Development of a shared space in Auckland

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Development of a shared space

- Concept
- Context
- Processes
- Features

Photo: Hamilton-Baillie

Shared space concept

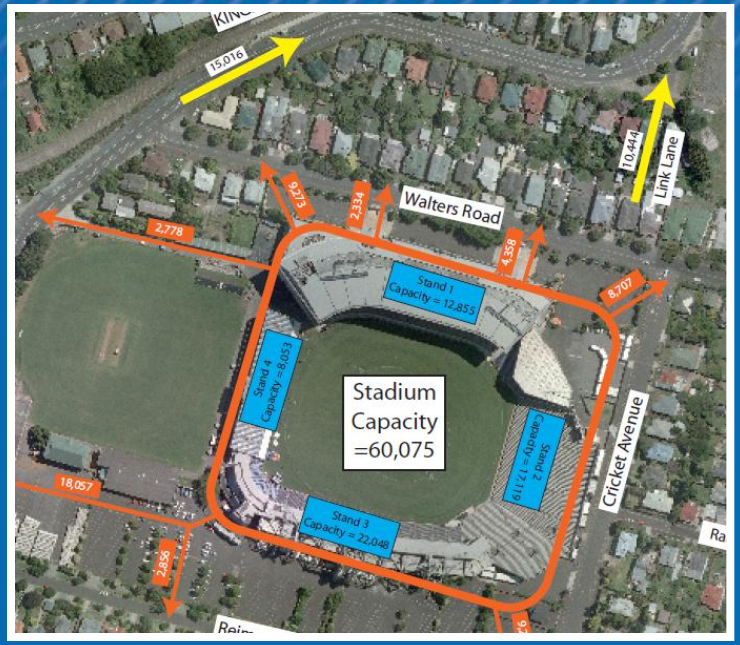
- Pioneered by Dutch traffic engineer
- Reduced definition between vehicle and non-vehicle space
- Removal of traffic management features: kerbs, signs and markings, and blacktop surfacing
- Lower vehicle speeds and improve social value and function of streets
- Common in Europe, limited use in NZ

Auckland context

- First of up to 4 shared streets being developed in Auckland
- Recognition of value by Council
- Amendment of bylaws to allow for shared space
  - A driver of a vehicle entering or proceeding along or through a shared zone must give way to a pedestrian who is in the shared zone.
  - A pedestrian in a shared zone must not unduly impede the passage of any vehicle in the shared zone


Waitemata Harbour
NORTHERN MOTORWAY
Watchman Island
Point Erin
Westhaven
Herne Bay
Saint Marys Bay
Freemans Bay
Britomart
FORT STREET
QUAY STREET
Mechanics Bay
Judges Bay
Point Resolution
Takaparawha Point
Torpedo Bay
Duders Beach
Devonport Beach
KING EDWARD PARADE
CURRAN STREET
SHELLY BEACH ROAD
JERVOIS ROAD
WEST END ROAD
COLLEGE HILL
BEAUMONT STREET
HALSEY STREET
NELSON STREET
HOBSON STREET
ALBERT STREET
QUEEN STREET
PRINCES STREET
BEACH ROAD
ALTEN ROAD
THE STRAND
PARNELL RISE
PARNELL ROAD
GLADSTONE ROAD
Rose Gardens
Hobson Point
Hobson Bay
NGAPIPI ROAD
Freemans Bay
FRANKLIN ROAD
WELLINGTON STREET
AUCKLAND
Ponsonby
Westmere
RICHMOND ROAD
PONSONBY ROAD
GARNET ROAD
HOPETOUN STREET
KARANGAHAPE ROAD
PITT STREET
PORT OFF RAMP SH16
The Domain
Parnell
NORTH-WESTERN MOTORWAY
GRAFTON ROAD
OLD MILL ROAD
SURREY CRESCENT
WILLIAMSON AVENUE
CRUMMER ROAD
Newton
NEWTON ROAD ON RAMP
NEWTON ROAD
Grafton
Newmarket
Boston Rd
KHYBER PASS ROAD
AYR STREET
SHORE ROAD
Orakei
ORAKEI ROAD
Orakei Basin
Western Springs
GREAT NORTH ROAD
Arch Hill
BOND STREET
Eden Terrace
Mt Eden
WESTERN MOTORWAY
Kingsland
WESTERN SPRINGS ROAD
VIEW ROAD
BELLEVUE ROAD
VALLEY ROAD
DOMINION ROAD
Morningside
Eden Park
ST LUKES ROAD
ASQUITH AVENUE
MORNINGSIDE DRIVE
Mount Eden
OWENS ROAD
GILLIES AVENUE
BROADWAY
Newmarket
ST MARKS ROAD
PORTLAND ROAD
VICTORIA AVENUE
Remuera
Mount Hobson
REMUERA ROAD
GRANGE ROAD


N
Intermediate School
Swimming Pool
Kindergarten
Eden Park Stadium



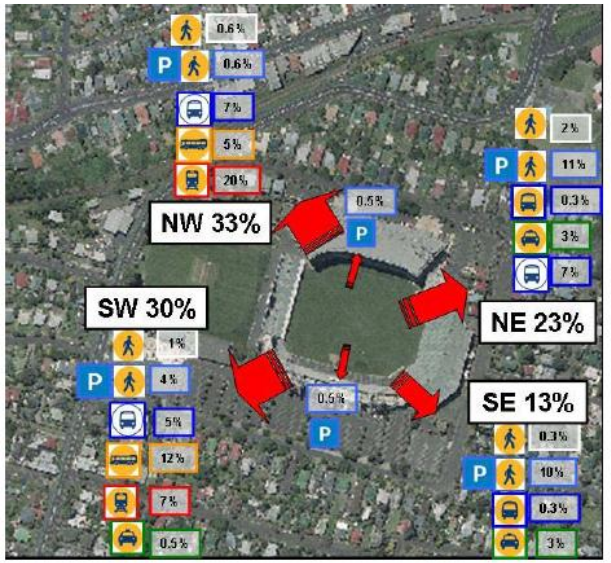
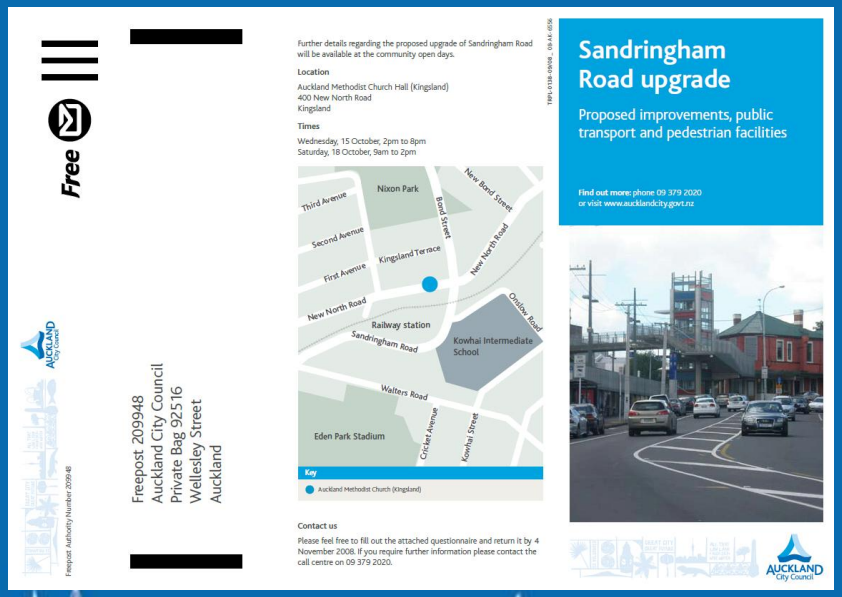


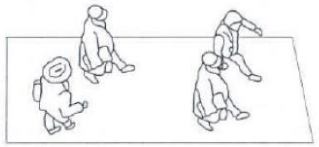
Figure 10.1: Stadium exit pedestrian flows



LOS D

Pedestrian Space > 1.4–2.2 m²/p *Flow Rate* > 33–49 p/min/m

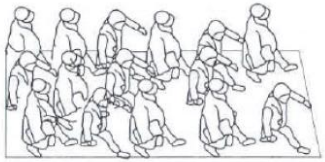
At LOS D, freedom to select individual walking speed and to bypass other pedestrians is restricted. Crossing or reverse-flow movements face a high probability of conflict, requiring frequent changes in speed and position. The LOS provides reasonably fluid flow, but friction and interaction between pedestrians is likely.



LOS E

Pedestrian Space > 0.75–1.4 m²/p *Flow Rate* > 49–75 p/min/m

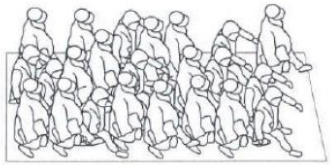
At LOS E, virtually all pedestrians restrict their normal walking speed, frequently adjusting their gait. At the lower range, forward movement is possible only by shuffling. Space is not sufficient for passing slower pedestrians. Cross- or reverse-flow movements are possible only with extreme difficulties. Design volumes approach the limit of walkway capacity, with stoppages and interruptions to flow.

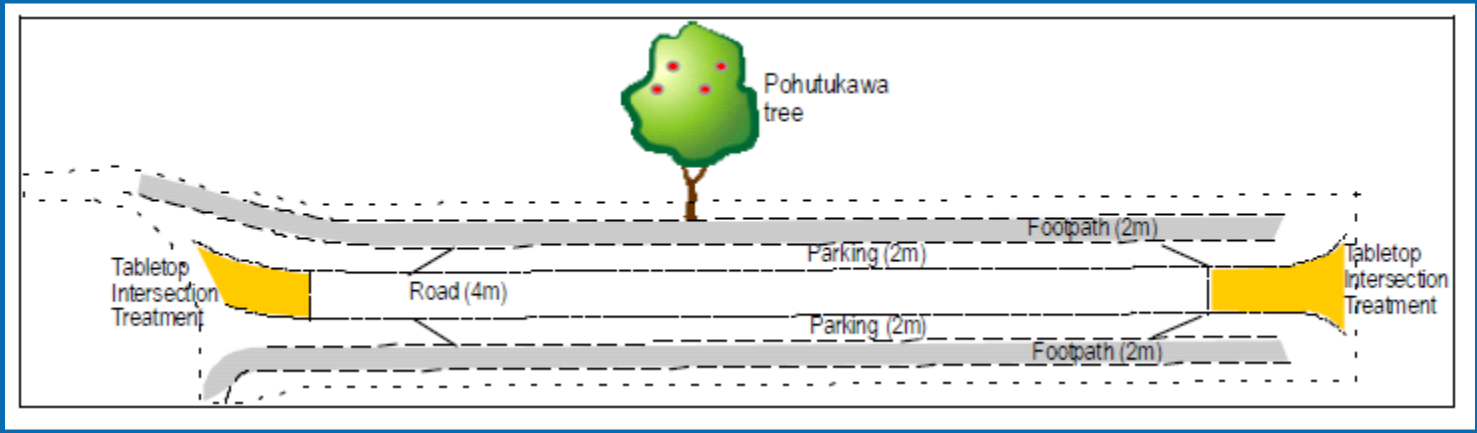


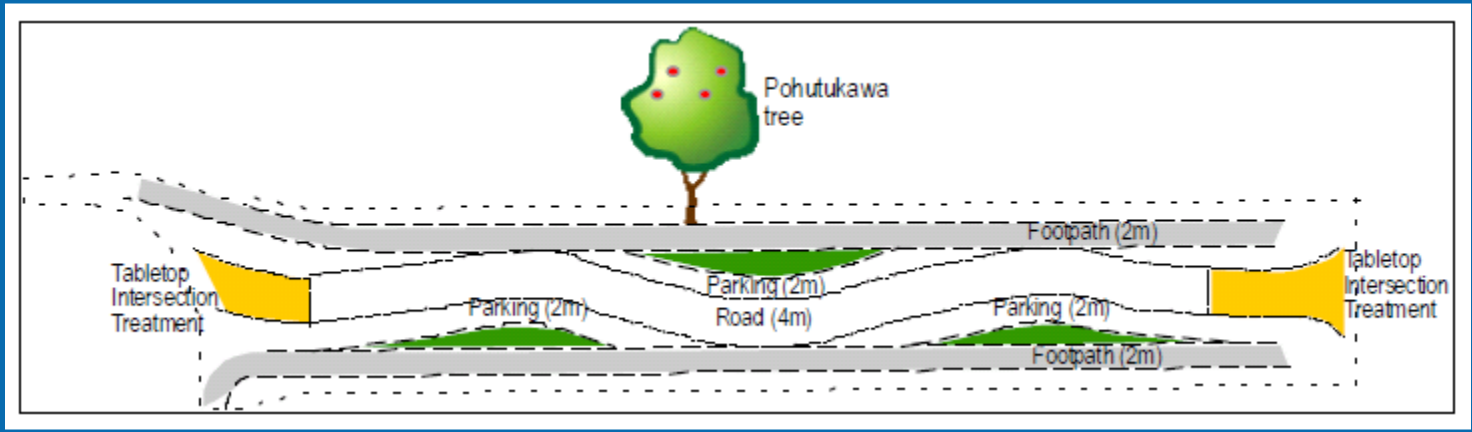
LOS F

Pedestrian Space ≤ 0.75 m²/p *Flow Rate* varies p/min/m

At LOS F, all walking speeds are severely restricted, and forward progress is made only by shuffling. There is frequent, unavoidable contact with other pedestrians. Cross- and reverse-flow movements are virtually impossible. Flow is sporadic and unstable. Space is more characteristic of queued pedestrians than of moving pedestrian streams.




Pohutukawa tree
Footpath (2m)
Parking (2m)
Tabletop Intersection Treatment
Road (4m)
Parking (2m)
Tabletop Intersection Treatment
Footpath (2m)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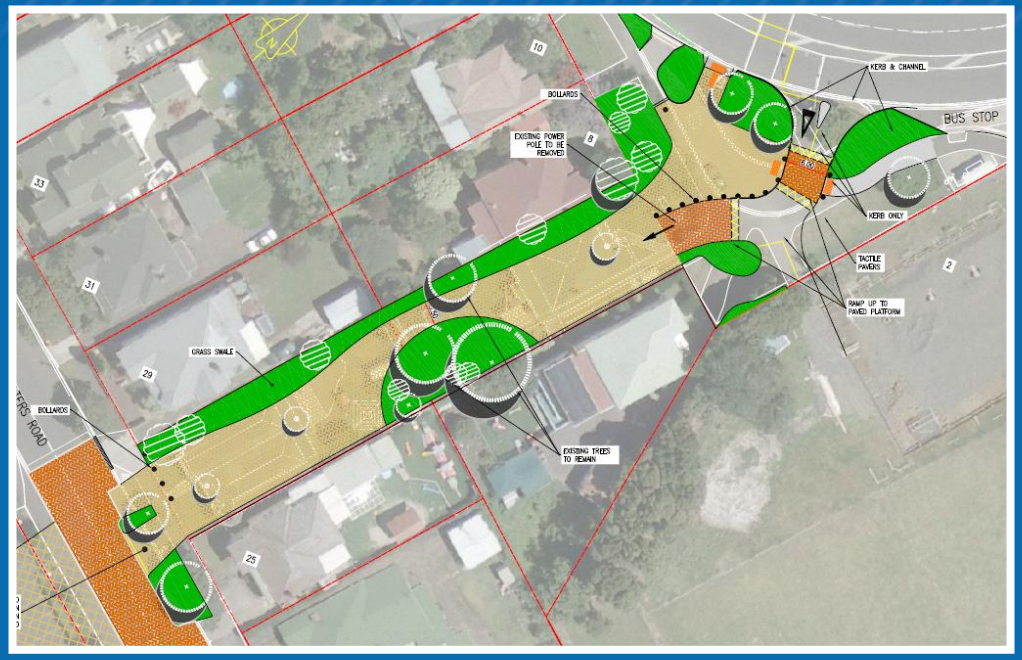
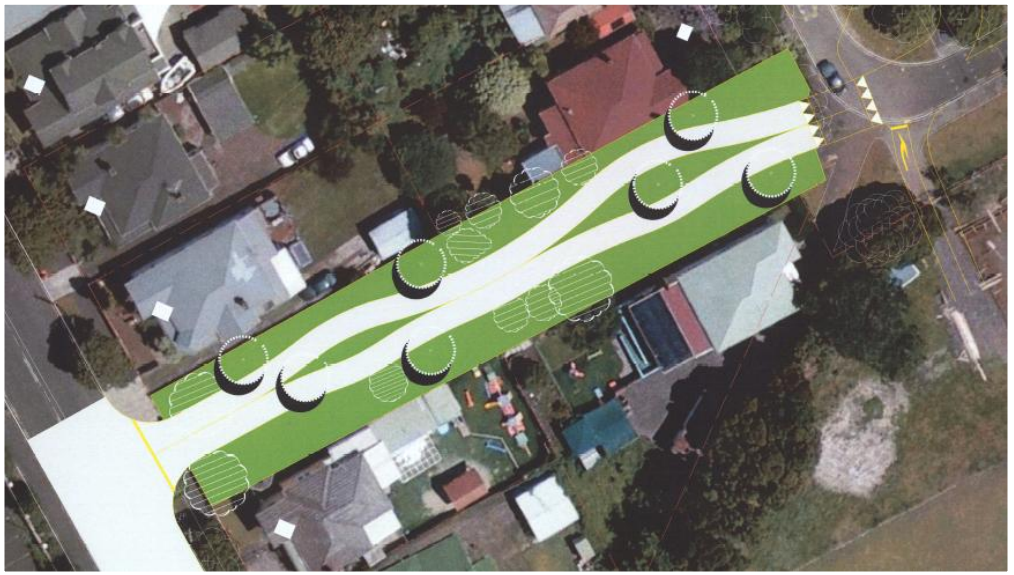

BOLLARDS
EXISTING POWER POLE TO BE REMOVED
KERB & CHANNEL
BUS STOP
KERB ONLY
TACTILE PAVERS
RAMP UP TO RAISED PLATFORM
GRASS SWALE
BOLLARDS
EXISTING TREES TO REMAIN
10
8
33
31
29
25
2




TO EDEN PARK
WALTERS ROAD
SANDRINGHAM ROAD
NORTHERN PLAZA

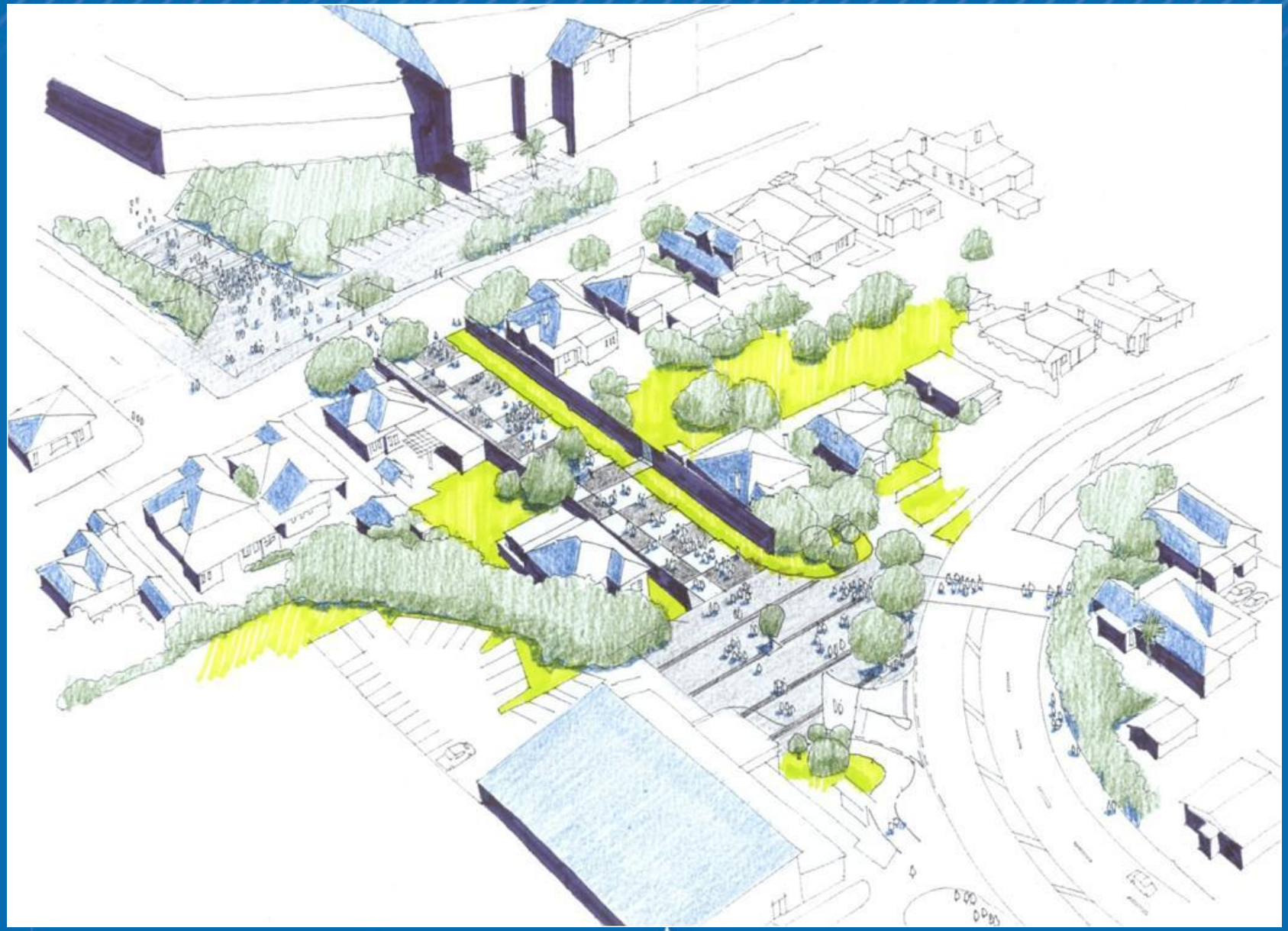
Exit speed table

No entry

Entrance speed table

Narrowing adjacent to tree

Tightened radius




OPUS

Summary

- Dual purpose space: local and event function
- Consideration of urban design (and art) issues throughout development
- 12 month monitoring of vehicle speeds and behaviours


Thanks for listening
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