#### West Sussex Cycle Summit

Space, Regulations, Design & Opportunity 30<sup>th</sup> September 2016

#### Introduction



Mark Philpotts CEng MICE FCIHT FIHE PIEMA

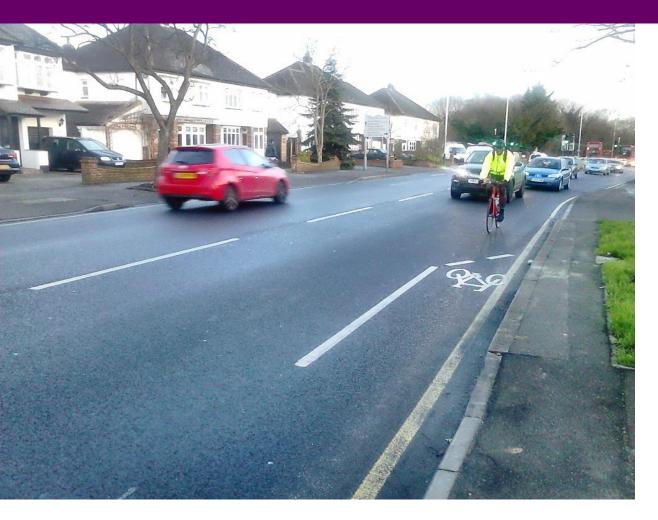
Chartered Civil Engineer Over 20 years experience of highway design, construction & maintenance.

Worked for a contractor, developer and two local authorities.

Lead author for CIHT's "Designing for Walking" guidance

Professional interest in walking and cycling helping to make our towns and cities more liveable. Explored through blog: "The Ranty Highwayman".

Oh dear! Harlow.



Cycling has been stuck in the margins for years.

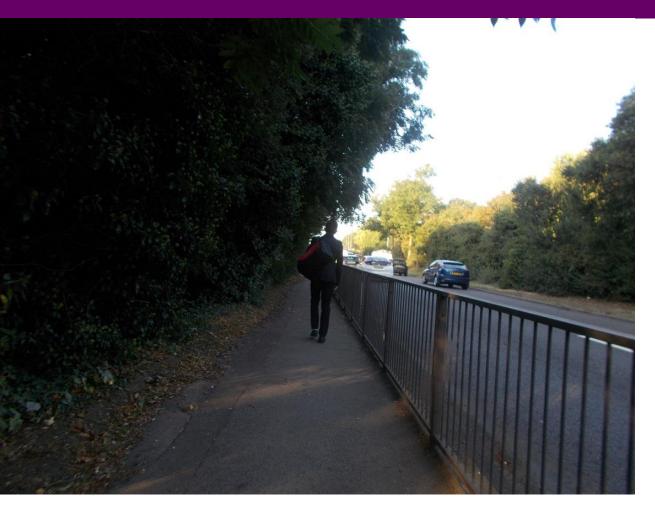
Figuratively and actually!

Even paint gives up when it's too difficult.



Junction treatments generally extend to advanced stop lines which are routinely ignored by drivers.

Painting it green doesn't create space.



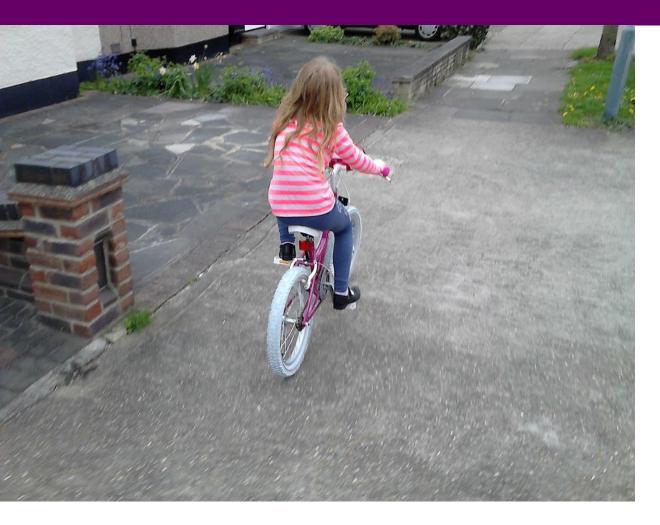
If not at the edges of the space commandeered by motor traffic, cycling is pushed in with people walking.

Poor for people walking, poor for people cycling.



Even when we build "cycle routes" we make them difficult or impossible to use.

Try getting an adapted cycle or cargobike through.

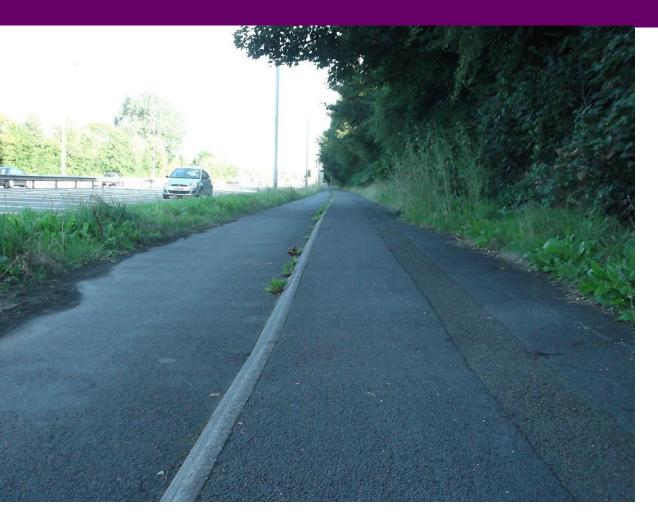


Kids end up cycling on the footway.

We have designed children out of our streets.

It's too dangerous to cycle to school because of the children being driven to school.

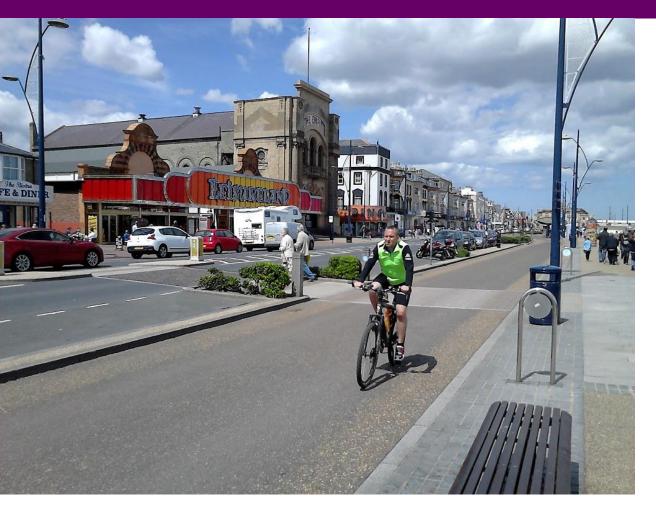
Repeat ad infinitum.



Attempts to provide separate space for walking, cycling and motor traffic can be found in places across the UK.

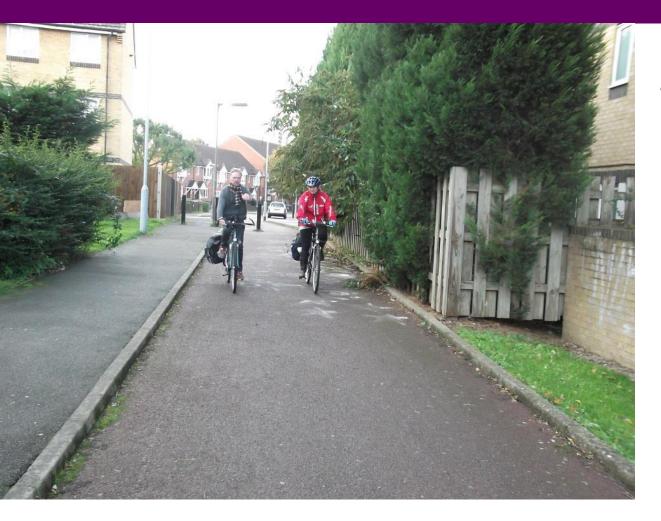
Some is pretty good.

Stepped cycle track, A48 Port Talbot.



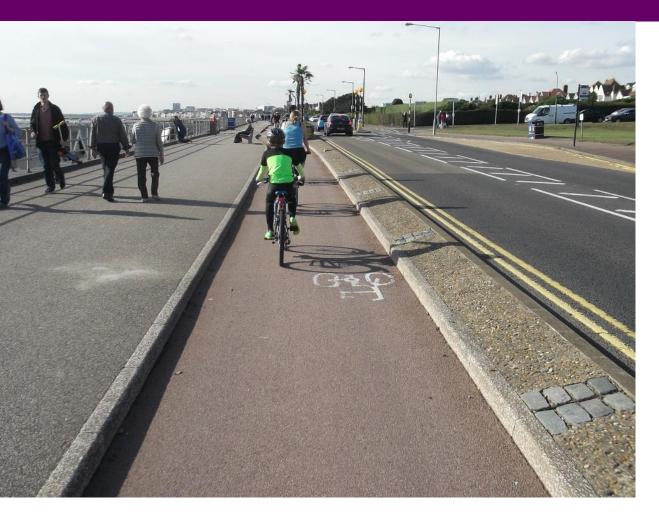
Some is actually very good.

Protected cycle track, Great Yarmouth sea front.



Some has been around a while.

Sheppards Drive, Bermondsey.



The concepts people are talking about as being revolutionary have always been around.

Thorpe Esplanade, Southend-on-Sea.



But the quality can be highly variable!

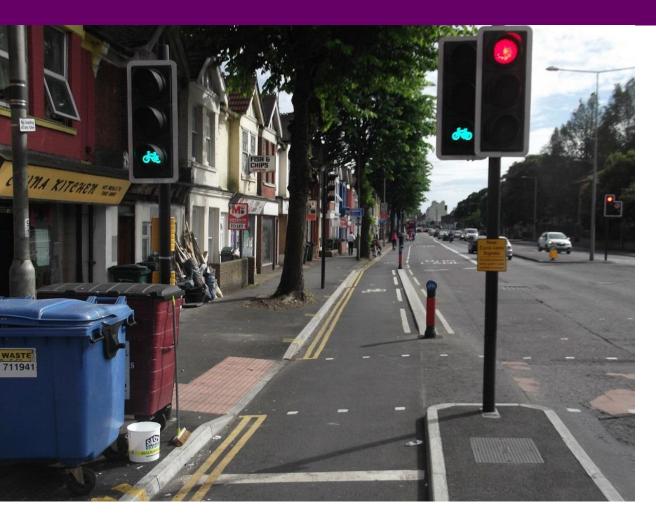
#### Burwood Gardens, Rainham.



Some layouts were driven by regulations at the time.

No entry bypass where street is otherwise 2-way, Cambridge.

# **Innovation in Brighton & Hove**



Cycle signals have been possible for years, normally seen at parallel crossings.

No regulatory reason why they can't be used on protected tracks.

Separate cycle signals, Lewes Road.

# **Innovation in Brighton & Hove**



Floating bus stops used to keep people cycling and bus traffic separate.

No regulatory reason not to do it.

Floating bus stop, Lewes Road.

# **Innovation in Brighton & Hove**



Stepped cycle tracks with priority over side roads.

No regulatory reason not to do it.

Stepped cycle track, Old Shoreham Road.

CS7



Much of early Cycle Super Highway programme in London was 'paint'n'signs'.



Where the layouts were good, they were just a rebranding of previous work.

Shared (segregated) cycle track CS3, A13, Beckton.



Junctions were generally left untouched with no protection for people cycling.

Shared (segregated) cycle track CS3, A13, Beckton.



Crossings were sometimes done well.

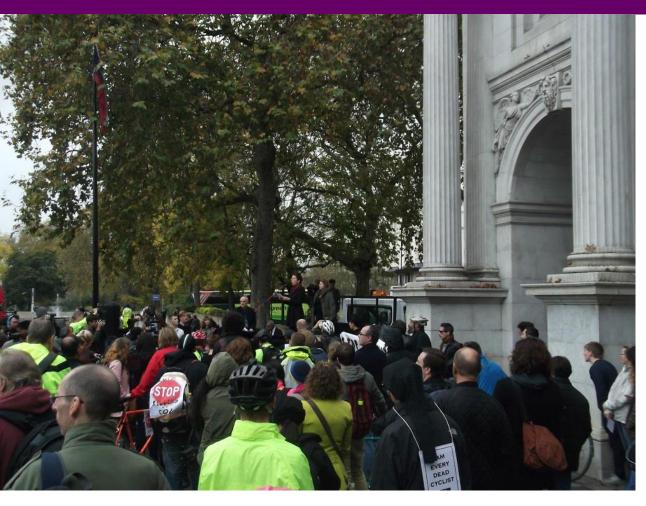
## Parallel bidirectional crossing CS3, Westferry.

# **Big London Protests**



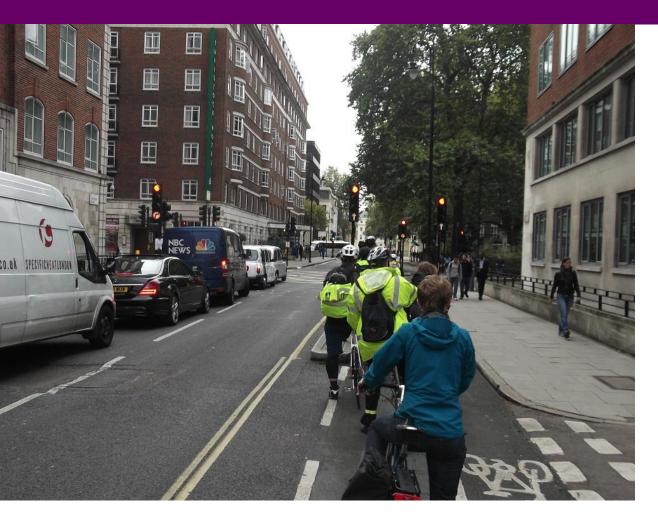
Space4Cycling London Cycling Campaign, September 2013 Several protests took place after people had been killed while cycling.

# **Big London Protests**



Some protests were part of a nationwide response to people walking and cycling being killed and seriously injured.

The National Funeral for the unknown victim of traffic violence; Stop The Killing, November 2014.



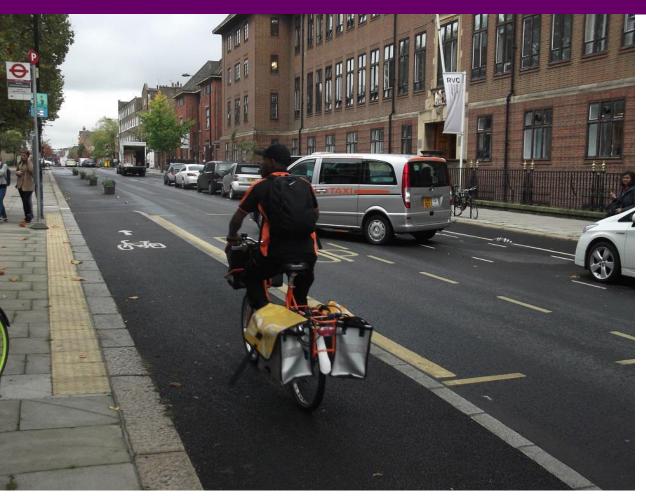
Some key places in London have seen cycling treated as a transport mode and so share has grown.

Tavistock Place, Camden



More cycle traffic capacity is needed and so more space is being provided.

Tavistock Place, Camden (experimental layout)



Older layouts are being upgraded to provide more space to reflect high percentage of cycle traffic in overall flows.

Sometimes compromised or experimental.

Copenhagen-style bus stop. Royal College Street, Camden.



Transport for London commissioned TRL to look at some cycling innovations.

#### Experimental Dutch-style roundabout



Layouts tested with people cycling, driving and accessing buses.

#### Experimental floating bus stop



Behind the scenes, TfL and others were discussing regulatory changes to provide engineers with more cycling tools.

Experimental low level cycle signals (LLCS)



The Mayor of London pushed on with proper investment in safe and comfortable cycle tracks.

#### Social cycling, Blackfriar's Road



At last, cycling was being treated as a proper and highcapacity transport mode.

#### Blackfriar's Bridge cycle commute



Cycling can be a transport mode for ordinary people who just want to get around.

Bidirectional, protected cycle track, Vauxhall Bridge.



With good design, the other functions of a city can be accommodated.

#### Floating bus stop, CS2, Mile End.



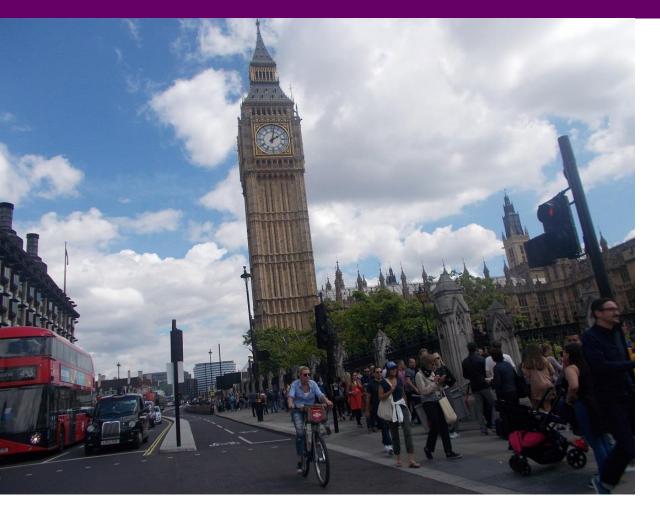
Loading can still be easily accommodated with cycle tracks.

Floating loading bay, CS2, Whitechapel.



Even as sections of route are opened, they are immediately being used.

#### Hyde Park.



#### New London icons.

Parliament Square.



Families are using the new cycle superhighways for every day transport.

*Kidical Massive Families celebrate The Embankment* 



By filtering out through traffic and providing protected cycle tracks on main roads, whole neighbourhoods are being made more liveable.

#### Orford Road, Walthamstow



Deliveries and access remains for those who need it, but not during the day when the space is for people walking and cycling.

Orford Road, Walthamstow



Space has been repurposed for community space.

Walthamstow Village Square.



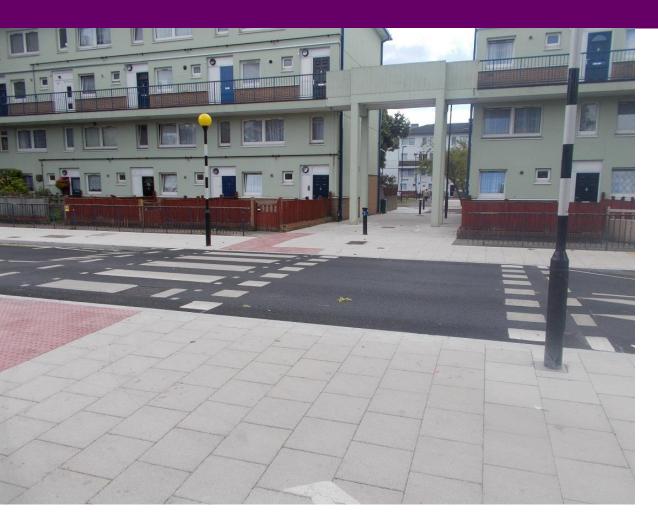
The Mini Holland project is much more than "cycling infrastructure".

#### West Avenue, Walthamstow



The treatments are also providing substantial improvements for people walking.

#### Continuous footway, Malta Road.



The DfT gave special authorisation to many authorities to use new tools, but they were superseded by the TSRGD2016.

#### Parallel zebra crossing, Edward Street Deptford



Tools which needed special authorisation are now standard elements for anyone to use.

Uni-directional parallel cycle crossing, Romford



One way for motor traffic, 2-way for cycling. Contraflow one-way, Cambridge. Small changes have made streets too narrow for 2-way driving accessible for 2-way cycling.



The cycle is truly being considered as a proper transport mode.

#### Bi-directional cycle crossing, Leyton



Development can bring opportunities to build in good cycling infrastructure from the start.

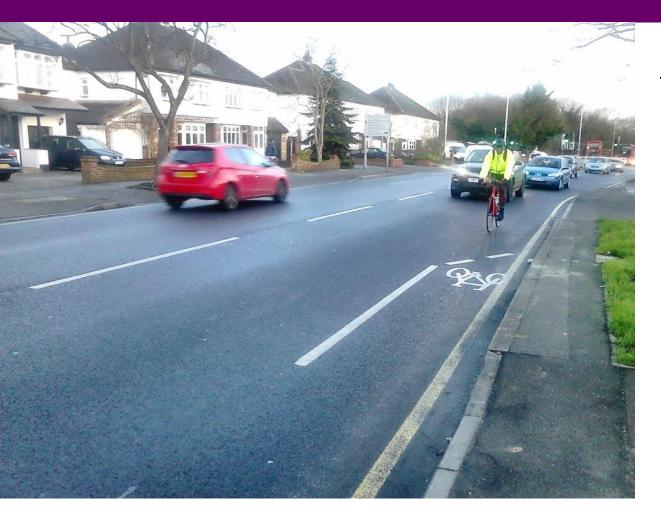
We need to engage with developers early.

#### Emergency fire path, Romford



Updating of existing layouts to properly consider cycling.

Fire gate replaced with cycle junction and tree planting, Upminster



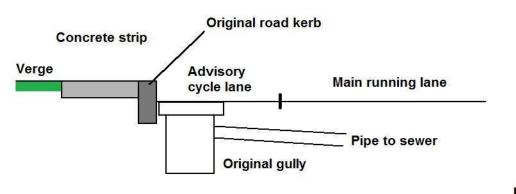
Remember this slide from earlier?

#### We have space waiting to escape here!



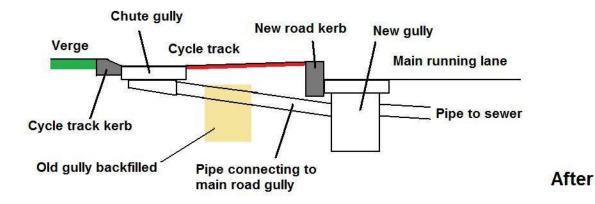
Bring in the Heavy Mob!

#### Cut a trench along the cycle lane.





Before



Finding space in an existing street.



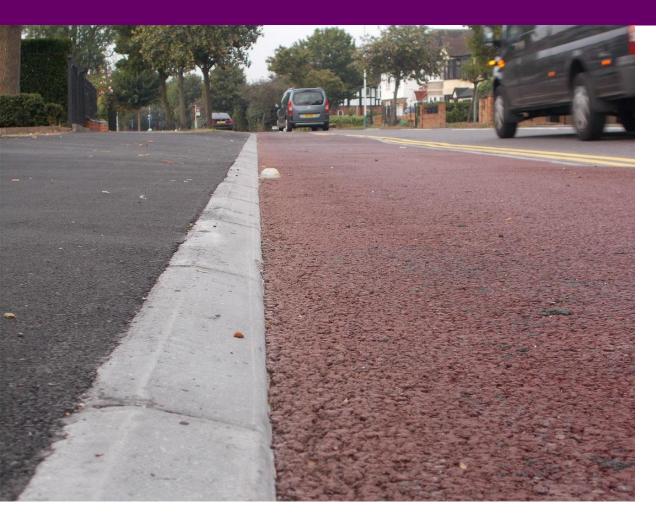
Throw around some kerbs, asphalt, concrete and iron!

Take the edge of that concrete verge.



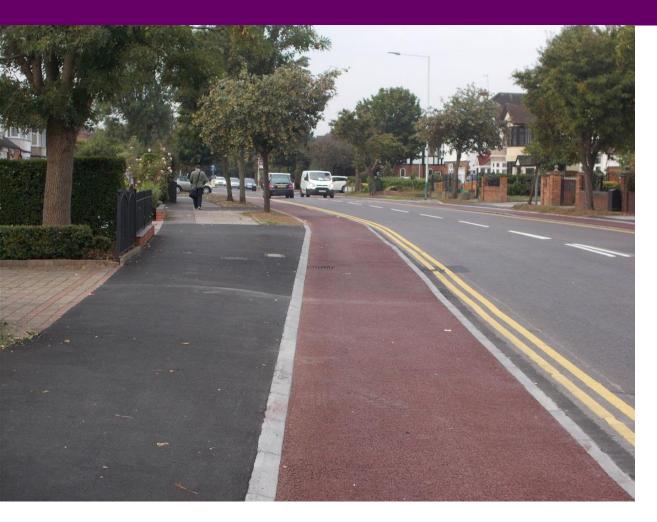
Use the new regulations and steal ideas from the Danish!

#### Foot and hand rest. Very civilised.



Throw in some forgiving kerbs and visual priority!

Cycle tracks should be laid by machine.



And here is an opportunity with space - taken!

Stepped uni-directional cycle track, Romford.



Designing proper infrastructure for cycling as a proper mode of transport will be there for generations to come.

What's not to love?

### **Thanks for listening!**

