Cambridge Pathway Project

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Cameron Inder, Bloxam Burnett & Olliver Ltd

Siva Balachandran, Bloxam Burnett & Olliver Ltd

Erik Van Der Wel, Waipā District Council

Context and Need for the Project

Why This Project Matters:

Rapid Residential Growth

- Cambridge's growth is driven by proximity to Hamilton.
- Planning anticipates significant housing growth in Cambridge, especially in western growth cells through 2050.

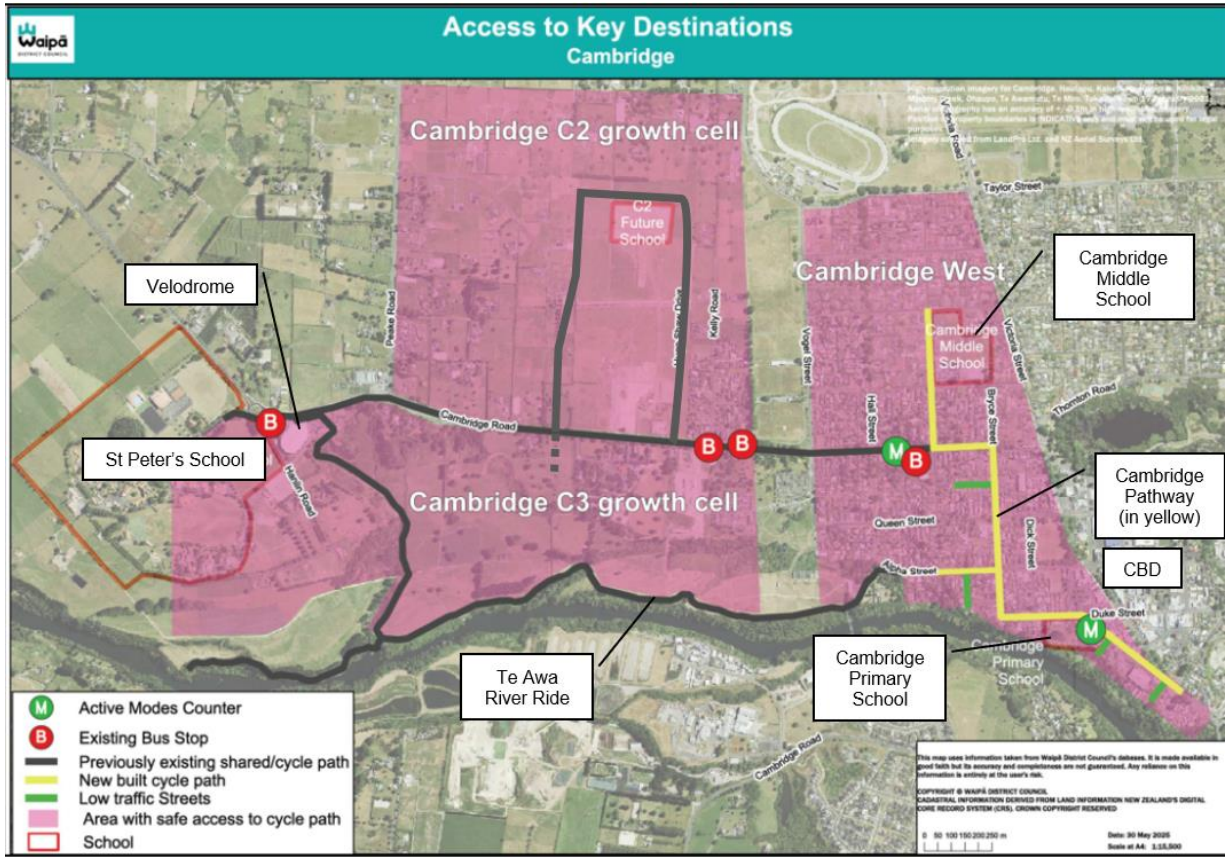
Challenges of Car Dependency

- Without intervention, growth risks increasing car dependency, emissions, congestion, and safety hazards.
- Prior to the project, routes were indirect or unsafe, limiting active travel options.

Why This Project Matters:

Building Coherent Active Mode Network

- The new pathway forms a continuous active mode corridor along key streets, improving safety and connectivity.
- Strong transport links to city center, schools, jobs, and recreation are essential for new housing areas.



Project Overview and Objectives

Project Overview

Separated Bi-directional Cycleway

- 2.5 km of separated cycleway and upgraded footpaths within urban corridors.

Timber Boardwalk

- A 130m timber boardwalk over a steep embankment provides pathway continuity where road widening was not feasible.

Retrofit Construction

- Construction occurred within existing constrained, corridors, highlighting effective retrofit methods.

What We Set Out to Achieve

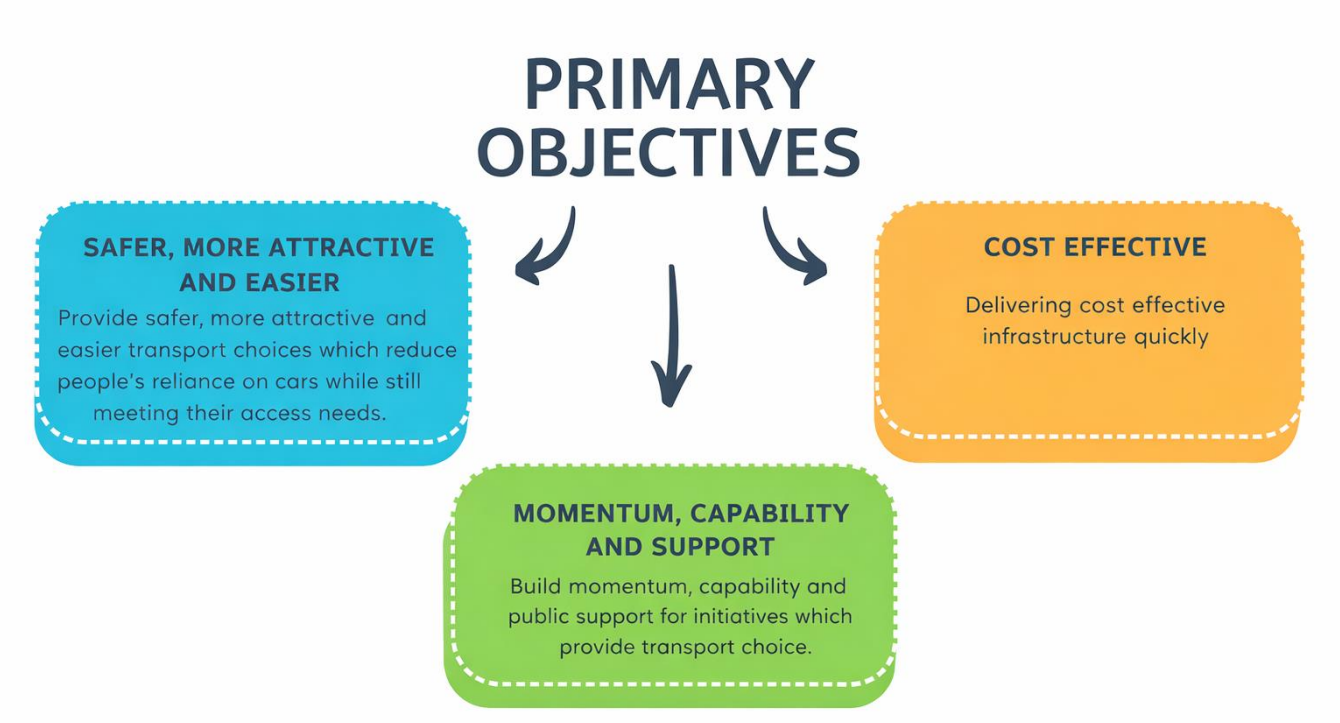
Connect key destinations

Improve access

Safety

Promote mode shift

NZTA Transport Choices Programme



Funding Source

- The Project received $7.2 million from the Transport Choices Programme and $3.0 million from local rates.
- Total Project cost = $10.2 million

Design Philosophy and Demand-Led Decisions

Design Philosophy

International Best Practice

The design is based on the CROW-Fietsberaad Manual focused on increasing cycling demand and safety.

Local Compliance and Integration

NZTA Cycling Network Guidance was referred to for alignment and compliance with TCD Manual.

Design Principles

Cohesion, directness, safety, comfort and attractiveness are key to encourage mode shift to cycling.

Why CROW Manual Was Chosen

Internationally Recognised

- CROW Manual offers detailed and internationally recognised best-practice design guidance tailored to environments with or wanting to achieve strong cycling demand.

Proven Technical Guidance

- The nationwide cycling mode share in the Netherlands is approximately 27% of all trips.

Supporting Mode Share Targets

- CROW Manual aligns with Waipā District Council's goal of 20% cycling mode share by promoting mainstream cycling infrastructure.

Demand-Led Cycleway Sizing

Cycle Catchment Studies

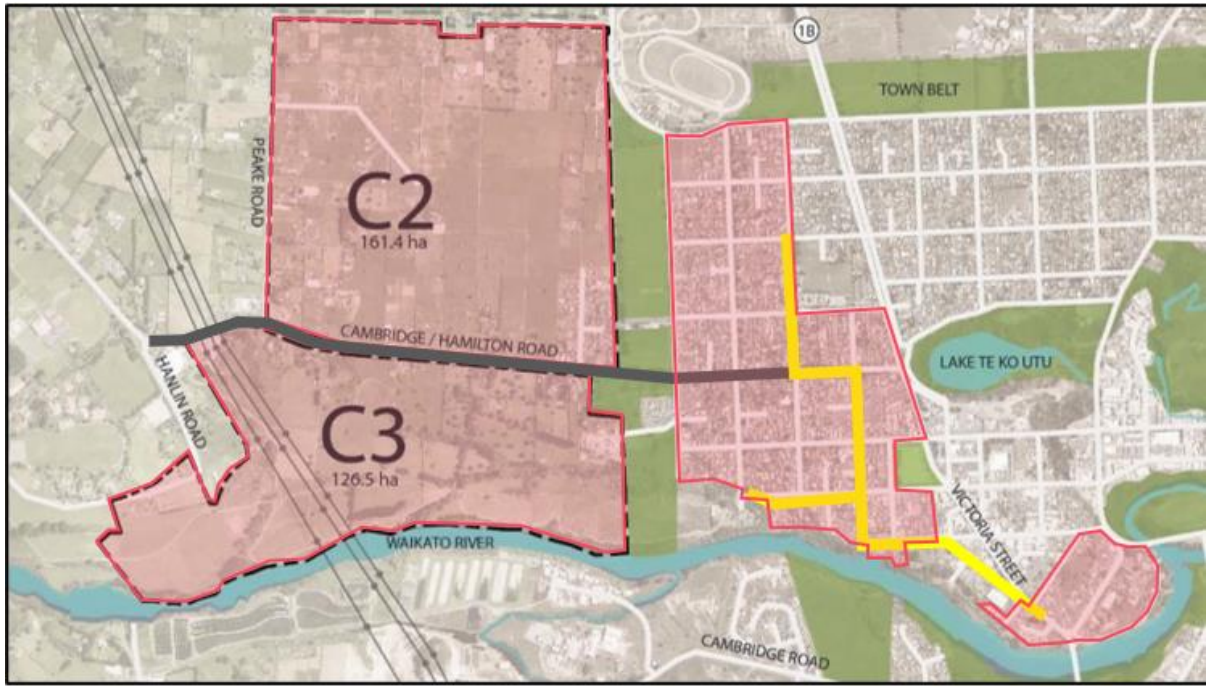
- Catchment studies identified residential areas and estimated future cycling demand using trip generation and mode share assumptions.

Demand Estimation

- Historically, cycling mode share in Cambridge is 2-3%. Aspirational cycling mode share target of 20% based on Urban Mobility Business Case – Cambridge and Te Awamutu.
- Envisages peak hour volumes of 280 to 300 cyclists.

Design Width Decision

- A 3m wide bi-directional cycleway was chosen due to corridor constraints, balancing guidance and practical feasibility.



Design Features, Innovation and Engagement

Design Features

Cycleway Width

- The chosen width (3m) supports social, side-by-side riding, enhancing user comfort and encouraging cycling uptake.

Design Speed

- Main cycleway thoroughfare had a design speed of 20 km/h. However, at intersections design speed was reduced to below 12 km/h to increase reaction time and reduce conflict risk.

Pedestrian Zebra Crossings

- Ensured cyclists gave way to crossing pedestrians.

Design Features

Mini Mountable Roundabouts

- Existing crossroads intersections upgraded to mini mountable roundabouts.

Priority Crossings

- Creates a continuous path across intersections, prioritising people walking and cycling over motor vehicles.

‘Bent-out’ Crossings

- Pedestrian and cycle crossings are set back from the main carriageway by at least a car length which enables a car to stop if a cyclist or pedestrian is crossing.

Design Features

Physical Separation

- Either kerb with berm buffer or median separator between new cycleway and adjacent traffic lane / parking.
- Width for wheelie bins and rubbish bags.

Innovation in Constrained Environment

Timber Piled Boardwalk

- The timber piled boardwalk overcomes narrow space and steep embankment challenges while preserving traffic lanes and adding a cycleway.

Innovation in Constrained Environment

Tree Preservation Innovation

- Consultation feedback highlighted the desire for attractive treelined streetscape.
- Existing trees were kept and protected as much as possible.
- Use of fibreglass reinforced mesh grating (FRP panels) on wooden bearers direct on ground at localised areas to protect existing tree roots.

Community Engagement and Stakeholder Influence

Engagement

- A variety of engagement activities were conducted including drop-in sessions, webinars, and online surveys over three months. Transparent communication and visualisation tools were vital in building understanding and support

Key Community Concerns

- Community concerns focused on tree retention, loss of street parking, and construction impact duration.

Stakeholder Advocacy

- Advocacy from schools and mobility-impaired groups emphasized active mode priority and inclusive design throughout the corridor.

Outcomes, Lessons, and Conclusions

Observed Outcomes

Increased Active Travel

- Monitoring shows a rise in walking and cycling. Anecdotally there is an obvious increase in the type of users (i.e. families, elderly, mobility impaired and students).

Improved Road Safety

- Vehicle speeds have declined due to lane narrowing and raised crossings, enhancing safety perceptions.

Student Active Mode Travel

- Schools report increased cycling participation supported by bike skills training via the Transport Choices Programme.

Site	Cyclists	Pedestrians
Hamilton Rd	148	209
Wilson St	244	383

Lessons Learnt

Governance and Political Support

- Rapid decision making, streamlined approvals and strong political, organizational and funding support enabled the project to meet tight deadlines effectively.

Community Buy-in

- Early, clear communication maintained trust and managed expectations during accelerated project timelines.

Stakeholder Influence

- Stakeholder concerns about trees, safety, and active travel priorities significantly influenced design decisions.

Conclusions and Key Insights

Targeted Investment and Design

- Focused investment and a strong design philosophy can rapidly transform urban mobility in constrained settings / timeframe.

Adopting Innovation to Avoid Compromise

- Challenging accepted practices to achieve a safe, continuous high-quality separated cycleway
- Boardwalk, tree protection and roundabouts with dual priority crossings.

Replicable Sustainable Model

- Combining global best practices with local pragmatism creates a scalable model for other towns and future projects in Cambridge.

Wider Network Connectivity

Cambridge Pathway completes the seamless bi-directional cycleway from the CBD to C2/C3 growth cells, the Cycle Velodrome and St Peter's School.

Questions?