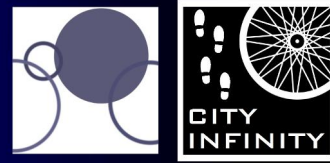


Realistic AND Radical

How to create pedestrian-friendly side-road junctions



Introduction



Mark Philpotts

Chartered Civil Engineer

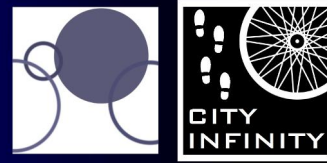
Over 30 years' experience in the public and private sectors, mainly in highways.

An independent sustainable mobility design specialist.

Founder of City Infinity.

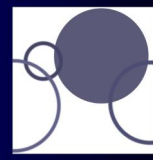


Introduction

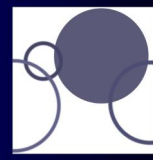


- A collaboration with Robert Weetman supporting Manchester City Council.
- Thinking about how side road junctions could be made better.
- New concepts needed to be developed.
- What it will actually take to deliver Vision Zero.
- But first....
- What is a priority junction and what is wrong with the way we're designing them?

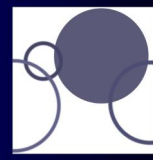
What are priority junctions?



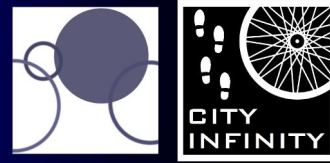
Something is rotten in the ~~state of Denmark~~ UK



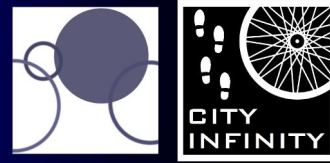
Something is rotten in the ~~state of Denmark~~ UK



Something is rotten in the state of Denmark UK



Who has read the Highway Code recently?

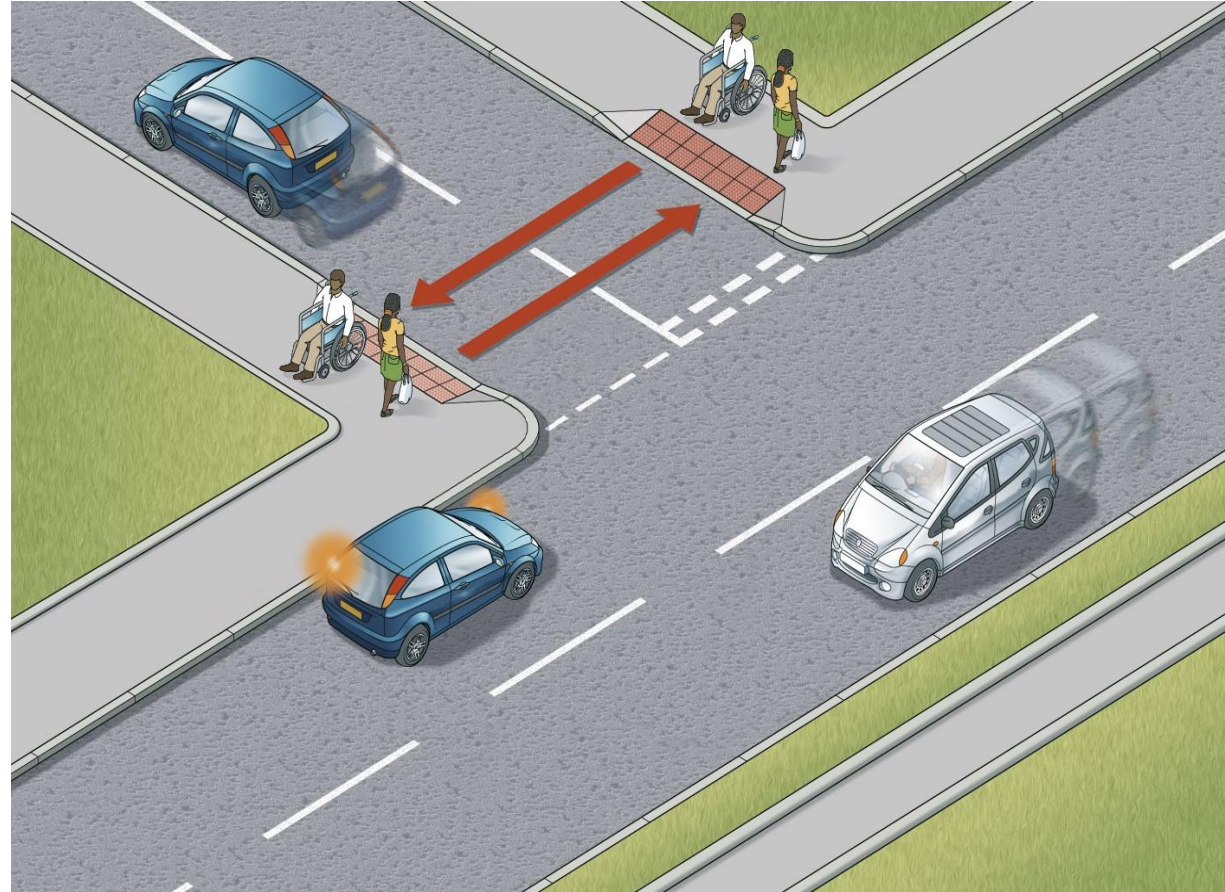


Rule H2

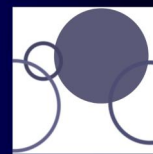
Wait for the pedestrian to cross the junction before turning. This applies if you are turning right or left into the junction.

Source: Highway Code

Open Government Licence
v3.0



Who has read the Highway Code recently?



Rule 170

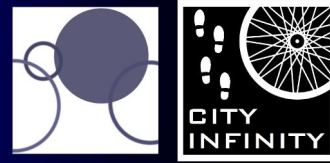
Give way to pedestrians crossing or waiting to cross a road into which or from which you are turning. If they have started to cross they have priority, so give way.

Source: Highway Code

Open Government Licence
v3.0



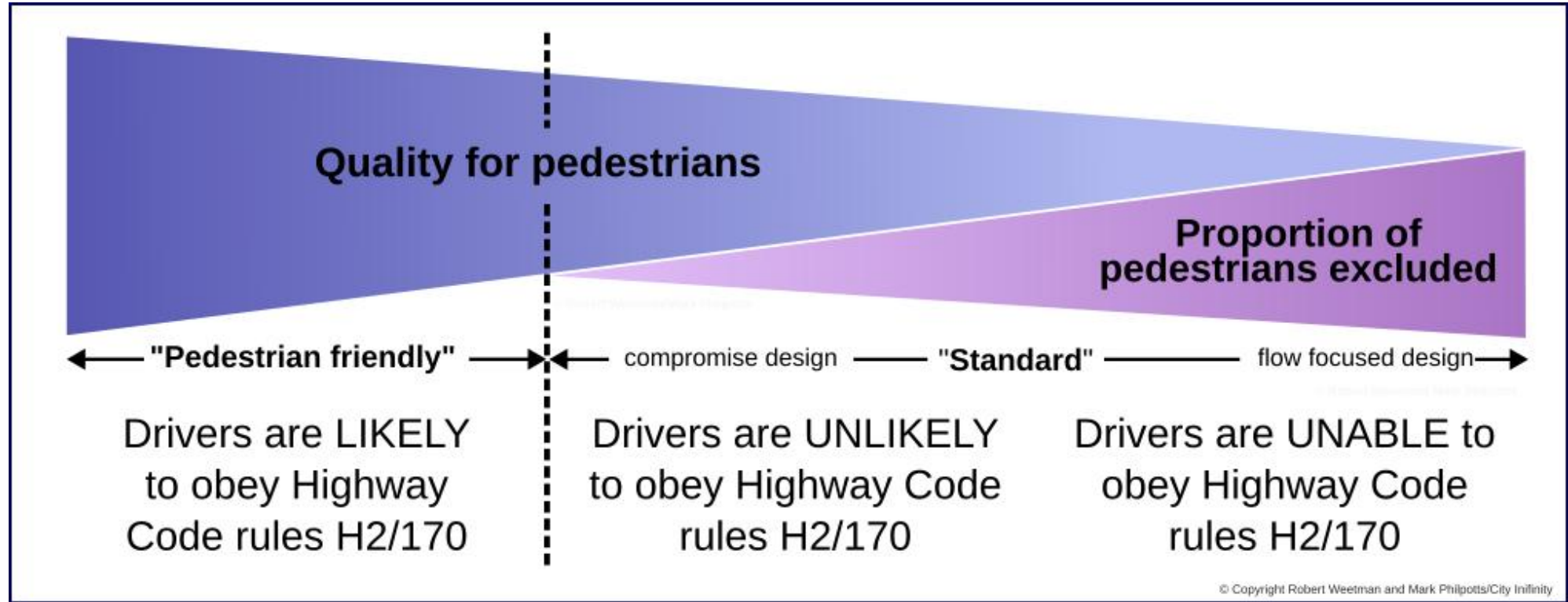
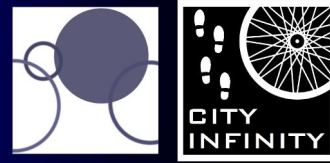
Defining pedestrian-friendly design



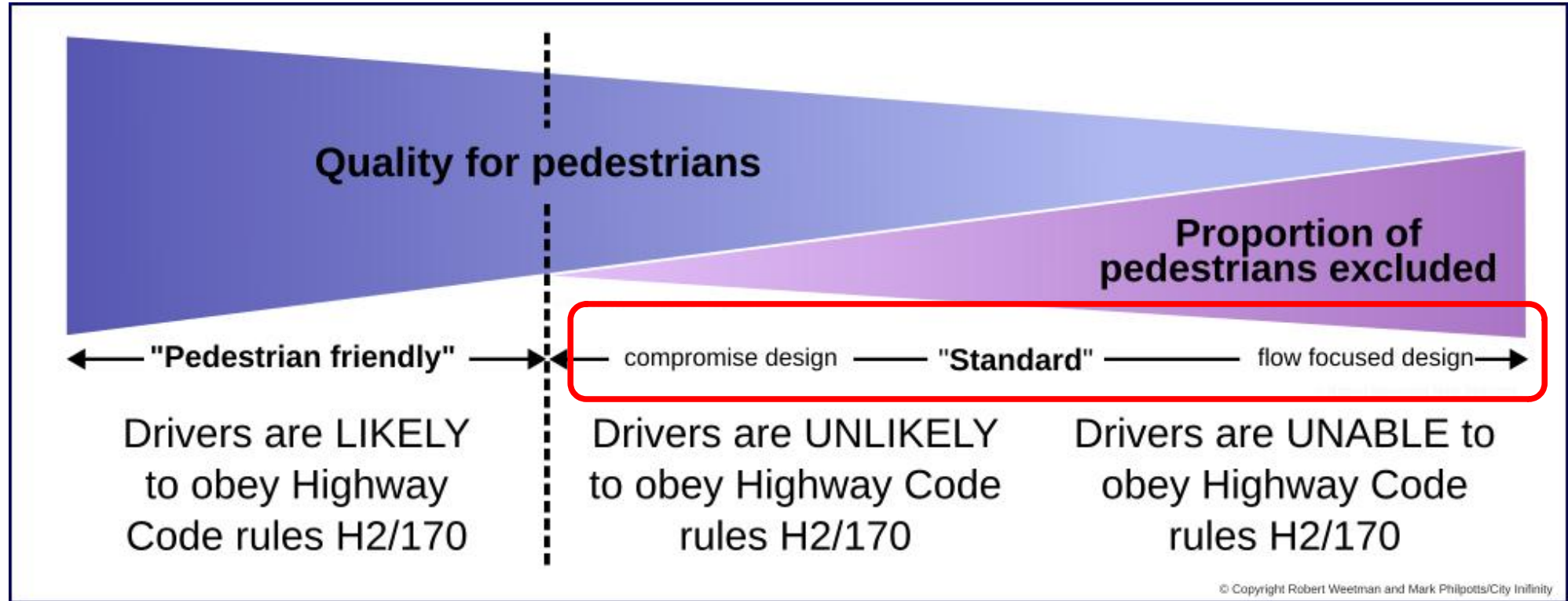
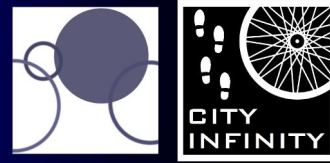
Boiling this down to three scenarios:

- What are the conditions under which drivers are **LIKELY** to obey the Highway Code rules H2/ 170?
- What are the conditions under which drivers are **UNLIKELY** to obey the Highway Code rules H2/ 170?
- What are the conditions under which drivers are **UNABLE** to obey the Highway Code rules H2/ 170?

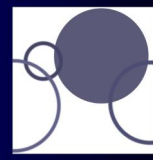
Defining pedestrian-friendly design



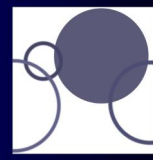
Defining pedestrian-friendly design



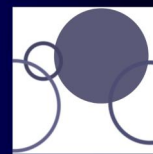
Standard design



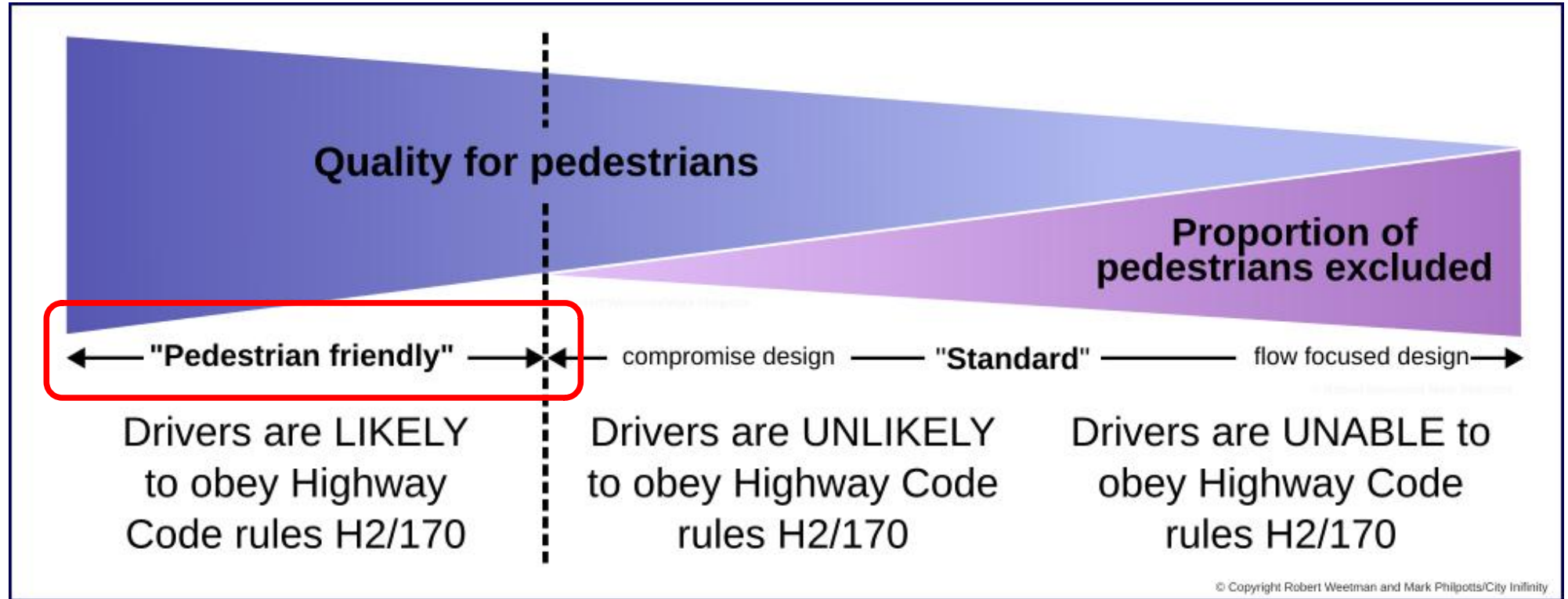
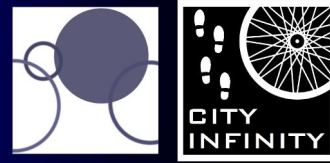
Standard design



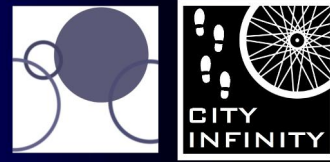
Standard design



Defining pedestrian-friendly design

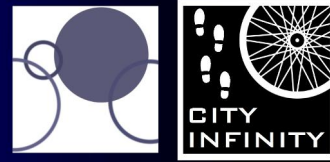


Factors affecting pedestrian-friendliness



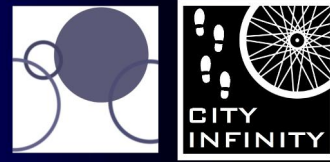
- Background vehicle speed
- Through traffic volume
- Turning speed
- Turning vehicle size
- Turning levels and complexity of traffic movement
- Visibility character and crossing distance
- Presence/absence of physical barriers to pedestrian movement

Factors affecting pedestrian-friendliness



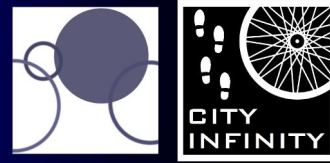
- Background vehicle speed.
- Through traffic volume.
- Turning speed.
- Turning vehicle size.
- Turning levels and complexity of traffic movement.
- Visibility character and crossing distance.
- Presence/absence of physical barriers to pedestrian movement.
- Low speed, low traffic neighbourhoods are crucial.
- Some junctions cannot be left as priority junctions.

Pedestrian-friendly marked priority junctions

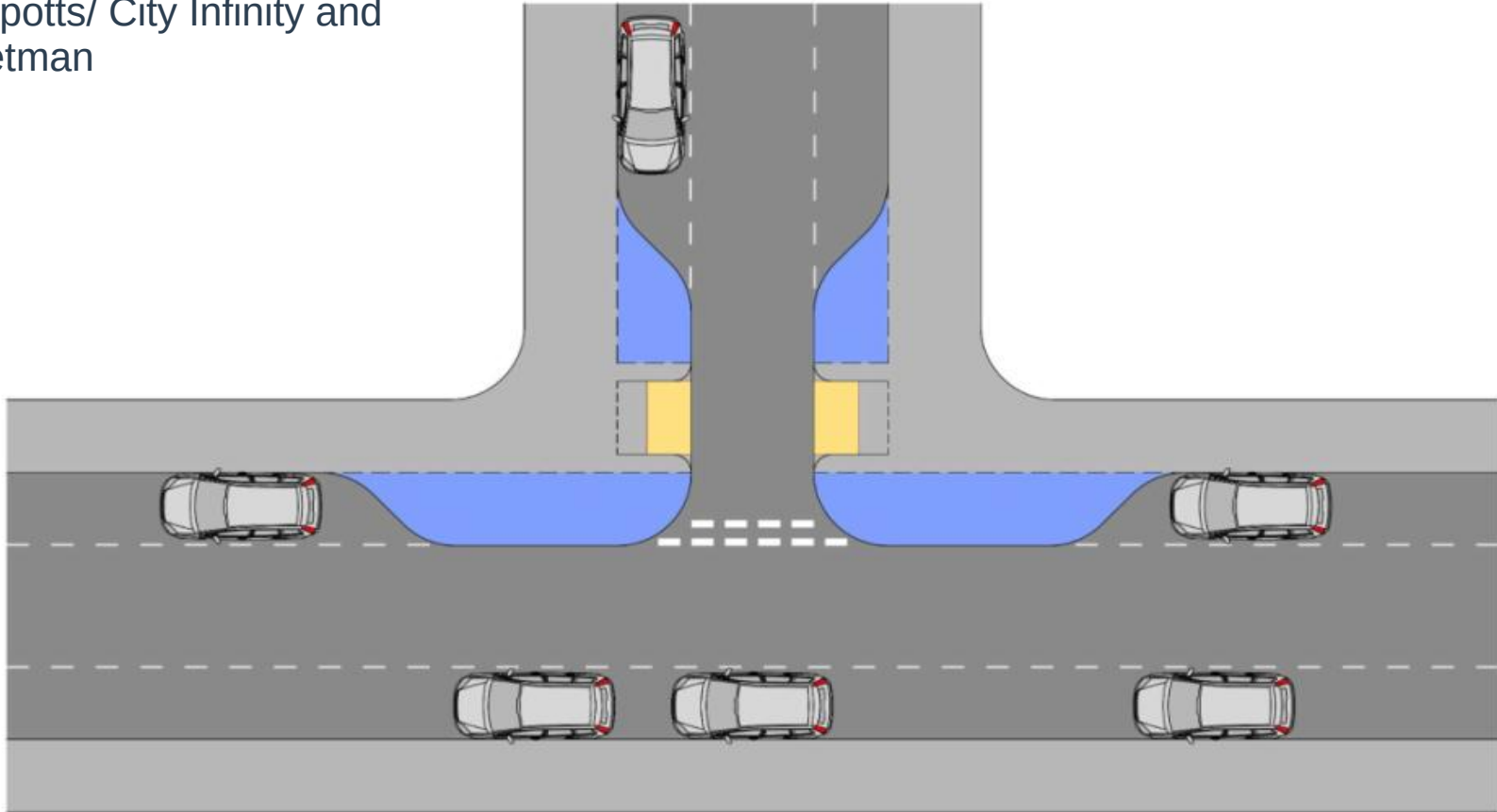


- Detectable kerbs away from dropped kerbs.
- Flush dropped kerbs (or a raised side road entry treatment)
- Correct blister tactile paving at 90 degrees to the pedestrian route.
- Appropriate ramp gradients sloping in the direction of travel.
- Adequate space at the top of dropped kerbs to allow people to pass and align.
- A constrained maximum-turning radius.
- Minimum crossing distance.
- Physical prevention of parking close to the junction.
- Standard use of give way (and stop) markings in accordance with Regulations.

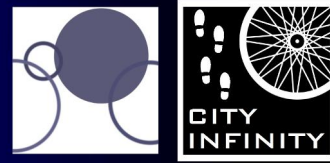
Pedestrian-friendly marked priority junctions



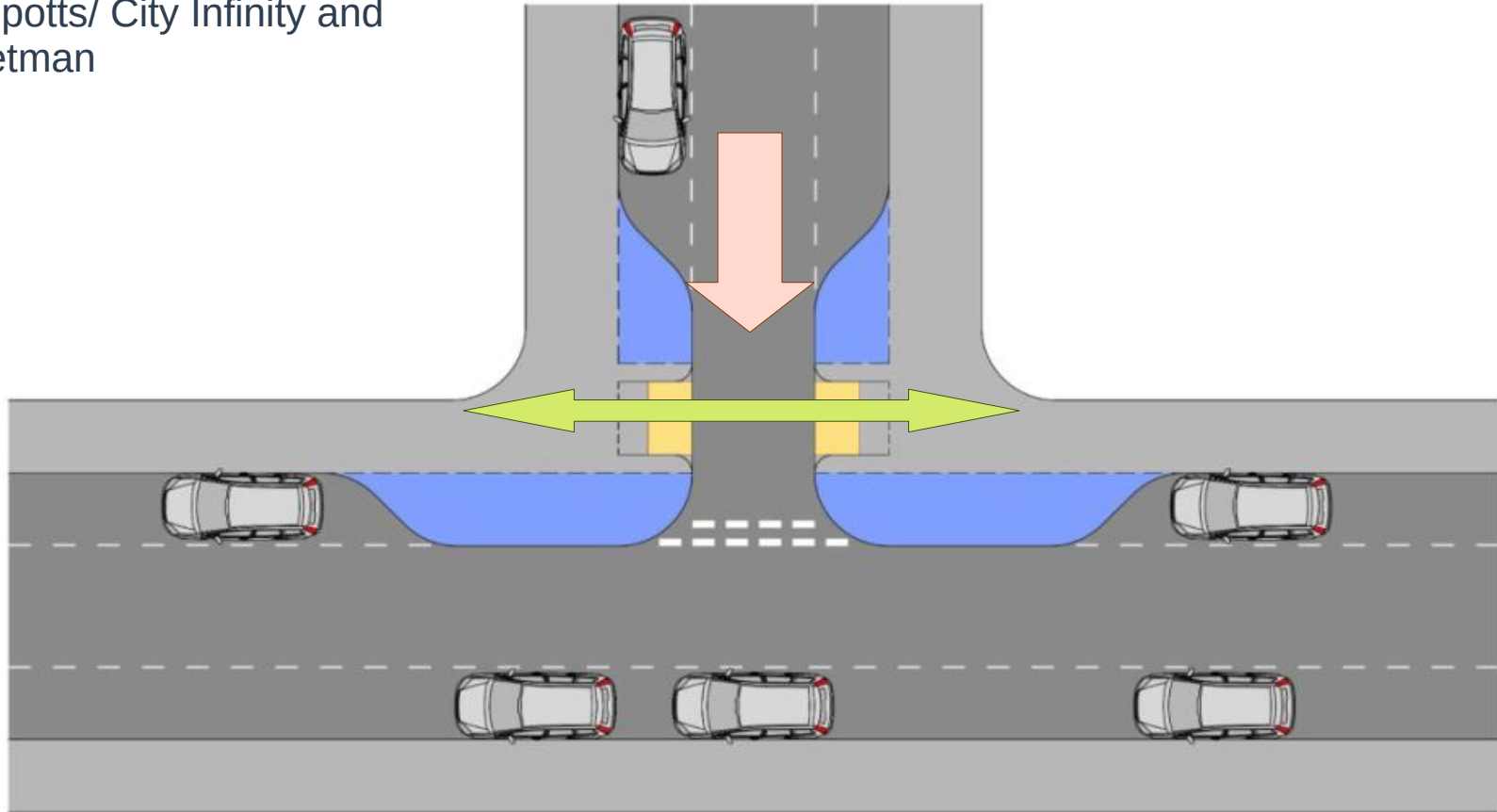
© Mark Philpotts/ City Infinity and Robert Weetman



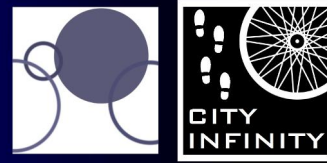
Pedestrian-friendly marked priority junction



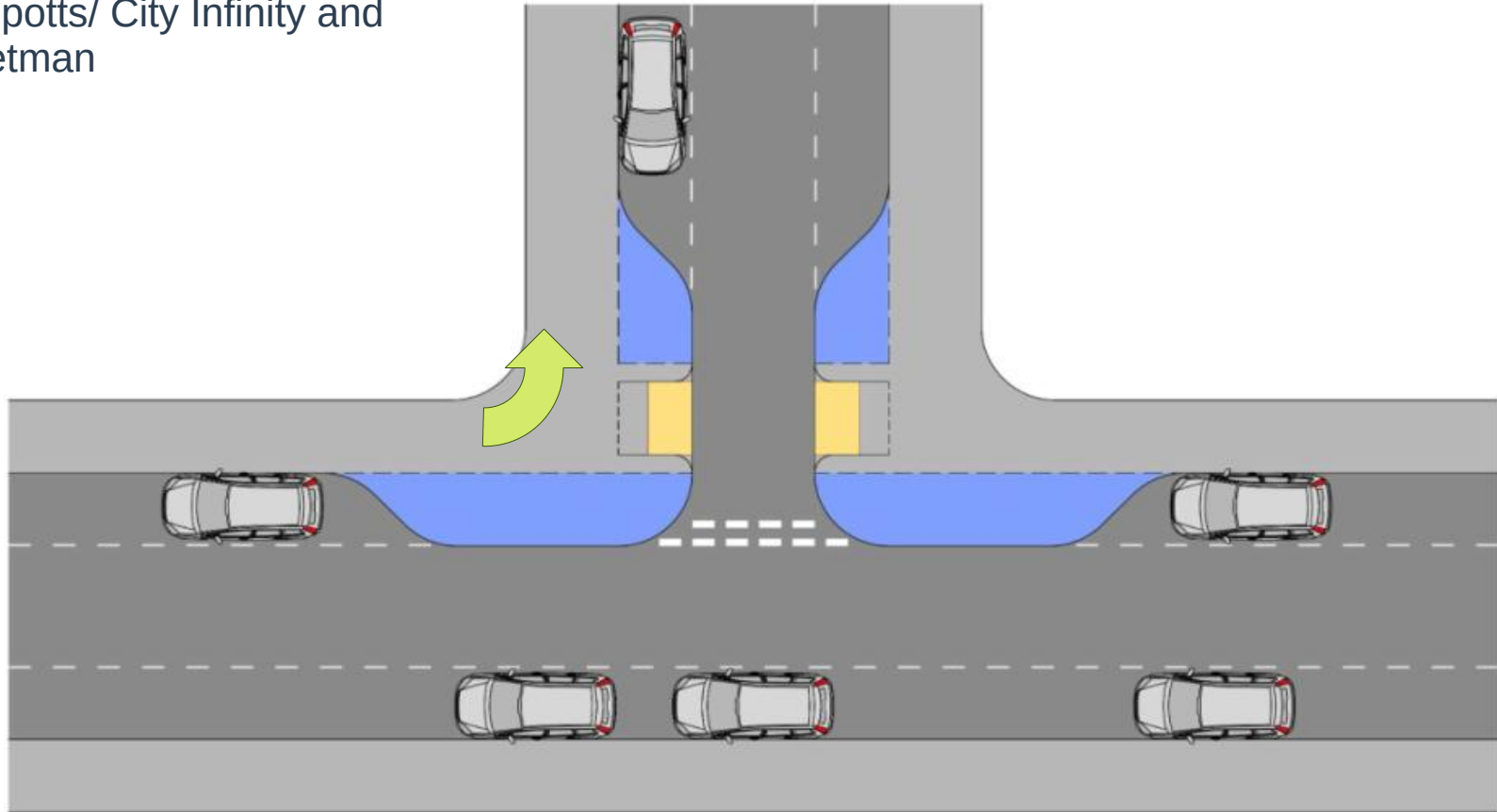
© Mark Philpotts/ City Infinity and Robert Weetman



Pedestrian-friendly marked priority junction

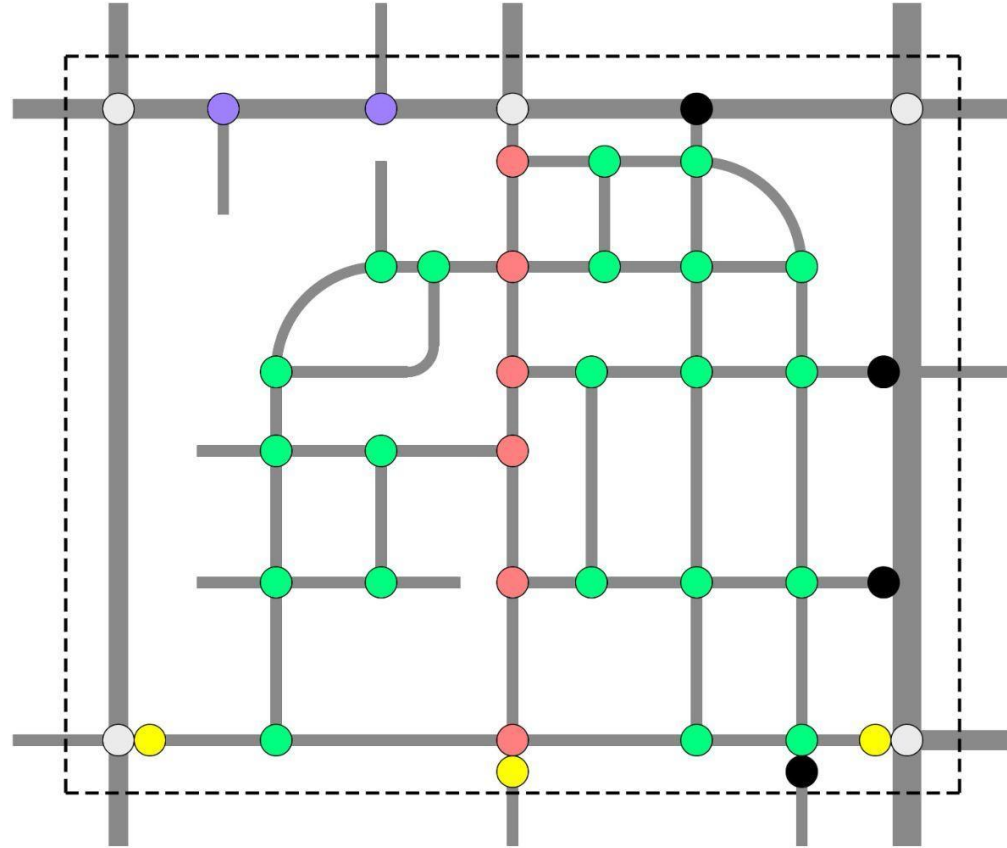


© Mark Philpotts/ City Infinity and Robert Weetman

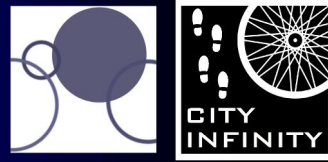


Wider considerations

- Signalised
- Closed to motors
- Bus gate
- Standard treatment
- Pedestrian-friendly marked priority
- Pedestrian-friendly no-priority



Conclusion



- We need to acknowledge the problem.
 - We need to update our practice.
 - We need to realise that standard design will exclude people.
 - We need to think about how streets operate at the network level.
-
- And thanks to Manchester City Council for leading the way by commissioning work that asked us to consider the problem.

www.cityinfinity.co.uk | www.robertweetman.net