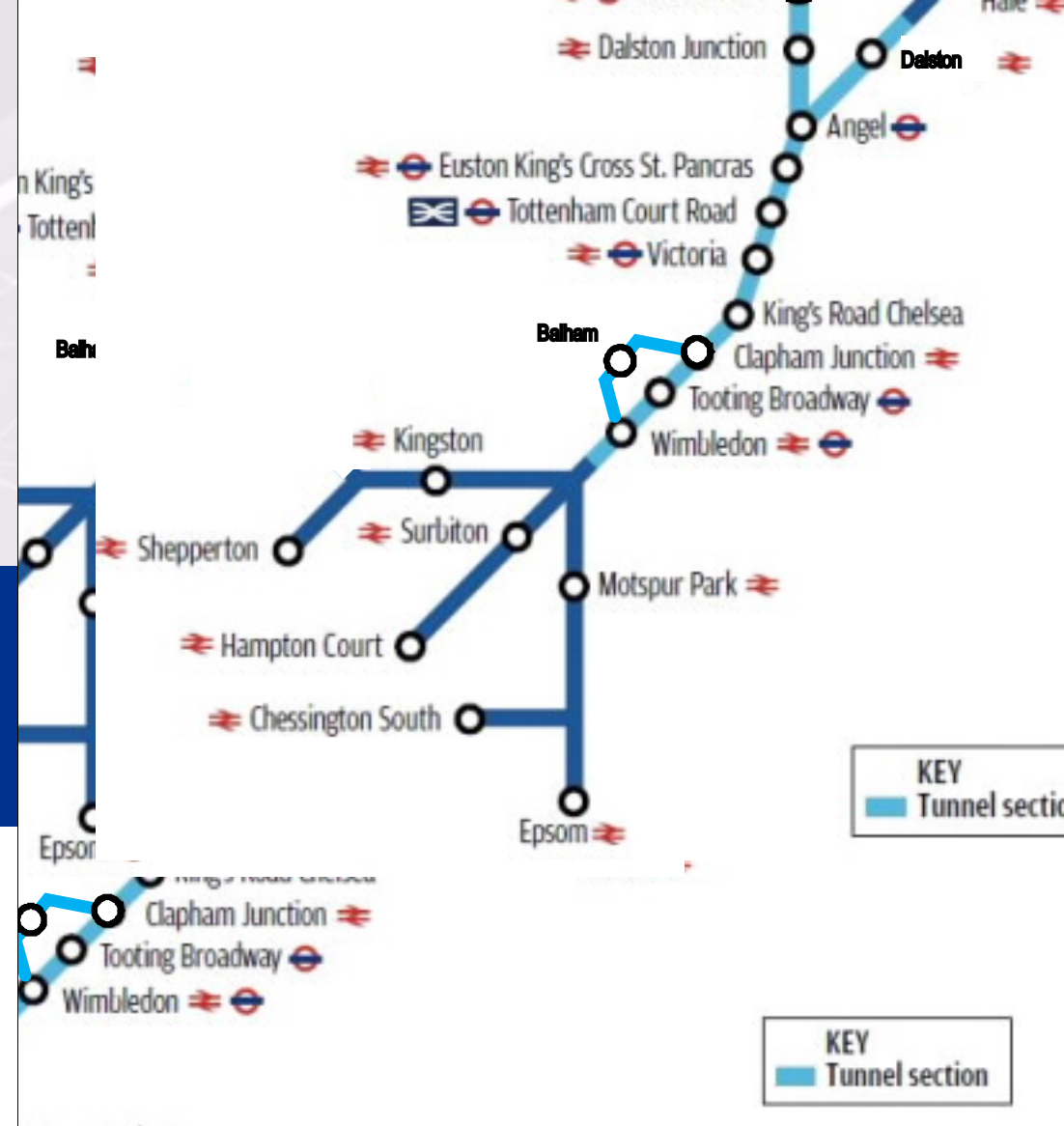


London in 2040: Planning Crossrail 2

A look at London's major next infrastructure project then, now & tomorrow

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March 2018



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1. London's big transport challenge

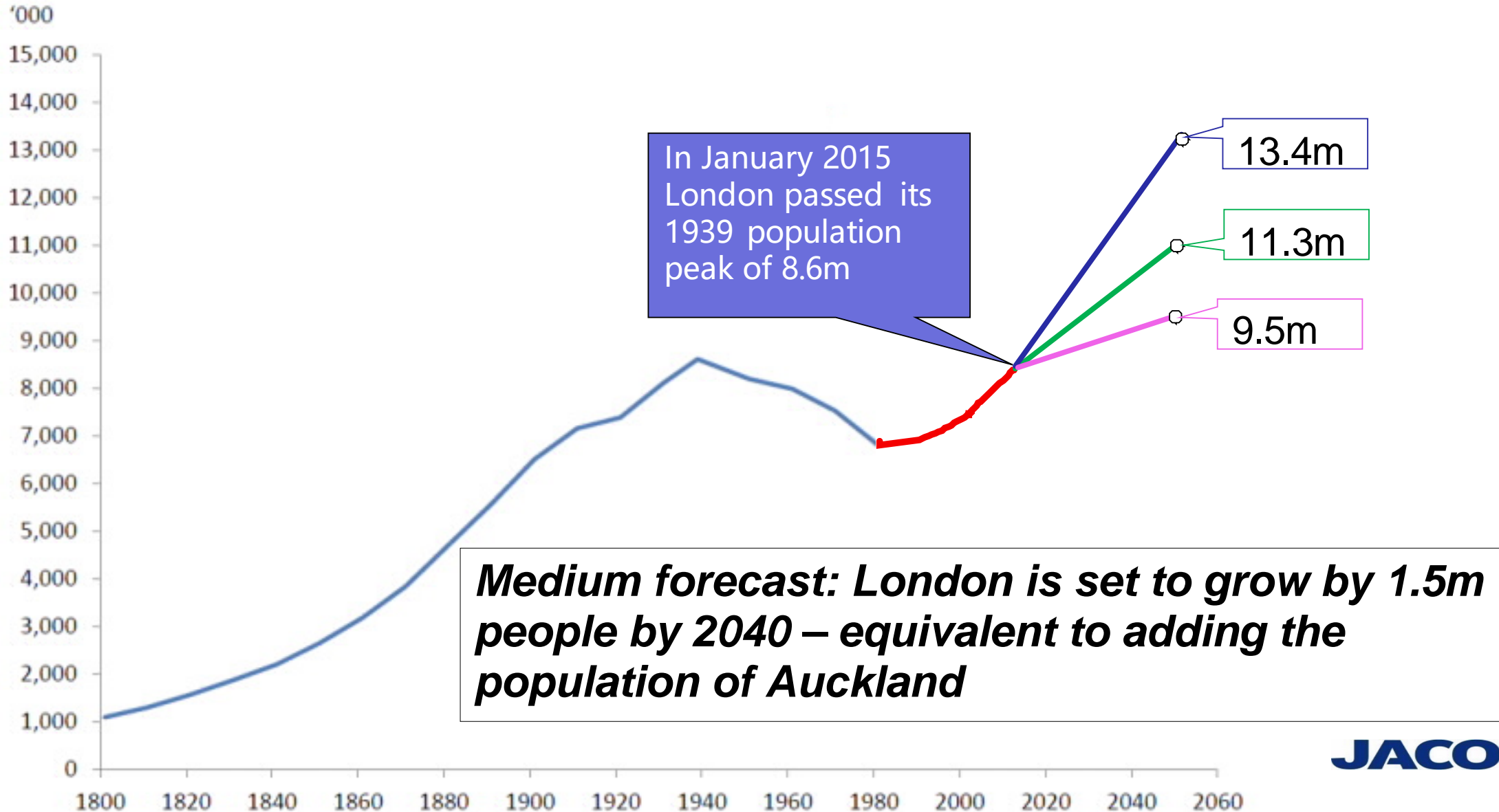
2. Crossrail 2

- Then
- Now
- Tomorrow

3. Summary



London's population is growing rapidly, at a rate equivalent to two Tube trains full of people added every week

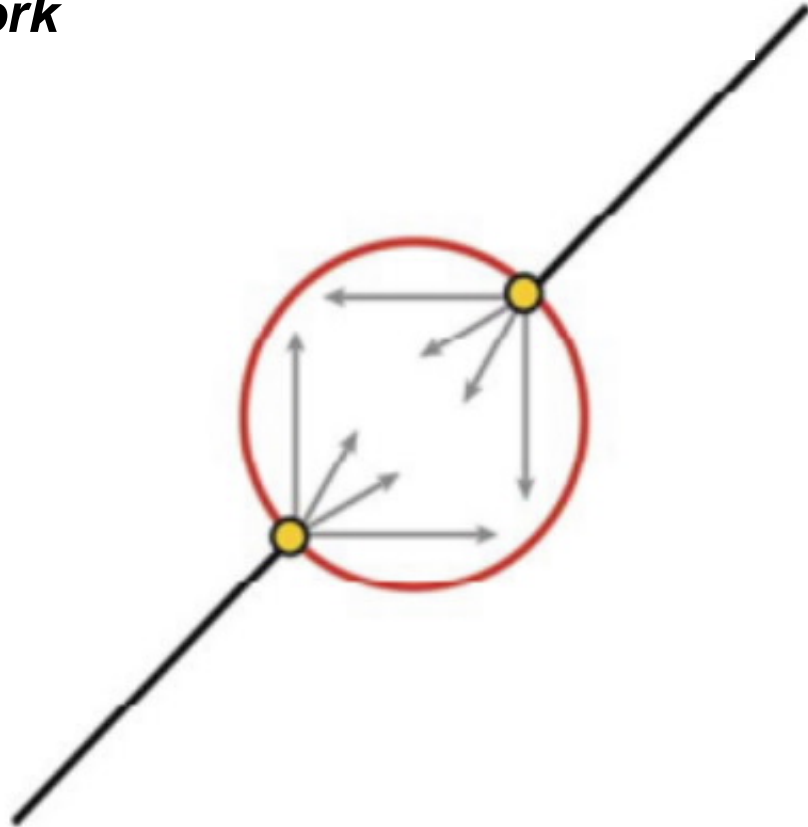


The main rail lines serving Central London do not generally penetrate the heart of the city

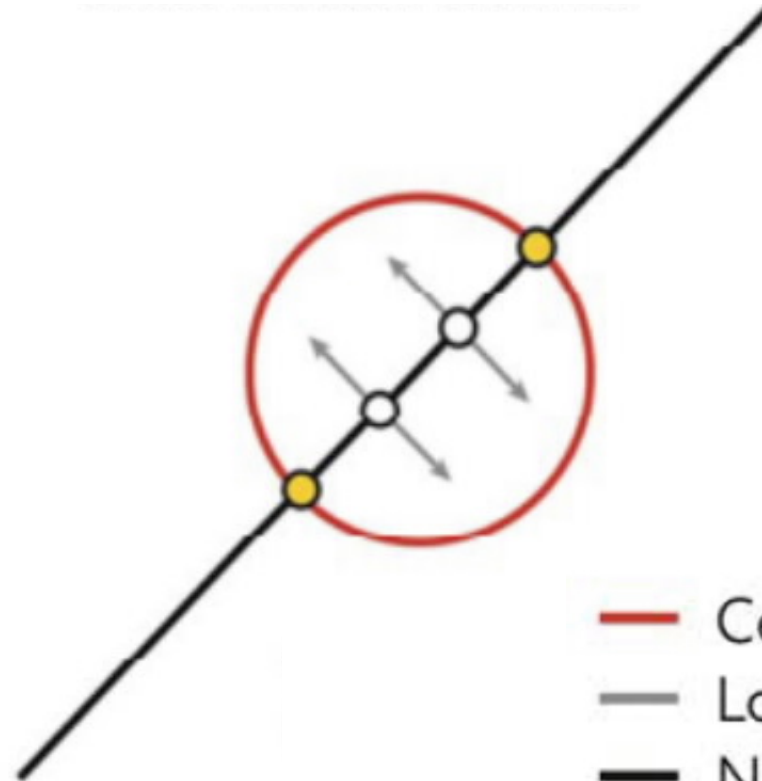


Cross London rail links allow passengers to travel more directly to where they want to go

1. The legacy of London's railway network



2. The advantage of cross-London rail links



- Central Activities Zone
- London Underground
- National Rail
- Rail Terminus
- LU Interchange






Future crowding on London Underground – 2031 AM peak



Comparison between London and Auckland

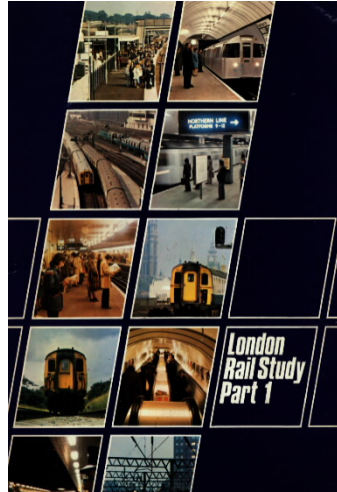
	London	Auckland
Population (as % of country)	8.6m (12%)	1.5m (32%)
Percentage of national GDP produced in city	22%	36.6%
Current population growth / week	1,750	1,000
Major rail transport interventions under construction	Crossrail (2018)	City Rail Link (2023)
PT trips per person per year	200	52
Housing requirement	400,000 over ten years	34,000 over ten years

A number of solutions have been considered....

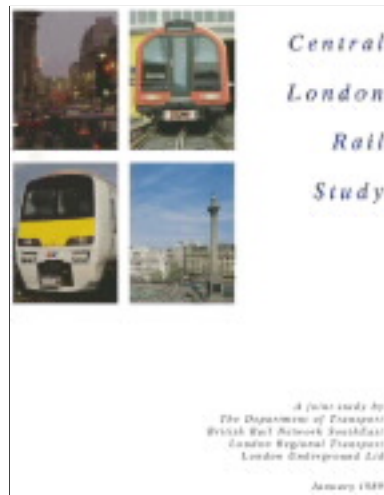
	Solution considered	
Non-transport infrastructure solutions	Behaviour change, reducing need to travel, uptake in technology	
	Constrain demand using new fares policy	
Transport infrastructure solutions	Enhance capacity of existing PT network	
	Significantly increase road capacity	
	Addition of new rail capacity	

Then: Crossrail 2 has a rich history!

1974



1989

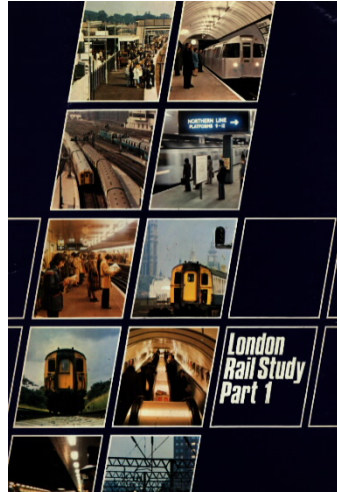


Then: Chelsea Hackney line: protected route 1991-2015

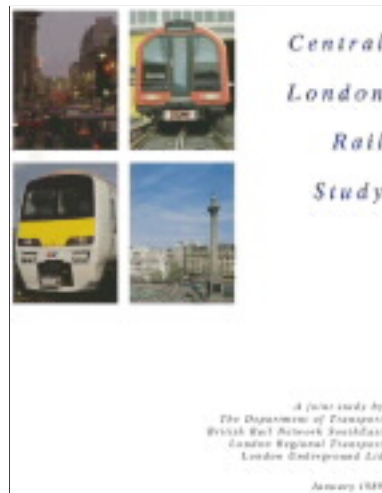


Then: Crossrail 2 has a rich history!

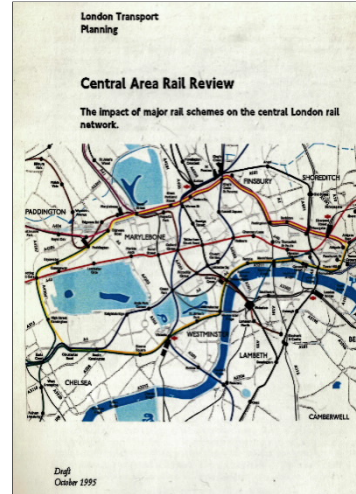
1974



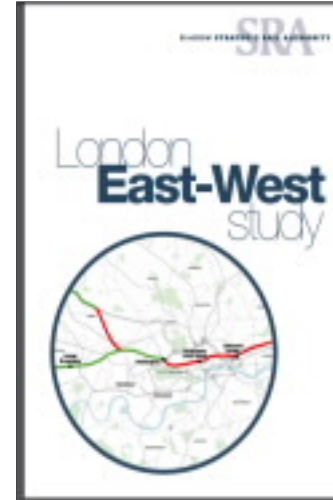
1989



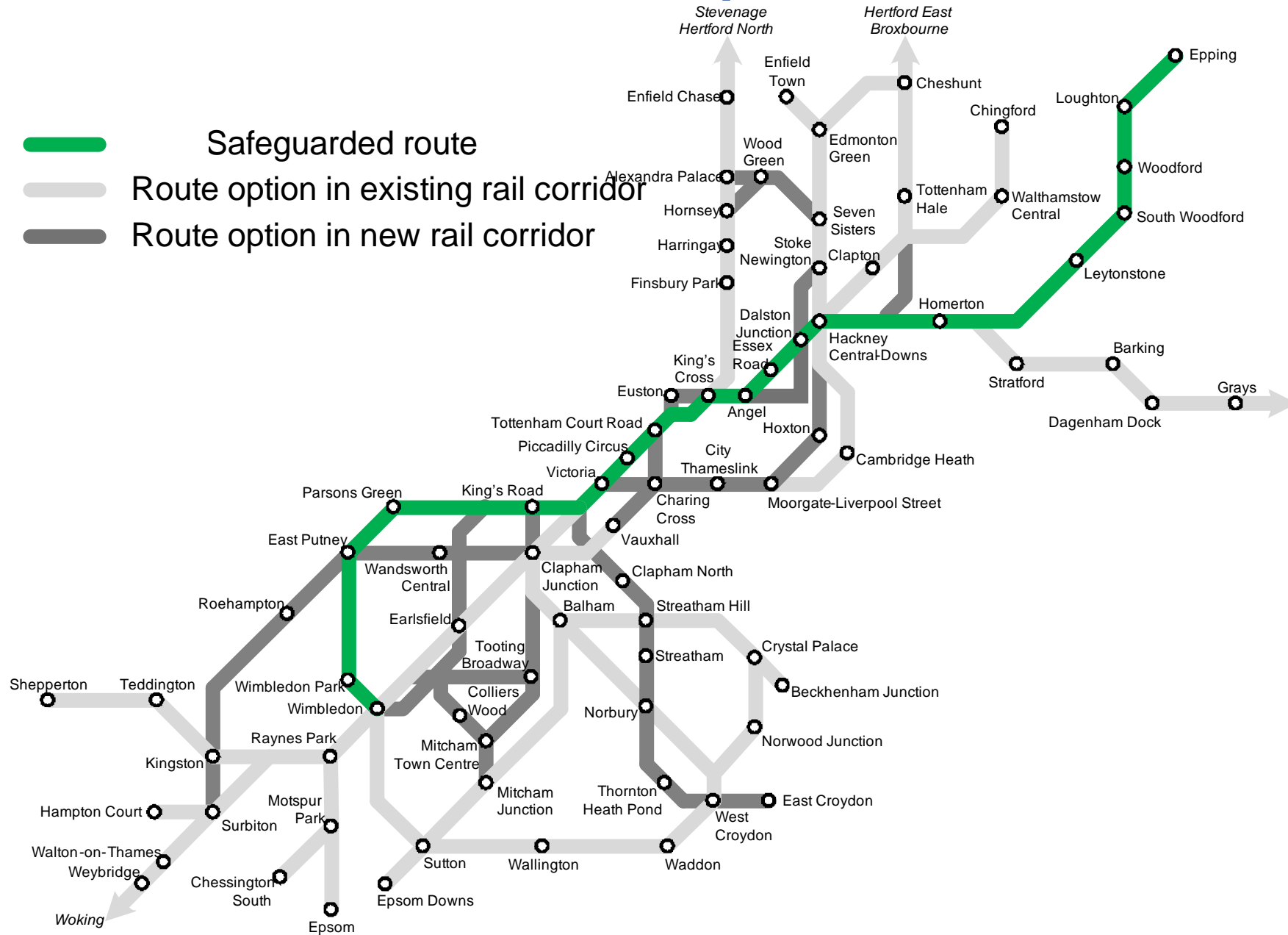
1995



2000

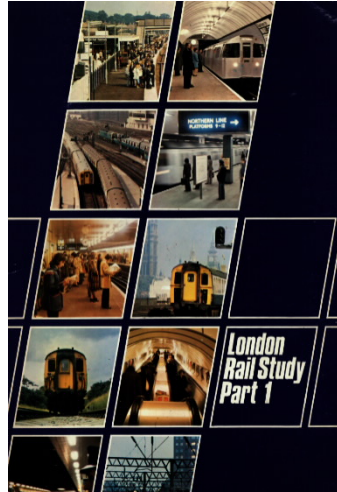


Then: 2007-2010 >100 route options were considered

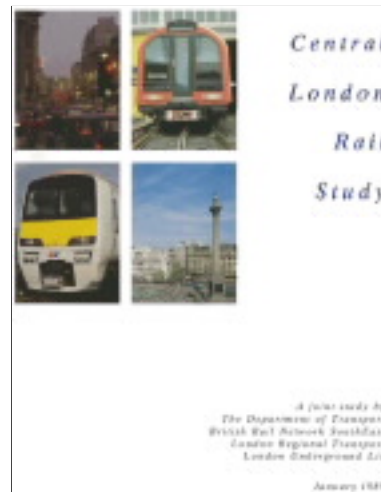


Then: Crossrail 2 has a rich history!

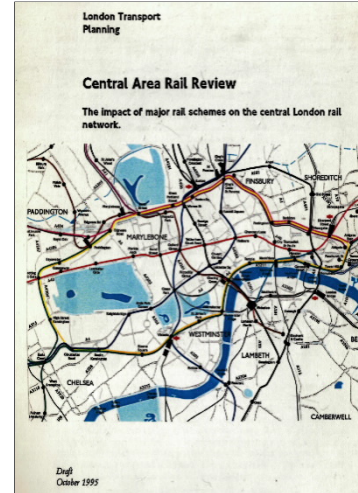
1974



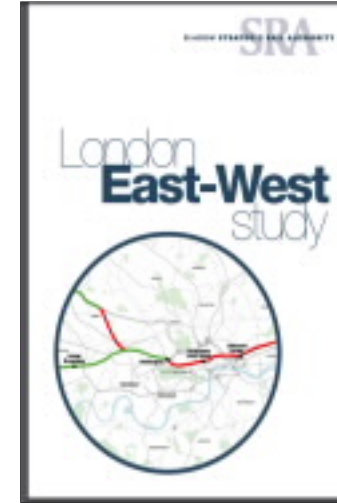
1989



1995



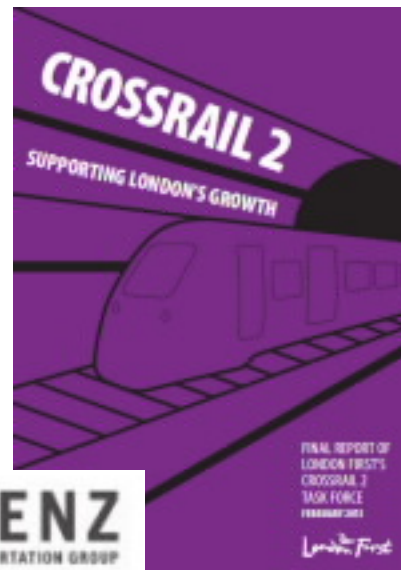
2000



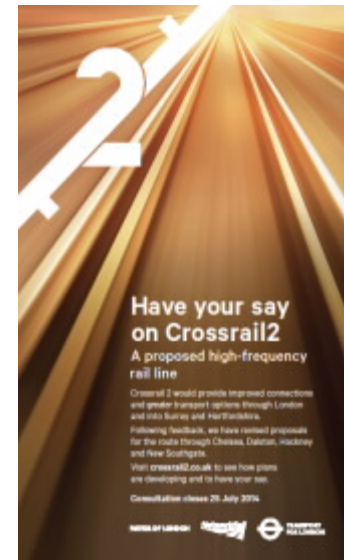
2010



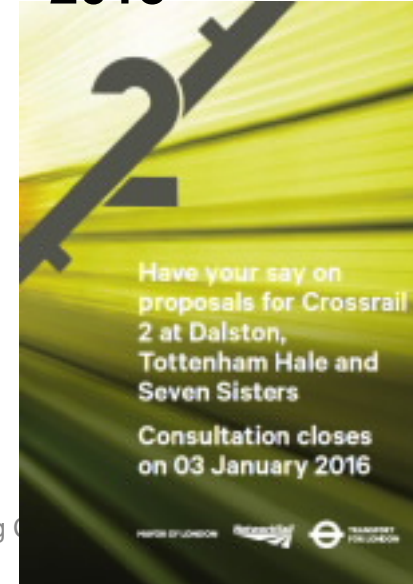
2013



2014



2015

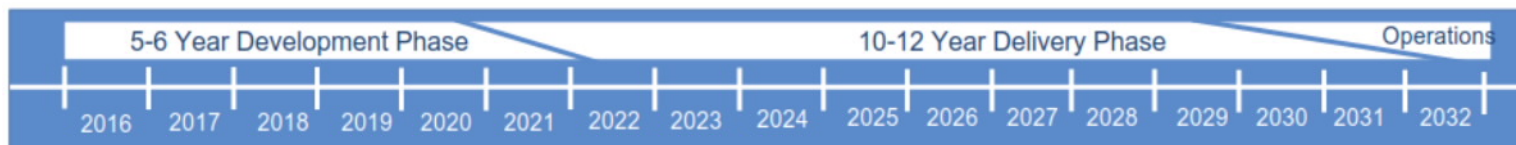


2016

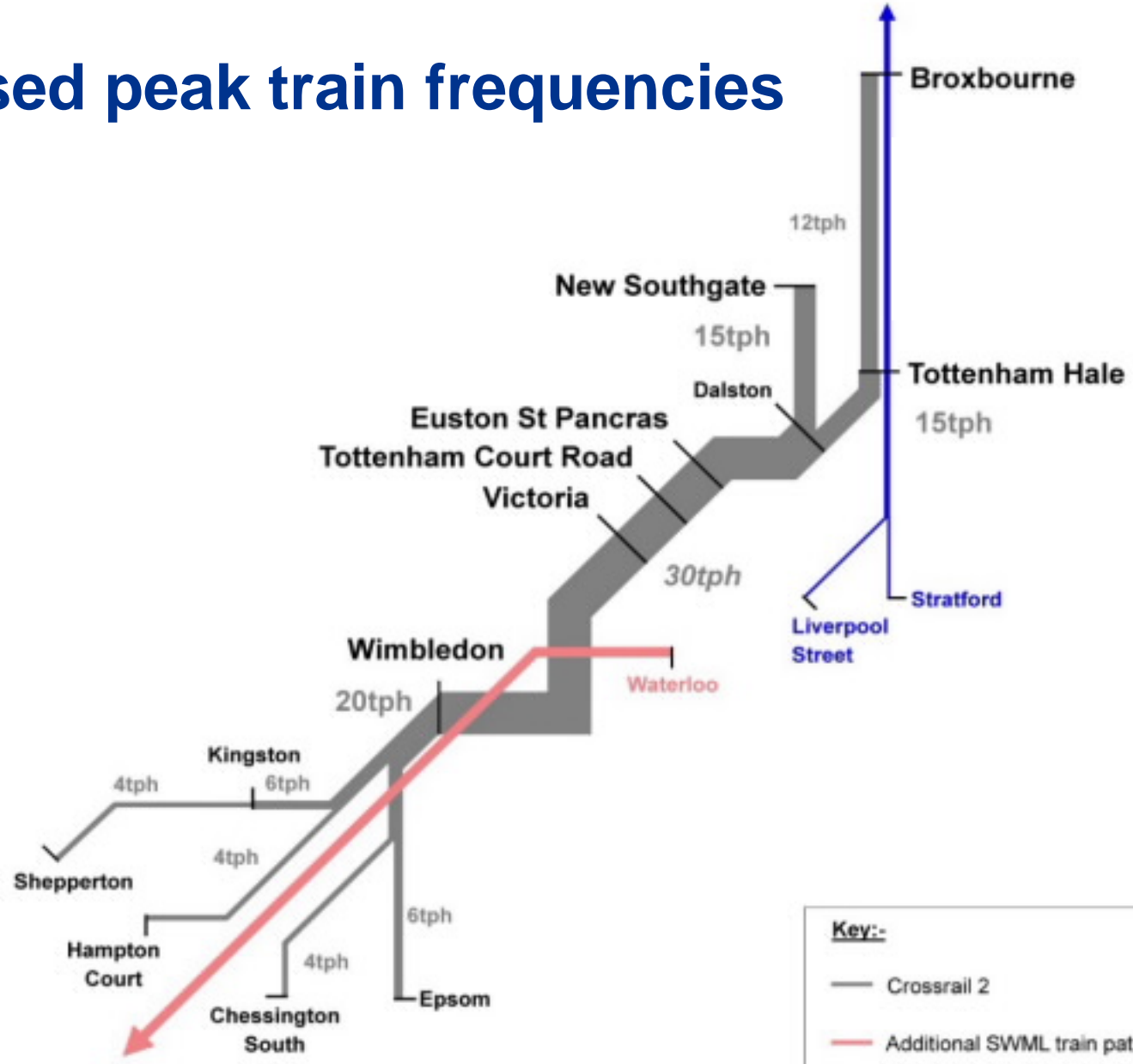


Now: Current Crossrail 2 proposals

- 72km of new tunnel through central London
- 11-13 new stations, each >20m underground
- Construction will take approximately 10 years – possible open date 2033
- 10% additional PT capacity into and through central London
- High frequency (30 tph) service
- Estimated cost: £30bn
- BCR >2:1



Now: Proposed peak train frequencies



Key:-

- Crossrail 2
- Additional SWML train paths
- Additional WAML train paths
- Key Stations

Now: current stage of development

CR2 remains an unfunded scheme, and still has no single agreed alignment

- Current scheme costs are around £30bn

Work underway: investigate how the cost of the project could either be reduced, or spread over a longer period.

- Decisions are needed at three key stations

Work underway: option assessment and consultation material for a single option

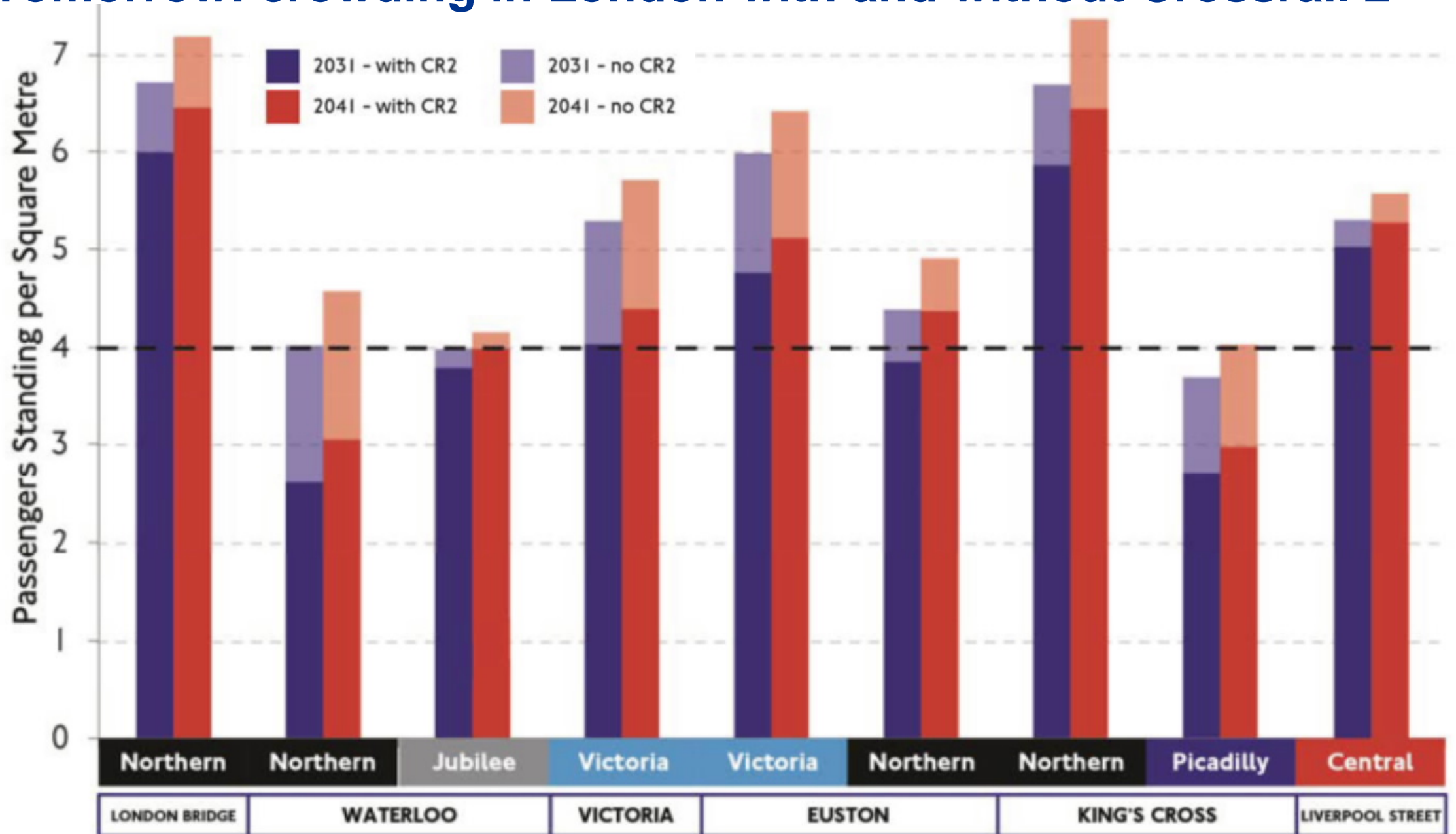
- Disruption during construction: not all Londoners support the current proposals.

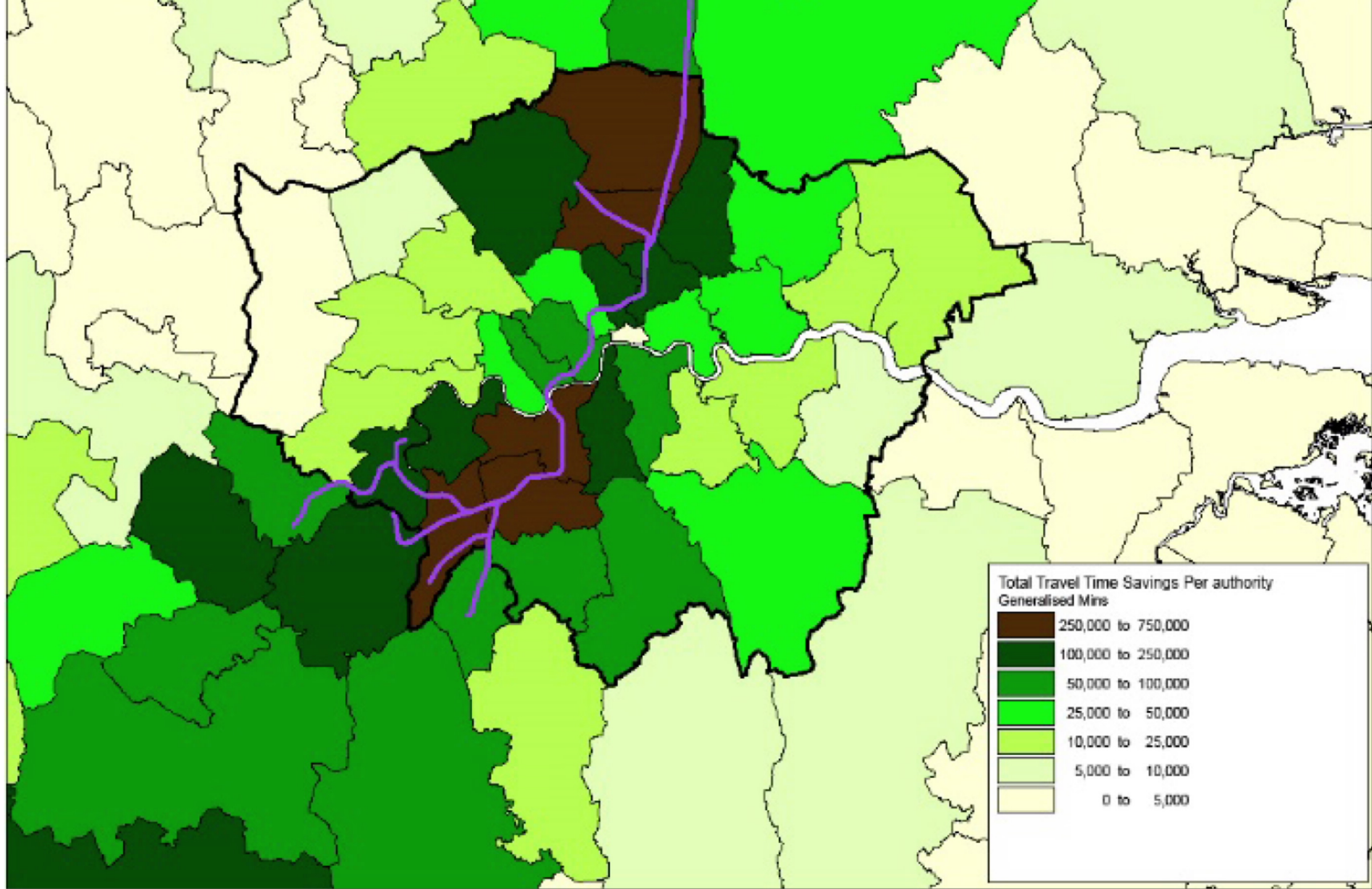
Work underway: focussed engagement as key contentious sites

- Scheme is not committed and must pass an act of parliament, similar to Crossrail 1

Work underway: plans are being prepared for a hybrid bill submission in 2020

Tomorrow: crowding in London with and without Crossrail 2





Tomorrow: how departures from Ponders End station may look

Future: no Crossrail 2

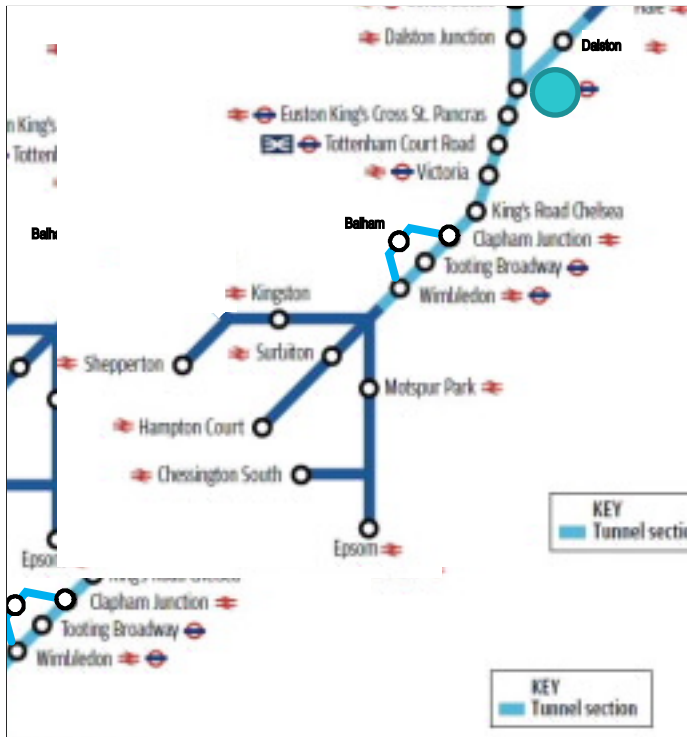
Departures:

London Liverpool Street	08:14
London Liverpool Street	08:44

Future: with Crossrail 2

Departures:

Wimbledon <i>via West End</i>	08:03
Shepperton <i>via West End</i>	08:07
Epsom <i>via West End</i>	08:10
Stratford	08:14
Chessington <i>via West End</i>	08:18
Hampton Ct <i>via West End</i>	08:22
Stratford	08:29
Wimbledon <i>via West End</i>	08:33
Shepperton <i>via West End</i>	08:37
Epsom <i>via West End</i>	08:40
Stratford	8:44
Chessington <i>via West End</i>	08:48
Hampton Ct <i>via West End</i>	08:52
Stratford	08:59



Tomorrow: the number of jobs accessible within 45 minutes set to rocket in some parts of London

Location	Number of jobs within 45 minutes without Crossrail 2	Number of jobs within 45 minutes with Crossrail 2	% Change
Brimmsdown	320,000	1,400,000	+ 430%
Ponders End	670,000	1,380,000	+ 105%
Kingston	300,000	500,000	+ 65%
Surbiton	1,600,000	1,900,000	+ 19%

Crossrail 2 unlocks 200,000 jobs and 200,000 homes

Four lessons from planning Crossrail 2

1. Social: engage the most affected stakeholders as early in the planning process as possible, and involve them in decision making processes;
2. Economic: the construction of Crossrail 2 needs to be carefully managed so as not to temporarily stifle the very economic growth the project is aiming to secure;
3. Fiscal: establish a funding strategy for projects as soon as a preferred option is identified, in order to avoid delays through the consenting process, and
4. Planning: In order to protect long term projects, ensure route protection is secured.

In summary

- London has a transport problem beyond 2025
- Crossrail 2 is identified as being the most effective project to solve crowding and unlock housing
- However, Crossrail 2 is unfunded and does not have a single agreed alignment
- Have patience....Crossrail 2 is 40 years in the making – and has demonstrated that land use and transport policy CAN come together

