

TECHNICAL MEMORANDUM 01 · REVISION B

Corridor Feasibility Summary

Aerial transit on the Atlanta Beltline, Phase 1

ISSUED	16 January 2025
REVISED	8 September 2025, costings only
PREPARED BY	A. Peña, Director of Engineering
REVIEWED BY	D. Whitfield, Executive Director
SUPERSEDED IN PART	Alignment superseded by Technical Memorandum 04, 7 October 2025
STATUS	Issued

1. Scope and question

This memorandum answers one question: can a detachable gondola line be built along the Beltline within the existing right-of-way, and if so at what cost and over what period. It does not compare the mode against any other, and no comparative analysis was commissioned.

On what this document is not. A feasibility study establishes whether something can be done. It does not establish that it should be. The Coalition commissioned this work on the condition that the findings would be published whatever they were.

2. Corridor conditions

The Beltline follows four belt railways constructed between 1871 and 1894. The consequence for this work is that the ground was graded flat more than a century ago and has been stable since, which is the single most favourable condition for a ropeway: long spans are inexpensive where the ground beneath them does not move.

Ruling grade over the Phase 1 length is 1.9 per cent. Maximum tower height required is 22 meters, at the Freedom Parkway crossing. Minimum clearance to the trail surface is 8 meters at the lowest point of any span.

3. Phase 1 characteristics

PARAMETER	VALUE	BASIS
Length	2.9 miles	Monroe Drive to Memorial Drive

Stations	6	Mean spacing 0.48 miles
Towers	19	200 to 300 m spacing
Line speed	6.0 m/s	Detachable, continuous circulation
End to end	13 minutes	Including six station decelerations
Headway	30 seconds	At design capacity
Cabin capacity	10	Eight seated, two standing or one bicycle
Peak capacity	1,200 pphpd	Expandable to 3,000 by adding cabins

4. Land and property

No property acquisition is required for Phase 1. All nineteen tower positions and all six station sites fall within land already in public ownership or already controlled by the corridor. Two station structures attach to existing buildings under agreements not yet sought.

One parcel in the northern segment could not be resolved during the study period. It appears in county records under two descriptions which could not be reconciled. The alignment was subsequently revised to clear it; see Technical Memorandum 04, section 3.3.

5. Capital cost

The estimate below was revised in September 2025 at the request of the corridor working group, to carry US labor rates in place of the international comparables used in the January issue. The revision increased the total by approximately eleven per cent.

ITEM	COST	NOTE
Towers and foundations	\$18.4m	19 positions
Stations	\$27.1m	6, including two building attachments
Ropeway system and cabins	\$21.6m	Supplied and installed
Electrical and controls	\$5.2m	Including standby drive
Design, survey, permitting	\$6.3m	
Contingency	\$7.4m	Approximately 9 per cent
Total	\$86.0m	2025 dollars

This works out at approximately \$30 million per mile. Published figures for urban ropeways elsewhere run lower, in the range of \$3 to \$12 million per mile. The difference is accounted for by US labor rates, six stations over a short length, and the contingency.

6. Operating cost

Ropeway operating cost is largely insensitive to ridership. There are no drivers, no vehicles held out of service between peaks, and no fuel. Annual operating cost is estimated at \$4.1 million, of which power is \$0.6 million. The figure varies by less than five per cent between a scenario carrying two thousand daily riders and one carrying twenty thousand.

7. Programme

Construction is estimated at 34 months from notice to proceed. Towers are erected a few at a time from the trail surface in work windows of several days each; sustained closure of the trail is not required at any stage.

8. Conclusion

An aerial line along Phase 1 of the Beltline is technically feasible within the existing right-of-way, at a capital cost of approximately \$86 million in 2025 dollars, over a construction period of approximately 34 months, without property acquisition and without sustained closure of the trail.

Whether it should be built in preference to any other proposal is outside the scope of this memorandum and is not addressed by it.

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