



Brian Middleton
Eagle Project Manager

(303) 299-2173 Office / (908) 416-0845 Cell
Brian.Middleton@RTD-Denver.com



Lessons Learned on the P3

RTD FasTracks

Eagle Project

- East Rail Line offers 35-minute travel time to DIA
- Gold Line offers 25-minute travel time to Ward Road
- Northwest Rail Westminster Segment offers 11-minute travel time to Westminister

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RTD FasTracks

Funding and Financing

- Project Capital Budget – \$2.3 billion
- Public funds
 - FTA New Starts Full Funding Grant Agreement - \$1.03 billion
 - Other federal grants - \$62 million
 - RTD uses sales tax proceeds for balance
- Private funds
 - Private Activity Bonds - \$396 million
 - Concessionaire equity - \$55 million

U.S. Transportation Secretary Ray LaHood at FFGA ceremony – August 2011

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Pay Attention To Financial Player

- The finance partner(s) on the P3 team will make many demands and are risk averse
- The deal cannot be done without them and therefore their comments must be carefully considered
- Example: Teams determined a deal without payment guarantees was not bankable and would have withdrawn

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Risk Allocation

- RTD followed the “give it to the best able to manage it” philosophy
- If no one able to manage, RTD retained the risk
- Some sharing included
 - Hazardous materials – created pool with sharing of any money left

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Procurement Team

- RTD hired advisors with P3 experience
 - Procurement lead
 - Financial advisors
 - Outside counsel
- RTD senior management engaged
 - General manager and senior leadership involved throughout
 - Board updated frequently – no surprises

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Schedule

- Maintaining schedule was a key for the teams
- Proposing on P3 projects is expensive
 - Each team spent \$15-20 million
- P3 proposals absorb a lot of senior management time
 - Opportunity cost

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Flexibility

- RTD remained open to new ideas
- RTD did not modify output but little else was sacrosanct
 - i.e. Safety and service requirements were never compromised
- When major issues arose, RTD worked around them
 - Project is complex and process long, some issues are inevitable

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Demonstrated Commitment

- RTD offered stipends
 - Up to \$2.5 million per unsuccessful team
- RTD provided a compensation agreement
 - Up to \$20 million to a selected team with whom RTD chose not to execute a contract
- When major issues were being wrestled with, teams took comfort that RTD made the commitments

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RTD FasTracks

Contract Administration

- **Challenges**
 - Focus on end game
 - Third party changes
 - Change order management

RTD FaTracks Contract Agreement

Dated as of July 9, 2010

REGIONAL TRANSPORTATION DISTRICT

AND

DENVER TRANSIT PARTNERS, LLC

CONCESSION AND LEASE AGREEMENT

Contract No. 10P0011 Contract Agreement

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RTD FasTracks

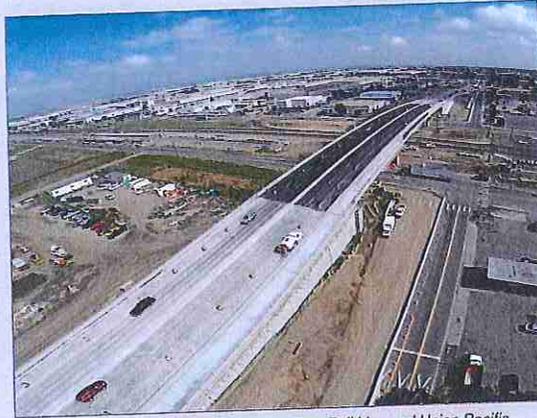
Staying Focused on the End Game

- Large complex project with many moving parts
- Contract written with best intentions but circumstances sometimes require different approach
- Need to protect the public interest while achieving the real goal of a safe and reliable transit system

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Third Party Changes

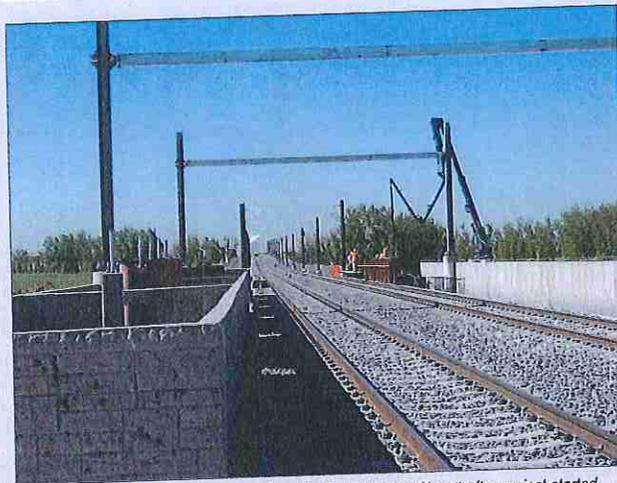
- Project impacts
 - 5 cities
 - 3 counties
 - Denver airport and
 - 2 railroads



Grade separation of Peoria Street over East Rail Line and Union Pacific alignment added after project started

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Adding a Station Has Many Impacts



Additional station selected at 61st and Peña by Denver Airport after project started

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Change Order Experience

- Changes are more difficult in a P3
 - More layers have to approve
 - Different focuses e.g. ROI
- No claims
- Partnering worked
- PM assigned full authority for changes, no reversion to board/commission



The Green Valley Ranch Bridge at 48th Avenue was added after the contract and a change order was initiated.

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Design Oversight

- Approach
- Structure
- Challenges



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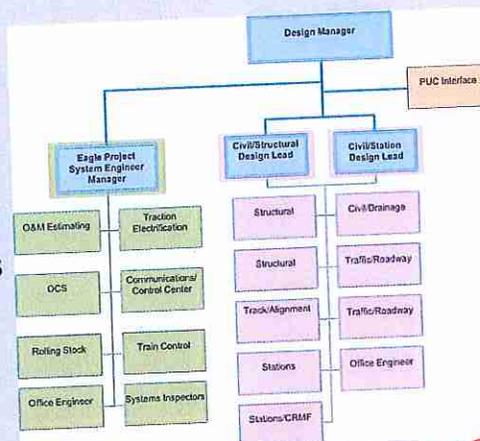
Oversight Approach

- Responsibility for design clearly with the concessionaire
- RTD provided oversight of design through design review meetings, selective design reviews
- Focus was on compliance with requirements not checking calculations

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Oversight Structure

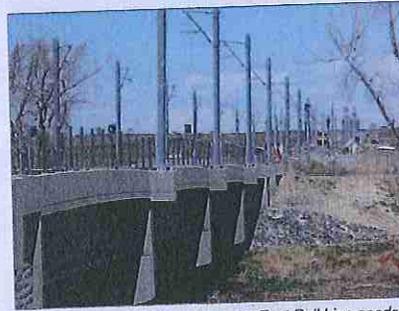
- Small group
- Participated in technical working groups
- Reviewed key design submittals and others as time allowed
- Full responsibility remained with concessionaire



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Design Challenges

- Assuring Concessionaire adequately performs design management responsibilities is critical
- Bridge issues
- Concessionaire absorbed all costs and schedule impacts of all design issues
- Risk allocation protected RTD
- O&M responsibilities changes concessionaire perspective



The First Creek Bridge along the East Rail Line needs minor retrofits to meet contract requirements; all costs absorbed by concessionaire.

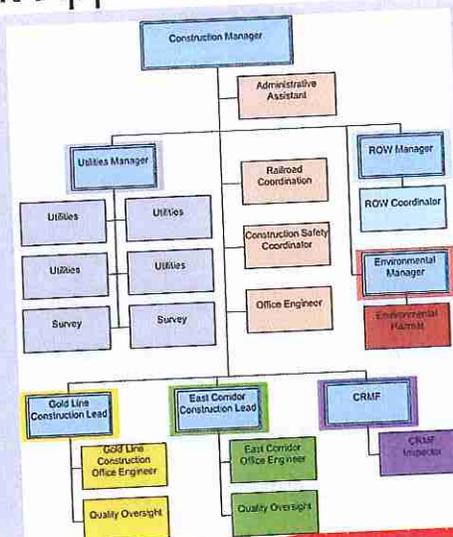
Construction Oversight

- Approach
- Processes
- Challenges



Oversight Approach

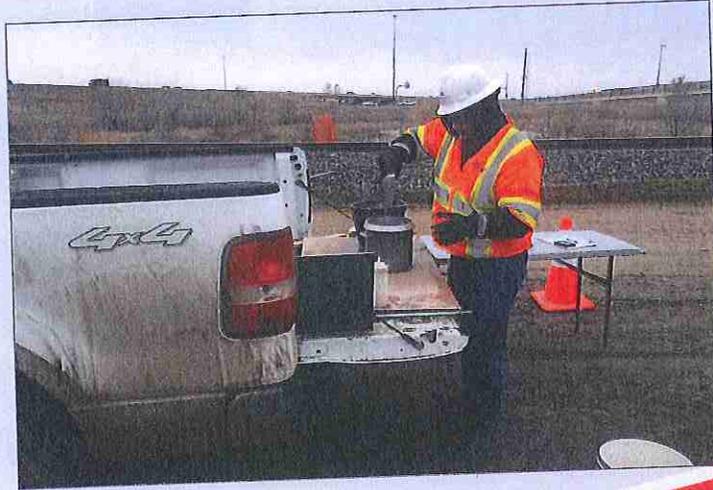
- Small group – 3 inspectors
- Primary focus on managing RTD obligations and safety
- Full responsibility for quality and schedule remained with concessionaire



Oversight Processes

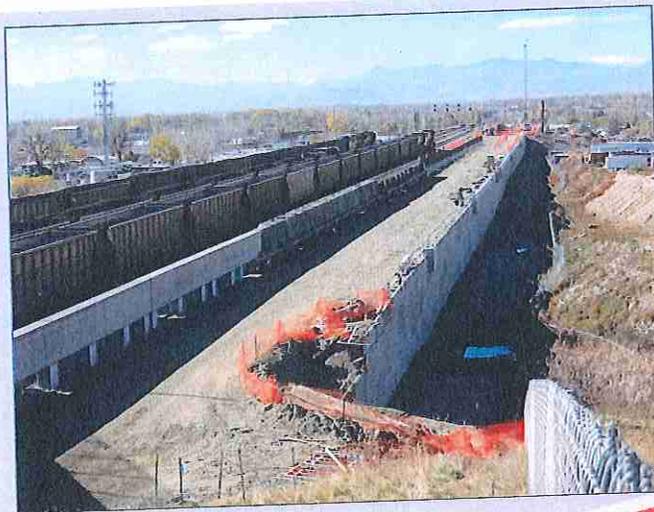


Oversight Processes



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Construction Challenges

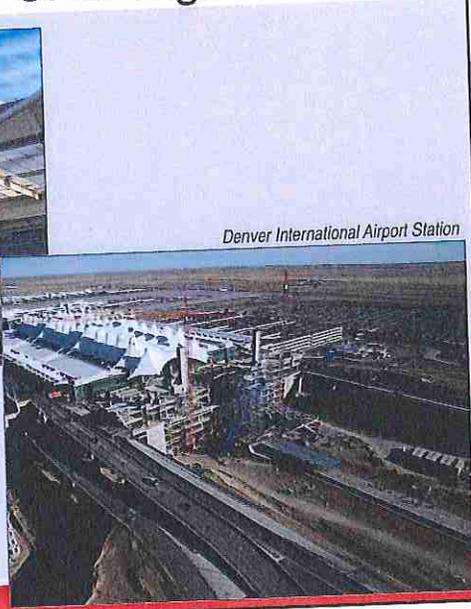


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Construction Challenges



Denver Union Station commuter rail platform



Denver International Airport Station

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Construction Challenges



Halfway to Opening Event

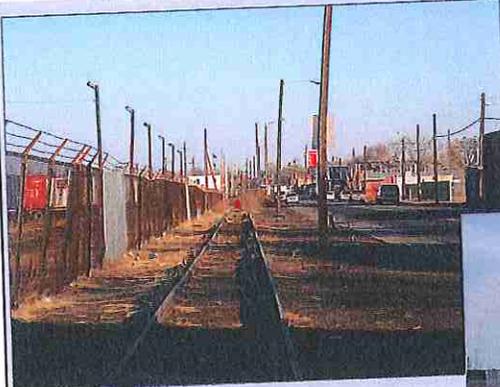


Public tours a big hit!

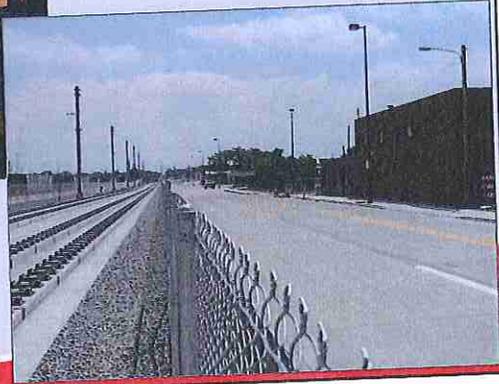
- Keeping the public informed is critical
 - Website, newsletters (English and Spanish), construction notices, social media, open houses, neighborhood and stakeholder meetings – together reaching tens of thousands of people
 - All traffic detour notices contain link to website interactive Google Maps app showing current detours and businesses accessible during construction

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Construction Challenges



40th Avenue Before

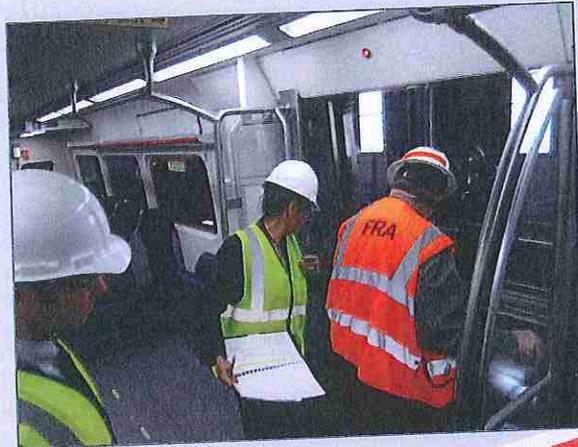


40th Avenue After

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Rolling Stock Oversight

- Approach
- Structure
- Results



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Rolling Stock Oversight Approach

- Concessionaire allowed to choose supplier
- Met FTA requirements
 - Buy America
 - Final assembly inspection
- Oversight similar to construction oversight
- Concessionaire oversight of perceived high risk
- Concessionaire responsible for integration of train control



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Public Involvement



- Mock-up used to solicit input from public and special interests
- Ideas provided
 - Movie theater style self lifting seats in wheelchair area
 - Reduced windscreen to improve maneuverability into wheelchair area

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Results



First rail cars leaving final assembly plant in Philadelphia, November 2014

Interior
November 2014



Cars arrive at Denver Union Station, November 2014

Summary

- Project successful
- Organizational approach is efficient and effective for this delivery approach
- Several large change orders
- Partnering effective and successful
- Third parties need attention
- Project within budget and schedule

Thank You

Visit Denver in 2016 to ride the train to the plane

