



SMA Consulting

- Helping clients understand capital project uncertainty/risk and how to manage it throughout lifecycle
- Proactive risk mitigation: customized strategies developed for any project eventuality
- 25 years of specialized risk assessments and management for capital projects - localized focus on western Canada
- SMA team supporting Green Line have been the risk managers on more than 6 major LRT projects in Alberta over the last 15 years
- Understanding of risk levels at all stages of capital project life



Due Diligence on Green Line Risk Management

Goal is to Support the project team in adopting a project wide risk-informed culture

- Planning with confidence mitigating risk
- Supporting project goals
- Optimizing cost and time
- Connecting risk decisions to affordability

Due Diligence Review - 4 primary components

- Risk Management Plan Corporate vs GL Program
- Risk Register revamp for procurement and construction
- Ongoing Proactive Risk Management by Team
- COVID-19 Risk Response



Green Line Risk Assessment

GL holds **risk across all categories of an urban LRT megaproject**, but has a number of **high-risk attributes** (e.g. downtown tunneling, proximity to heavy rail, contract interfaces)

Top Current Risks

- Scope additions and uncertainty
- Governance and decision making
- Procurement and market
- Contract interfaces
- Segment 2 Design and Constructability
- Canadian National (CN) / Canadian Pacific Railway
 (CPR) coordination
- COVID-19 impacts

Extreme	Critical threat to Project success and City business processes
High	Potential threat to project success and City business processes
Moderate	Important risks and are tracked and controlled proactively
Low	Minimal risks, tracked and monitored periodically



Green Line Risk Assessment

Primary Mitigations for Top Risks:

- Finalizing planning details
- Streamlined, risk-informed decision-making
- Meeting established procurement timelines (e.g. order of \$100M escalation cost per year of delay)
- Clearly projecting support for the Green Line Program
- Finalize Segment 2
- Resourcing the Program Team
- Cost savings measures
- Third party due diligence checks (e.g TRC, Steer, Hanscomb, SMA, etc)
- Maintain level of contingency in estimate and schedule



Uncertainty Linked to Key Decision Points

