

Narrow Roads: Implications for Auckland Transport



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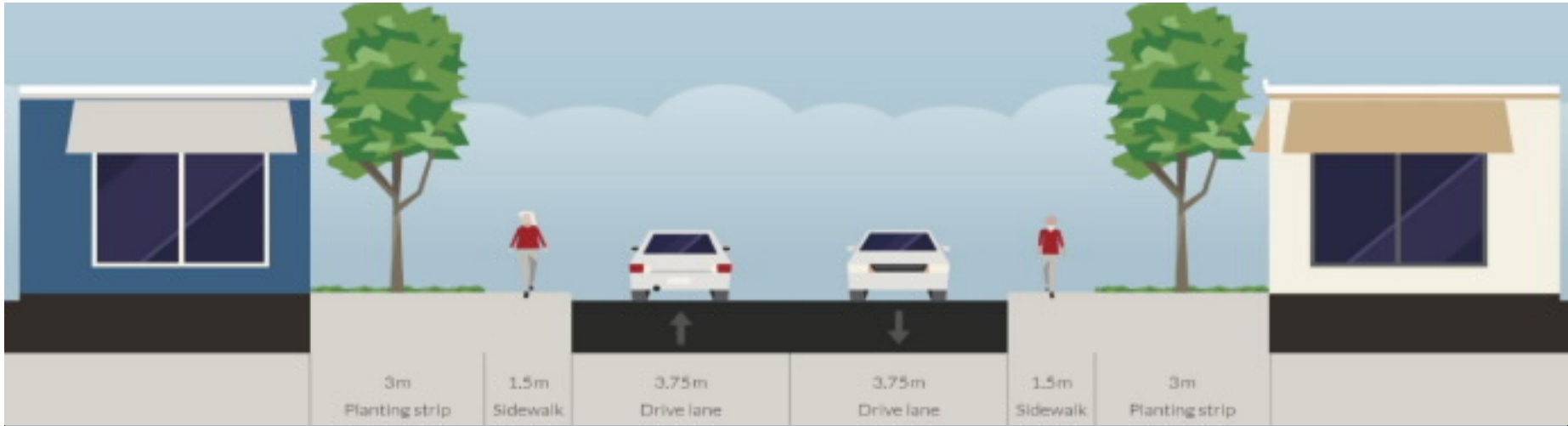
Narrow Roads: Why

- **Comparison of ‘conventional’ and narrow roads in terms of operation and maintenance implications**
 - Six roads studied under both categories
 - Analysis of speeds, volume, parking utilisation and maintenance costs



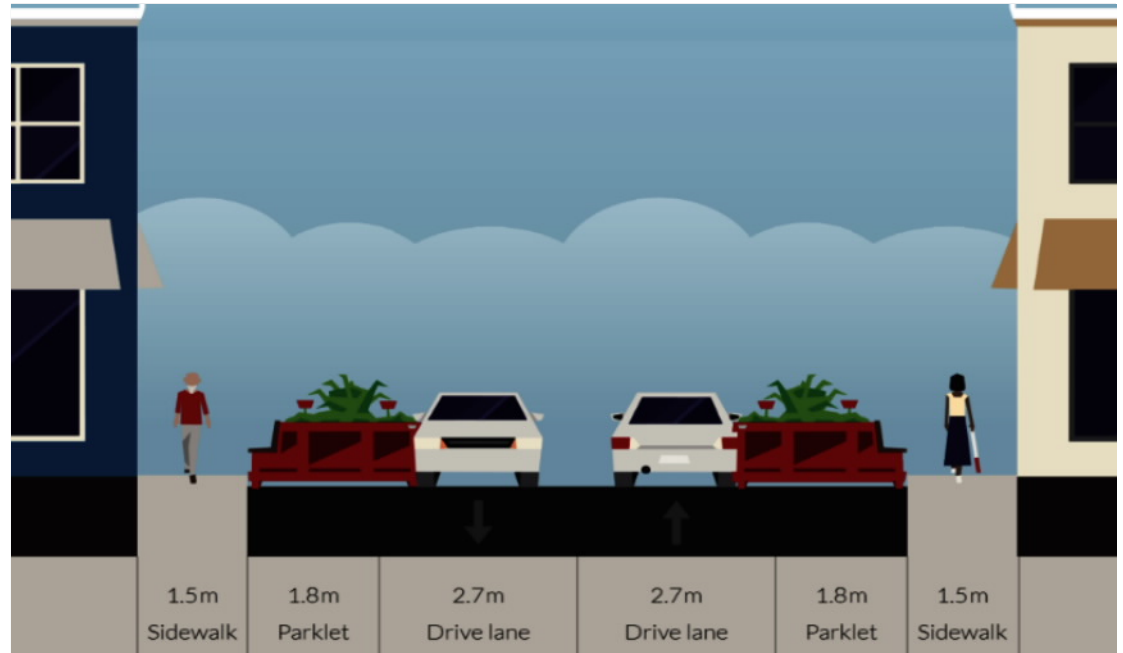
Narrow Roads: What

- ‘Conventional’ roads
 - Wide variation in previous TLAs
 - >16.5m road reserve, 1.5m footpath



Narrow Roads: What

- No official definition
- Typical
 - 6m carriageway and/or <14m road reserve
 - 1.8m footpath
 - 2.2m indented parking / tree pits
 - Services under footpath (space gain)
 - Higher density development







Narrow Roads: How



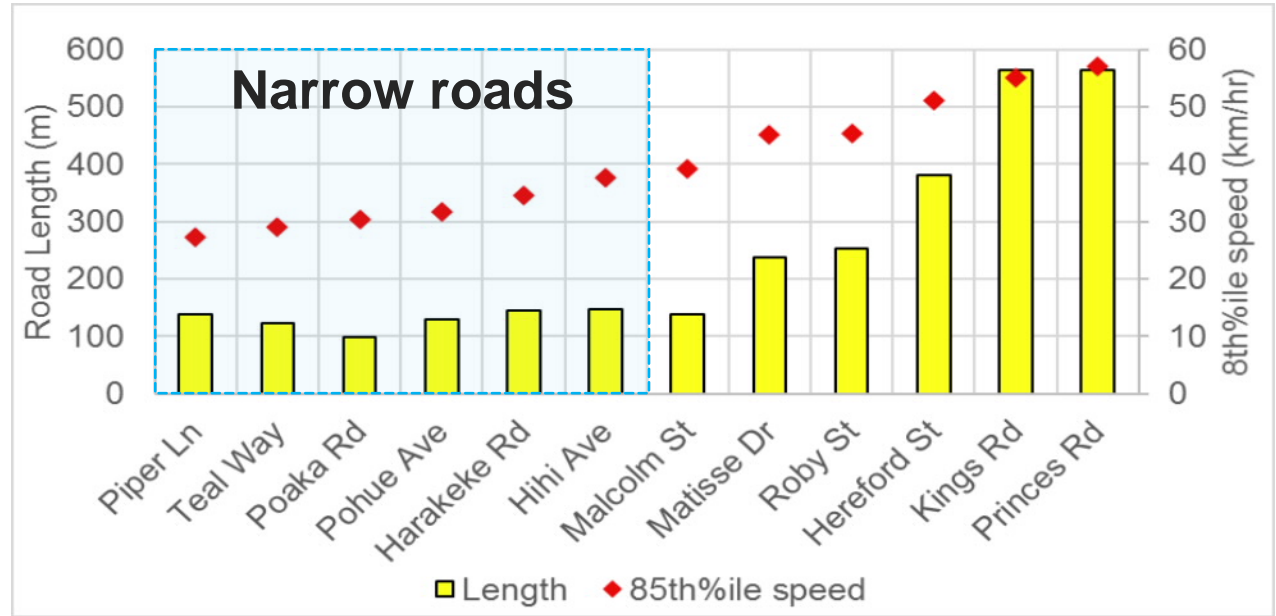
- Six conventional and six narrow roads
- Selection criteria
 - Road reserve <14m and/or carriageway <6.5m kerb-to-kerb
 - <2000 vehicles per day
 - No traffic calming
 - Minimising variation in grades
 - Excluding cul-de-sacs*
 - Comparable household density



What we found: Speed



- **Mean 85th %ile speeds**
 - 48.8km/hr in conventional roads
 - 31.8km/hr in narrow roads
- **Road lengths and carriageway widths**



What we found: Speed



- **Narrow roads = lower speeds?**
 - Area-wide traffic calming
 - Topography
 - Proximity to other high-speed routes
 - Length of road

- **Enforceable speed limit without traffic calming? 40km/hr**
- **Significant implications re scale of investment to reduce speeds on local network**

What we found: Parking



- **Imbalance of parking provision**
 - Low density / high on-street vs high density / low-on street
- **Ad-hoc speed calming?**
 - How do we factor into design?



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What we found: Maintenance



- **Narrow roads cost less**
 - Mainly due to narrower carriageways
 - Only for AT-related parameters



Narrow Roads



- **Are**
 - A common feature in toolbox to reduce speeds to 30km/hr on local road network
 - But not a standalone response to achieving lower speeds
 - Cheaper to maintain when AT-related parameters are considered

- **Raise questions regarding**
 - Scale of investment required to reduce speeds in conventional roads given trauma effect of 50km/hr zones
 - How parking is to be factored into design of roads to be considered an active traffic calming feature





Discussion.