

Best Practice for Walking & Cycling

Presentation to Wellington Active Transport Forum

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Are walking and cycling compatible?

- At strategic and policy level – yes
- At facility level – sometimes
 - Conflict on facilities can be addressed through proper facility selection and sound design



Ample space, low volumes – no problem



Different facilities perhaps best

- But often there's not enough space
- Or not enough money!
- So shared facilities needed



A diversity of users



Pedestrian facility types

- Footpaths (just for pedestrians)
- Shared paths
 - Generally sharing footpaths doesn't work well
 - Driveway issues; conflicts with pedestrians
- Shared street



Cycling facility types

No Facility

No physical separation

Physical separation

Bicycle boulevards

Shared spaces

Wide kerbside lane

Cycle lane;
Bus lane

Shared path

Separated bicycle facilities

Separated bicycle facilities (SBFs)



Swanston St, Melbourne



Market St, San Francisco

SBFs



Copenhagen



9th Avenue, New York City

SBFs



Munich



Matai St West, Christchurch

We have done SBFs in NZ!



Matai St West separated cycle path

New York – Outcomes

On-Street Bicycle Lanes

- 2001-08
cyclists increased 30%

Off-Street Bicycle Paths

- 2002-08
cyclists increased 26%

2008-10 new SBFs
cyclists increased by 66%



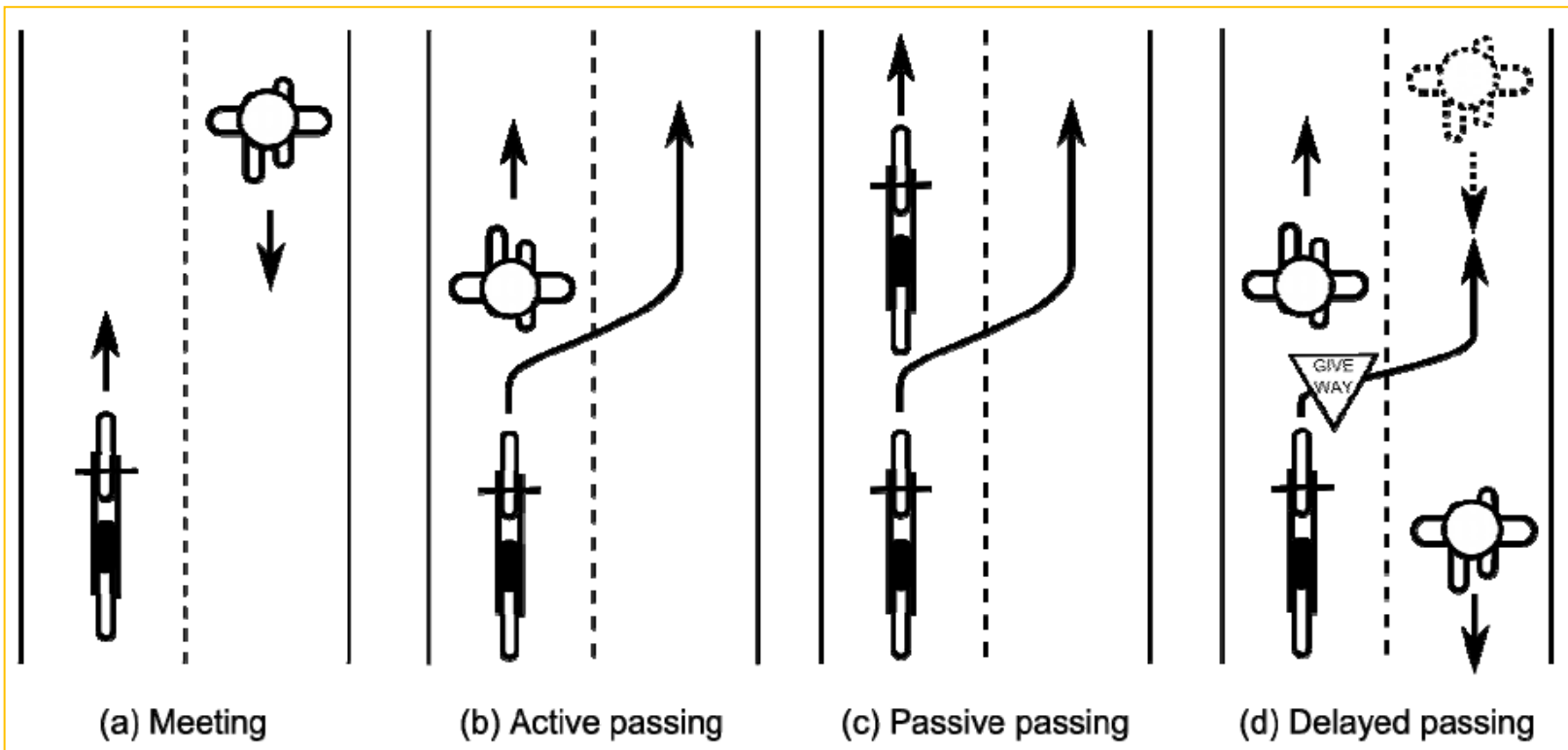
Path width research

- Required width depends on volumes
 - Pedestrians and cyclists
- Also reliant on:
 - User characteristics (speed etc)
 - Directional split of volumes
 - Target LOS



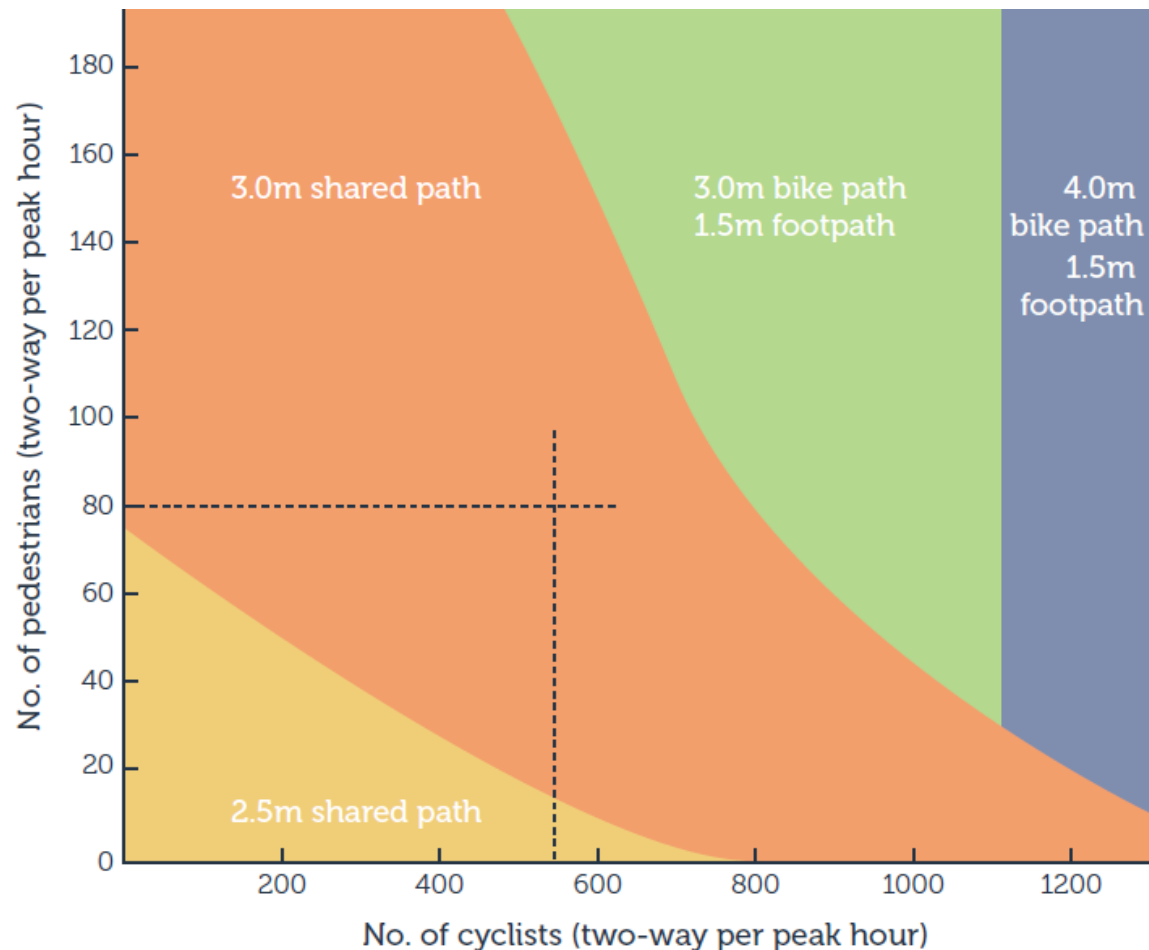
Path width research

- VicRoads Cycle Note 21 – best available research
- A guide for estimating path widths
- Based on interactions of path users



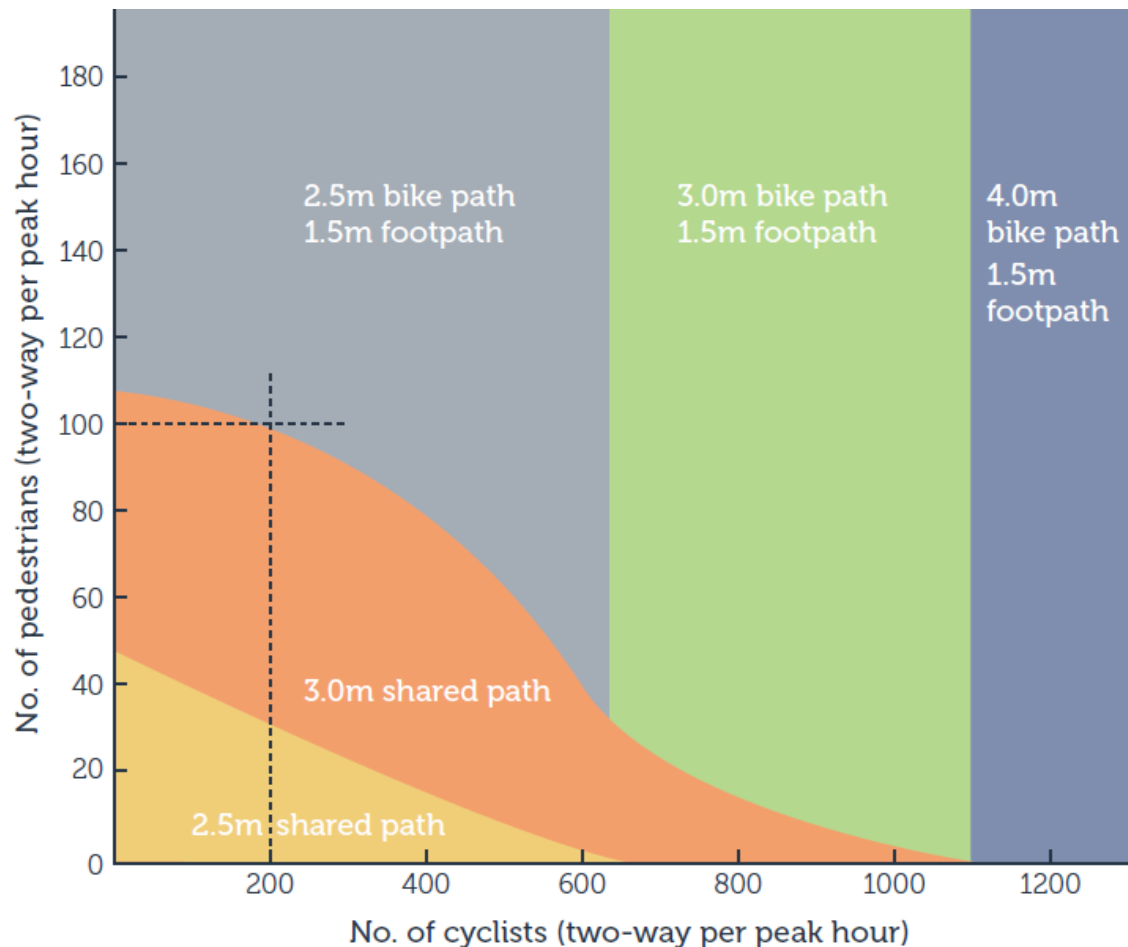
Path width research

- Commuter path – directional split 90/10 example:
 - 3.0 m path / 550 cyclists, 80 pedestrians in AM peak
 - Shared path currently adequate but consider future growth



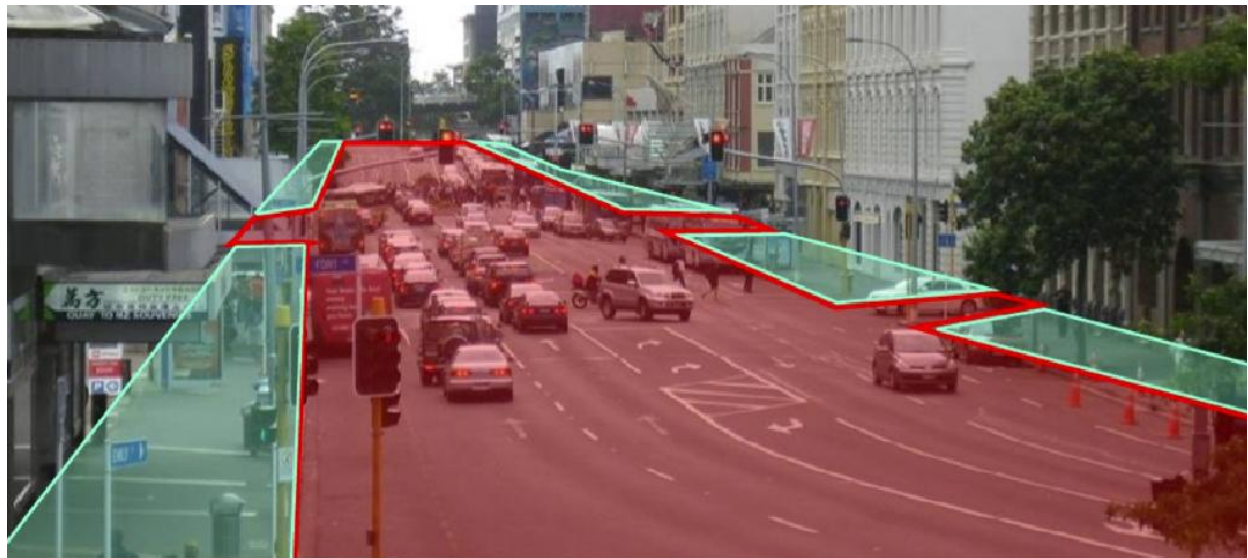
Path width research

- Recreational path – directional split 50/50 example:
 - 200 cyclists, 100 pedestrians during weekend peak hour
 - Separate facilities recommended to accommodate future growth



Road space reallocation

- Making space for other purposes
- Movement space vs. place / activity / exchange space
- Most road space dedicated to vehicles (red) as opposed to pedestrians (green)



Road space reallocation

- Depends on land use





Modifying general traffic lanes

- To provide cycle lanes it may be necessary to reduce widths of general traffic lanes
 - In urban areas it is often preferable to narrow traffic lanes to a width less than 3.5 m (NZ Supplement)
 - But minimum width cycle lanes adjacent to narrow traffic lanes should be avoided
- May also be possible to reduce the number of general traffic lanes

Road diet

- Kaikorai Valley Road, Dunedin
 - 2003 conversion
 - Arterial approx. 10,000 AADT
 - 4 to 2 lanes with median
 - Cycle lanes, landscaping
 - Improved safety, mobility and accessibility
- Highlighted in Road Diet Handbook (Rosales, 2007)



<http://www.streetsblog.org/2007/05/03/the-benefits-of-a-road-diet/>

Road Diet

- Auckland Liveable Arterials Plan



<http://www.aucklandcity.govt.nz/council/documents/liveablearterials/default.asp>

Conclusions

- Walking and cycling compatible at the strategy and policy level
- Stress between pedestrians and cyclists indicates wrong facility type or wrong design
- May need to reallocate road space

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