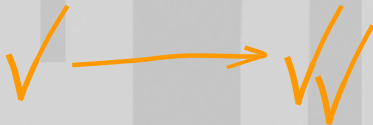


**Walking
networks**

**Better
assessments**



Introduction

1. Background
2. Development
 - Citywide Network
 - Central City Network
3. Interaction with PT
4. Application

1. Background

- Project initiation
- GIS base
- Polyline dataset
- ESRI ArcGIS Network Analyst
- Christchurch 1st

2. Development

Objective: Capture where people walk and...
....calculate long it takes people to walk.

Where do people walk?

- Parks
- Open Space
- Public Car parks
- Conservation Areas
- Pedestrian Crossings
- Pedestrian Refuges
- Footpaths

2. Development

Important to make best use of existing data.

1. Road Centreline GIS data

2. Development

Road Centreline



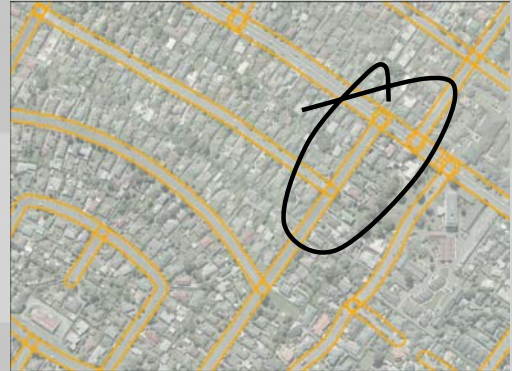
2. Development

Important to make best use of existing data.

1. Road Centreline GIS data + Road Width =

2. Development

Base Walking Network



2. Development

Important to make best use of existing data.

1. Road Centreline GIS data + Road Width =
Base Walking Network

2. Manual improvements

Parks	} City Plan Land Use	} Aerial Photography
Open Space		
Public Car Parks		
Conservation Areas		
Pedestrian Crossings		
Pedestrian Refuges on Bus Routes		

2. Development

City Wide Walking Network



2. Development

Important to make best use of existing data.

1. Road Centreline GIS data + Road width =
Base Walking Network

2. Manual improvements to base walking network

Parks	} City Plan Land Use Zones	} Existing GIS data & Aerial Photography
Open Space		
Public Car parks		
Conservation Areas		
Pedestrian Crossings		
Pedestrian Refuges on bus routes		

3. Add more detail

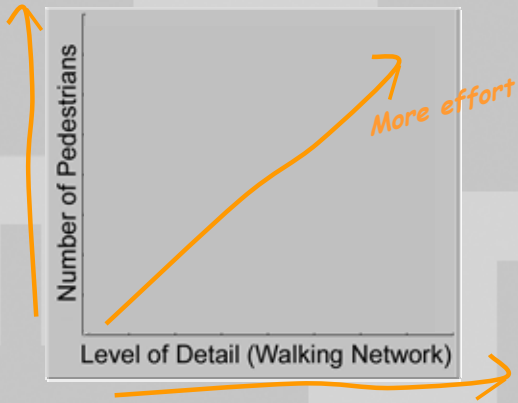
More Road Crossings
Multi Level Walking
Time based links

2. Development

Central City Walking Network



2. Development



2. Development

Objective: Capture where people walk and...
...calculate long it takes people to walk.

How long does it take to walk?

- Speed 1.3m/s
- Delays

Traffic lights
Zebra Crossings
Priority Intersection (minor leg)
Priority Intersection (major leg)
Uncontrolled mid block
Pedestrian refuge
Kerb extensions

Cycle Time * Phasing
Confirmation Time
Confirmation Time
Tanners Extended Model
Tanners Extended Model
Tanners Extended Model

3. Interaction with PT

How far can I walk in 8 minutes (Service Area Analysis)



3. Interaction with PT

How far can I walk in 8 minutes (Service Area Analysis)



3. Interaction with PT

How far can I walk in 8 minutes (Service Area Analysis)



3. Interaction with PT

How far can I walk in 8 minutes (Service Area Analysis)



3. Interaction with PT

Where is the closest bus stop (by time)



3. Interaction with PT

Where is the closest bus stop (by time)



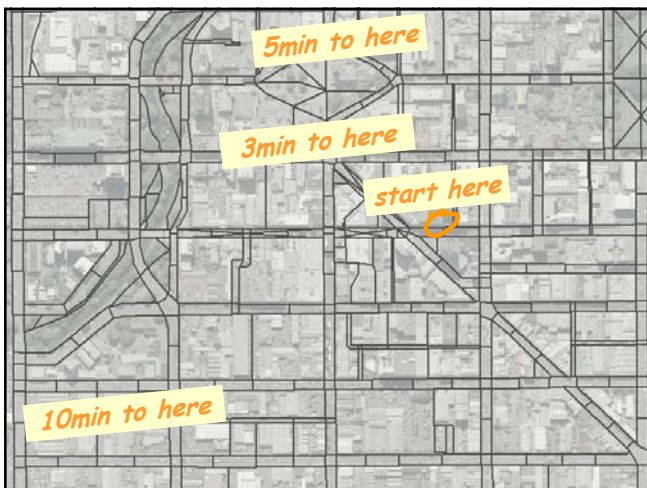
3. Interaction with PT

Where is the closest bus stop (by time)



4. Application

- New links
- Optimised infrastructure
- Identify key route delays
- Christchurch Interchange
- PTAL (next)
- Visual



Summary

- Creation is easy ✓
- Very cost effective ✓
- Add detail where needed ✓
- Testing ✓
- Integration with other tools ✓
- Better decisions ✓



- Release of methodology ✓
- Aid further development ✓
- Even better decisions ✓