

Walkability: Area wide and pre-design walkability methods

METHOD	PEDESTRIAN NETWORK CHARACTERISTICS METHOD CAN ASSESS	PURPOSE AND WHEN TO USE	WHO CAN USE THE METHOD	DATA COLLECTION TECHNIQUE	STRENGTHS / WEAKNESSES	FURTHER INFORMATION
Walking Audit	<ul style="list-style-type: none"> All principles 	<ul style="list-style-type: none"> Site survey of local walking environment. 	<ul style="list-style-type: none"> Practitioners or members of the public 	<ul style="list-style-type: none"> On-site assessment 	<ul style="list-style-type: none"> Can identify deficiencies in any of the pedestrian network principles 	<ul style="list-style-type: none"> No NZ guidance available. WA Walkability Audit Tool Old TMR Walking audits Victoria Walks Walking Audit Also refer to Pedestrian Environment Review System (PERS) below
Community Street Reviews (CSR)	<ul style="list-style-type: none"> All principles 	<ul style="list-style-type: none"> Structured route-specific assessment of walkability from pedestrians' point of view to assess the quality of an existing street environment 	<ul style="list-style-type: none"> Members of the public guided by practitioners 	<ul style="list-style-type: none"> On-site assessment – Customer rating 	<ul style="list-style-type: none"> Collate overall feedback on a route and an indication of the walkability Gives an indication of pedestrian preferences /experiences Can get feedback from a range of different pedestrian perspectives (including those with various impairments) Can be labour intensive as requires recruiting members of the public 	<ul style="list-style-type: none"> Guide to undertaking CSRs
Predicting Walkability	<ul style="list-style-type: none"> Safe Comfortable 	<ul style="list-style-type: none"> To forecast the extent to which an intervention can improve walkability and therefore attract more pedestrians. The models are based on the measurable physical characteristics of some walking environments and comparing them to user ratings of those environments. 	<ul style="list-style-type: none"> Practitioners 	<ul style="list-style-type: none"> Desktop assessment with on-site measurements if necessary 	<ul style="list-style-type: none"> Requires detailed data on physical attributes of the walking environment Seeks to reconcile physical attributes of the walking environment and pedestrians' perceptions The walkability prediction does not capture aspects of inclusive access relevant for disabled people 	<ul style="list-style-type: none"> Waka Kotahi Research report 452 Predicting walkability
Pedestrian Level of Service (PLOS) Assessment Tool	<ul style="list-style-type: none"> Safe Comfortable Legible Attractive 	<ul style="list-style-type: none"> Assesses existing and proposed streets against 5 outcomes 	<ul style="list-style-type: none"> Practitioners 	<ul style="list-style-type: none"> On-site assessment 	<ul style="list-style-type: none"> Still being piloted; may require refinement Not specifically targeted at needs of mobility & visually impaired pedestrians Hasn't been developed for shared paths Focused on section of street including intersections 	<ul style="list-style-type: none"> Waka Kotahi Research Report 667 Developing methodologies for improving customer levels of service for walking Draft PLOS online Assessment Tool

METHOD	PEDESTRIAN NETWORK CHARACTERISTICS METHOD CAN ASSESS	PURPOSE AND WHEN TO USE	WHO CAN USE THE METHOD	DATA COLLECTION TECHNIQUE	STRENGTHS / WEAKNESSES	FURTHER INFORMATION
Healthy Streets Check for Designers	<ul style="list-style-type: none"> • Safe • Comfortable Legible • Attractive 	<ul style="list-style-type: none"> • To assess existing streets and designs of proposed street layouts against 10 Healthy Streets Indicators. 	<ul style="list-style-type: none"> • Practitioners 	<ul style="list-style-type: none"> • On-site and desktop assessment using a spreadsheet tool 	<ul style="list-style-type: none"> • Requires concept drawings and local survey data • Some criteria (e.g. air pollution data) may not be available in NZ context • Extends beyond walkability for pedestrians to other users (people cycling, public transport users) • Can inform design improvements or option selection. 	<ul style="list-style-type: none"> • Healthy Streets Check for Designers
Healthy Streets Survey	<ul style="list-style-type: none"> • Safe • Comfortable • Legible • Attractive 	<ul style="list-style-type: none"> • To assess how the quality of an existing street environment is perceived by users 	<ul style="list-style-type: none"> • Members of the public guided by surveyors 	<ul style="list-style-type: none"> • On-site customer rating 	<ul style="list-style-type: none"> • Captures user experiences • Subjective and may not be representative • The shortness of the survey allows for large numbers of respondents • Useful for scheme evaluation 	<ul style="list-style-type: none"> • Healthy Streets Surveys
Public Life Tools	<ul style="list-style-type: none"> • All principles 	<ul style="list-style-type: none"> • Surveys of public spaces and the public life that takes place in them. 	<ul style="list-style-type: none"> • Anyone 	<ul style="list-style-type: none"> • On-site surveys and assessments 	<ul style="list-style-type: none"> • Can focus on site, neighbourhood or city scale • Range of tools in the form of templates for different applications. 	<ul style="list-style-type: none"> • Research tools developed by Gehl Public life tools • Great Public Spaces Toolkit developed by NSW government, Australia
Walk Score	<ul style="list-style-type: none"> • Direct • Connected 	<ul style="list-style-type: none"> • Accessibility analysis taking distance to destinations and densities into account. Use to assess walking proximity of an address to key destinations. 	<ul style="list-style-type: none"> • Anyone 	<ul style="list-style-type: none"> • Online Tool 	<ul style="list-style-type: none"> • Automatic and free tool that returns a walk score for any address • Does not take the quality of infrastructure, safety, or pedestrians' perceptions into account 	<ul style="list-style-type: none"> • Walkscore
Accessibility Assessment	<ul style="list-style-type: none"> • Connected 	<ul style="list-style-type: none"> • Measures the connectivity of the pedestrian network as a proxy measure for walkability. Can be used to assess available routes between walking trip origins and destinations 	<ul style="list-style-type: none"> • Practitioners 	<ul style="list-style-type: none"> • Desktop Assessment 	<ul style="list-style-type: none"> • Gives an indication of connectivity for any given route with little data required • Allows comparison of routes • Is a broad brush tool and does not consider safety, user perceptions, or special needs into account. 	<ul style="list-style-type: none"> • Waka Kotahi Research Report 512 The New Zealand accessibility analysis methodology
Connectivity Assessment	<ul style="list-style-type: none"> • Connected 	<ul style="list-style-type: none"> • Measures the connectivity of the pedestrian network as a proxy measure for walkability. Can be used to assess available routes between walking trip origins and destinations 	<ul style="list-style-type: none"> • Practitioners 	<ul style="list-style-type: none"> • Desktop Assessment 	<ul style="list-style-type: none"> • Gives an indication of connectivity for any given route with little data required • Allows comparison of routes • Is a broad brush tool and does not consider safety, user perceptions, or special needs into account. 	<ul style="list-style-type: none"> • Connectivity Assessment

METHOD	PEDESTRIAN NETWORK CHARACTERISTICS METHOD CAN ASSESS	PURPOSE AND WHEN TO USE	WHO CAN USE THE METHOD	DATA COLLECTION TECHNIQUE	STRENGTHS / WEAKNESSES	FURTHER INFORMATION
Street Accessibility Audit	<ul style="list-style-type: none"> Inclusive 	<ul style="list-style-type: none"> To identify how well an environment performs for disabled and older pedestrians, identify any deficiencies and recommend specific improvements to paths, crossings and accessible parking. 	<ul style="list-style-type: none"> Practitioners typically engaging with user groups such as disabled and older people 	<ul style="list-style-type: none"> Workshop and technical audit 	<ul style="list-style-type: none"> Provides councils with prioritised list of maintenance and other recommended improvements. Provides estimates of remediation costs Narrow focus (on inclusive access) means it does not assess overall walkability but can identify deficiencies 	<ul style="list-style-type: none"> Street Accessibility Audit Example street accessibility audit
Pedestrian Environment Review System (PERS)	<ul style="list-style-type: none"> All principles 	<ul style="list-style-type: none"> A systematic process to assess the pedestrian environment through quantitative and qualitative data. Now part of the Street audit suite. 	<ul style="list-style-type: none"> Proprietary software used by practitioners 	<ul style="list-style-type: none"> On-site assessment and desk-based analysis 	<ul style="list-style-type: none"> Comprehensive and relatively objective Data-intensive methodology Does not capture user pedestrians' perceptions 	<ul style="list-style-type: none"> PERS Factsheet
Valuing the Urban Realm Toolkit (VURT)	<ul style="list-style-type: none"> Same as PERS 	<ul style="list-style-type: none"> Assign an economic value to changes in attributes of the pedestrian environment measured by PERS. Can be used in business cases. 	<ul style="list-style-type: none"> Practitioners 	<ul style="list-style-type: none"> Desk-based 	<ul style="list-style-type: none"> This tool does not measure walkability but assigns monetary values to it. Useful to forecast benefits at business case level 	<ul style="list-style-type: none"> A VURT toolkit for Auckland?
State of Place	<ul style="list-style-type: none"> All principles 	<ul style="list-style-type: none"> Urban Data Analytics platform for area-wide walkability and urban realm assessment. Can be used to assess urban realm improvements and for business cases. 	<ul style="list-style-type: none"> Proprietary software used by practitioners 	<ul style="list-style-type: none"> On-site & online data collection Desk-based software analysis 	<ul style="list-style-type: none"> The process is mostly automated The algorithm was developed in a US context so some criteria may not be suitable for NZ context. Allows comparison of areas Allows prioritisation of improvements and quantifying their benefits 	<ul style="list-style-type: none"> State of Place