



Masterplanning for Universal Design

New Zealand Association of Gerontology

George Weeks

Principal Transport Advisor – Auckland Council

26 September 2024



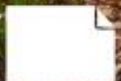
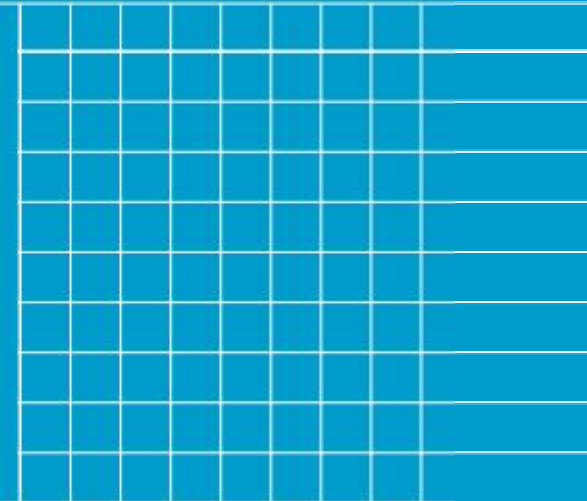




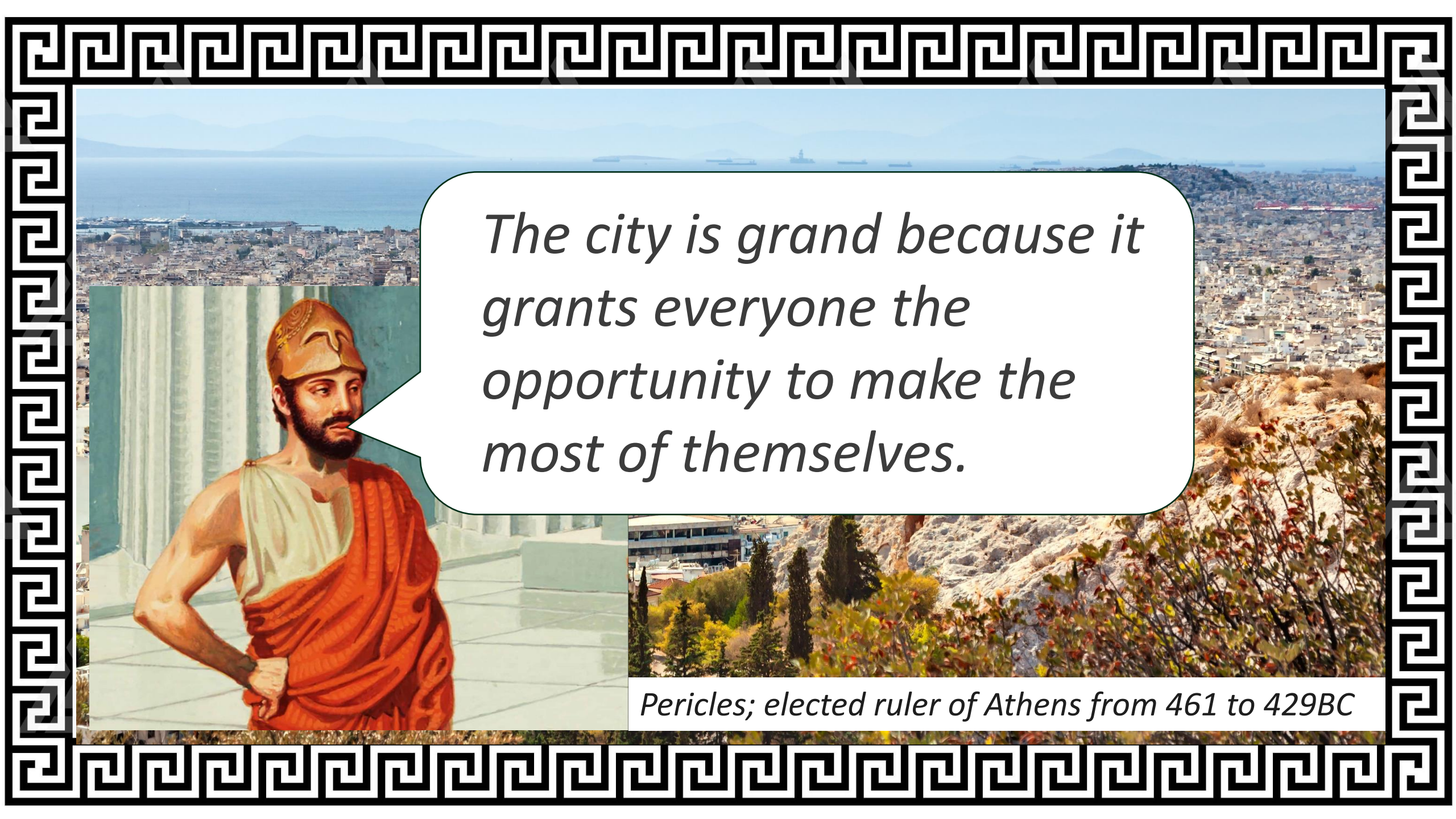
VERSION 1.2
APRIL 2024

KĀINGA ORA DESIGN GUIDELINES MASTERPLANNING FOR UNIVERSAL DESIGN

A guide to show how
to include universal design
in Kāinga Ora masterplans.



This document has
been designed to be
viewed at A3 size.



The city is grand because it grants everyone the opportunity to make the most of themselves.

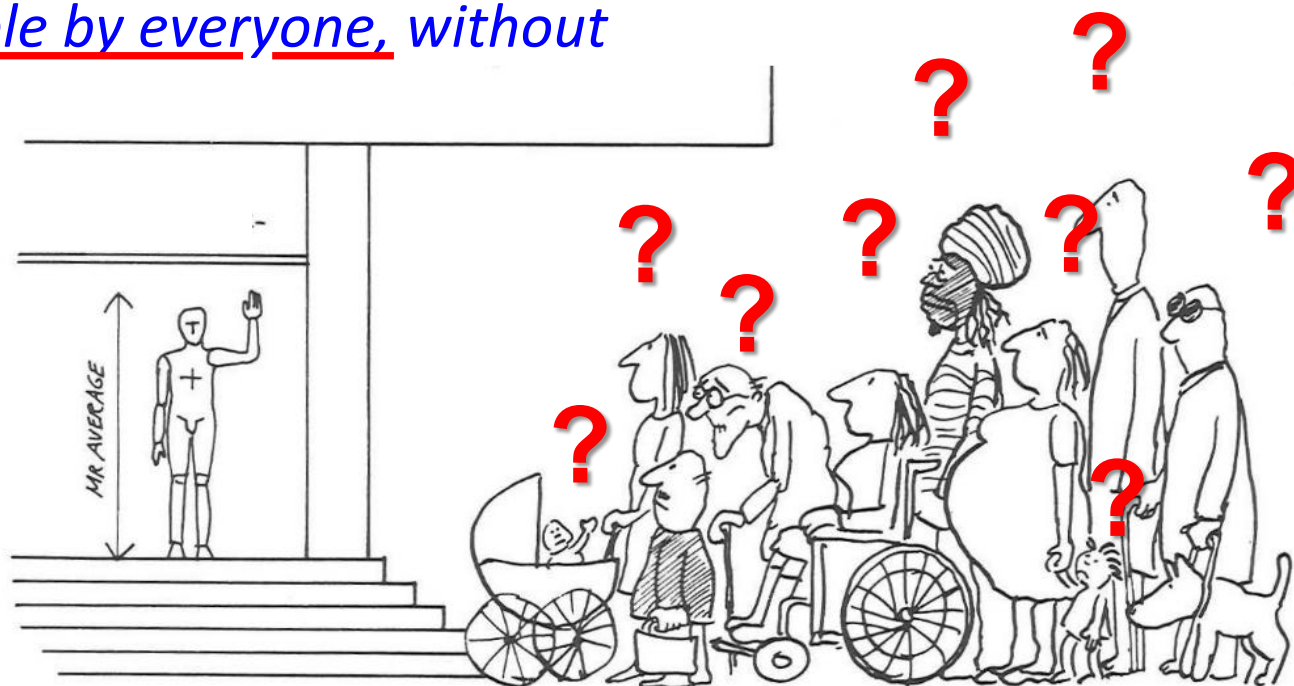
Pericles; elected ruler of Athens from 461 to 429BC

Universal Design

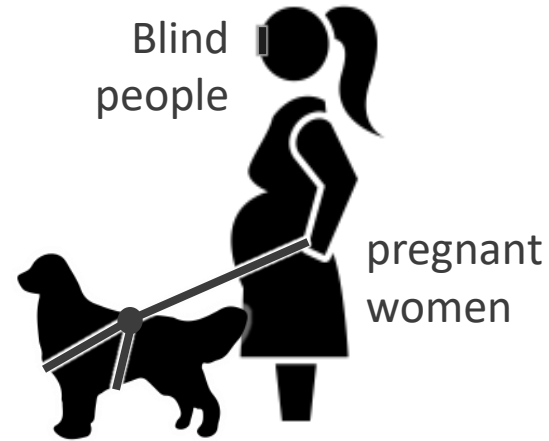
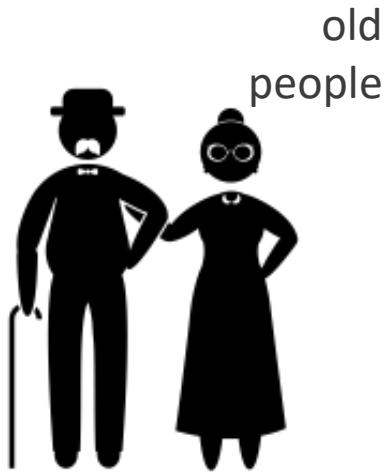
Good design that works for everyone.

It is about making sure everything is accessible to, understood by and used to the greatest extent possible by everyone, without adaptation or requiring little adaptation.

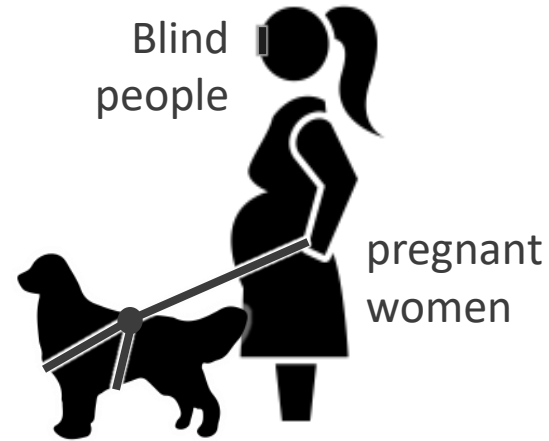
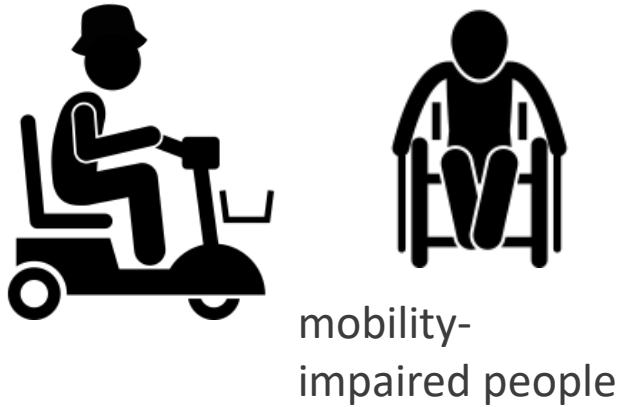
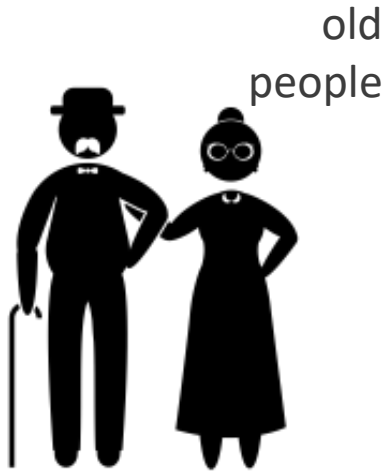
**New Zealand Disability Strategy
2016 – 2026**



Who benefits from universal design?



Everyone benefits from universal design!



Not all disabilities are visible



baby buggy





Well-placed dropped kerbs have given people their independence back.

A tiny piece of detail can make a huge difference.

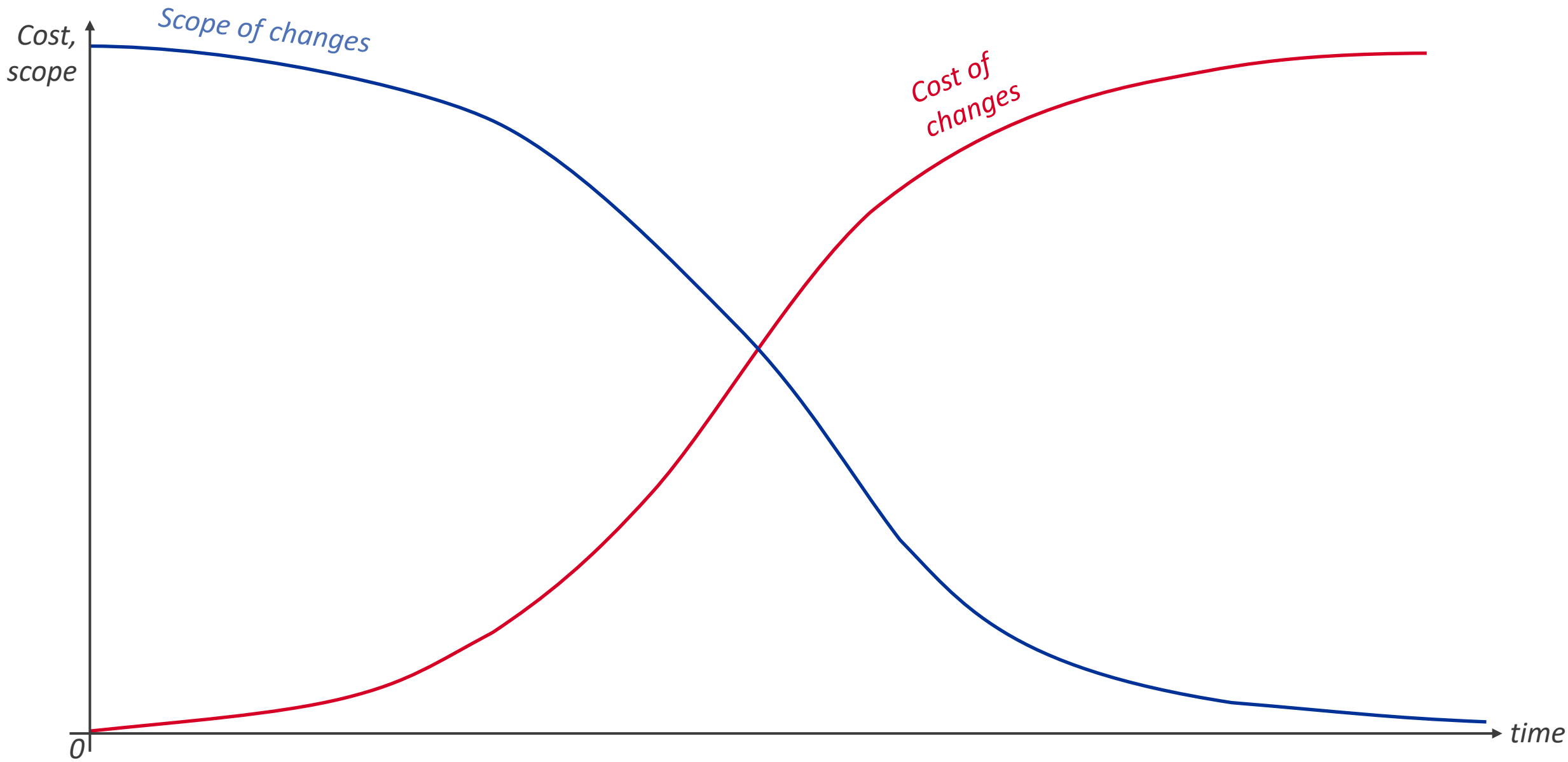
Vivian Naylor



A raised platform crossing...it ultimately removes my disability!







Policy context

- Kāinga Ora Act
- Kāinga Ora Accessibility Policy
- New Zealand Disability Strategy
- Universal Design Forum
- Whaikaha - Ministry for Disabled People
- Auckland Plan
- Universal Design Tool
-others



Masterplanning for Universal Design



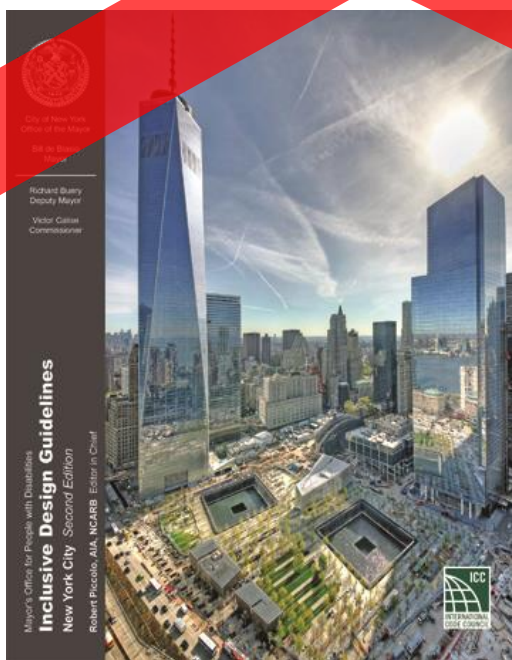
Places





GOOD PRACTICES OF ACCESSIBLE URBAN DEVELOPMENT

Making urban environments inclusive and fully accessible to ALL



Design guidelines


The design guides help to ensure that all design and building projects meet our standards, and reflect our design principles.




VERSION 12
APRIL 2024

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Kāinga Ora
Homes and Communities



NGĀ PAEREWA HOAHOA WHARE DESIGN REQUIREMENTS

FOR PUBLIC HOUSING
DELIVERED BY, AND FOR,
KĀINGA ORA – HOMES
AND COMMUNITIES

VERSION 11
JANUARY 2024



Kāinga Ora
Homes and Communities




TOITŪ TE WHENUA TOITŪ TE KĀINGA

KĀINGA ORA
LANDSCAPE DESIGN GUIDE
FOR PUBLIC HOUSING

VERSION 13
MARCH 2023




Kāinga Ora
Homes and Communities



NGĀ TIKANGA ĀRAHI PAE AROTAKE HOAHOA

DESIGN REVIEW PANELS
TERMS OF REFERENCE

VERSION 10
JANUARY 2023



Kāinga Ora
Homes and Communities

Expertise



Dr Bridget Doran
Transport Engineer
Researcher
Advocate



MINISTRY OF HOUSING
AND URBAN DEVELOPMENT



Living Streets Aotearoa




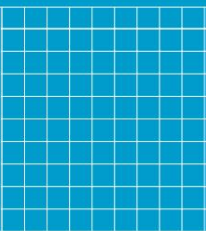
Disabled People's
Organisations
Coalition



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Expertise



- Accessibility
- Engagement
- Evaluation & Research
- Investment Management Office
- National Services
- Planning
- Publishing
- Strategy
- Te Kurutao
- Urban Development & Delivery
- Urban Design
- Others....



MINISTRY OF HOUSING
AND URBAN DEVELOPMENT



Living Streets Aotearoa



Disabled People's
Organisations
Coalition

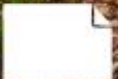
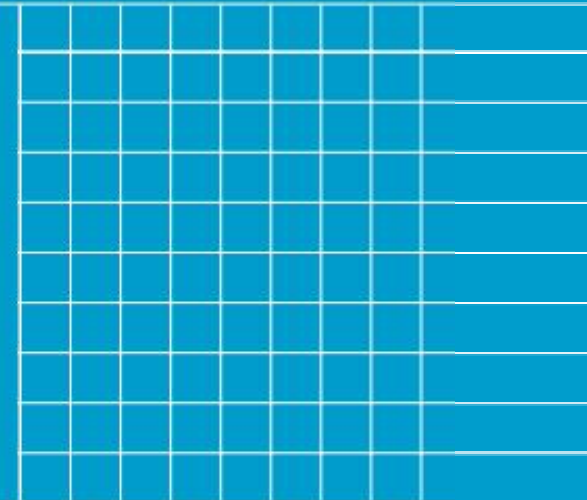


Published 1 May 2024

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Published 1 May 2024

Congratulations – what a great piece of work and valuable resource. It's fantastic.

Hayley Ellison, Principal Advisor - Urban Development, Kāinga Ora

Great super straight forward and clear checklist.

Orson Waldock, Team Leader, Urban Design, Kāinga Ora

congrats on delivering such an accessible document – even I can see the vision!.

Sandy Kitchner, Team Leader - Project Management Services, Kāinga Ora

What a huge achievement getting this finalised!

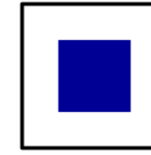
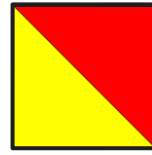
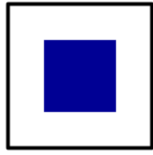
Stephanie Jowett, Principal Planner, Kāinga Ora

Another awesome piece of work George. Well done.

Alaistair Ray, Principal, Jasmax

It's a really helpful piece of work, well done!

Kathryn King, Urban Mobility Manager, Multimodal & Innovation, Waka Kotahi NZTA



Public realm should be **safe, obvious** and **step-free** – SOS. Use this checklist to see if plans meet SOS standards.

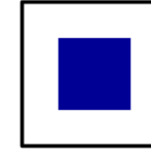
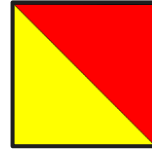
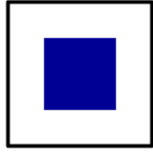
Safe		
Criteria for Safe	Standards	Y/N/?
1 Safe speeds where pedestrians and vehicles can interact; collisions are survivable if someone makes a mistake	85 th percentile operating speed will be <30 km/h. Shared spaces need a design speed of 10 km/h.	<input type="checkbox"/>
2 Vertical physical separation – pedestrians are separated from faster modes.	If 85 th percentile operating speed is >20 km/h, separated space is needed.	<input type="checkbox"/>
3 Sufficient width to allow users to pass each other.	Minimum usable footway width >2.1m	<input type="checkbox"/>
4 Non-slip surfaces – surfaces are not slippery or in need of maintenance.	Meets NZ4586 P5 slip-resistance standard.	<input type="checkbox"/>
5 Minimal hazards – routes are free from obstacles and trip hazards	Obstacles (e.g. bins, signposts, texture irregularities) are rare (<1 per 100m on average).	<input type="checkbox"/>
6 Well-designed lighting – all public space and walkways are lit appropriately.	Complies with appropriate P-categories in NZS1158.3	<input type="checkbox"/>
7 Public surveillance – public spaces and walkways are located in places where they are visible by the public.	See: National Guidelines for Crime Prevention through Environmental Design in New Zealand (2005)	<input type="checkbox"/>

Obvious		
Criteria for Obvious	Standards	Y/N/?
8 All road users understand where they are expected to be.	Is the street layout clear and obvious to all personas? Is it clear how each section is meant to work?	<input type="checkbox"/>
9 Accessible transport choices are available.	Is there frequent public transport (<15 minutes interval, 7am – 7pm all week). SOS from door to door? Is information readily available in case of temporary changes in routes/services?	<input type="checkbox"/>
10 There are clearly marked pedestrian-priority routes along paths and streets, through public spaces and across roads.	Is it clear and obvious – to all design personas – how people are meant to move through the area? Are clear pedestrian routes fully reflected in plans?	<input type="checkbox"/>
11 Routes are easy-to-navigate – wayfinding information is:	Use Waka Kotahi NZTA wayfinding standards: <ul style="list-style-type: none"> • Universal design • Clear and effective • Simple and concise • Consistent 	<input type="checkbox"/>

Step-free		
Criteria for Step-free	Standards	Y/N/?
12 Routes do not involve excessive diversions, nor require people to put themselves in danger to avoid a step.	Aim for step-free Pedestrian Route Directness (PRD) ratio of 100 – 150. Step-free routes must follow desire lines, not circuitous secondary routes.	<input type="checkbox"/>
13 Routes have gentle gradients and places to rest – for example, landings on ramps.	<ul style="list-style-type: none"> • <5% (1 in 20) average gradient • Sections steeper than 7% (1 in 14) must not exceed 5m in length. • Sections steeper than 8% (1 in 12) must not exceed 2m in length. (UN Design Manual 2003-4)	<input type="checkbox"/>
14 Step-free routes are provided as the primary route and can be negotiated independently.	If standards in rows 1-13 are met this criterion will itself be met. Check repeatedly through the design process.	<input type="checkbox"/>

Criteria are taken from the Waka Kotahi NZTA Universal Design Principles.

Standards are likewise obtained from Waka Kotahi unless stated otherwise.



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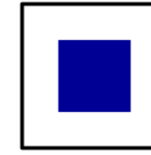
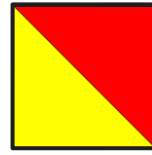
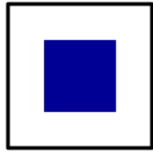
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13 Routes have gentle gradients and places to rest – for example, landings on ramps.	<ul style="list-style-type: none"> • <5% (1 in 20) average gradient • Sections steeper than 7% (1 in 14) must not exceed 5m in length. • Sections steeper than 8% (1 in 12) must not exceed 2m in length. (UN Design Manual 2003-4)	<input type="checkbox"/>
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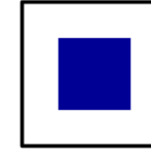
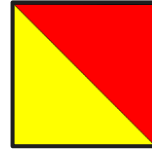
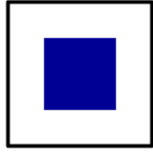
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Personas



BLIND ADULT

Need safe routes, tactile wayfinding guidance, priority crossings or low-speed environments with accessible, identifiable routes.



8 YEAR OLD CHILD

Need safe and obvious routes priority road crossings on streets that are not too busy.

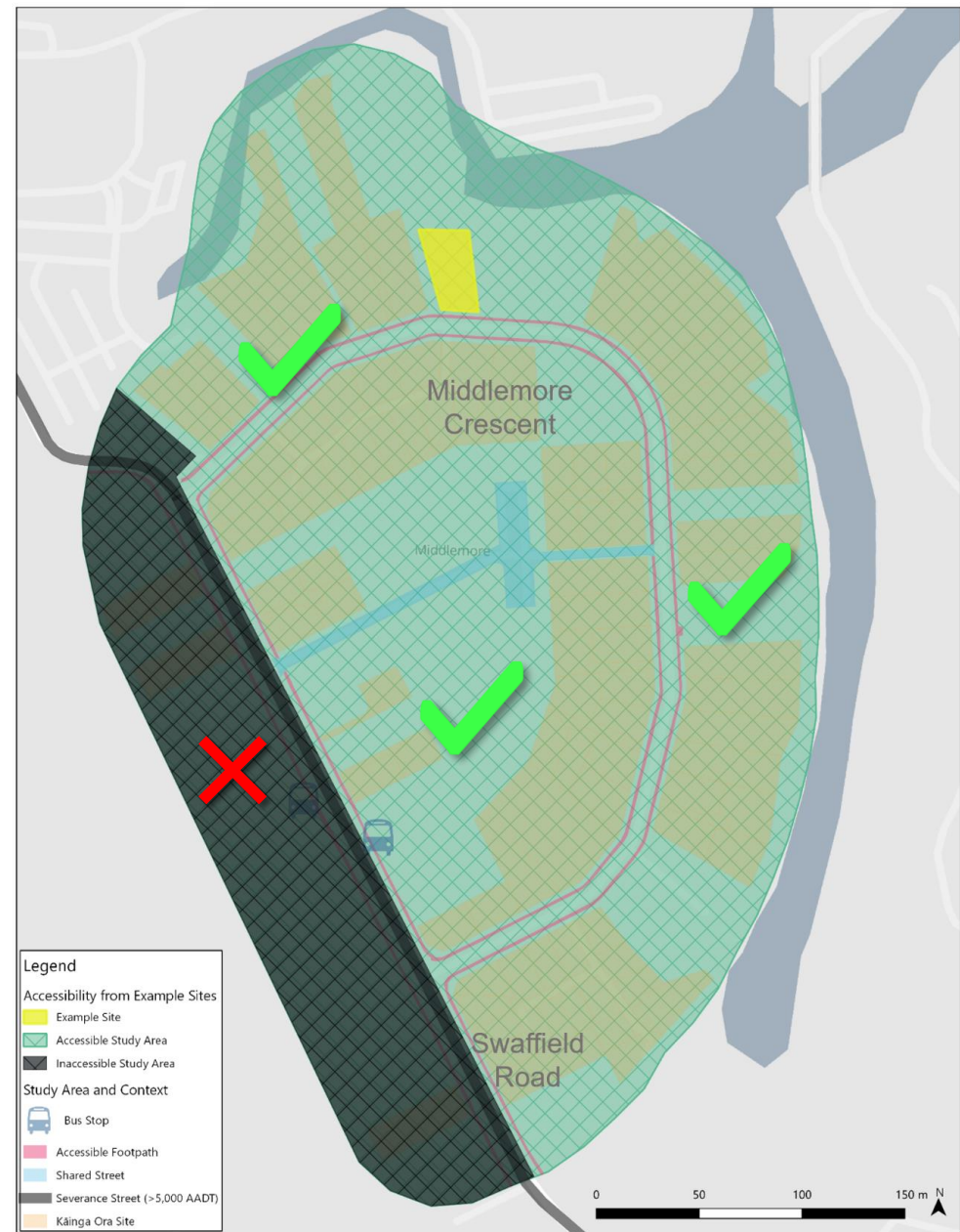


WHEELCHAIR

Road crossings must be smooth and not too long with high quality infrastructure

Street-level accessibility - details





Legend

Accessibility from Example Sites

- Example Site
- Accessible Study Area
- Inaccessible Study Area

Study Area and Context

- Bus Stop
- Accessible Footpath
- Shared Street
- Severance Street (>5,000 AADT)
- Kāinga Ora Site

Study Area Accessibility from Example Sites
Middlemore Crescent Accessibility Mapping

Author: Danielle Gatland

Date: 2023-01-20





LEGEND:






-  Recommended raised zebra crossing
Or alternative pedestrian priority crossing
-  Recommended footpath connection
to Middlemore Station

Legend

Access

Inaccessible Study Area

Study Area and Context

-  Bus Stop
-  Accessible Footpath
-  Shared Street
-  Severance Street (>5,000 AADT)
-  Kāinga Ora Site

Road

0 50 100 150 m N

Author: Danielle Gatland

Date: 2023-01-20

MRCagney
MIDDLEMORE RAIL STATION ACCESSIBILITY

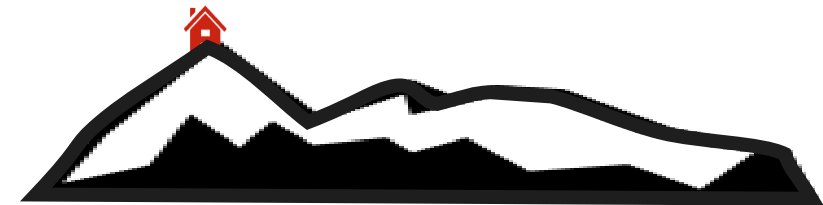
Coordinate System: EPSG:2193

Study Area Accessibility from Example Sites
Middlemore Crescent Accessibility Mapping

Masterplanning for Universal Design

Can inform:

- Where to build Full Universal Design and Accessible Homes
- Where to locate public infrastructure
- Is a particular location suitable at all?
- Best practice as standard.



Best practice, eh?

*I think you're
being a bit
aspirational?*



Aspirational?

Aspirational?

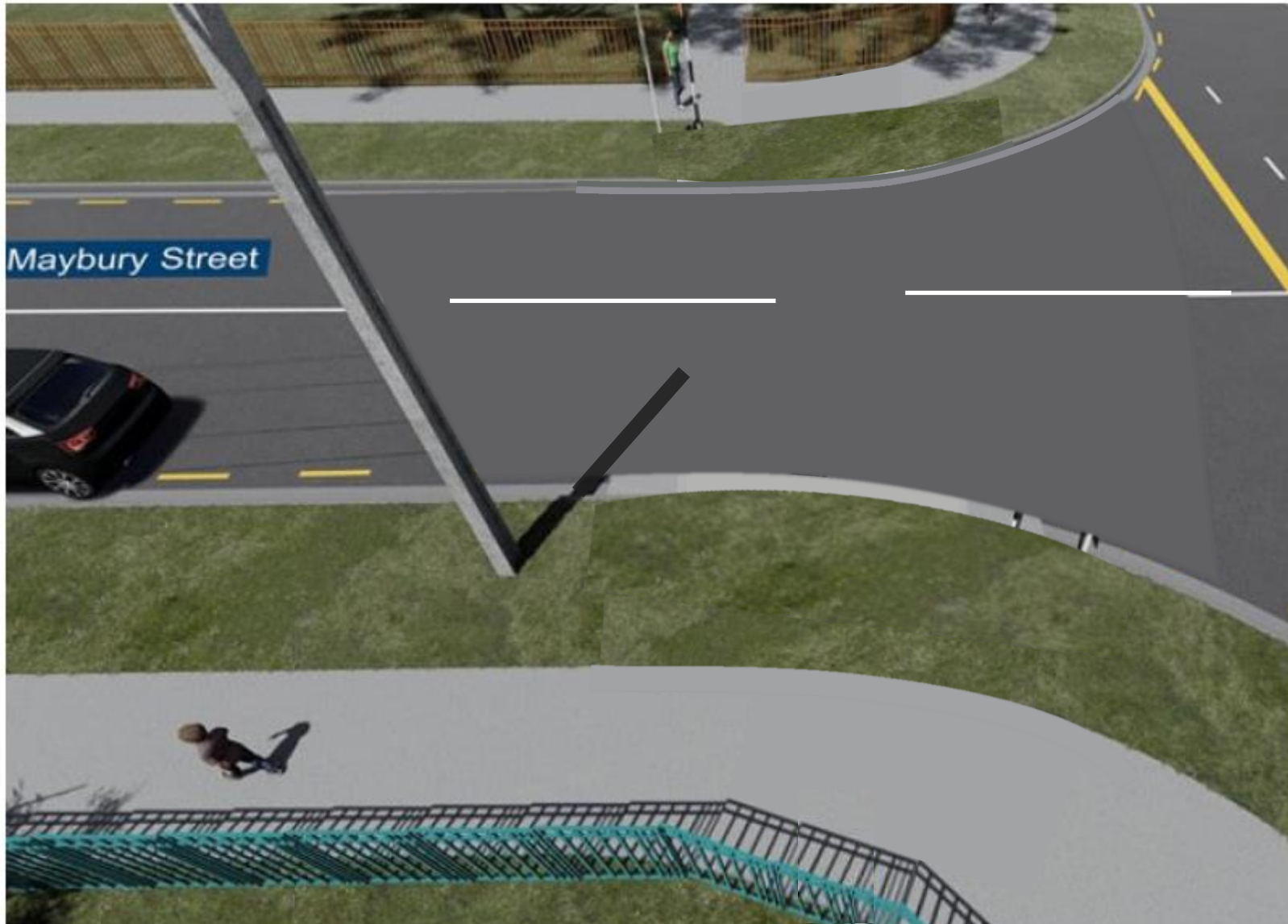
Yes.

Aspirational?

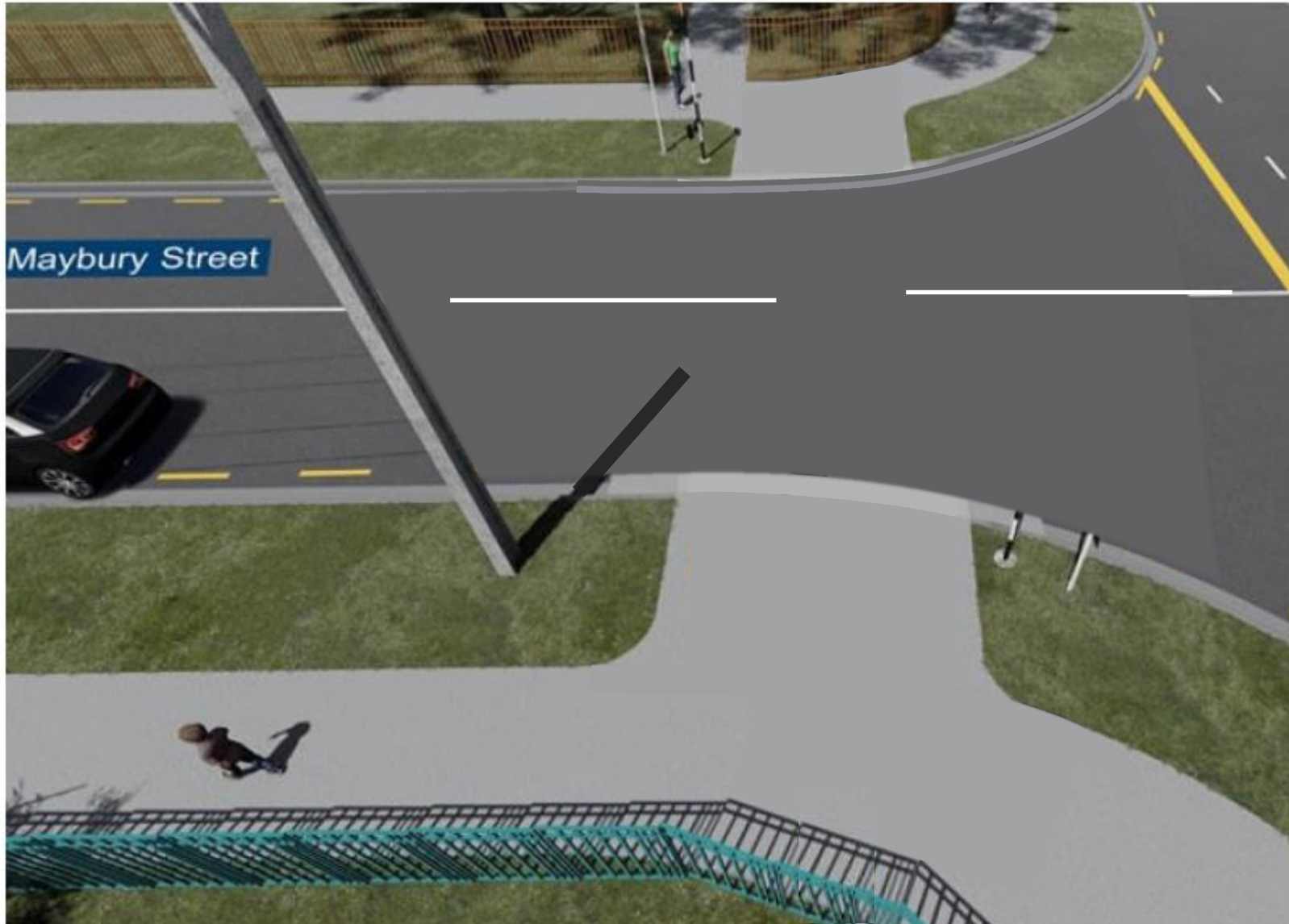
Yes.

That's the point.

Absence of aspiration leads to mediocrity



Absence of aspiration leads to mediocrity



Aspiration leads to inclusivity



Health

*The magic bullet for good health
is staying physically active.*



Dr JoAnn Manson
University of
Harvard

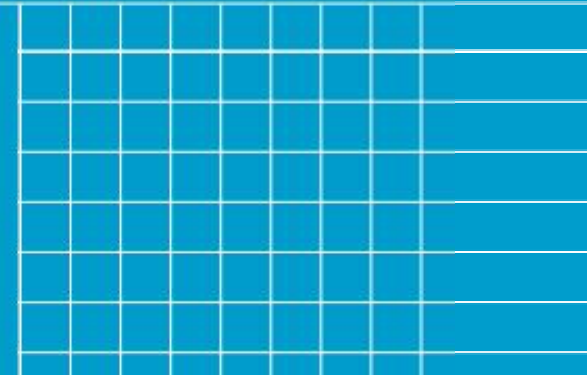


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KĀINGA ORA DESIGN GUIDELINES MASTERPLANNING FOR UNIVERSAL DESIGN

A guide to show how
to include universal design
in Kāinga Ora masterplans.



E-mail: george.weeks@aucklandcouncil.govt.nz

Tel: 027 242 1907

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