)</li> <li>• Is there a difference between the length of the horn between freight trains and RTD passenger trains?</li> </ul>	<ul style="list-style-type: none"> <li>• The Project Team will schedule meetings with the City of Boulder, City of Louisville, and any other jurisdiction that would like to discuss the technical analysis</li> <li>• The FTA states that if noise impacts are severe, the project <u>must</u> mitigate. If impacts are determined to be moderate, then the project <u>may</u> mitigate. The determination is based on factors such as reasonability, feasibility, number of people affected, and cost effectiveness.</li> <li>• The Project Team will distribute the FTA noise and vibration impact guidance to the Governments Team.</li> <li>• RTD currently understands that there is a difference between the decibel requirements (horns) for freight versus passenger trains and is seeking confirmation of this issue. Operators of freight trains must sound the horn approximately one-quarter mile before each crossing.</li> </ul>
NOISE	<p><u>Noise mitigation</u></p> <ul style="list-style-type: none"> <li>• Quiet Zones: What are these?</li> <li>• What is RTD responsible for building? What is the responsibility of the local communities to mitigate (Quiet Zones)?</li> <li>• When will the mitigation discussion be held?</li> <li>• Can we borrow from the sound wall study for TREX?</li> <li>• Sound berms appear to be more aesthetically pleasing than some of the other options for mitigation</li> </ul>	<ul style="list-style-type: none"> <li>• Communities can apply to implement a Quiet Zone (which would mean that the trains would be exempt from sounding their horn on approach to the intersection and would instead require additional safety features at crossings).</li> <li>• Additional information can be found on the BNSF and FRA's web-sites as follows: (<a href="http://www.bnsf.com/employees/communications/bnsf_today/2005/06/2005-06-01-d.html">http://www.bnsf.com/employees/communications/bnsf_today/2005/06/2005-06-01-d.html</a>), and (<a href="http://www.fra.dot.gov/us/content/1318">http://www.fra.dot.gov/us/content/1318</a>).</li> <li>• The Project will address mitigation options in early 2008. This will include holding a "Quiet Zones" workshop with the Governments Team next winter/spring. The workshop will include a discussion of RTD's role and responsibilities in relation to Quiet Zone implementation.</li> <li>• Based on the TREX experience, RTD adopted an 'Opt Out Policy,' which allows neighborhoods to opt out if they choose not to have a sound wall (to preserve a view, for example).</li> <li>• While sound berms may be more aesthetically pleasing, they are not always as effective as sound walls.</li> </ul>
NOISE	<p><u>Input on Presentation</u></p> <ul style="list-style-type: none"> <li>• Include a graph showing noise impacts; comparing</li> </ul>	<ul style="list-style-type: none"> <li>• The Project Team will incorporate the Governments Team's feedback into the presentation for the September 19, 20, and 24 Public Workshops on technology.</li> </ul>

CRITERIA	TEAM COMMENTS, QUESTIONS	PROJECT TEAM RESPONSE
	<p>current operational frequencies and schedule of freight trains with the addition of future RTD CR trains</p> <ul style="list-style-type: none"> <li>• Explicitly state that the chart assumes no mitigation</li> <li>• Need to have bar charts that demonstrate where we are now and the incremental impact of the DMU (noise and vibration) – to give a relative sense of things</li> <li>• Explicitly state that FTA standards are being applied and explain the rationale</li> <li>• Need to have maps indicating exact locations of affected residents (severe to moderate noise) along the corridor</li> <li>• A noise mitigation slide is needed to show various options</li> <li>• Share information about the noise and vibration analysis process and assumptions</li> <li>• Distinguish between the existing noise and vibration conditions versus what increase would be attributable to the commuter rail</li> </ul>	
<b>VIBRATION</b>	<ul style="list-style-type: none"> <li>• Can you define ‘vibration impact’?</li> <li>• Identify potential mitigation measures,</li> </ul>	<ul style="list-style-type: none"> <li>• Vibration impact is defined as a “noticeable vibration.” It is determined by measuring the number of operations per day and the soil around those operations through a geo-technical analysis.</li> </ul>

CRITERIA	TEAM COMMENTS, QUESTIONS	PROJECT TEAM RESPONSE
	<p>including:</p> <ul style="list-style-type: none"> <li>○ The placement of the engine</li> <li>○ Track construction methods</li> <li>○ Use of mufflers</li> <li>○ Use of mats under the rails</li> </ul> <ul style="list-style-type: none"> <li>• Concern about potential impact of vibration on foundations</li> </ul>	<ul style="list-style-type: none"> <li>• The typical vibration that comes from rail trains does not cause structural damage. More often it is an annoyance factor, rather than vibration to the extent that it causes problems. <ul style="list-style-type: none"> <li>○ Can specify that the DMU fall within certain frequency for vibration</li> </ul> </li> </ul>
<b>AIR QUALITY</b>	<ul style="list-style-type: none"> <li>• Was the same methodology used by CDPHE for the North Metro corridor analysis used in this study?</li> <li>• Have particulates been included in the analysis?</li> <li>• Please explain why 30<sup>th</sup> &amp; Pearl and the South Westminster stations were used in the analysis</li> <li>• Need to track the number of cars going to Park &amp; Ride stations</li> </ul>	<ul style="list-style-type: none"> <li>• This analysis does not measure the potential impacts of the coal burning that would be used to generate electricity, as there is no accepted methodology to measure it. At any given time electrical power used for EMUs could be coming from anywhere in the electrical power grid.</li> <li>• This analysis is based on current standards of vehicle efficiency.</li> <li>• Even if Tier IV engines are not available at the time the engines are procured, then RTD would only have to have the Tier III engines for only two years, as the engines can be replaced every two years. From that point on, the engines would be Tier IV.</li> <li>• The same CDPHE methodology was employed in both the North Metro and NWR FasTracks corridors</li> <li>• RTD has not conducted a particulate matter (PM) analysis</li> <li>• The stations were given as sample stations and picked as 'worst case' scenarios – with the most parking and the most residents around.</li> </ul>
<b>AIR QUALITY</b>	<p><u>Input on Presentation</u></p> <ul style="list-style-type: none"> <li>• Should compare the air pollution associated with the proposed DMU to current pollution by regional buses, cars so that the extent of the air pollution attributable to DMU is</li> </ul>	<ul style="list-style-type: none"> <li>• The Project Team will incorporate the Governments Team's feedback into the presentation for the September 19, 20, and 24 Public Workshops on technology.</li> </ul>

CRITERIA	TEAM COMMENTS, QUESTIONS	PROJECT TEAM RESPONSE
	<p>clear</p> <ul style="list-style-type: none"> <li>• A graphic that demonstrates the process in terms of the technology that is currently available versus what is expected to be available in 2011 would be helpful</li> </ul>	
<b>VISUAL</b>	<ul style="list-style-type: none"> <li>• The video posted on the North Metro website is not a valid comparison between EMU and DMU</li> <li>• Select locations that are real views for people (such as in downtown Louisville) for future visual simulations</li> </ul>	<ul style="list-style-type: none"> <li>• A visual simulation in downtown Louisville is more complex to model; however, the analysis is looking at exactly these kinds of sensitive areas.</li> <li>• The Project Team will consult with the Governments Team for suggestions if additional visual simulations are developed.</li> </ul>
<b>COST EFFECTIVENESS</b>	<ul style="list-style-type: none"> <li>• What fuel cost assumptions went into the costing (price, rate of escalation)?</li> <li>• What percentage of the costs over time is fuel?</li> <li>• In terms of the cost of the project, may need to mention earlier in the presentation, as it appears as if it renders the other points moot otherwise. (Input on presentation)</li> <li>• Who absorbs costs if the project goes over budget?</li> </ul>	<ul style="list-style-type: none"> <li>• The analysis is sensitive to macro-level changes</li> <li>• The initial rate of \$2.52/gallon was used for diesel fuel with a 3.4% annual increase and a .085kw for electricity</li> <li>• The Department of Energy has 3 scenarios; RTD assumed the middle of their high, medium and low</li> <li>• The requirement of raising the bridges, which doubled the budget, was not included in the life cycle analysis,.</li> <li>• Includes both annualized capital costs and operating costs</li> <li>• If the project were to exceed it's budget, RTD would have to value engineer and/or seek additional funding sources.</li> </ul>
<b>COMPLEXITY</b>	<ul style="list-style-type: none"> <li>• Address whether the reconstruction of 9 to 10 bridges (for clearance for maintenance) is a "real" requirement of</li> </ul>	<ul style="list-style-type: none"> <li>• The reconstruction of these bridges is a real project requirement from the BNSF maintenance perspective. The equipment used to lift the ties up and replace them requires the high clearance.</li> <li>• RTD is not aware of any other systems that have been required to satisfy this request.</li> </ul>

CRITERIA	TEAM COMMENTS, QUESTIONS	PROJECT TEAM RESPONSE
	<p>the BNSF</p> <ul style="list-style-type: none"> <li>• Address whether this height requirement of the BNSF exists anywhere else in the country?</li> <li>• Would it be less expensive to purchase new equipment than to reconstruct the bridges?</li> </ul>	<ul style="list-style-type: none"> <li>• RTD has asked the BNSF whether the height requirement is negotiable; however, BNSF has stated in writing that this would be a requirement and has not responded to RTD's request.</li> <li>• In its letter to RTD, BNSF stated that <i>in addition to</i> the catenary height requirement, RTD <i>would also</i> be required to purchase maintenance equipment specifically for this corridor.</li> </ul>
<b>PUBLIC COMMENT</b>	<ul style="list-style-type: none"> <li>• If including a review of public comment received to date during upcoming public meetings, it would be helpful to specify the proportion which came from a specific geographic area</li> </ul>	<ul style="list-style-type: none"> <li>• The Project Team has a desire to be up-front and transparent with the public; to share what we've heard from them to date</li> </ul>

***Preliminary Project Recommendations***

For the next part of the discussion, Tim Baldwin shared the preliminary project recommendations with the Governments Team, as outlined here:

1. Initiate service in 2015 with DMU. The advantages offered by DMU technology compared to EMU are lower up-front capital costs, lower life-cycle costs over the horizon year of the project, and less construction complexity; in addition, DMU falls within the current FasTracks schedule and budget.
2. RTD will re-examine the use of electric or other advanced technology or alternate fuels if it is deemed advantageous to do so in the future.

In response to the preliminary project recommendations, the Governments Team sought clarification as to whether there is an advantage to implementing the same technology on all corridors throughout the FasTracks system. The Project Team explained that while there are some advantages to implementing the same technology system-wide, when one factors in the costs, such as spare parts, maintenance, and training, the difference (between one uniform technology vs. varied technology) is actually is relatively mild.

***September Public Workshops***

The September Public Workshops begin next week, with the first meeting scheduled for Wednesday, September 19<sup>th</sup> at The Renaissance Hotel at Flatiron, followed by Thursday, September 20<sup>th</sup> at the Highlands Masonic Center in Denver, and, last, on Monday, September 24<sup>th</sup> at Celestial Seasonings in Gunbarrel/Boulder. All of the workshops will be held in an Open House format from 5:30 p.m. to 7:30 p.m. and will include a rolling mini-presentation and issue-focused information stations. During the workshops, the Project Team will share the results of the analysis, as well as the preliminary project recommendations, and the public will have the opportunity to share comments through a comment form similar to the one distributed to the Governments Team.

### *Comment Period for NWR Governments Team*

Governments Team members are requested to submit the completed Comment Form for the preliminary project recommendations by Friday, September 28, 2007, to Julie McKay, at [jmckay@mediate.org](mailto:jmckay@mediate.org) or by fax at (720) 407-4754. Julie will compile and distribute all of the comments she receives. The Project Team will respond to all written comments submitted by Governments Team agencies.

At the next Governments Team meeting, there will also be an opportunity to submit verbal comments to the Project Team. These comments will be recorded in the meeting summary.

### *Comments from City and County of Denver Councilwoman Judy Montero*

Julie McKay, as requested by Councilwoman Judy Montero, distributed her office's written comments on the preliminary project recommendations to the Governments Team.

### *Final Technology Recommendation*

The Project Team will compile public comment from the September Workshops and Governments Team input and forward this information to the RTD Board along with the preliminary project recommendations. The RTD Board will make a final recommendation on technology for the Northwest Rail corridor at its meeting on October 16, 2007.

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### **Next Steps and Action Items**

The next Governments Team meeting is scheduled for Thursday, September 27, 2007, at the Westminster Recreation Center, 10455 Sheridan Boulevard, Westminster. The meeting will be held from 7:30 - 9:30 a.m.

The following Action Items were identified during the meeting:

- Gina McAfee will contact representatives from the City of Louisville, Boulder County, City of Boulder, and City of Longmont to discuss fencing.
- The Project Team will meet with the City of Boulder, City of Louisville, and any other jurisdiction that would like to discuss the methodology and assumptions that went into the technical impacts analysis (noise, vibration, and other resource areas, and costs) of technology.
- The Project Team will incorporate Governments Team representatives' feedback into the presentation and other materials for the September Public Workshops.

- The Project Team will distribute the FTA mitigation guidance to the Governments Team, "Transit Noise and Vibration Impact Assessment Guidance Manual":  
[http://www.fta.dot.gov/planning/environment/planning\\_environment\\_2233.html](http://www.fta.dot.gov/planning/environment/planning_environment_2233.html)
- The Project Team will conduct a Quiet Zones "workshop" with the Governments Team to discuss noise impacts levels, mitigation options, and RTD's role and responsibilities in relation to Quiet Zone implementation, including funding. This workshop will take place in winter/spring 2008 when more information is available about impacts and possible mitigation measures.
- If the Project Team develops any additional visual simulations, it will consult with the Governments Team to determine the most appropriate context and location for them.

## **Handouts**

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- Northwest Rail Governments Team Meeting Agenda
- Northwest Rail Governments Team Comment Form
- Power Point Presentation Slide Handouts
- Comments from Councilwoman Judy Montero

## Meeting Participants

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<b>PARTICIPANTS</b>	<b>AFFILIATION</b>
1. Heather Balsler	City of Louisville
2. Tim Baldwin	URS Corporation
3. Debra Baskett	City & County of Broomfield
4. Mark Baudermann	RTD
5. Mary Blue	City of Longmont
6. Carl Castillo	City of Boulder
7. Bill Christopher	RTD
8. Kathleen Collins	URS
9. Audrey DeBarros	36 Commuting Solutions
10. George Gerstle	Boulder County
11. Gary Gonzales	CDOT
12. Mark Gosselin	CDOT - Region 4
13. Jennifer Graham	CDR Associates
14. Phil Greenwald	City of Longmont
15. Lee Kemp	RTD Board, District I
16. Sandra Khors	CDOT
17. Nadine Lee	RTD FasTracks
18. Matt Lutkus	City of Westminster
19. Sean McCartney	City of Louisville
20. Julie McKay	CDR Associates
21. Nancy McNally	City of Westminster
22. Lissa Myers	URS Corporation
23. Mark Najarian	City & County of Denver
24. Rick Pilgrim	URS Corporation
25. Chris Proud	CH2MHILL
26. Chris Quinn	RTD FasTracks
27. Martha Roskowski	City of Boulder
28. Jeanne Shrene	Adams County
29. Chuck Sisk	City of Louisville
30. Jack Stoakes	City of Boulder
31. Michael Sweeney	City of Boulder
32. John Tayer	RTD Board
33. Liz Telford	RTD FasTracks
34. Nick Wolfrum	City of Longmont