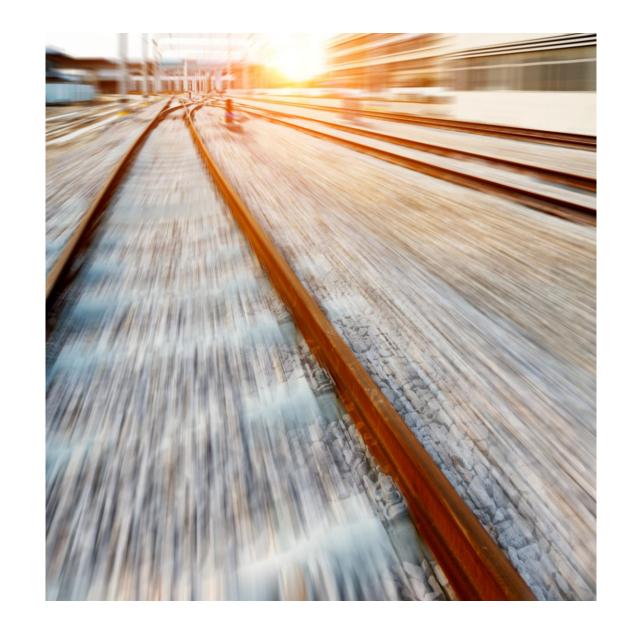
REINSTATING PASSENGER RAIL: CALGARY- EDMONTON CORRIDOR

Comparative Insights from Denver's Union & Eastlake Station

Integrated Travel

Team 3

Minette Monteros-Pollice Antonio Collins Susan Miller



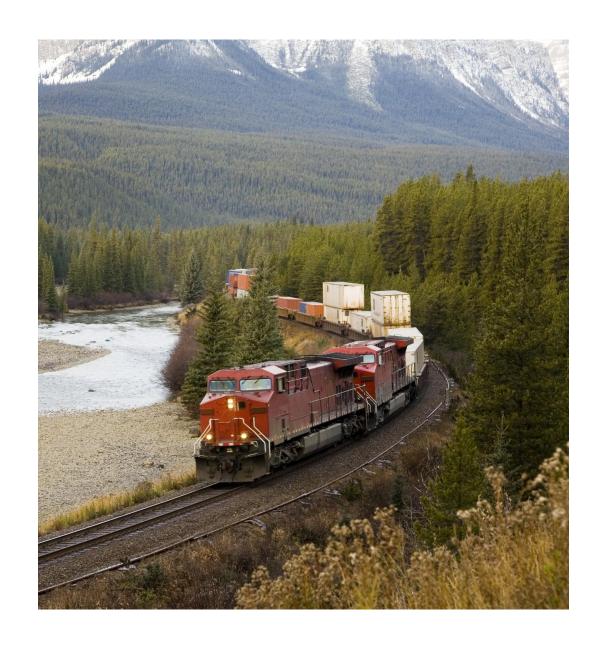


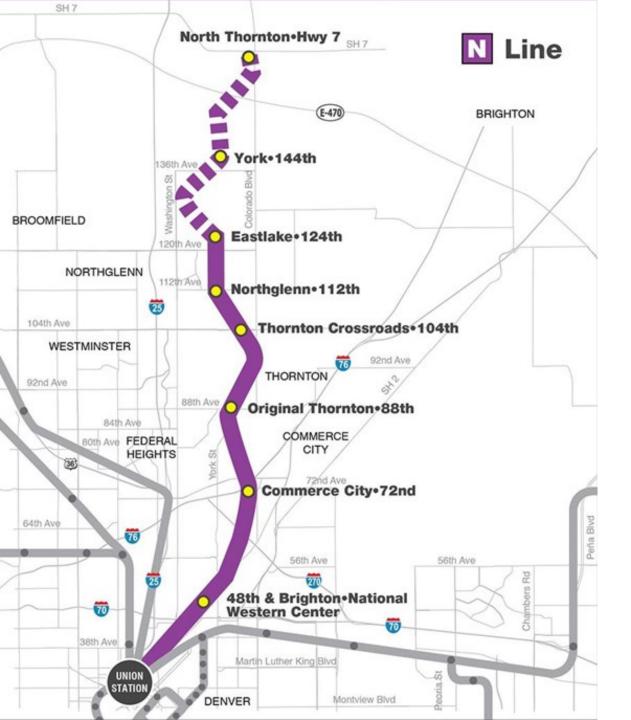
AGENDA:

- 1. Vision for Alberta's Rail Corridor Revitalization
- 2. Historical Background
- 3. Evolution & Impact of Denver's Union Station and Eastlake/124th Station
- 4. Research Framework & Methodology
- 5. Comparative Analysis
- 6. Strategic Insights & Recommendations for Alberta Rail Corridor
- 7. SWOT and Risk Assessment
- 8. Outstanding Action Items to consider with Q4
- 9. Final Recommendation
- 10. Conclusion
- 11. References and Q&A

OVERVIEW OF INTEGRATED TRAVEL'S PROPOSAL

- Reinstating Passenger Rail from Calgary to Edmonton
- Sustainable Transportation of the Rails
- Regional Connectivity
- Economic Growth Stimulation
- Public Benefits





MAP OF DENVER'S RAIL

Rail Line Overview

Routes and connectivity across the Denver

Station Locations

Access points for commuters and travelers

Surrounding Development

Integration of transit-oriented development

Transit Connections

Links the rail corridor to other transportation modes



Historical Significance

- Experienced a fire
- Rebuilt but outgrew itself, enlarged twenty years later
- Improved Accessibility
- ADA compliant
- Multiple transit services
- Seamless transfers between different transportation types

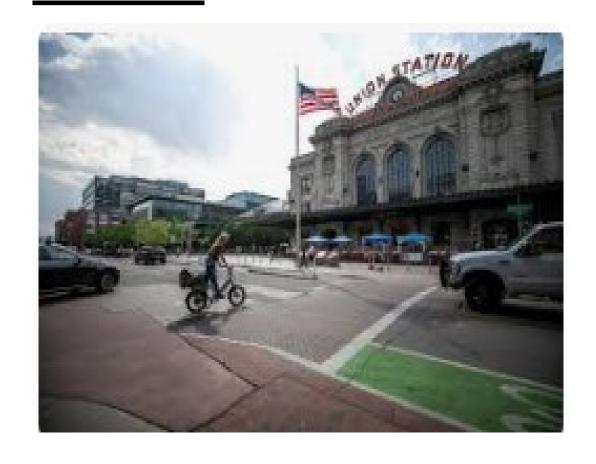
UNION STATION: VALUATION TRENDS AND ECONOMIC DEVELOPMENT



BEFORE UNION STATION

AFTER UNION STATION

ECONOMIC GROWTH CATALYST



DENVER'S UNION STATION REDEVELOPMENT

STRATEGIC ZONING & MULTIMODAL PLANNING

KEY FEATURES

OUTCOMES

EASTLAKE/124TH STATION: TIMELINE, LAND USE CHALLENGES, AND TRANSIT COMPETITIVENESS



Before Rail Integration (Pre-2018):

- Quiet, semi-rural neighborhood, limited commercial activity
- Modest land values, parcels listed for \$5.6M
- Minimal transit connectivity, low density zoning

After N Line Commuter Rail Launch (Post-2020)

- Improved regional access
- Increased zoning allowances (offices, retail, housing)
- Parcel increased to \$23.4M (land + improvements)

Transit Mode Competition

Competition from other transit options influenced ridership and strategic planning at the station.

TOD Lessons in Peripheral Areas

The project highlighted the complexities of implementing TOD in less central urban locations with diverse challenges.

EASTLAKE STATION REDEVELOPMENT



Modest Development Outcomes:

- Served by RTD's N Line but lacks zoning intensity and TOD typology.
- Governed by suburban zoning codes with limited mixed-use overlays.

Challenges:

- Fragmented land use patterns.
- Limited economic spillover and land use diversification.

Comparison:

• Absence of a robust TOD framework and multimodal integration limits investment and property value growth.

RESEARCH FRAMEWORK AND METHODOLOGY



- •Study Type: Comparative Case Study (Model-Based Evaluation)
- •Objective: Use Colorado transit models to inform Alberta's rail reinstatement strategy.
- •Data Sources: RTD reports, city planning documents, historical rail records, feasibility studies.
- •Analysis Method: Station profiling, criteria-based comparison, strategic translation to Alberta context
- •Strategic Application: Develop phased implementation plan, stakeholder engagement strategy, and TOD recommendations.

TOD FRAMEWORK AND FINANCE MECHANISM



TOD Framework:

- Facilitates mixed-use, high-density development.
- Encourages residential, office, hotel, and retail growth.

Financing Mechanisms:

- Transportation Infrastructure Finance and Innovation Act (TIFIA).
- Railroad Rehabilitation and Improvement Financing (RRIF) loans.
- Tax increment financing (TIF) and land value capture.

Benefits:

- Fiscal sustainability without burdening taxpayers.
- Significant investment in public infrastructure.

Key Impacts	Union Station	Eastlake Station
Job Creation & Economy	14,000+ jobs created, \$3.5B private investment	Limited job growth due to lack of TOD zoning
Local Business & Trade	250,000 sq ft retail, vibrant small business ecosystem	Minimal commercial activation
Property & Infrastructure	+30% property value increase, 3,000+ housing units, 1.9M sq ft office space	Modest residential growth, low-density development
Sustainability & Environment	Reduced VMT, improved air quality, green infrastructure (bioswales, plazas)	No significant environmental improvements
Connectivity & Mobility	Multimodal hub: Amtrak, RTD rail, buses, airport shuttle	Single-mode access, limited last-mile connectivity
Academic & Planning Insights	Cited in 20+ studies, model for TOD best practices	Used as cautionary example in TOD literature



TABLE 1: TOD STRATEGY FOR ALBERTA

Domain	Denver Union-Eastlake Stations(RTD N line)	Calgary-Edmonton Corridor (proposed)
Valuation Uplift	10-15% increase	Projected 8-12%
Value Capture Tools	TIF districts + station area	TIF and CBA under review
Zoning Readiness	TOD zoning 2010 Mixed-use minimum	TOD overlays proposed; zoning audit underway
Affordable Housing	30% AMI incentivized	Equity targets in draft policy affordability tied to uplifts
Engagement Format	Town halls, digital surveys, lim. Multi-lingual outreach	Planned workshops, emphasis on equity
Indigenous Inclusion	Not formally addressed	Early consultation initiated with governance groups.
Evaluation Metrics	Annual TOD impact reports;	Dashboard in development





LAND VALUATION AND DEVELOPMENT PATTERNS

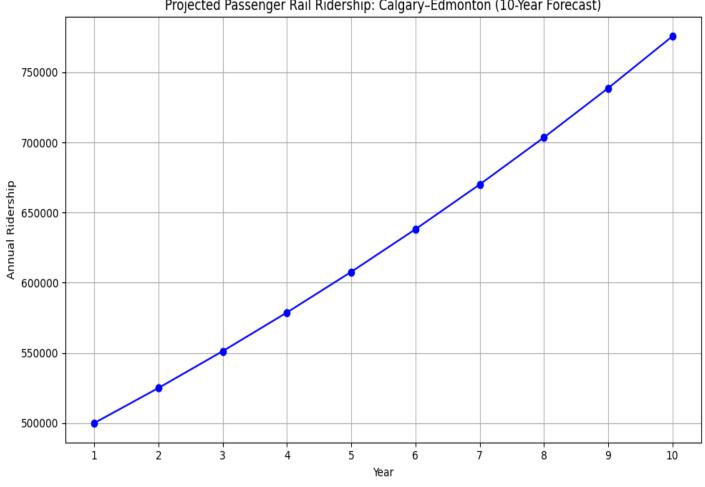
- Impact on Land Values
- Promotion of Mixed-use Development
 TRANSPORTATION ACCESS AND
 INCLUSIVITY
- Transit-Oriented Development
- Multimodal Integration

REGIONAL ECONOMIC EQUITY AND CONNECTIVITY

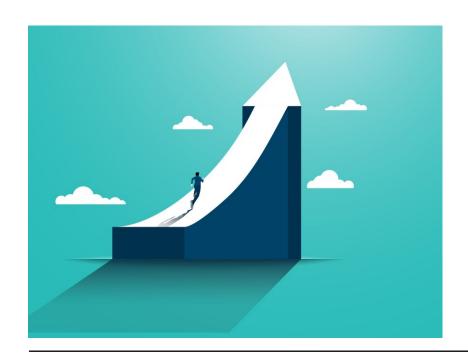
- Economic Equity Impact
- Guidance for Balanced Development

PROJECTED PASSENGER RAIL RIDERSHIP





RECOMMENDED SOLUTIONS FOR ALBERTA



Full Rail Reinstatement + TOD Strategy

- most viable one
- Aligns with Denver's success and many others.
- Supports regional revitalization.

Phased Hybrid System

- **Rail** + enhanced bus connectivity
- Incremental TOD node development
- Lower upfront cost, scalable

Terminal-Focused Investment

- Focus on Calgary & Edmonton urban cores
- Avoids right of the way challenges
- Limited long-term spill over potential

DATA SOURCES AND ANALYTICAL TOOLS

Transit Authority Data

Data collected from transit authorities provides insights into transportation patterns and infrastructure usage.

Land Valuation Records

Land valuation records offer essential information for economic and urban planning analyses.

Economic Reports

Economic reports give quantitative data on financial trends supporting comprehensive analysis.

GIS Mapping Tools

GIS mapping tools enable spatial analysis combining geographic and quantitative data.



SWOT ANALYSIS:



Strengths

- Sustainability of having the Union Station provides safety and security.
- Attracts tourism- strategically placed in a thriving location
- People from all socioeconomic backgrounds can utilize its services.

Weaknesses

- High costs
- Potentially attracts the undesirables
- Government regulations

Opportunities

- Affordability and Accessibility
- Technological Advancement
- Increasing Retail and other industries close by through lending partnership

Threats

- Funding Uncertainties
- Environmental Concerns
- Being able to Implement Adaptive Regulatory Frameworks

INFRASTRUCTURE AND LAND USE RISKS



Aging Infrastructure Risks

Aging infrastructure poses significant risks to safety and efficiency in urban environments requiring urgent attention.

Conflicting Land Use Demands

Conflicting land use demands complicate urban planning and require careful coordination to balance different needs.

Mitigation Strategies

Mitigation involves phased infrastructure upgrades and coordinated zoning policies to address risks effectively.

FINANCIAL AND STAKEHOLDER RISKS

Financial Uncertainties

Addressing financial uncertainties requires transparent budgeting to ensure clarity and trust among stakeholders.

Diverse Funding Sources

Diversified funding reduces risk by spreading financial reliance across multiple sources.

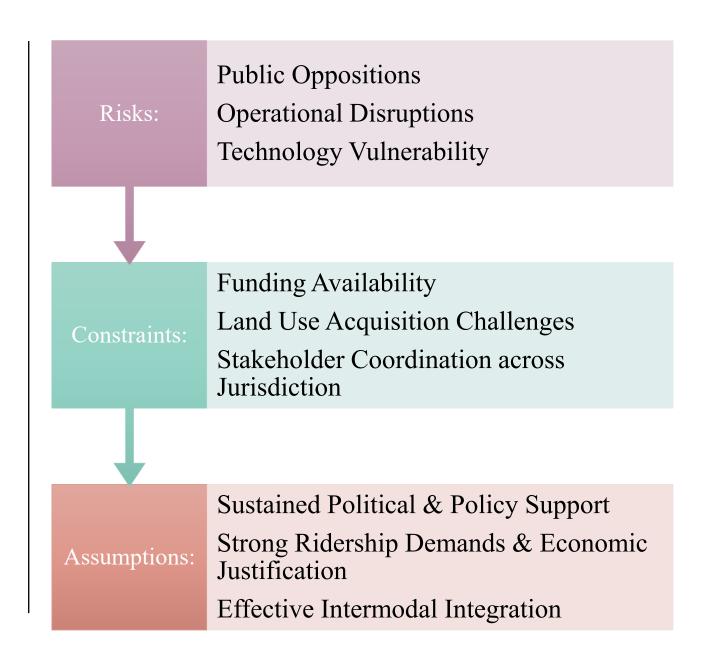
Inclusive Consultation

Inclusive consultation processes engage all stakeholders to align interests and improve decision-making.



RISKS, CONSTRAINTS AND ASSUMPTIONS





KEY TRANSIT NODES & DEVELOPMENT ZONES



Transit Nodes Significance

Transit nodes represent hubs of connectivity fostering economic growth and accessibility in urban areas.

USED FOR THE LESSONS FOR ALBERTA



Development Zones Impact

Development zones concentrate economic activity and offer insights for strategic corridor planning and investment.



Lessons for Alberta

Analyzing these nodes and zones reveals key lessons to enhance Alberta's corridor planning and investment strategies.

CONCLUSION

Enhanced Regional Connectivity

Reinstating rail service will improve transportation links between Calgary and Edmonton, fostering easier travel.

Economic Growth Opportunity

Improved rail transit can stimulate economic development and create new business opportunities in the region.

Sustainable Development

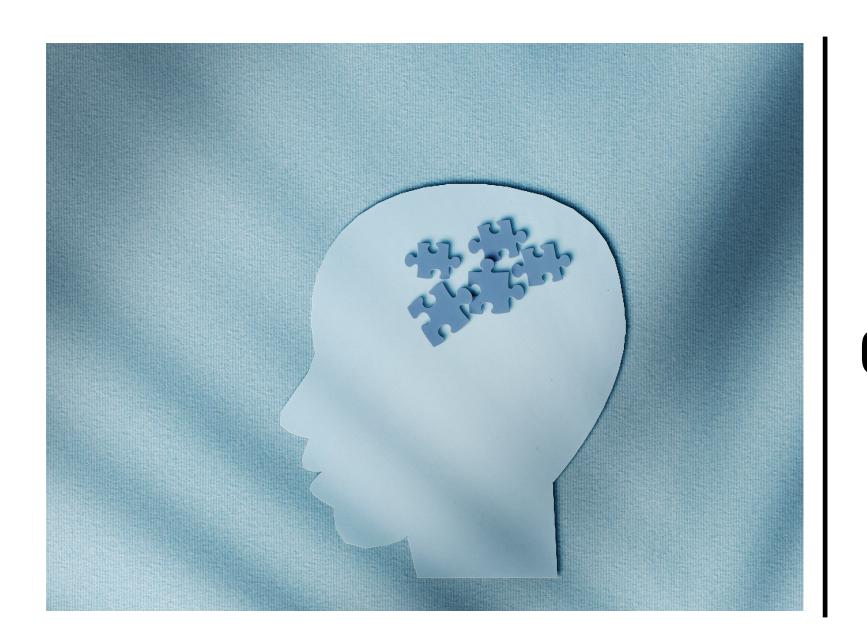
Passenger rail
promotes
environmentally
friendly travel,
reducing carbon
footprint and
supporting
sustainability goals.

Strategic Planning and Collaboration

Success depends on thorough planning and cooperation among stakeholders and government agencies.

THANK YOU





A & D

REFERENCES:

- AEI Housing Center. (2024). Zoning reforms and multifamily housing growth in Denver. American Enterprise Institute. https://www.aei.org/research-products/report/zoning-reforms-tenver-2024
- City of Thornton (2015). Eastlake/124th Avenue Station Area Master Plan
- Denver Community Planning and Development. (2025). *Denverzoning code and land use regulations*. City and County of Denver. https://www.denvergov.org/zoning
- Federal Railroad Administration. (2016. DenverUnion Station. U.S. Department of Transportation. https://railroad.dot.gov/sites/fra.dot.gov/files/fra_net/17779/Genova%
- Ferrell, B., Fraedrich, J., & Ferrell, L. (2021). Business ethics: Ethical decision making and cases (13th ed.). Cengage Learning.
- Financial outlook. (n.d.). Retrieved from https://www.rtd-denver.com/about_rtd/financial-outlook
- Front Range Research Associates. (2000). Eastlake historic buildings survey. Colorado Historical Society.
- Geocal Inc. (2020). Subsurface Exploration and Pavement Design Report
- https://denverite.com/search/walkability/ (visual reference)
- Northouse, P. G. (2021). Leadership: Theory and practice (9th ed.). Sage Publications.
- Parris, H. (2014). Denver Assessor Records. Retrieved from https://history.denverlibrary.org/research/denver/denver-assessor-records
- Rail Passengers Association. (n.d.). Institutional Reports.

-CONT. REFERENCES

- Ratner, K. A., & Goetz, A. R. (2010). The reshaping of land use and urban form in Denver through transit-oriented development. *Cities*, 27(5), 425–435. https://doi.org/10.1016/j.cities.2010.07.001
- Regional Transportation District. (2014). *Union Station project overview and redevelopment facts*. RTD Archives. https://www.rtd-denver.com/services/union-station
- Regional Transportation District. (2025). *Transit services and TOD planning*. RTD Official Reports. https://www.rtd-denver.com/plans
- Rehm, B. (2024). *Transit-Oriented Denver: A spatial and economic study of Union Station redevelopment* (Master's thesis, University of Colorado Denver). ProQuest Dissertations Publishing.
- Skidmore, Owings & Merrill LLP. (2009). *Denver Union Station urban design standards and guidelines*. City and County of Denver. https://digital.auraria.edu/work/ns/bfe22996-4e0f-4ca3-9be6-19977e1e30ab
- RTD. (2025). Institutional Reports
- System map and stations (n.d) Retrieved from https://denvergov.org/Government/Agemcies-Department-offices-Directory/Community-Planning-and-Development/Planning/Transit-Oriented-Development/System-Map-and-Stations
- The History & Legacy of the Denver Union Station. (2024a). Retrieved from https://www.denverunionstation.com/about/our-history/