

Green Line Stage 1: Business Case Summary

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Evidence Based Decision-Making

Business Case:

Comprehensive collection of analysis that supports decision-making by setting out the rationale for why a problem or opportunity should be addressed, considers a range of options or solutions and then presents core requirements needed for addressing it.

Business Plan for the City:

Considers the full range of impacts to the City needed to deliver the recommendations of the Business Case



Green Line Business Case: Identifying the Case for Change



The Problem:

Calgary's transportation network does not meet the current mobility needs of The City and its people and is unable to support planned and forecast growth while maintaining a high quality of life, economic competitiveness, and environmental sustainability.

If left unchecked, this will lead to...

Issue 1: the transportation network not providing quality mobility options for all travellers

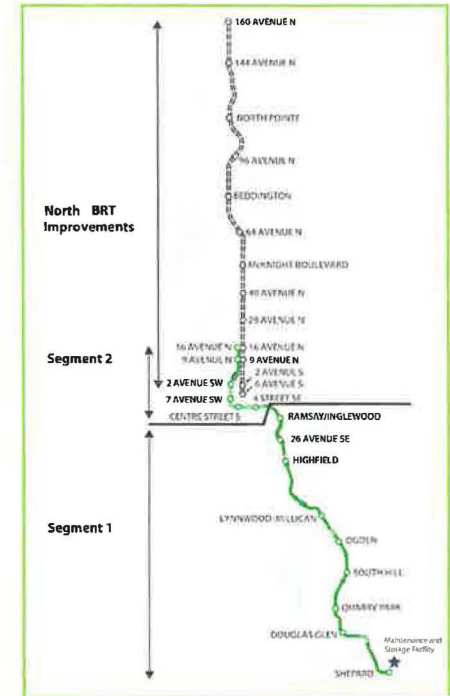
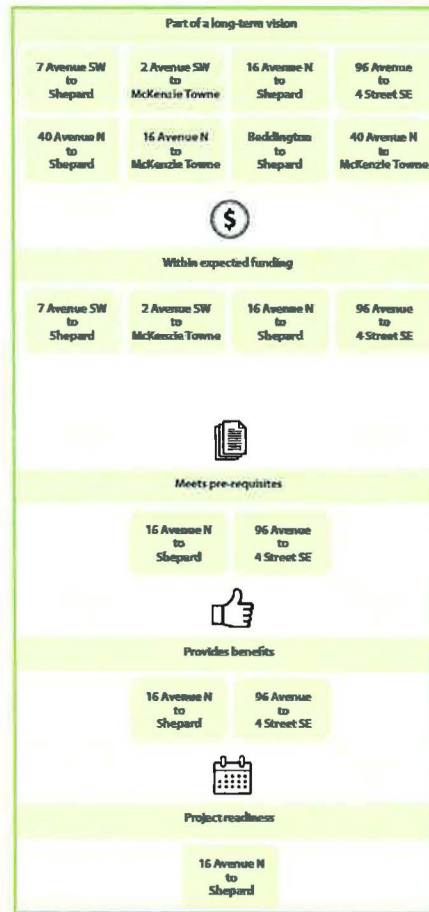
Issue 2: travel times and congestion limiting the potential to develop great places in which to live, work, and play

The Solution:

Deliver a cost-effective LRT project that unlocks city-wide potential by:

- Improving mobility
- Enhances urban growth and development; and
- Connects people, places and jobs

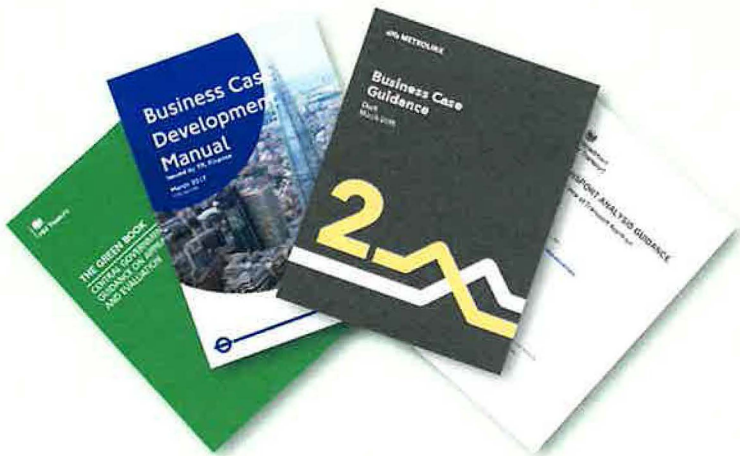
Green Line Business Case: Developing and Defining the Solution



Green Line Business Case: Structure & Methodology



Four case methodology and analysis is consistent with contemporary, peer agencies and cities in Canada and internationally.



Strategic Case:

Does the investment support the broader policy and planning goals of The City?

Economic Case:

What level of socio-economic benefit is generated by the investment?

Financial Case:

What are the funding and financing requirements to successfully deliver the investment?

Deliverability & Operations Case:

What are the technical and governance requirements to procure, deliver and operate the investment?

Strategic Case

Bottom Line: Green Line saves Calgarians 10,000 hours a day, creates 20,000 jobs, supports over 1m sqft. of development and connects people to jobs & destinations

Improving Mobility

- ✓ Green Line will save Calgarians over 10,000 hours a day – time that can be spent with family, work or play



- ✓ Demand for the Green Line requires LRT with 55,000-65,000 daily trips

Demand Scenario	Daily Boardings
Low	55,000
High	65,000

- ✓ Green Line provides strategic network connections to the Red and Blue LRT lines and MAX Orange BRT

Enhances Urban Growth and Economic Development

- ✓ Green Line includes 6 station areas with 1 million sq.ft of residential and 160,000 sq.ft of commercial of development planned



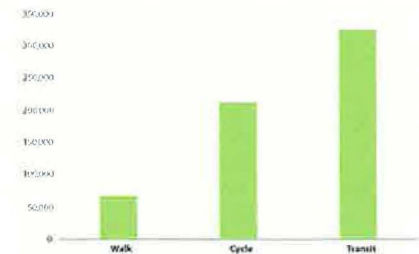
- ✓ Outside Downtown, 16th Ave N has the highest population and employment within walking distance and is one of the highest ranked development areas



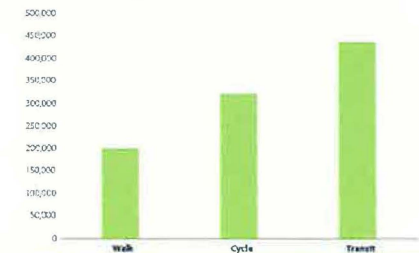
- ✓ Green Line will also generate 12,000 direct jobs and 8,000 supporting jobs during construction and operations

Connects People, Places and Jobs

- ✓ Over ¼ million Calgarians will live within a 15-mins walk, bike or bus trip of the Green Line providing access to over 900 community destinations



- ✓ Nearly ½ million jobs are within a 15-mins trip of the Green Line



Economic Case

Bottom Line: Green Line Stage 1 will generate over \$2.2 billion in benefits to the City of Calgary

	Economic Consideration	Value (\$Million 2020 PV)
Costs	Incremental capital costs	\$3,680
	Incremental operating and maintenance costs	\$350
	Total Cost	\$4,030
User Benefits	Travel time savings	\$1,750
	Auto operating cost savings	\$70
	Amenity	\$20
	Crowding	\$50
	Reliability	\$20
External Benefits	Collision cost savings	\$30
	Benefit/disbenefit of GHG emission changes	\$10
	Health Benefits	\$110
	WEBS	\$200
	Total Benefits	\$2,260
Net Present Value	NPV (Benefit – Cost)	-\$1,770
Cost-Effectiveness	Benefit : Cost Ratio	0.56

- ✓ Extending the Green Line could generate another \$1.5B in benefits
- ✓ Improving travel times or reducing capital costs would improve the economic case
- ✓ Economic case similar or better than other Canadian LRT projects

Financial Case

Construction Costs	
Indirect Costs	\$0.8B
Direct Costs	\$4.1B
Total	\$4.9B

The Program's benefits are aligned to the provincial and federal goals and priorities:

- ✓ Province of Alberta - \$1.7B committed
- ✓ Government of Canada - \$1.6B committed

City of Calgary covering remaining costs:

- ✓ 1.5B committed for capital costs
- ✓ \$0.6B (available) for financing costs

Bottom Line: The Green Line is an affordable project supported by all levels of government

Operating & Maintenance Costs	
Annual LRT Operating Costs	\$32M
Annual Reduction in Bus Costs	(\$5M)
Net Annual Operating Cost	\$27M

Annual operating and maintenance costs will be partly offset by increased fare revenue from new passengers on the Green Line:

- ✓ \$6.5M incremental revenues

Budget for operations and maintenance to be identified during the current One Calgary budget cycle (2019-2022) and finalized closer to Green Line opening day in a future business plan and budget cycle (2027-2031)

Deliverability & Operations Case

Bottom Line: The Project Team is prepared to successfully deliver the Green Line

Socio-Economic & Environmental

Roles and responsibilities being defined to ensure ongoing, high quality:

- Community relations
- Relationships with indigenous people
- Environmental management and stewardship

Risks

Active management and mitigation strategies for key risks including:

- Affordability
- Procurement
- Contract interfaces
- Coordination with railways
- Governance
- Segment 2 design
- COVID 19 impacts

Procurement Strategy

Strategy designed to deliver best value:

- Separate DBF contracts for Segment 1 and Segment 2
- LRV supplier contract
- Enabling works contract to provide schedule certainty

Governance

The delivery and management of the Program will be supported by a tailored Program Delivery Team model which is currently under refinement

Operations & Maintenance

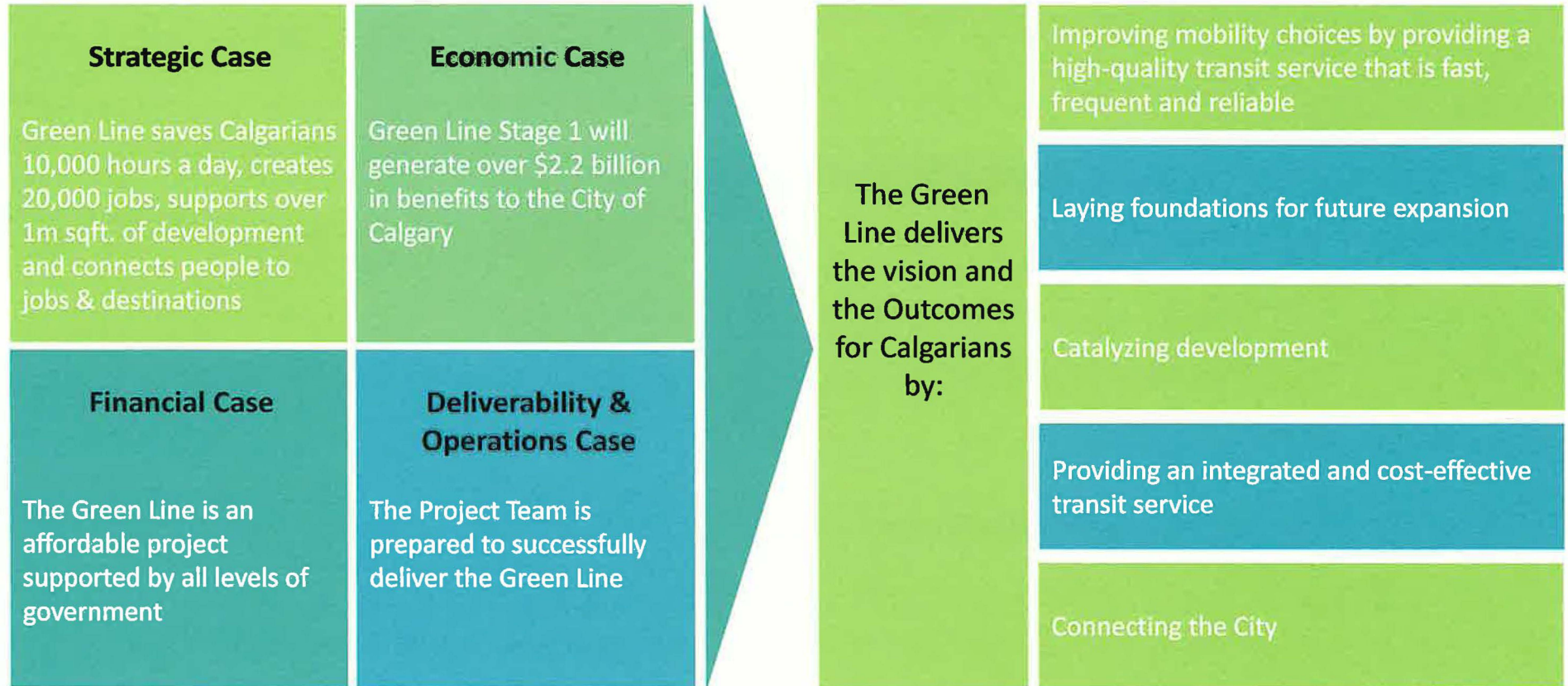
All operations & maintenance will be undertaken by Calgary Transit

Benefits Management

A benefits management plan is being developed to ensure the benefits identified in the business case are monitored, managed and delivered for Calgarians

Business Case Conclusions

Bottom Line: The Green Line LRT Stage 1 is a city shaping project that will improve mobility in north and southeast Calgary, that connects people and places, and will enhance the quality of life in the City



Thank you

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