

A level of service for walking?



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Insightful solutions.
Empowering advice.

Research scope

To develop a pedestrian level of service (PLOS) framework and assessment tool for NZ based on the customer perspective.

Research report 667



Definitions

Level of service:

The perceived quality of a road or transport service.

Pedestrian Level of Service:

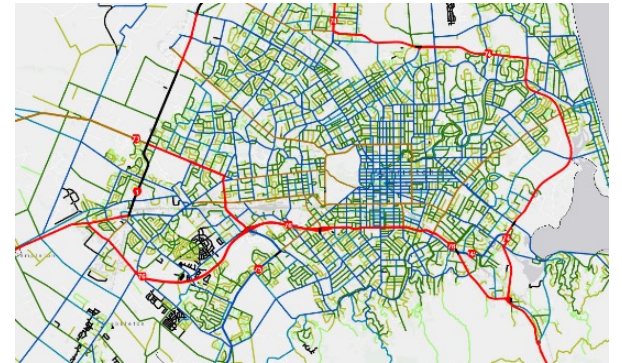
An overall measure of walking conditions on a route, path or facility... It reflects the pedestrians' perceptions of the degree to which the facility is pedestrian friendly.



Uses of Pedestrian LOS framework

Network Level

- Identifying network gaps
- Network operating frameworks

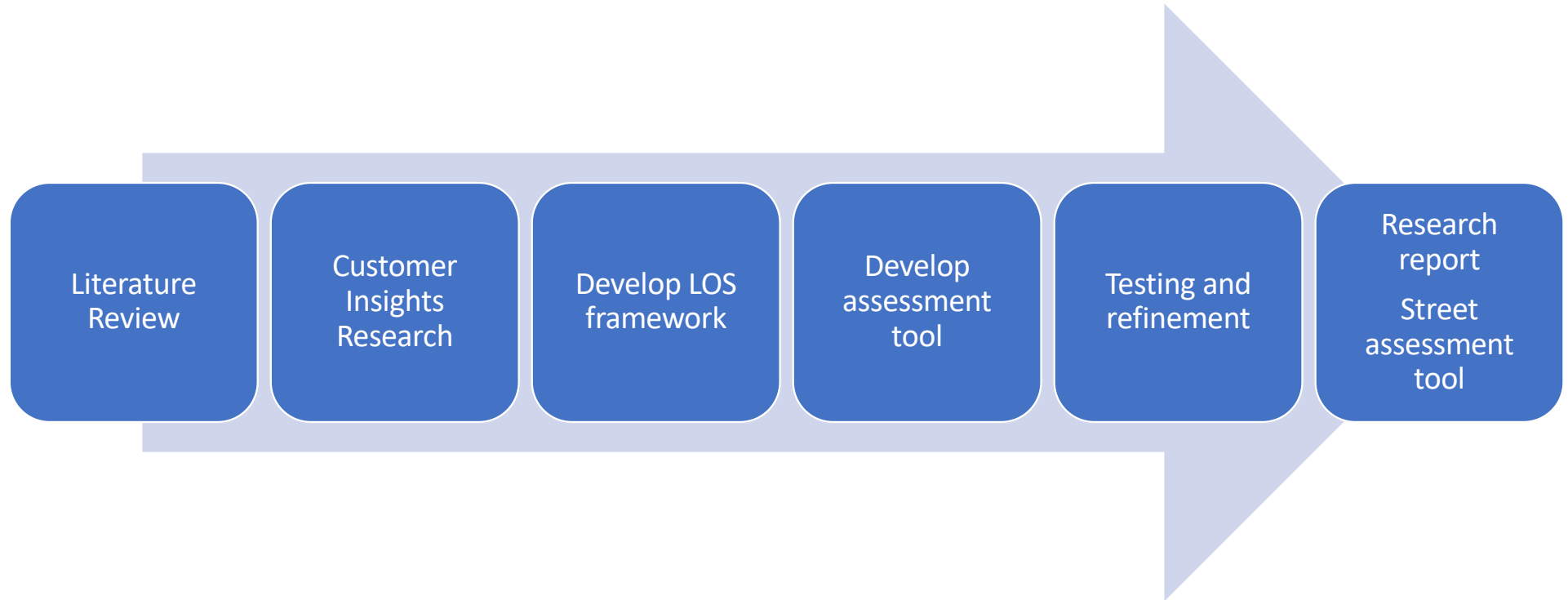


Street Level

- Option / scheme assessments
- Identifying or prioritising pedestrian improvements



Methodology



Literature Review

Key findings

- Diverse range of factors identified as important for walking
- Most not focused from a customer perspective
- No consistent way to measure customer LOS for walking
- Majority assessed links and incorporated crossings
- Generally a universal design approach (for all human states and abilities)



Healthy Streets approach

Transport for London

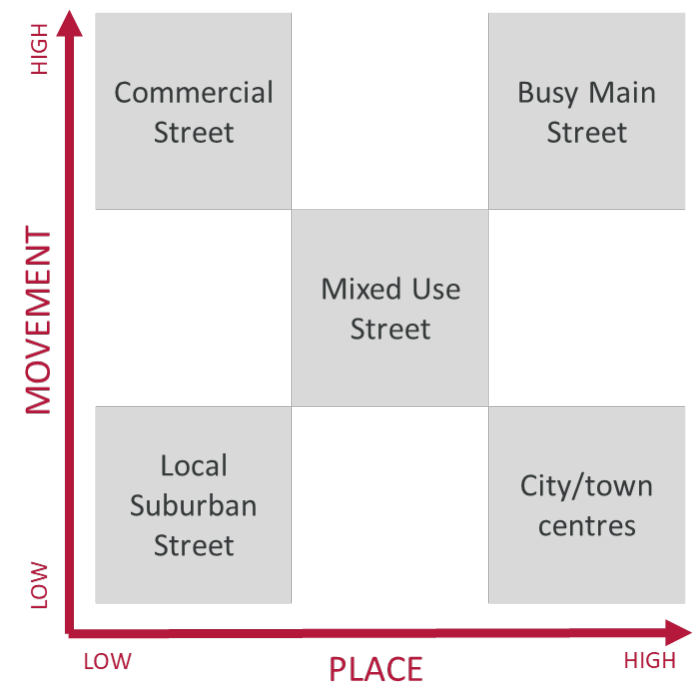
Customer insights

Primary research

- Investigate the barriers and motivators to walking in NZ
- Focus groups in Auckland City, Napier, Oamaru
- Mix of demographics, walking frequencies, trip types

Discussed experiences in different street environments

- Five street types
- Photos and video clips used as stimulus for discussions



What makes a good place to walk?

Safety

Feeling safe is the highest priority for pedestrians. Feeling unsafe is a significant barrier to walking.



Amenity

A pleasant and attractive environment is a motivator for people to walk.

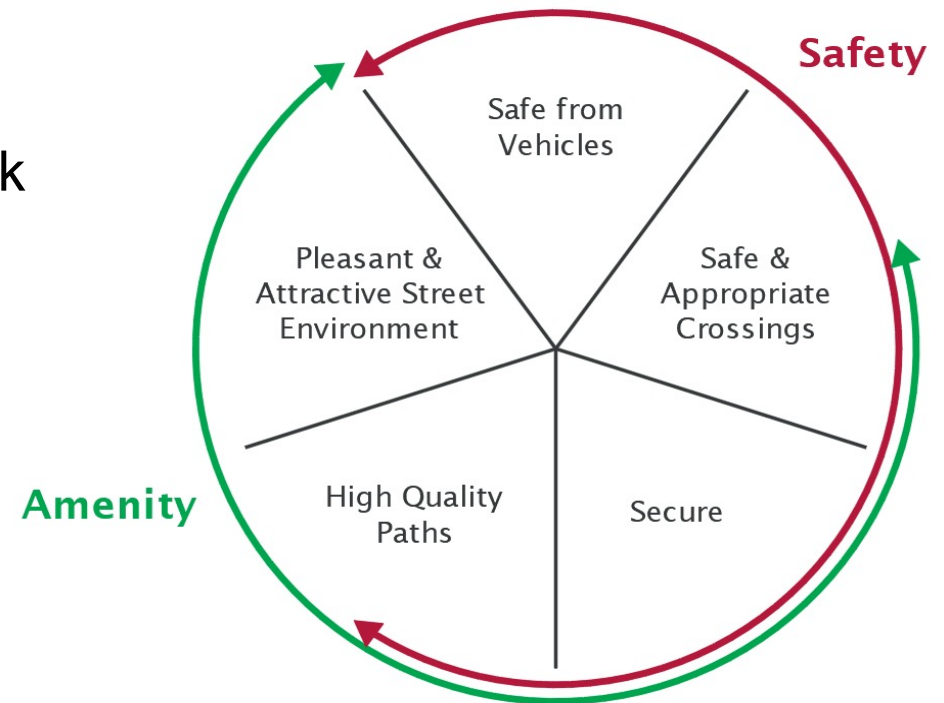


A positive and relaxing pedestrian experience



Pedestrian LOS Framework

- Five outcomes
- Focused on walking experience
- Can be applied at street level and network level
- Can inform One Network Framework customer mode outcomes



Pedestrian LOS Street Assessment Tool

- Street type integral to the tool
- 19 metrics
- Scores range from 0 to 4
- Some metric scores depend on street type

Access the tool [here](#)



Metrics

- Footpath width
- Surface quality
- Gradient
- Crossfall
- Separation from moving traffic
- Traffic volume
- Heavy vehicle volume
- Traffic speed
- Crossing the street
 - frequency and type
 - quality
- Crossing side streets
 - frequency and type
 - quality
- Vehicle accessways
- Mix of path users
- Surveillance
- Lighting
- Greenery
- Comfort features
- Engaging surroundings

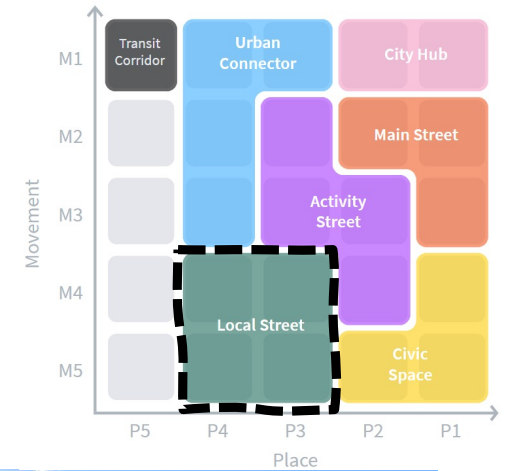
Assessment tool examples

Randall Street, Christchurch

Before



After

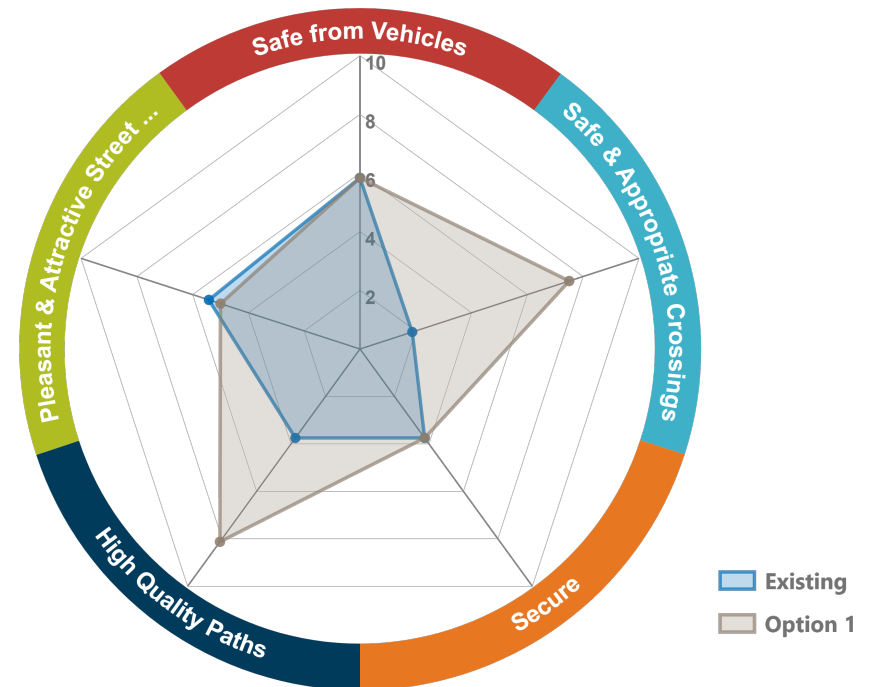


Randall Street, Christchurch

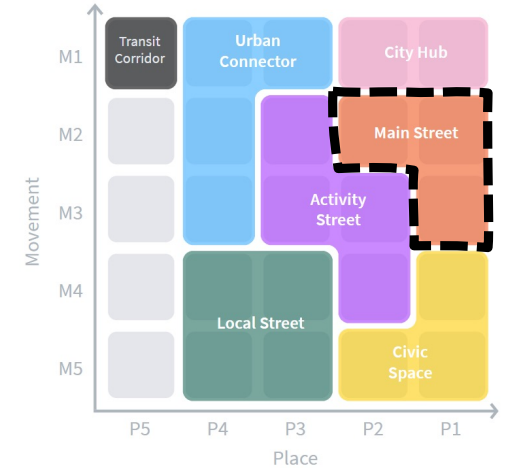
Outcome Score

Maximum 10

	Existing	Option 1
Safe from Vehicles	5.8	5.8
Safe & Appropriate Crossings	1.9	7.5
Secure	3.8	3.8
High Quality Paths	3.8	8.1
Pleasant & Attractive Street Environment	5.4	5.0
Overall Score (max. 10)	4.1	6.3
Critical deficiencies	Footpath width, Surface quality, Crossing the street - quality of crossings, Crossing side streets - quality of crossings	



Riccarton Road, Christchurch



Before



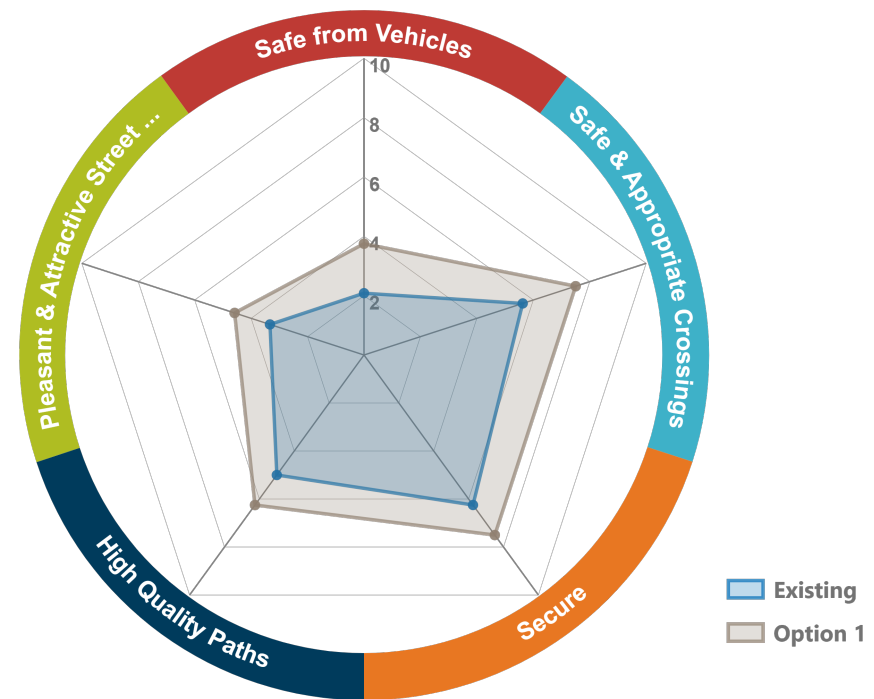
After



Riccarton Road, Christchurch

Outcome Score (maximum 10)

	Existing	Option 1
Safe from Vehicles	2.1	3.8
Safe & Appropriate Crossings	5.6	7.5
Secure	6.3	7.5
High Quality Paths	5.0	6.3
Pleasant & Attractive Street Environment	3.3	4.6
Overall Score (max. 10)	4.3	5.8
Critical deficiencies	Footpath width, Separation from moving traffic, Mix of path users	



Conclusions

- Pedestrian LOS framework and tool can be used to support better decision making
- Assessment tool is not intended as a design tool or to replace standards and guidance

Next steps

- Integrate the assessment tool into the Pedestrian Network Guidance
- Test the framework and tool on a range of street environments
- Develop network pedestrian LOS



Thank you!

Questions?

Contact

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