There's always room for cycling infrastructure!

Philip Loy: Background

LONDON CYCLING CAMPAIGN

- Active in cycling campaign for 14 years
- Sit on Policy Forum: research and best practice

London South Bank University

- On MSc programme 'Transport Engineering & Planning'
- Cycling dissertation planned for 2014

PROJECT CENTRE

PEOPLE | PASSION | PLACES

- Senior Engineer/ Cycling Consultant
- Planning and design for 7 years in UK, EU, and Australia`

Campaign cry:
"We want cycling facilitated on our streets!"

Powers that be reply:
"There is no room! But..."

"...we will facilitate cycling where feasible or where possible."

Where feasible = unfeasible

Where possible = impossible

In other words, the facilitation of cycling is normally not practicable.

Is this true?

Cycling not a serious mode of transport

Photo source: http://allworldcars.com

Is there space here to facilitate cycling? How do you know if there is space?

What is the 'real' reason for not wanting to give up certain types of road space?

Is the refuge really catering for the needs of pedestrians?
How many right-turning vehicle movements are there per day?

What does this aerial view tell us?
What does it tell us 'formally' and 'informally'?

Reasonably heavy traffic flows
High proportion of HGVs and LGVs

Where can we find the space...

...to accommodate cyclists on the road...

...they can either risk it...

...or use the existing facilities!

London Evening Standard

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Radical ideas that could save lives on London's roads

Most Read | Commented | Shared

Fire at London Islamic school: four teenagers arrested as

London Evening Standard 30th April 2013


Is this rational use of road space?
Is this efficient use of road space?
What would be the issues here?


Is this the best facility for pedestrians?
Is this the best way to cater for cyclists?
What would be the issues here?

"Filtered Permeability"

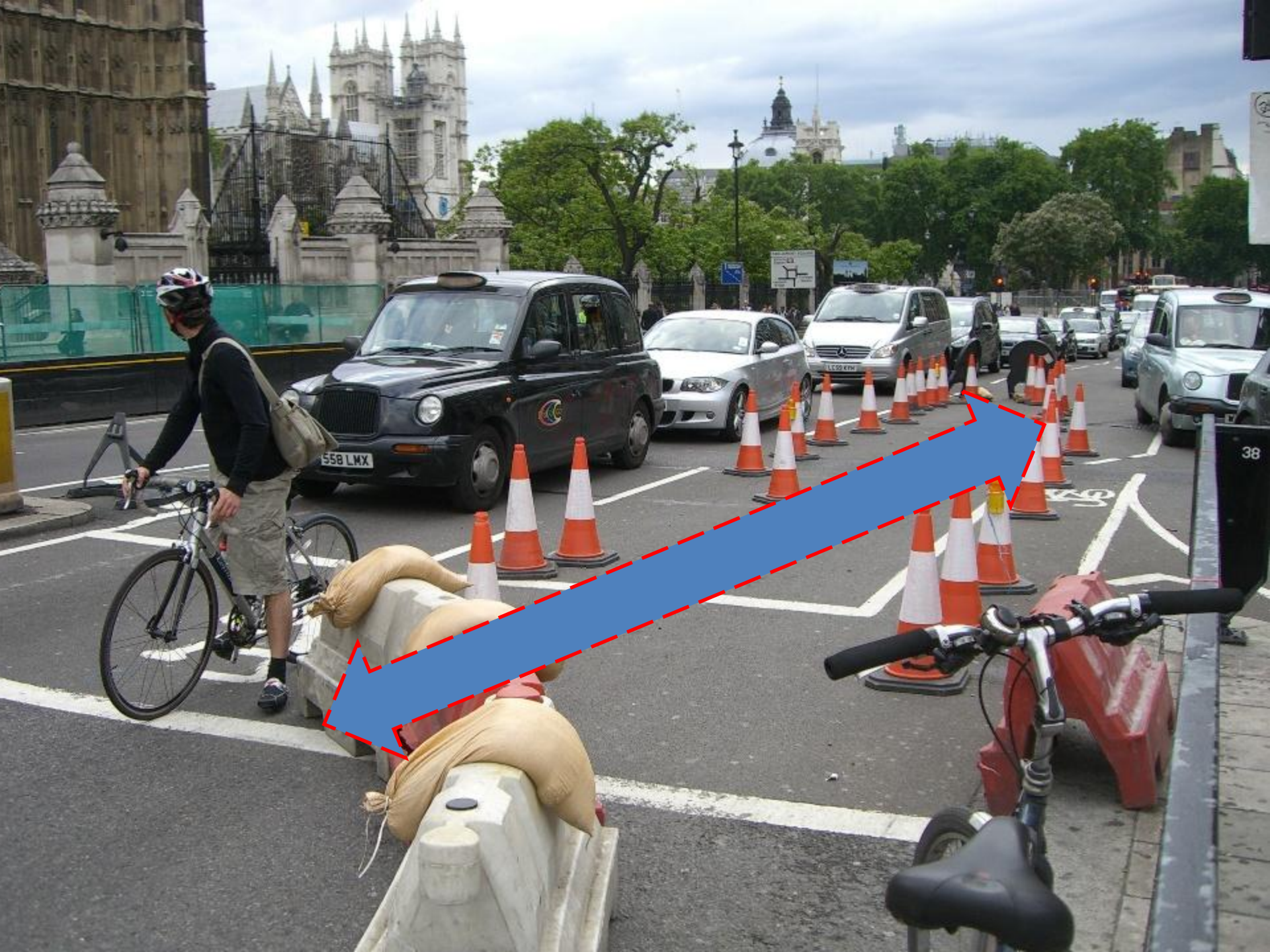
Many simple but effective ways of catering for cyclists...

Cycling priority or traffic control measure?

...But the needs of cyclists are often forgotten

Busy Central London location – Heavy traffic flows – 5 lanes of traffic – traffic gyratory

No question of interfering here! (?)


558 LMX
38

Victoria: Normally very busy – a key node in Central London's street network

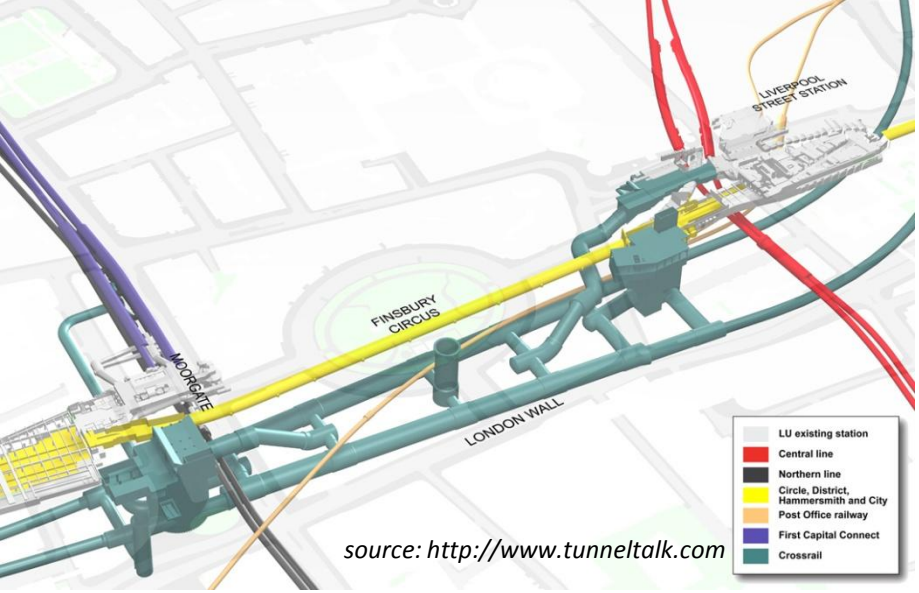
Victoria – but with works to increase the capacity of Victoria Underground station

Notting Hill Gate – Major arterial road from West London into Central London

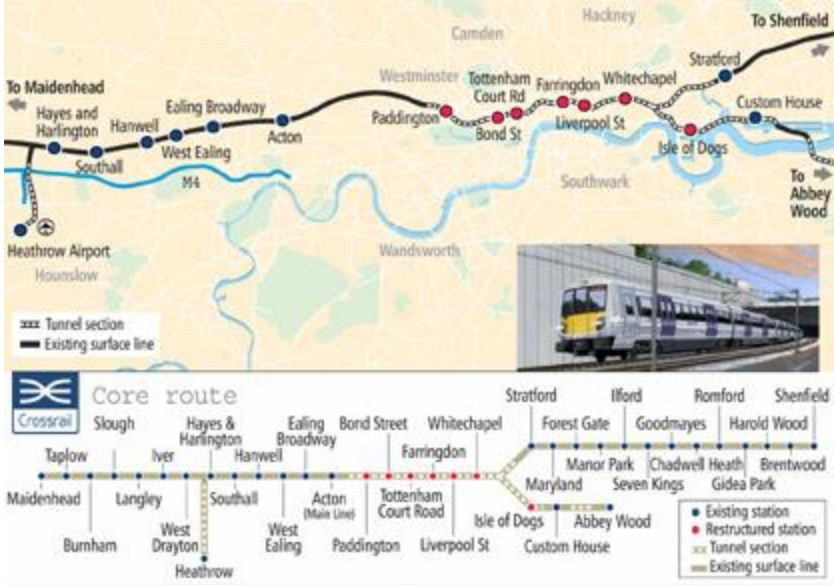
AADT (2011): 28,216 (DfT) or
1,568 vehicles per hour (between 06.00 and 00.00 hrs)

Whole road blocked both ways!

Reason: Thames Water essential repairs



source: http://www.tunneltalk.com



source: http://reddemocratica01.blogspot.co.at

Crossrail: "Largest transport infrastructure project in Western Europe"

source: Google Street View

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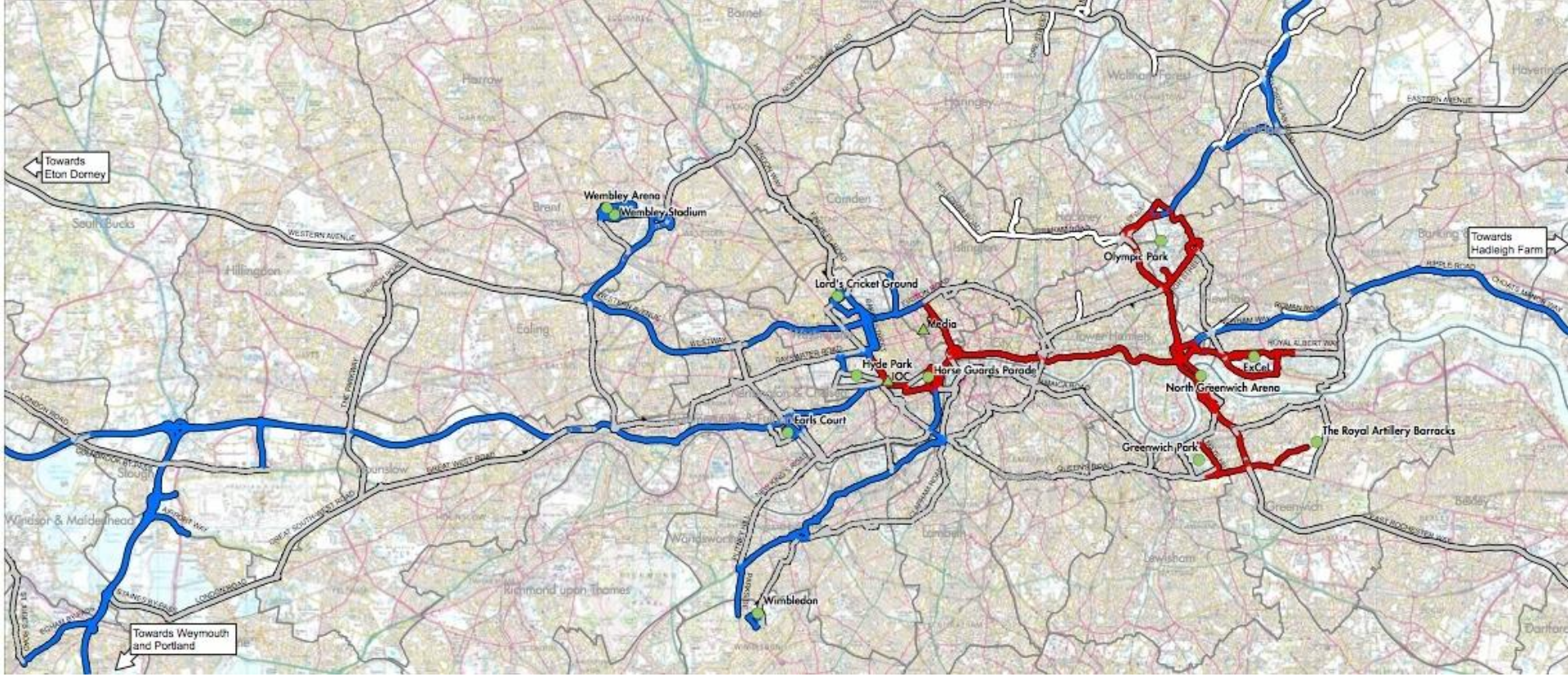
There's room for Crossrail!

source: Google Street View


LAN
Any vehicle
Official vehicles
6am - Midnight



Olympic Route Network – through the heart of central London

- London 2012: Olympic Route Network
- covered 109 miles (180km) of roads in London
- a third had dedicated 'Games Lanes'
- started operating two days before the Olympics
- used for three weeks
- mostly used by fleet of 1,500 coaches and 4,000 official cars

What if we applied the same degree of dedication to cycling?

Source: BBC News

- ***Road works***
- ***Road closures***
- ***International events***

- ***Did all these create havoc in the everyday lives of Londoners?***
- ***Maybe, but how much?***
- ***Even if there was some, what does this show us?***
- ***Are we using our road space efficiently?***
- ***Are we using the road space in the best way?***

Design manual for bicycle traffic

Table 14. Option diagram for road sections inside the built-up area

Road category	Max. speed of motorised traffic (km/h)		Motorised traffic intensity (pcu/day)	Cycle network category: basic network ($I_{bicycle}$ > work 750/day)	Cycle network category: cycle route ($I_{bicycle}$ 500-2500/day)	Cycle network category: main cycle route ($I_{bicycle}$ > 2000/day)
	n/a		0	solitary track		
Estate acces roead	walking pace or 30 km/h		1 - 2.500	combined traffic		cycle street or cycle lane (with right of way)
			2.000 - 5.000			
			> 4.000	cycle lane or cycle track		
District acces road	50 km/h	2x1 lanes	irrelevant	cycle track or parallel road		
		2x2 lanes				
	70 km/h			cycle track,moped/cycle track or parallel road		

Design parameters:
CROW – Netherlands
But who will this convince?

Concepts

- Traffic Evaporation
- Demand Management
- ‘Seriousness’
- Modelling

'Traffic Evaporation'

- Traffic not a zero-sum quantity but a dynamic system, with drivers as agents able to respond to fluctuating circumstances.

- If planned well (and even if not!), traffic does not 'clog up' but 'disappears'.

- How? Re-routing, planning tasks at different times, working from home, using public transport.

'Traffic Evaporation'

The experience in a number of European cities is that:

- Traffic problems following the implementation of a scheme are usually far less serious than predicted;
- After an initial period of adjustment, some of the traffic that was previously found in the vicinity of the scheme 'disappears' or 'evaporates', due to drivers changing their travel behaviour;
- As a result the urban environment becomes more liveable in many respects.

Reclaiming city streets for people: Chaos or quality of life?
European Commission: Directorate-General for the Environment

'Demand Management'

- Used extensively for the London Olympics.
- Managing both 'growth' and periodic increases traffic demand.
- How? Information, marketing/ advertising, campaigns.
- Creating effective alternatives/ choices.
- Aim: more 'sustainable' transport outcomes.

'Seriousness'

- **Crossrail:** Big Boys Toys – trains are big and heavy so surely must need extensive civil engineering.
- **Water repairs:** essential 'life' infrastructure services – otherwise public health risks.
- **Road repairs:** essential for the economy – cars need to keep moving, right?
- **Cycling?** Just a 'toy'?

Is Cycling a Serious Form of Transport?

- **Traffic/ Transport solution:** Modal shift, theoretical increase in capacity.
- **Costs:** Low capital costs; cost/ benefit ratio extremely high; an investment without equal?
- **Health:** healthcare costs of states/ societies enormous and set to grow – 'obesity' time bomb.

Cycling: Might it in fact be <u>more</u> serious than other forms of transport?

Getting Serious: VISSIM modelling of Cycling

- Transport for London commissioned microsimulation modelling of cyclists and motorcyclists as part of DTO approved Central London VISSIM models in 2007.

- Initially developed for Parliament Square and Victoria Embankment, the technique has been enhanced as part of further research work for other Central London models.

- The driving behaviour of two-wheelers is complex but these vehicle types are now accurately accounted for from a capacity point of view.

- Difficult to assess the impact of a scheme on two-wheelers, but the impact of two-wheelers on a scheme can be assessed with a high level of detail. Will be part of the revised DTO modelling guidelines.

Conclusion:

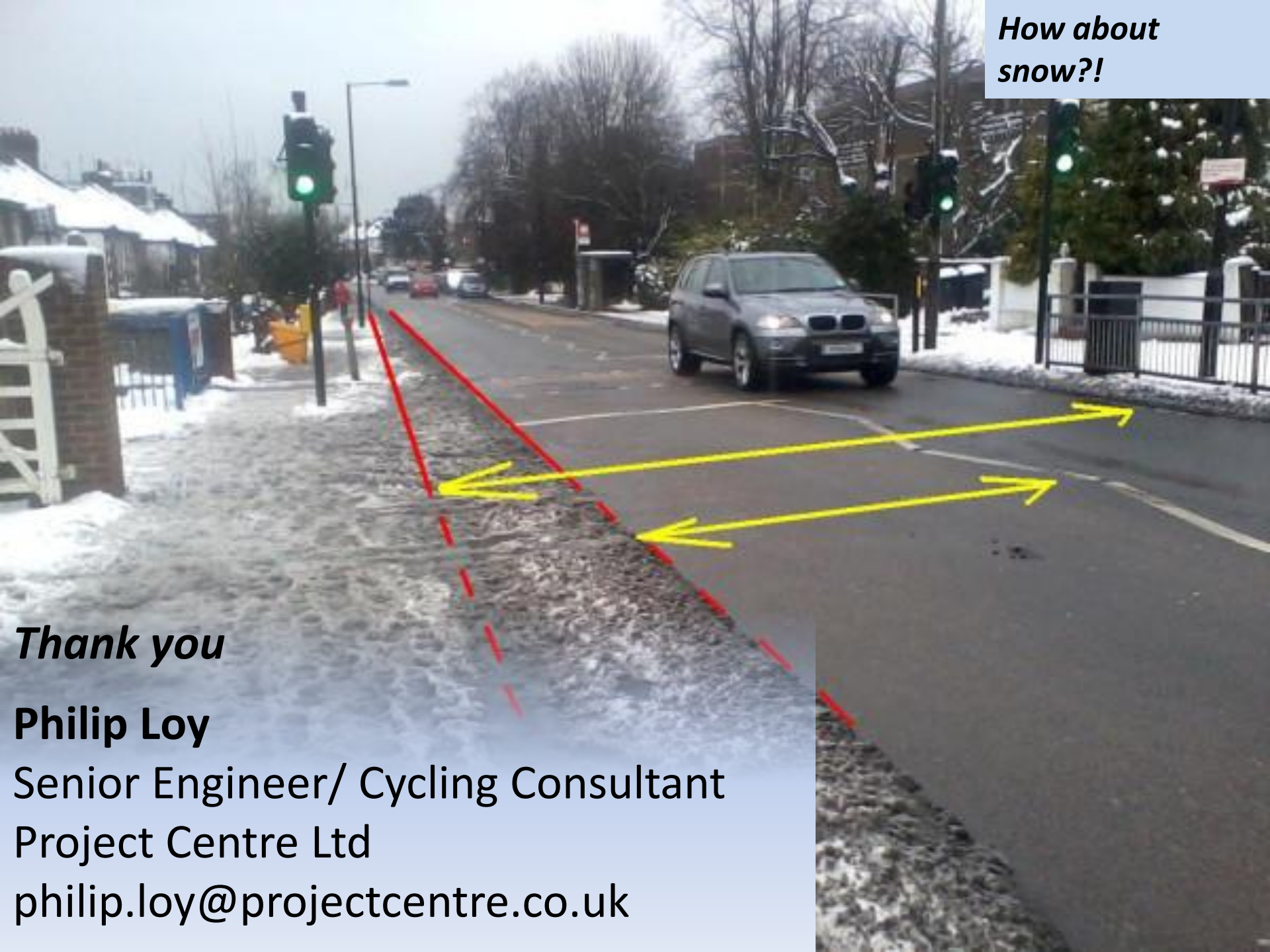
There's always room for cycling!

Restrictions are political, not technical

If we can do this, we can do anything!

Are there any other ways we might be given an indication of whether cyclists can be accommodated more easily?

source: Google Street View



Thank you

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