

Ellerslie Road Grade Separation Feasibility Study Summary

This summary provides a comparison of the overpass and underpass options for grade separating Ellerslie Road from the Capital Line South LRT.

Figure 1: Project Location

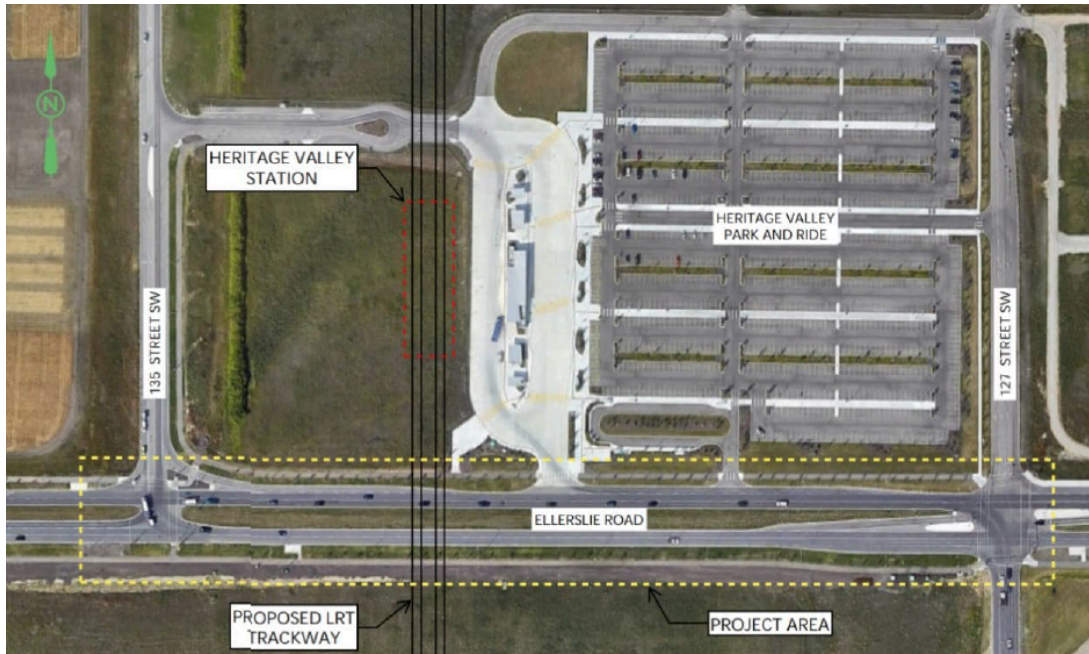


Table 1: Comparison of Overpass and Underpass Options

Criteria	Overpass	Underpass
Scope	<ul style="list-style-type: none"> • 420-metre overpass including ramps • 20-metre span bridge over LRT tracks • Overpass to be roughly eight metres above grade • Utilizes standard bridge piers • Maintains current Ellerslie Road alignment • Requires access modification to Heritage Valley Transit Centre and Park & Ride • Requires additional land for utility realignment 	<ul style="list-style-type: none"> • 380-metre underpass including ramps • 39-metre span bridge for at-grade LRT crossing above the road • Requires deep excavation • Requires installing retaining walls and advanced drainage systems for groundwater management • Requires access modification to Heritage Valley Transit Centre and Park & Ride • Requires additional land for utility realignment
Cost	<p>\$64 million</p> <ul style="list-style-type: none"> • Preliminary cost estimate in 2023 dollars (confidence level of -30/+50 per cent) • Based on average rates from similar projects • Excludes engineering costs 	<p>\$99 million</p> <ul style="list-style-type: none"> • Preliminary cost estimate in 2023 dollars (confidence level of -30/+50 per cent) • Based on average rates from similar projects • Excludes engineering costs

Attachment 1

Environmental Impact	Minimal <ul style="list-style-type: none"> • Avoids significant challenges related to groundwater and stormwater management • Limited disturbance to urban greenspace 	Significant <ul style="list-style-type: none"> • Deep excavation increases environmental disturbance • Intensive groundwater management required • Greater potential for environmental impacts due to soil disruption
Traffic Impact During Construction	Moderate disruptions <ul style="list-style-type: none"> • Temporary detours required • Traffic management expected to maintain two-way traffic in both directions throughout construction 	Greater disruptions <ul style="list-style-type: none"> • Longer construction duration due to deep excavation and advanced drainage systems • Traffic management expected to maintain two-way traffic in both directions throughout construction
Risk	Lower <ul style="list-style-type: none"> • Typical design and construction process • Fewer unknowns in ground conditions 	Higher <ul style="list-style-type: none"> • Deep excavation and utility relocations • Increased potential for cost overruns and delays due to unpredictable ground conditions
Construction Duration	Three years <ul style="list-style-type: none"> • Streamlined construction process due to simpler design 	Four years <ul style="list-style-type: none"> • Extended timeline due to deep excavation and advanced drainage systems

Option 1: Overpass (Ellerslie Road over the LRT)

Figure 2: Overpass Rendering (looking northeast)



Option 2: Underpass (Ellerslie Road under the LRT)

Figure 3: Underpass Rendering (looking northeast)

