

Accelerating Infrastructure Through Partnerships

**Texas Transportation Forum
April 22, 2008**

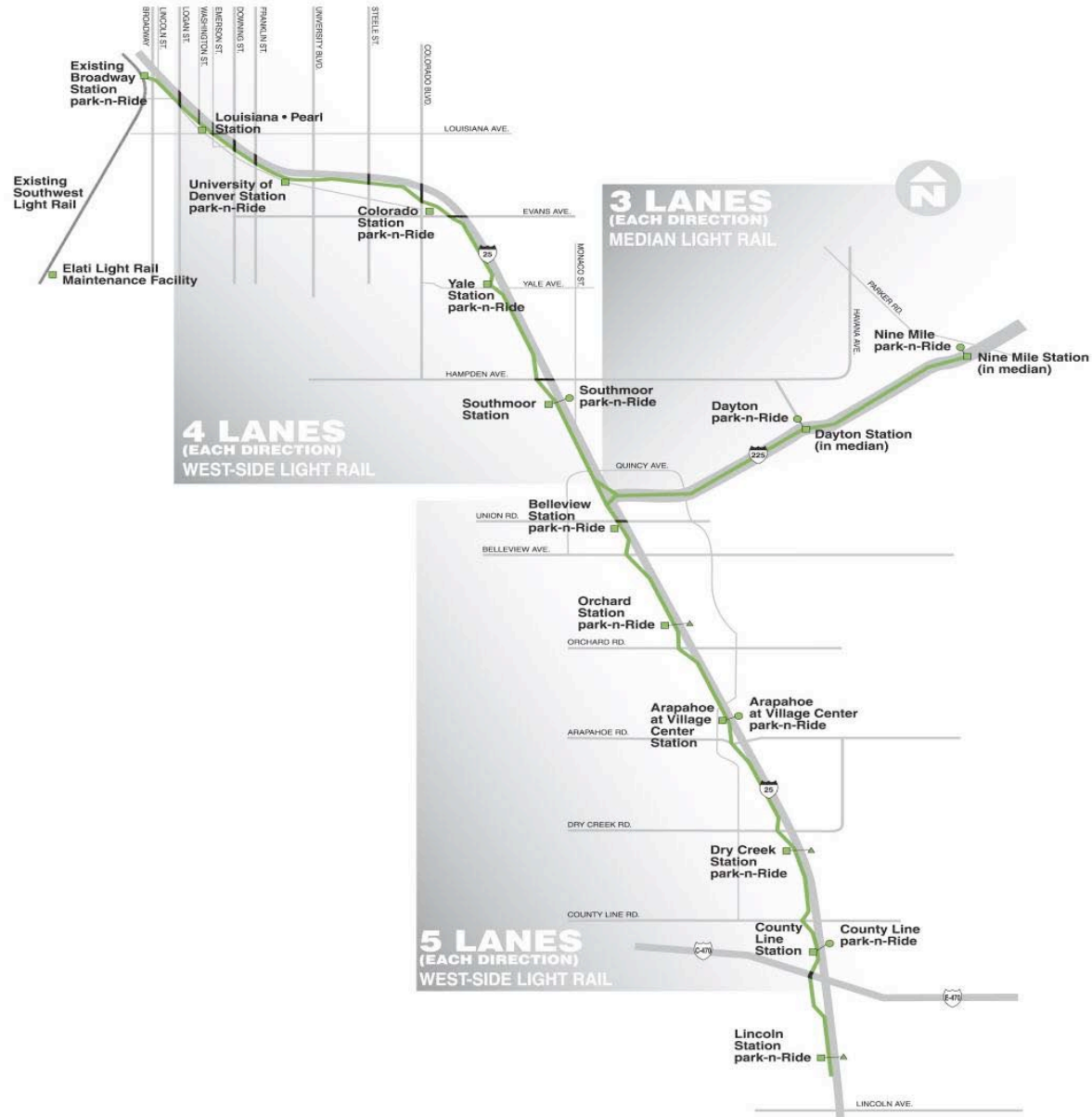
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Accelerating Infrastructure Through Partnerships

Transportation Expansion Project





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Light Rail Transit Elements

- **19 miles of double track**
 - West side alignment along I-25
 - Median alignment along I-225
 - High speed ~ no at-grade crossings
- **13 stations**
 - 6,000 parking spaces (5 new parking structures)
 - Art program
- **New maintenance facility at Elati**
 - Contractor ~ Mortenson (Facility completed June 2004)
- **34 new light rail vehicles**
 - Supplier ~ Siemens Transportation Systems
- **New communications system**





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Highway Elements

- **Total lanes in each direction at completion**
 - Four through lanes from Logan to I-225
 - Five through lanes from I-225 to C-470/E-470
 - Three through lanes on I-225 to Parker Road
- **Safety/operational improvements**
 - Acceleration/deceleration lanes
- **Complete reconstruction of I-25/I-225 Interchange**
- **Bridge replacements**
- **Drainage improvements**





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CDOT/RTD Partnership

- Intergovernmental Agreement (IGA) signed September 9, 1999 between CDOT & RTD
- Work cooperatively to finance/construct the Multi-Modal Project using Design-Build
- Established single project team concept
- Owner managed with private sector support





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Project Goals

- To minimize inconvenience to the public
- To meet or beat the total program budget of \$1.67 billion
- To provide for a quality project
- To meet or beat the schedule to fully operational status by June 30, 2008 *

* (SECC committed to complete the project by Fall 2006)





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Major Challenges

- **Maintaining traffic flow**
 - Highway lane closures could not begin until 8:30 p.m. each evening, resulting in about 40 percent of the work being done overnight.
- **Constricted right-of-way**
 - Multiple construction operations conducted within a corridor as narrow as 200-ft. in places.
- **Building in an urban environment**
 - More than 40,000 residents and businesses located within ¼-mi. of the project corridor.
- **Work scope**
 - Nearly 14,000 activities performed and \$114 million in additional work added during the course of the project.





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Project Uniqueness

- During construction, the corridor handled 220,000 vehicles/day, making it the most heavily congested transportation corridor in Colorado and the 14th most congested corridor in the nation.
- Multiple agency coordination
- Multi-modal approach
- Design-build
- Primary goal: minimizing inconvenience to the public





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State Legislation/Design-Build Rules

- **House Bill 99 - 1324:**
 - Spring 1999
 - Authorized “Best Value” Design-Build contracting approach
- **CDOT Adopted Design-Build Rules:**
 - December 1999





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Design-Build

- Designing and constructing a project simultaneously.
- Allows for flexibility, creativity, and innovation.
- Reduces time on the project.
- Owner Team provided SECC with 30% design drawings and the Contractor completed the design.





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Transportation Bonding Program

- **Voter initiative passed November 2, 1999**
 - \$2.3 B maximum debt
 - \$1.7 B principal
 - Annual principal and interest \leq 50% of previous year's Federal reimbursement
 - Acceleration of program of 28 Strategic Corridors (“7th Pot”)





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Transportation Bonding Program

(cont'd.)

- Estimated original program: 50 years to complete (assuming full SB 1 transfer)
- \$525 M program savings due to acceleration
- Lack of SB 1 transfer for 4 years (\$1 B), now extended to 25 year program





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Financial Partnership

- **Joint Finance Plan – One DOT Concept**
- **CDOT Funds**
 - Bond Proceeds
 - Federal Funds
 - SB 1 Funds
- **RTD Funds**
 - Bond Proceeds
 - FFGA
 - Sales Tax
 - Commercial Paper
- **Cash Flow (proportional)**





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Executive Partnering

- **High Level Commitment**
 - FHWA
 - FTA
 - CDOT
 - RTD
 - SECC
- **Quarterly Meetings**
- **Marvin Black Award for Partnering**





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Public – Private Partnering

- All cities and counties involved in the project signed a Memorandum of Understanding (MOU) committing \$22.5M
- Agreement between RTD and Carr America allows for shared parking at Dry Creek station parking garage
- Agreement between RTD and Lincoln Station Investors (formerly Bradbury Properties) allows for property transfer and shared parking at Lincoln station parking garage
- Agreement between RTD and Madre Investment Co allows for Transit Oriented Development at Belleview station site
- Agreement between RTD and Cherokee Development allowed for re-alignment of an LRT bridge abutment in





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Partnered efforts to attain Quality Objectives

- Quality Council

Colorado Department of Transportation/Regional Transportation District
Southeast Corridor Constructors (SECC)

Transportation Expansion Project (T-REX)
December 17, 2003

We the T-REX partners agree, individually and as a team, that Quality is an integral part of the T-REX culture. The T-REX partners will work towards excellence in Quality Management and encourage continual improvement. We will work in cooperation to leave a lasting impression of how a Quality design-build project can be delivered. As recognition of this commitment, a T-REX Quality Council is established to provide leadership, communication, and accountability.

that Quality is an integral part of design and will work in cooperation to ensure that quality objectives can be delivered. The T-REX partners will be entrusted by the public to being open and will embrace partnering as a T-REX Quality Council is committed to achieving the

es in an effort to mitigate meeting monthly including ty of resources to implement us. The Quality Council will establish and requirements to resolution through the id counterparts and escalation displays this commitment. nd document a quality zation.

TY fact in order to make the best ovement by developing the employees working on T- all quality issues. g for the fundamentals of plan to improve the quality performance of issues identified in the red quadrant of the T-REX quality matrices within two months of an issue being identified.





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Partnered efforts to attain Quality Objectives

- **Joint Development of Quality Management Plan**
 - SECC & T-REX staff began early collaborative effort to assure timely completion of QMP.
 - Worked within an atmosphere of “give and take”.
 - Contractor accepted incorporation of Owner comments during development
 - Trust was developed along the way
 - Final document released within required timeframe





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Partnering with Community



The T-REX Project enjoyed a 93 percent approval rating from the 230,000 commuters who drove the corridor each day.





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Partnering for Innovation and Value





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Before



After



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Questions?

