Traffic Calming on Arterial Roads - Examples from Toronto

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Pedestrian Fatality Rate versus Impact Speed

![Graph showing the relationship between speed (km/h) and the chance of being killed.](Image)
Default layout for four-lane roads

- Wide kerb lanes are standard
- Typically 3.8 m in kerb lane (40 km/h speed limit)
- 4.0 m to 4.5 m is better, especially with 50 km/h speed limits
- Many roads 14 m wide, as in NZ
- Parking often prohibited during peaks.
Three kinds of arterial road traffic calming

- All depend on reducing the number of general traffic lanes:
  - Road narrowing (kerb to kerb)
  - Introducing medians
  - Adding bicycle lanes
- Feasible if less than 20,000 vpd.
Lansdowne Avenue

Before

After
Lansdowne Avenue

- Reduced from 14 m to 10 m
- Four lanes to two plus parking one side
- Improved pedestrian safety
- Still handles 12,000 vpd plus busy bus route
- Has a fire station, school, dense residential use
Lansdowne Avenue
Pedestrian crossing modification eliminates lanes
Oriole Parkway - 4 lanes to 2

Flush median allows driveway access
Introducing flush medians can have disadvantages

- Often great for cars, OK for pedestrians, bad for cyclists (they get “squeezed”)
- Medians not “owned” by anyone
- Reduced “friction” of opposing traffic; increased motor vehicle speeds
- Better landscaping options available if roads narrowed from sides.
St. George Street

First narrowed with cycle lanes, flush median . . .

Then reconstructed with wider boulevards, cycle lanes retained.
St. George Street - 1996
Four lanes to two - plus parking
Parking and Pedestrian Refuge
Four lane underpass (22,000 vpd) reduced to two lanes
Custom design for each situation
Conclusions

- Traffic calming increases safety, especially for most vulnerable road users
- Reduces vehicle speeds
- Arterial roads can be “calmed”
- Can (and should) look good
- Part of the solution to reclaiming our cities from the car