# LONDONS

HOW TRANSPORT IS CHANGING

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# LONDON'S MOVING

**HOW TRANSPORT IS CHANGING** 

I NOVEMBER 2006 - 13 JANUARY 2007

NEW LONDON ARCHITECTURE
THE BUILDING CENTRE
26 STORE STREET, LONDON WCIE 7BT

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AN EXHIBITION IN ASSOCIATION WITH LONDON COMMUNICATIONS AGENCY

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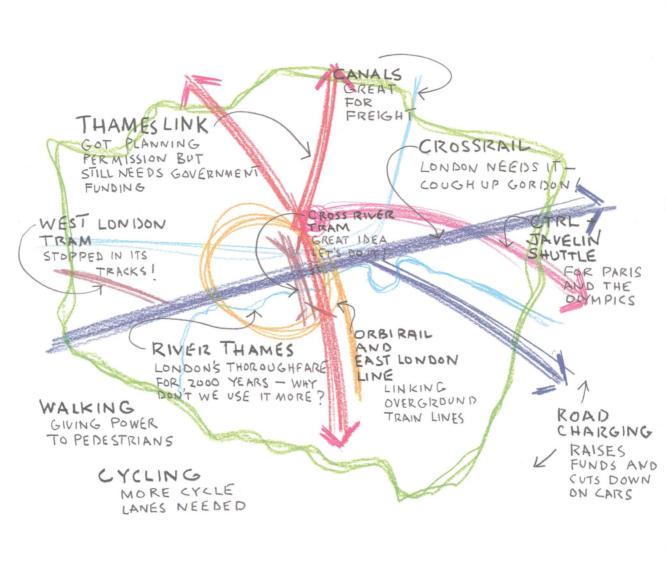
We Londoners are a stoic lot. We possess a trait much praised in the face of blitz or bombs but which does not serve us so well as a response to problems of moving round the city: the cattle truck conditions that commuters bear grimly day after day, or the lifethreatening environment we encourage cyclists to travel in.

We don't complain enough when infrastructure like Crossrail and Thameslink, which are vital for the capital's (and the country's) economic health, as well as our sanity, are delayed time and time again, the decision lying in a Parliament that annually drains London's coffers to the benefit of the regions.

We are better, though, at stopping things: the West London Tram proposals are unlikely to happen because of local resistance and proposals for a third airport at Heathrow will be met with a storm of protest.

After decades of under-investment in the capital's transport system the tide is turning; Transport for London (TfL) is spending £10 billion on improvements by 2010 and billions more will be spent by the private sector. Even more will have to be invested in the next decade if all the plans shown here are to be accomplished.

The exhibition illustrates how the money is to be spent and assesses how likely each project is to be realised. But we need to be vigilant to make sure that they are.



### LCA RATINGS

Each of the schemes featured in this exhibition has been given a special 'rating' by London Communications Agency, a specialist communications consultancy which focuses on London schemes and organisations and includes expertise in transport.

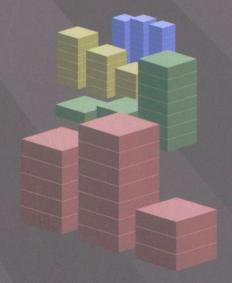
The LCA rating aims to give a 'score' for each scheme's overall likelihood of success, where 100% represents the highest guarantee of success, 50% is where things might be said to 'hang in the balance' and anything lower than 50% means the scheme faces such challenges that overall success or deliverability must be questioned, to a varying degree.

The scoring is based on a mark out of ten on three key criteria as follows:

**Logistics** – the scale of engineering solutions, disruption and other practical issues facing the scheme.

**Economics** – not just how much the scheme will cost, but whether this money is actually available and likely to be committed.

**Politics** – a rough estimate of the level of support for a scheme at national, regional and local levels, among politicians, other key stakeholders and the wider travelling public.



# AIR

Demand for air travel is set to more than double in the next 25 years and, as a result, London's airports are rolling out major expansion plans.

Heathrow, Gatwick, Stansted, Luton and City Airport each have major development programmes to build new runways, terminals and aircraft stands. Major rail projects to improve access to London's airports are also planned.

#### AIR

# HEATHROW TERMINAL 5



Client: BAA

Architect: Richard Rogers Partnership / HOK

Status: Completion due 2008

Cost: £4.5bn

Logistics
Economics
Politics

LCA Rating

97%

"The arguments have been won, the vast infrastructure built, and the protesters have moved on to new issues about aviation and Heathrow. T5 will be a formidable new addition to the world's busiest airport."

The £4.5 billion Terminal 5 scheme under construction at Heathrow will boost capacity to 90 million passengers a year.

The steel and glass building will be one of the largest single span structures in the UK. The surface area over the five storeys is the equivalent of five football pitches.

A new train station underneath the terminal will serve the Piccadilly Line, Heathrow Express and National Rail.

### HEATHROW EAST





Client: BAA

Architect: Foster and Partners
Status: Planned for completion 2012

Cost: £1.5bn

Logistics

Economics

Politics

Heathrow Terminal 5 will take several years before it is operating at full capacity of 30 million passengers a year.

This will create the opportunity to demolish the ageing Terminal 2 and Queens Building and develop a £1.5 billion state-of-the-art terminal handling 30 million passengers a year. The building on land to the east of the existing airport would be ready by the London 2012 Olympics.

47%

"The logical development of T5, this will nonetheless arouse huge suspicion, as does anything involving the air industry at the moment. It will also be a big engineering and financial challenge."

### AIRTRACK



**Client: Airtrack Forum** 

Status: Planned for completion 2011

Cost: £425m

Logistics

Economics

Politics

Airtrack would create direct access between the new train station at Heathrow Terminal 5 and Reading, Guildford and Waterloo Stations.

The line would use 95km of existing rail network and only require 4km of new track to be laid.

The scheme is seen as vital to open up access to Heathrow from the South and South West England. It would be expected to have a major impact on cutting traffic congestion on roads around Heathrow.

LCA Rating 50%

"This eminently sensible scheme has kept a low profile. It will need to do more, if it is to get off the ground and win political and financial support."

#### AIR

# NEW RUNWAYS AT LONDON'S AIRPORTS



Client: BAA

Status: Earliest delivery2016 Cost: Stansted - £2.7bn Logistics
Economics
Politics

The government's Aviation White Paper has outlined plans for new runways at London's airports over the next 30 years.

Options include a third runway at Heathrow for short haul aircraft by 2020 and a second runway at London Stansted by 2016. This would boost Stansted's capacity from 12 million a year to 74 million.

Should plans for a third runway at Heathrow falter, a proposal for a second runway at Gatwick Airport would be put forward.

27%

"Perhaps the single most controversial issue in transport at present, the building of new runways is challenging in every way possible. Hard choices do need to be made however."

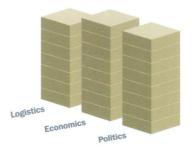
# LONDON CITY AIRPORT EXPANSION



Client: London City Airport Status: Phased until 2030 Cost: Phase one - £40m

A major redevelopment and expansion of London City Airport will see passenger numbers increased to 3.5 million a year by 2015, 6 million by 2025 and eight million by 2030.

Capacity will be boosted by extending the terminal building eastwards and westwards and adding new aircraft stands. Reclamation of a disused dock to the east of the airport will create space for the expansion.



T7%

"Of all the airport expansions planned, that at London City – the airport no-one ever complains about – must have the best chance of success. Recently sold, London City has the real prospect of a whole new lease of life."

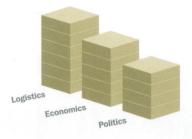
#### AIR

# LONDON LUTON AIRPORT EXPANSION



Client: London Luton Airport Group Status: Next phase by 2012

Cost: £1.7bn



Work to extend the terminal and build new aircraft stands will complete in 2007. A new £1.7 billion 3,000m runway and south terminal building are planned to be completed by 2012 in time for the London Olympics. Capacity at Luton would rise from 6 million passengers a year to 31 million.

50%

"Marginally less controversial than any airport expansion nearer to London, Luton nevertheless will face challenges. The Olympic factor should help."



#### AIR

# FUTURE DEVELOPMENT AT GATWICK



Client: BAA

Status: Implementation 2015-2030

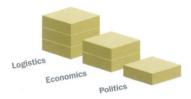
White Paper in 2003.

A masterplan for expansion of Britain's

The plan looks at boosting capacity to 45 million passengers a year by 2015 and building a second runway by 2030.

second busiest airport has been developed

in response to the government's Aviation



**20%** 

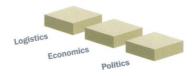
"Is the golden age of air travel over? For sure, no future airport development is ever going to be as easy as it used to be. Issues of climate change, tax and politics are now the major challenges facing the aviation industry. It has to provide answers if developments like this are ever to get off the ground."

# OFFSHORE LONDON AIRPORT



**Client: Thames Estuary Airport Company** 

Status: Blue-sky thinking



An alternative to major expansion plans at Heathrow and Stansted airports is to develop a major offshore airport on a manmade island in the Thames Estuary.

The proposal has already gained heavyweight backing, including the eminent planner Sir Peter Hall, as a way of catering for increased air travel without further blighting the countryside or adding to air and noise pollution in the city.

A proposal for a new airport in the Thames Estuary at Maplin Sands was rejected by the government in 1970.

LCA Rating 10%

"A slightly wild and fanciful idea, airports have nevertheless been built on water before – famously, in Hong Kong. But why this should be easier, more logical or more welcome in London is not quite clear from those espousing the scheme."

With London's population set to increase by at least 500,000 in the next decade, new rail projects are absolutely vital to take the pressure off the Capital's already overcrowded existing rail services.

Projects such as Crossrail,
East London Railway extension,
Thameslink, Docklands Light
Railway extensions and
Channel Tunnel Rail Link will
enable more people to get
into, out of and around
London faster.

### **CROSSRAIL**



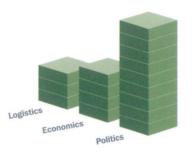
Client: Cross London Rail Links Status: Earliest delivery 2016

Cost: £10bn

Crossrail includes a central tunnel between Paddington and Canary Wharf and would run out as far as Shenfield to the east and Maidenhead to the west.

The line would cost an estimated £10 billion to build and it is hoped the government will announce a funding package next summer.

Cross London Rail Links - a joint venture between Department for Transport and Transport for London is preparing the scheme. The Crossrail Bill, giving powers to build the line, is expected to become law next year.



ECA Rating 60%

"Mayor Ken Livingstone has said publicly that he thinks the funding for Crossrail will finally be put in place in 2007, as part of next year's Comprehensive Spending Review. But the project will still be immensely challenging, in both engineering and political terms, as the logistical and other problems involved in digging huge tunnels through the middle of London inevitably mount. On the plus side, everyone in London from across the political spectrum thinks Crossrail should happen."

### LONDON OVERGROUND

RAIL

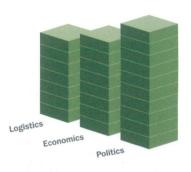


Client: Transport for London Status: Phase One by 2010 Cost: East London Railway - £1bn

The newly-launched London Overground will incorporate the existing East London Line, South London Line, West London Line and North London Line (currently Silverlink) by 2010, and eventually create an orbital railway around the capital.

The new route will travel from Clapham Junction to Willesden Junction on the West London Line, from Willesden Junction to Canonbury on the North London Line and then back to Clapham on the East London Railway and South London Line.

The project will be made possible by phase two of the £1billion East London Railway scheme, which will connect the line with Highbury & Islington to the north and Clapham Junction to the west.



LCA Rating

"Now to be branded 'London Overground', the connecting up of all the currently disjointed bits of railway around London to create its first ever proper commuter 'ring' will be a big undertaking, but promises huge enhancements to services, orbital travel around outer London and corresponding economic benefits."

# DOCKLANDS LIGHT RAILWAY EXTENSIONS



Client: Transport for London / Docklands Light Railway Ltd Completion: Next phase by 2009

Cost: £540m

Logistics Economics Politics

**87%** 

"Although the Stratford extension is being linked to the Olympics and Stratford City development, the Dagenham extension is further away. The recent two extensions have been welcome additions to London's growing light rail network however – making yet more a good bet if money can be found."

The highly successful privately operated DLR is being extended north, south and east. The £150m extension from King George V to Woolwich Arsenal is under construction and will open in 2009.

Further improvements include a line north from Royal Victoria to Stratford International and a £250 million eastward extension from Gallions Reach to Dagenham Dock that will see new stations at Beckton Riverside, Creekmouth, Barking Riverside, Dagenham Vale and Dagenham Dock.

### THAMESLINK

#### RAIL



Client: Network Rail

Status: Funding announcement 2007

Cost: £3.5bn

Logistics

Economics

Politics

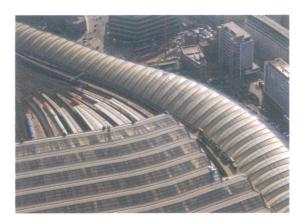
60%

"This much troubled, long-awaited scheme finally received a recent boost when the Government said it would give consent, although big logistical and financial issues still remain. If it happens as currently planned, Thameslink will provide immense relief across a large swathe of London's creaking rail network."

Major works on the Thameslink line through London will boost capacity from seven trains an hour to 24 and extended platforms accommodating 12 car trains.

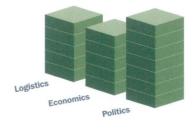
The £3.5 billion project will require big infrastructure works to stations at King's Cross, Farringdon, Blackfriars, London Bridge and Bermondsey. A new station would also be built to serve the Tate Modern art gallery.

# WATERLOO STATION REDEVELOPMENT



Client: Network Rail Status: Earliest start 2008

Cost: £1bn



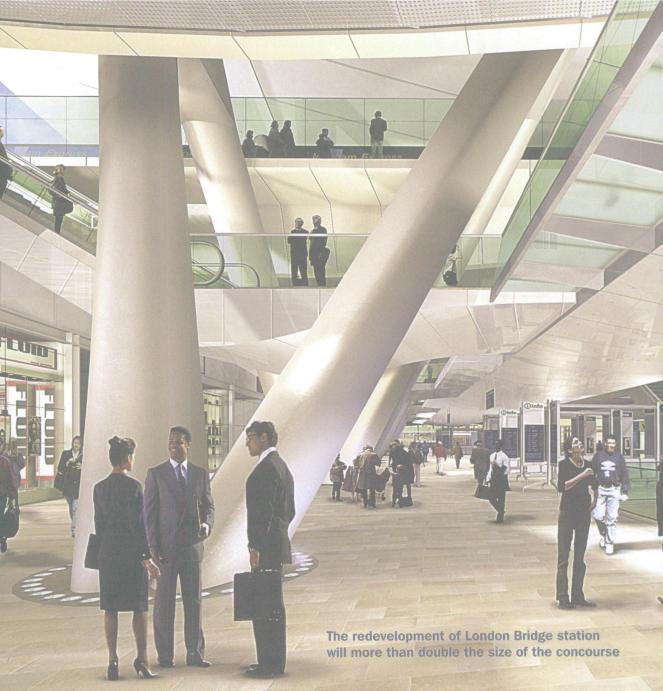
LCA Rating

**57%** 

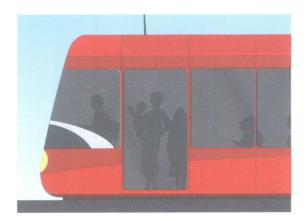
"Yet another London rail terminus which has long outlived its original design and function, despite clumsy redevelopments. The moving of Eurostar to St Pancras allows the opportunity for an ambitious, challenging overhaul."

At Waterloo, the enlarged concourse and longer platforms will be brought down to street level and capacity will be doubled.

Commercial development above the station will fund more than half the £1 billion cost. Network Rail is expected to invite expressions of interest from developers by the end of the year.



### **CROSS RIVER TRAM**



Client: Transport for London Status: Earliest delivery 2016

Cost: £650m

Economics Politics

LCA Rating

33%

Logistics

The £650 million Cross River Tram will be a world-class tram service running on the roads between Euston and Waterloo, with branches to Camden Town and King's Cross in the north and Brixton and Peckham in the south.

The tram would attract 7,000 passengers an hour at peak periods, relieving the overcrowded tube network. The tram will halve journey times into central London from some destinations on the route.

"What everyone agrees could be a wonderful, dramatic and congestion-busting scheme faces immense engineering hurdles – and therefore a hefty cost. It will never be easy driving a brand new tram line straight through central London."

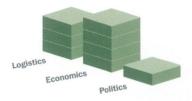
### WEST LONDON TRAM

RAIL



Client: Transport for London Status: Earliest delivery 2013

Cost: £250m



**LCA Rating** 

27%

"It started off as a good idea, but somewhere along the way got badly derailed by local unease, poor consultation and shifting politics. The scheme is now in serious trouble, although Mayor Ken remains keen."

The £250 million West London Tram would run along the A4020 between Shepherds Bush and Uxbridge Town Centre. The service would run through Acton, Ealing, West Ealing, Hanwell, Southall and Hayes End.

There would be 40 stops along the 20km route and carrying capacity would be 5,500 passengers an hour and 44 million a year.

# CROYDON TRAMLINK EXTENSION



Client: Tramlink Croydon Ltd
Status: Phase One in consultation

Logistics Economics Politics

90%

"Although other planned extensions have not secured funding, the Crystal Palace extension is in TfL's current investment plans, so should go ahead without too many problems. There are some engineering issues, but nothing major, and local support is strong."

An extension of the Croydon Tramlink between Beckenham Junction and Crystal Palace has been included in Transport for London's long term investment plans.

The scheme would create an interchange at Crystal Palace between Tramlink, the East London Line terminus and National Rail services and would also provide a major boost to regeneration plans for Crystal Palace and Anerley.

# KING'S CROSS STATION REDEVELOPMENT

RAIL



Client: Network Rail

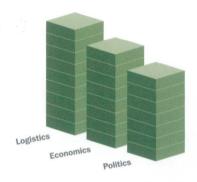
Architect: John McAslan & Partners

Status: Completion due 2010

Cost: £400m

A planning application, submitted in July for a £400 million restoration of King's Cross, will see the original arched roof restored and the 1972 concourse, shopping area and ticket office replaced by a spectacular lattice steel and glass semi-circular concourse structure designed by John MacAslan.

The redevelopment will provide two large new ticket halls and improve access to the station for passengers using tube and Thameslink services.



Rating 80%

"Not to be overshadowed by its impressive neighbour at St Pancras, this promises to be an equally challenging but exciting new scheme. Few will mourn the dreary 1970s frontage but any development in this part of London needs to be done sensitively and with political skill."

### ST PANCRAS INTERNATIONAL

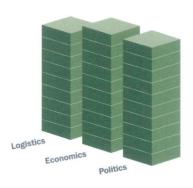


Client: London and Continental Railways Architect: Allies and Morrison Status: Completion due 2007

Cost: £600m

The new central London terminal for high speed rail services to France, Belgium and the rest of Europe is provided within the refurbished St Pancras International station. A 19km rail tunnel will run under London eastwards from St Pancras, while the iconic Victorian station itself is being extended to accommodate Eurostar trains, as part of the £5.2bn CTRL scheme.

St Pancras International also provides the terminus for Thameslink services and Midland Mainline services. Within the same complex, the Kings Cross/St Pancras underground station is undergoing a £300 million upgrade.



**97%** 

"Now taking shape as one of the most spectacular rail stations in London, St Pancras International has been an exemplar of remarkable engineering and ingenuity. With most of the major engineering challenges overcome, the focus now is on getting the operation of the station and its transport services right."

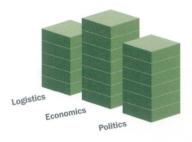
# EUSTON STATION REDEVELOPMENT



Client: Network Rail Status: Proposal Cost: £1bn

Network Rail plans to lever in billions of pounds of private investment to fund improvements to its big London stations.

A £1 billion revamp for Euston Station will be partly financed by a massive mixeduse redevelopment above the station. The station concourse and London Underground concourse underneath will be enlarged.



60%

"This promises to bring yet more dramatic improvement – and disruption – to the massive transport interchange which is now the Euston Road in north central London. As ever, getting the private sector and development mix right will be critical."

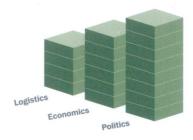
# VICTORIA STATION REDEVELOPMENT



Client: Network Rail Architect: Scott Brownrigg

Status: Planned for completion 2013

Cost: £500m



With 75 million passengers a year, Victoria is one of the most congested stations in London.

The £500 million Victoria Station upgrade will double the size of the station and provide a new ticket hall and new lifts and escalators that will provide step free access to the underground platforms. Private development of 75,000m² above the station will provide funding.

60%

"One of the busiest stations in London, this is a pressure point which has needed redevelopment for a long time. Doubling the size will be a popular, if technically complicated, plan."

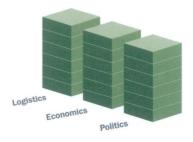


# CANNON STREET STATION REDEVELOPMENT



Client: Network Rail Architect: Foggo Associates Status: Starting on site 2007

Cost: £20m



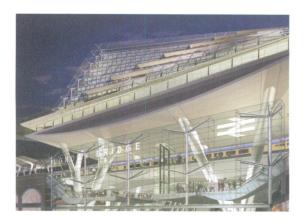
Cannon Street station is the first of a series of national rail station redevelopments in London that will be funded by "overhead" development.

The programme will start with £20 million improvements to Cannon Street Station next year to be partly funded by an "overhead" scheme - to be called Cannon Place - in partnership with developer Hines, that would see an eight storey development rise up above the station.

60%

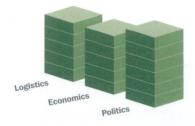
"If timings go as planned, this will be the guinea pig for future station schemes – so the pressure will be on, logistically and politically, to get it right."

## LONDON BRIDGE STATION REDEVELOPMENT



Client: Network Rail Architect: tp bennett

Status: Earliest delivery 2012



The capital's oldest railway station opened in 1836 - is due a major
redevelopment to more than double the

size of the station concourse and increase the platform capacity, enabling the station to accommodate increased Thameslink services.

An eight-storey air-rights development above the station will help fund the upgrade.

LCA Rating

53%

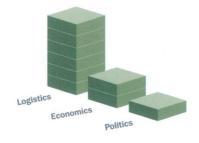
"None of these major redevelopments of overground stations will be easy – and this is no exception. Potential service disruptions, unforeseen project delays and rising costs are all substantial risks."

# REPAIR AND UPGRADE OF LONDON UNDERGROUND



Client: Metronet and Tubelines Status: Ongoing until 2032

Cost: £16bn



London Underground is being refurbished and upgraded under a 30 year Public Private Partnership signed in 2002 that will see £16 billion of investment. Under the deal, two Infracos are financing and managing the works are paid back provided they perform to set targets.

Metronet manages the Bakerloo, Central, Circle, East London, Hammersmith & City, Metropolitan, Victoria, and Waterloo & City lines while Tubelines manages the Northern, Jubilee and Piccadilly Lines. The works include signalling, track renewal and station improvements.

CA Rating

"Some have never really accepted Public Private Partnership as a way of delivering investment in the Tube but, like it or not, it's here to stay. Deliverables are slowly appearing – but too slow and at too much cost, say the critics."

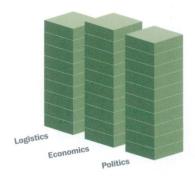
### LONDON 2012 JAVELIN





Client: Olympic Delivery Authority Status: Completion due 2009

Cost: £20m



The London 2012 Javelin train service will ferry thousands of people every hour from the centre of London to the 2012 Olympic site at Stratford in east London in just seven minutes.

The Channel Tunnel Rail Link from St Pancras to Stratford will be commandeered for the two weeks of the games and dedicated 12 carriage trains will run direct to the Olympic Park every three minutes. **97%** 

"This project promises to be as exciting as its name. It will command huge support and will not want for funding. All the infrastructure will be newly built too."

# ELEPHANT & CASTLE STATION

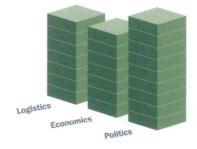


**Client: Southwark Council** 

Architect: make

Status: Planned for completion 2014

Cost: £40m



**77%** 

"This will be a much-needed, long-awaited development. Costly, yes, but what the area has needed for so many years. The problems, if any, are likely to be confined to specific design and engineering issues."

Elephant & Castle's overland station that sits above the shopping centre will be redeveloped as part of a £1.5 billion regeneration of the area.

The station will become more visible under a sweeping transparent roof. The station will be brought together with tube and bus services at a new transport interchange on the site.

# WEMBLEY PARK STATION



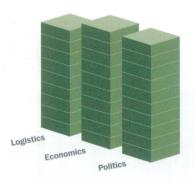
Client: Wembley National Stadium Ltd / Transport for London

Architect: Pascall & Watson Status: Opened 2006

Cost: £70m

The 111-year-old tube station has undergone a major revamp to serve the new 90,000 seat Wembley Stadium. Improvements include a new ticket hall, widened stairs going down to Olympic Way and extended platform roofs. The work will enable an extra 15,500 people an hour to use the station.

### RAIL



**97%** 

"Newly completed, the revamping of the station serving the new Wembley Stadium has attracted consistent support from those in charge of London. Any remaining issues will be small scale."

### RAIL

## **MONOMETRO 2012**



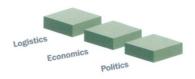
**Proposer: MonoMetro Consortium** 

Status: Proposed Cost: Up to £8.4bn

A 270km network of driverless trains would run below a pair of narrow gauge rails above the streets of London under a proposed scheme promoted by the MonoMetro consortium. The £8.4 billion network would have the capacity to move up to 20,000 people an hour.

Section one would connect Liverpool Street with the Isle of Dogs while later phases would run up to Stratford.

Suspended light rail transit can be delivered at an estimated 60% of the cost of trams.



**10%** 

"More pie in the sky than rail in the sky – but bold nonetheless. The project would require huge funding and engineering resource, not to mention significant political support, if it were ever to go ahead."

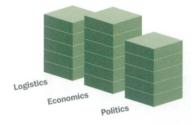
## CROXLEY RAIL LINK



Client: Transport for London / Hertfordshire County Council

Status: Planned for 2011 - 2013

Cost: £65m



The Metropolitan Line would be extended from Croxley to Watford Junction by building a new viaduct to link the Metropolitan Line with a disused rail line that runs through Croxley Green station.

As part of the £65 million scheme new stations would also be provided at Ascot Road and Watford West.

LCA Rating

"Although an initial sum of money has been allocated, this scheme is not currently due to go anywhere until 2011 at the earliest."

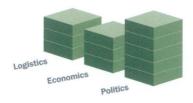
### MAILRAIL



Status: Proposal

Mailrail would see a disused tunnel from Paddington to Whitechapel, that was used by the Royal Mail to ferry letters until 2003, put back into service as an underground freight network.

Electric freight trains would use the tunnels and goods would be lifted to the service at pick up points around the network. Mailrail would reduce the amount of lorries and vans delivering goods around central London's busy roads.



**37%** 

"A lovely idea, this – to re-use for freight the dwarf underground railway that many did not know existed until it was scrapped by the Royal Mail. However, at the moment, it remains just that and nothing more – an idea."

### WHITE CITY

RAIL

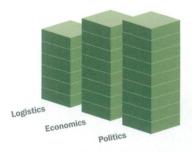


Client: Westfield / London Underground Architect: Ian Ritchie Architects / Tony Meadows Associates Status: Completion due 2007-2008

Cost: £250m

As part of the new mixed-use development at White City, £170 million will be contributed by the developer in transport infrastructure improvements to cater for the anticipated surge of visitors to the area.

A major new transport interchange being built at the south east corner of the development, called the Southern Interchange, will include a new Hammersmith & City line station, a remodelled Central line station at Shepherd's Bush, a new West London Railway station, two double bus stops, cycle routes and a taxi stand.



**77%** 

"This huge scheme promises a dramatic transformation of the area, which will be a huge boost, economically and politically. Such a big scheme will require immense planning skills however."

#### RAIL

## BATTERSEA PARK STATION

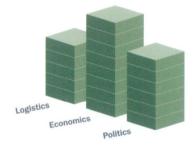


Client: Parkview International

Architect: Grimshaw

Status: Planned for Completion 2010

Cost: £26m



LCA Rating 63%

"Yet another attempt to give this great London landmark a new lease of life appears, once again, to be struggling. And yet the investment in, effectively, a whole new station would be well worth the hassle."

Developer Parkview International is investing £26 million to revamp Battersea Park Station as part of its scheme to regenerate the Power Station. The station will be restored, a new concourse built as well as new lifts and escalators.

The long term vision for London's roads still involves some traditional road building and improvements alongside a large number of schemes to boost bus patronage, cycling and walking.

Ultimately a city-wide charging scheme could see London's drivers automatically debited for using the Capital's roads and the revenue used to pay for major public transport schemes, such as Crossrail.

# CONGESTION CHARGING ZONE EXTENSION



Client: Transport for London Status: Completion due 2007

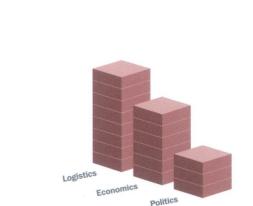
Cost: £166m

LCA Rating **57%** 

"Still a political minefield, the success of the UK's first major scheme has to be acknowledged. Extension westward is a given, whatever opponents might say. Further extensions are more contentious still – but that doesn't mean they won't happen."

London's central congestion charging zone will be extended westwards as far as Kensington in February 2007. Other plans under consideration include higher charges of up to £25 for vehicles that create higher CO2 emissions.

Trials of "tag and beacon" technology, under which transponders in the street communicate with smart cards in the vehicle and charge the vehicle owner automatically, are underway. This could facilitate a London-wide road charging scheme in the future.



# EXHIBITION ROAD PROPOSAL

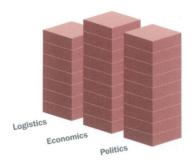




Client: Royal Borough of Kensington & Chelsea / City of Westminster / Transport for London / Mayor of London Architect: Dixon Jones / Arup / Project Centre

Status: Proposal

Cost: £30m



**83%** 

and roads."

"Concepts of clutter and sign-free streets as a way of improving traffic movement and safety are slowly catching on. They appear to be simple, cheap, effective and promise to improve enormously the look and feel of our streets

Under a proposal being worked up for the "museum mile" in Kensington, traffic lights, railings and other street furniture would be removed from Exhibition Road.

The technique, which is already wellestablished elsewhere in the Netherlands, encourages drivers to behave more responsibly and therefore arguably improves road safety as well as creating a more aesthetically pleasing streetscape.

## LONDON CYCLE NETWORK



Client: Transport for London / London Boroughs

Status: Completion due 2010

Cost: £147m

Logistics

Economics

Politics

90%

"With the debate too often focused on 'good' or 'bad' cyclists, it is easy to forget that cycling is actually one of the most logical, inexpensive and healthy ways to get around a city. Relatively simple to implement, too."

The 900km LCN+ network of high quality cycle lanes across the capital will provide safe passage for peddlers at areas of high demand such as near stations and on high-density commuter routes.

It is hoped the £147 million project will play a major role in meeting Ken Livingstone's aim of a 200% increase in London cycling by 2020.

## SCOOTABILITY

### ROAD



Client: London Borough of Camden / London Borough of Islington / Royal Borough of Kensington and Chelsea Status: Now

Cost: Ongoing

Logistics

Economics

Politics

People with mobility problems can be heavily reliant on their cars to get around. In the boroughs of Camden, Islington and the Royal Borough of Kensington and Chelsea, residents can borrow electric scooters and power mobility vehicles for four days at a time free of charge under the award-winning scheme.

Full training is offered and equipment is delivered and picked up from people's homes.

**97%** 

"For those who find it harder than most to get around, but don't want to rely solely on a car, this scheme has been a godsend. A clever idea, simply and effectively implemented."

# THAMES GATEWAY TRANSIT



Client: Transport for London Status: Work starting 2007

Cost: £90m

Logistics
Economics
Politics

Two new bus routes will serve the north and south sides of the Thames either side of the proposed Thames Gateway Bridge at Beckton.

East London Transit would link Ilford, Barking and Dagenham Dock while Greenwich Waterfront Transit would link Abbey Wood to North Greenwich. Much of the routes would run on "segregated busways" and dedicated lanes to ensure speed of journey. Construction of the new routes is due to start in 2007. LCA Rating 50%

"Strangely, although these make good economic and practical sense, they have been caught up in a little local politics of late. Expect a difficult, challenging introduction."

## A23 COULSDON BYPASS





Client: Transport for London Status: Completion due 2006

Cost: £33m

Logistics
Economics
Politics

97%

"Innovative engineering has enabled this project to proceed with minimal disruption, on time and with plaudits for cost effectiveness. It will also much improve life in Coulsdon."

Schemes to increase capacity on London's road network are still needed.

The 1.73km A23 Coulsdon Bypass south of Croydon is expected to cut traffic in Coulsdon town centre by 80%.

The £33m scheme also includes a road tunnel under Coulsdon train station. The 37m concrete tunnel box was jacked through the ground beneath the station over the course of 29 days.

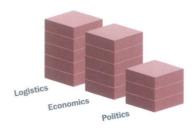
## OXFORD STREET TRAM



Client: Greater London Authority Status: Earliest delivery 2013

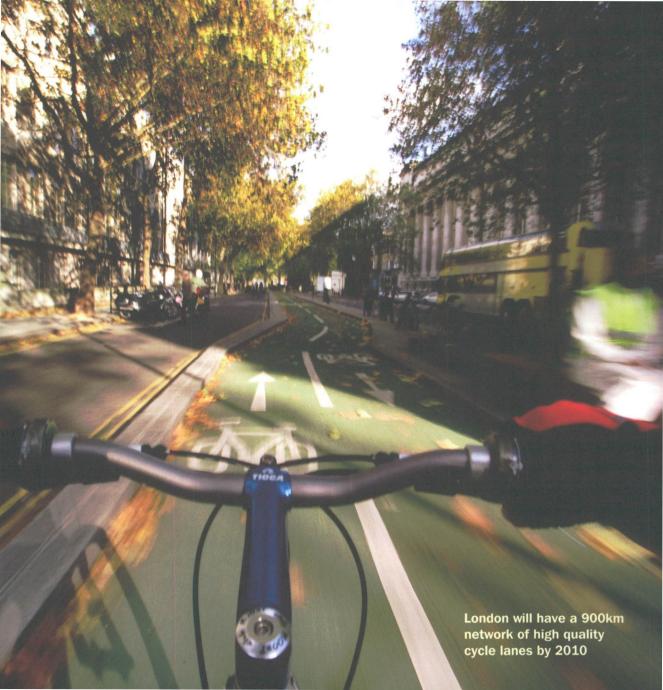
London's busiest shopping street would become a traffic-free zone under plans outlined by Mayor Ken Livingstone to develop a street-running tram in both directions from Marble Arch to Tottenham Court Road. The scheme would also enable pavements to be widened.

Forty per cent of London's bus routes currently run along Oxford Street making it a noisy, polluted and congested environment. Under the scheme, buses would terminate at Marble Arch and Tottenham Court Road.



**43%** 

"Although everyone agrees something should be done, arguments have raged for years as to what this should be. No-one dares get it wrong – but perhaps that means no-one has been bold enough? Whatever happens, it will be expensive, controversial and challenging."

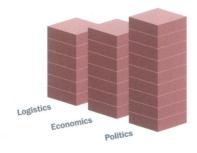


## THAMES ROAD



Client: Bexley Council Status: Completion due 2007

Cost: £42m



1.8 km of the A206 Thames Road in Bexley is being widened to two lanes. The scheme also requires a rail bridge running above the road to be rebuilt to enable two lanes of traffic to pass underneath.

It is estimated that the scheme could help create 6,000 jobs in the borough.

**73%** 

"Technically tricky, this scheme nevertheless makes perfect sense and, if planned properly, should not encounter much resistance."

## LONDON TUNNELS





**Client: Transport for London** 

Status: Ongoing Cost: £100m

Logistics
Economics
Politics

**77%** 

"Once built, tunnels require a surprisingly high level of maintenance and many of London's have been due an overhaul for years. Not a technically difficult project, apart from some congestion, nor controversial, but quite expensive for what you actually end up with – a slightly better tunnel."

More than £100 million improvements are planned for London's road tunnels, including Blackwall, Rotherhithe and Fore Street tunnels.

The works will include maintenance, refurbishment as well as environmental improvements such as to light and drainage and safety improvements such as to improve fire detection and resistance.

## SLOANE SQUARE



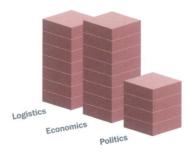
Client: Royal Borough of Kensington & Chelsea / Transport for London / Greater London Authority Architect: Stanton Williams Status: Planned for completion 2009

Cost: £4.5m

An ongoing programme to create a series of new public spaces in London is expected to provide a major boost to the pedestrian.

At Sloane Square, road traffic dominates the square and pedestrians are crowded onto the surrounding pavements.

The existing one way roundabout would be reconfigured into a two way crossroads. This would create two large piazzas on either side that would adjoin the buildings around the square including Sloane Square tube station, the Royal Court Theatre and Peter Jones department store.



LCA Rating

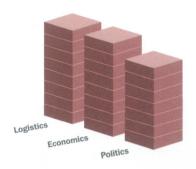
"A much-loved square in one of the wealthier hearts of London, the project to overhaul its layout and design has inevitably caused a few rows. So long as the politics can be sorted, the money and planning should be simple enough."

### A4 GREEN CORRIDOR



Client: Green Corridor / LB Hammersmith & Fulham / Royal Borough of Kensington & Chelsea / Transport for London / GLA Architect: Whitelaw Turkington / Peter Brett / Sutton Vane Status: Ongoing

Cost: £16.7m



The A4 gateway into London will be transformed into a green corridor illuminated by high-quality public spaces and tree planting that absorbs pollutants and improves air quality.

A strategic green corridor along the A4 from Heathrow Airport to Chiswick has already been implemented.

**77%** 

"Finally, we are realising that roads and streets do not have to be dominated by vehicles, noise, dirt and pollution. That does however mean a considerable shift in our attitude towards car use."

# AI / HIGHBURY CORNER

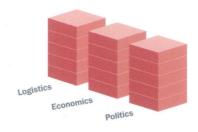


Client: Transport for London / Greater London Authority /

**London Borough of Islington** 

**Architect: JMP Consulting / Gillespies** 

Status: Proposal



Eight new public spaces would be created along a 10km stretch of the A1 through Islington from Old Street Gateway to Archway.

Roundabouts at Old Street, Highbury Corner and Archway would be transformed under schemes that would remove road markings and street furniture. Roundabouts at Highbury Corner and Archway would also be partially closed to traffic to open up the space for pedestrians.

The scheme will remove barriers to pedestrian movement across the A1 at eight "stitches" along the route.

50%

"A particularly ugly connecting series of roads, this network can only be improved with a bit of vision, some thoughtful planning and a modest funding package."

## LOW EMISSION ZONE



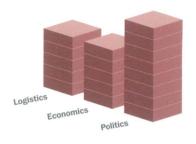


Client: Greater London Authority Status: Completion due 2008

Cost: £2.8m

In a bid to improve the Capital's air quality, London Mayor Ken Livingstone is proposing to levy an extra charge for entering Greater London on vehicles that produce higher fuel emissions.

High polluting vehicles such as Heavy Goods Vehicles, coaches, mini buses and larger vans would be charged under the LEZ. Transport for London conducted a public consultation on LEZ between January and April 2006.



LCA Rating 60%

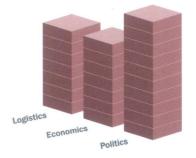
"The current congestion charging scheme has proved a useful testbed for this, a logical progression to try and create cleaner air by cracking down on emissions from commercial vehicles. With proven technology, and most stakeholders onside, it will be interesting to see what actual effect this has on some of the Capital's most polluted blackspots."

## TOUR DE FRANCE LONDON STAGE



Client: Greater London Authority

Status: 2007

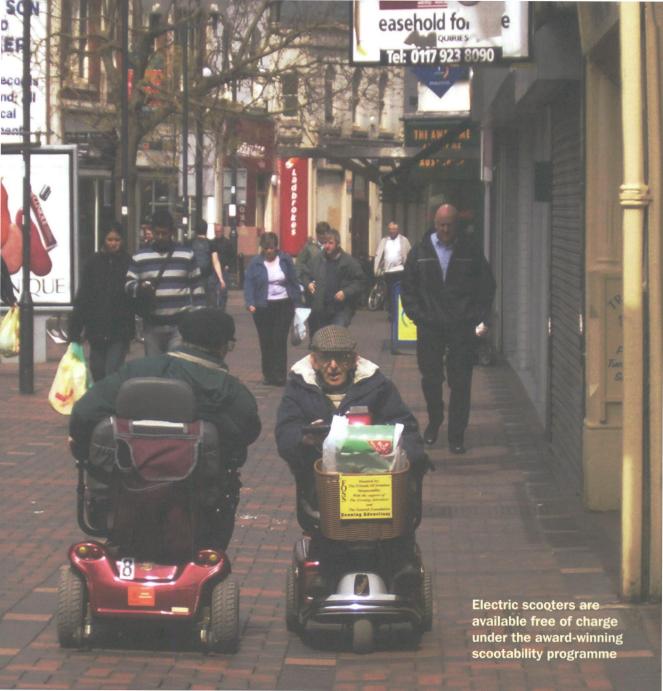


Rating 80%

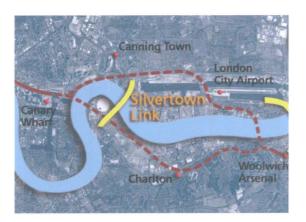
"Finally, London is beginning to seem more like a city which accepts and likes cycling – the spectacular event being staged next year should seal that progress. It will be a huge event however, and expensive to run albeit with sponsorship money pouring in."

It is hoped that the staging of the prologue and opening stage of the Tour de France in July 2007 will provide a further boost to cycling in London.

The tour will kick off with a 5km prologue passing all the famous sights of central London. The first stage will start in central London and pass through the east of the city on its way to Kent.



# SILVERTOWN CROSSING

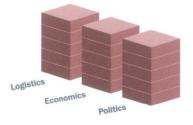


**Client: Transport for London** 

**Architect: TBA** 

Status: Earliest delivery 2017-2022

Cost: £250m



A new river crossing from West Silvertown on the north side of the Thames to the Greenwich Peninsula would ease traffic congestion in the Blackwall Tunnel.

The crossing, to be progressed after the Thames Gateway Bridge further to the east, would use the same planning, design and construction team to maximise efficiency.

LCA Rating 50%

"This visionary plan would take us even beyond the Thames Gateway Bridge. Some suggest a tunnel as a better option – the TGB should provide some answers as the guinea pig project."

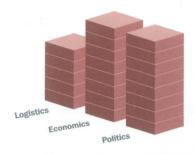
## **IBUS**





Client: Transport for London Status: Implementation 2006-2010

Cost: £117m



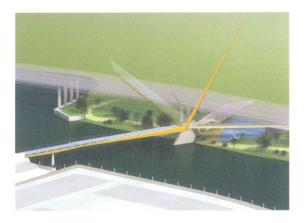
The days of three buses turning up at once and then nothing for half an hour will be a thing of the past under an Automatic Vehicle Location (AVL) system that will enable the exact location of any of the Capital's 8,000-strong bus fleet to be pinpointed.

Through use of global positioning systems (GPS) technology the fleet can be better managed and more up to the minute information will be available for the countdown screens that are being installed at bus stops across London.

70%

"The end of the tired old joke about waiting for a bus will be mourned by no-one – if indeed a simple information system per se can overcome roadworks, congestion, accidents and all the other unforeseen events on London's roads..."

## LEA RIVER CROSSINGS



Client: Leaside Regeneration Ltd / Ballymore Properties Architect: whitbybird / Thomas Heatherwick

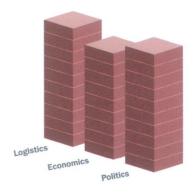
Status: Implementation 2007

Cost: £3.5m

Two new footbridges are planned, both of which will provide a major boost to the planned regeneration of the Leamouth Peninsula.

The first is a footbridge connecting Trinity Buoy Wharf with the eastern side of Bow Creek. Designed by whitbybird, the iconic bridge will have a 45m high mast that will tilt downwards to raise the deck to allow river traffic to pass underneath.

The second, also a pedestrian bridge, designed by Thomas Heatherwick, will link Canning Town station with the north of the Leamouth Peninsula as part of a development by Ballymore Properties.



100 Rating **97%** 

"The stunning designs proposed for the crossings will be some of the earliest, symbolic completions as London looks East for the next phase in its evolution and growth."

# LONDON CONSTRUCTION CONSOLIDATION CENTRE



Client: Transport for London / Stanhope Plc / Bovis Lend Lease / Wilson James

Status: Now Cost: £3.1m Logistics
Economics
Politics

In a bid to cut lorry freight, construction materials are delivered to the London Construction Consolidation Centre in Bermondsey in bulk and held until they are ready to be delivered in cleaner vehicles and in the right amount to a construction site.

This means that less lorries are turned away from construction sites and in the first six months since the centre opened lorry trips to the construction sites concerned have been cut by more than 70%.

Property of the second second

"What a brilliant, simple idea – and so far, it seems to be working just fine. If only everything in transport was as straightforward to crack as this."

## THAMES GATEWAY BRIDGE



Client: Transport for London Architect: Marks Barfield Status: Earliest delivery 2012

Cost: £400m

Logistics Economics Politics

Rating 80%

"The first bridge to be built over the Thames in decades, the need is well established, although environmental opponents liken bridge building to road building — saying it will just create more traffic. It could however be self-financing through tolls, which would also control congestion."

The £400 million road bridge over the Thames, connecting Beckton and Thamesmead in east London, is a key part of plans to regenerate London's Thames Gateway.

The bridge would be only the fourth crossing for traffic east of Tower Bridge compared to eight in central London and 16 between Chelsea Bridge and the M25. Toll revenue would contribute towards construction cost.

The Thames has long been regarded as an under-utilised resource for ferrying people across London.

New plans under development could see a new generation of river boat services and the re-emergence of the Capital's man-made waterways freight network. Schemes to enhance the riverside and provide new crossings will help to improve connectivity around the Thames.

# BATTERSEA POWER STATION RIVERBUS



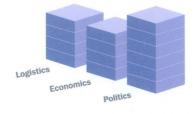
**Client: Parkview International** 

Status: Proposal

A new riverbus is set to connect the redeveloped Battersea Power Station site with Chelsea to the west, central London, the City of London and Docklands to the east.

A fleet of purpose-designed, high speed catamaran passenger ferries will each carry up to 150 passengers.

The service will be operated under a partnership between Battersea Power Station developer Parkview International, ferry boat operators Thames Clippers and Red Funnel Group.



47%

"With doubts being raised about yet another scheme to redevelop the old power station, this innovative new transport initiative must also be regarded as less than certain."

# CANAL FREIGHT TRANSPORT IN WEST LONDON

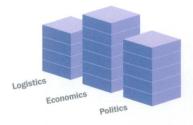


Client: British Waterways

Status: Current Cost: £1.6m

A study into the freight-carrying potential of the West London Canal Network - which includes the Grand Union Canal - has found that 640,000 tonnes of freight a year could be carried on barges. The congestion busting project would cut lorry miles in West London by an estimated 530,000 miles. The network would need five key interchange points between the canal and road network to be built.

The project could be taken forward in the future under a joint venture between Transport for London and British Waterways.



50%

"Such a simple idea must surely be worth exploring – but the logistics of interchanging tarmac and water will not be easy. There may be politics involved, too, at regional and subregional level."

## LONDON GATEWAY (SHELL HAVEN)

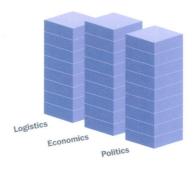


Client: DP World / Shell Status: Proposal Cost: £1.5bn

A new container port for London is being developed at Shell Haven on the Thames Estuary, along with a business park, that would be capable of handling 3.5 million containers a year.

The development on the site of a disused oil refinery at Stanford-le-Hope would create a 600 hectare plot with 3km of quayside, accommodating up to 10 vessels at a time.

The proposal that is being developed by DP World and Shell is currently subject to a public inquiry.



**LCA Rating** 

87%

"So long as it can accommodate important environmental concerns, this huge scheme will make good economic, logistical and political sense."



## OLYMPIC WATERWAYS



Client: Olympic Delivery Authority Architect: EDAW Consortium Status: Planned for completion 2008

Cost: £15m

Logistics
Economics
Politics

When construction of the London 2012 Olympics in the Lower Lea Valley gets into full swing, it is proposed to use the long neglected network of water ways around the Olympic site to ferry construction materials.

Materials could be barged to pick-up points around the site under an initiative that would take a lot of pressure off local roads that are expected to get clogged up with construction traffic.

A new water control structure, including a lock at Prescott Channel, would make the waterways navigable for barges under a £15 million scheme.

**97%** 

"This cunning plan to maximise the impact, legacy and environmental credentials of the 2012 games in London ticks virtually every box. A scheme whose time has come."

## THAMES CLIPPERS'







Client: P&O Group / AEG Europe / Thames Clippers /

**Red Funnel Group** 

Status: Planned for completion 2007

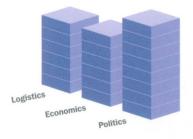
Cost: Ongoing

P&O Group is in talks to extend river services on the Thames in time for the Olympics in 2012.

The new fleet of river craft would run services between Greenwich and Putney.

The plans are already under discussion between P&O, Greenwich Council, and the owner of the Millennium Dome site **AEG** Europe and the operators of existing services Thames Clippers and Red Funnel Group.

Thames Clippers has already announced plans to double its fleet running existing river hoat services between Greenwich and central London.



**LCA Rating** 

67%

"It seems such a nice idea - commuting by boat - but many have tried and the Thames is a challenging river to tame. This however promises a serious attempt. If the logistics can be overcome, and money will need to go a long way to do this, then the project should be sure of good support and popular usage."

There has been a major investment increase in London's transport system but equally important under the Mayor's London Plan is for facilities to be sustainable, accessible and for smooth connections between nodes.

Not all the transport projects mooted for London can be afforded and the London Plan sets out those schemes which are seen as a priority to get London Moving.

#### INTERCHANGES

Transport interchanges, where people can switch from one mode of transport to another at the same location and in a space that is pleasant, safe and easy to navigate, are improving all the time.

A major interchange at Vauxhall Bridge including an iconic bus shelter has been a big success. Another interchange between tube, rail and bus services at Finsbury Park will be completed next year and completion of the Channel Tunnel Rail Link will see improvements to the interchange at Stratford International Station. Major new commercial developments such as at Elephant & Castle will also be an opportunity to improve interchange facilities.

#### SUSTAINABILITY

Many of the transport improvements planned for London are geared towards reducing fuel emissions.

Initiatives include existing and future schemes to charge for road use and the many schemes to boost walking and bike use in London.

Other initiatives to cut lorry freight, such as the South Bermondsey Construction Consolidation Centre that will hold materials until they are ready to be delivered in cleaner vehicles and in the right amount to a construction site – will have a major impact because, on average, lorries cover five times as much ground in London than cars

Ultimately the result will be improved air quality and healthier Londoners.

#### ACCESSIBILITY

Although much more needs to be done, London's transport system is gradually becoming accessible for all.

Accessibility is a key requirement of any new transport scheme in London – a requirement that has been strengthened by disability discrimination legislation in recent years.

As a result, new bus services provided in London have doors that open flush to the pavement making it easier for wheel chairs and prams to come on board. Rail stations have been equipped with lifts to help the wheelchair-bound switch between platforms. Platforms have tactile and coloured paving, making it easier for the partially-sited to navigate.

Tube maps show points of disabled access on London Underground.



After half a century of underinvestment in transport in London it is heartening to see so much happening. Nevertheless, it is clear from the delivery dates of many of the major projects, stoical Londoners are likely to have to put up with cattle truck conditions for some years yet.

Policies are pointing in the right direction – what is missing is the financial support of central Government for major projects which are not only good for London but are essential to the national economy and a bit more lateral thinking at Transport for London to give greater support to alternative means of getting around.



### DELIVERY

#### THAMESLINK

The recently announced planning permission for Thameslink reflects the sclerotic process such projects must endure.

The improved network was first discussed in 1991; it has taken 15 years to get permission, still with no guarantee of Government funding. Even if, as hoped, money is allocated next year it will take at least 7 years to build.

So no relief there for north-south commuters till 2013 at the earliest.

#### CROSSRAIL

It will soon be 20 years since the Crossrail project was proposed - and still funding has yet to be agreed. Ken Livingstone is confident that the Government will agree to pay part next year (the balance will be paid by business).

The economic benefits of Crossrail are undisputed
- £30bn to UK GDP over 60 years, an extra £12bn in
tax revenues, and between 56,000 and 110,000 new
jobs. The City of London and Canary Wharf see Crossrail
as absolutely essential to the health of the economy of
'Europe's financial capital."

It would be a short sighted Chancellor who turned it down.

#### LONDON OVERGROUND

The recently announced creation of London Overground creates the possibility of an orbital rail service by linking a series of lines that circle the suburbs. This will provide much needed public transport links for outer London areas; particularly in South London which has always held the short straw in terms of public transport provision.

Let's hope it doesn't take another 15 or 20 years before this gets the go-ahead.

# SO WHY NOT LOOK AT SOME SOLUTIONS THAT CAN BE DELIVERED SOONER?

#### THE RIVER

In a report published this year, the GLA Transport Committee suggested that there was a lack of interest and leadership in TfL regarding the expansion of services on the River Thames.

They are missing an easy win.

Experts involved with river transport reckon that new boats can be working within 12 months. If you look at the access provided by the river and a ten or fifteen minute walk, you cover large tracts of central London.

New developments along the Thames,  $\mathrm{O}_2$  and Battersea Power Station development, as well as connections out to east London and the Thames Gateway, suggest the river is an opportunity missed. The current Thames Clippers service runs 7 boats, carrying around 1 million people per year. Whilst this is small in the context of London's total travel demands, this number could grow fast and be symbolically important for London. The recent involvement of Dome owners AEG Europe in the Clippers service means the introduction of an additional six catamaran-type vessels on the river in 2007, with an increase in the frequency of service. The Battersea Power Station boats will provide additional services when that development gets underway.

#### WALKING AND CYCLING

Over half of all journeys in London are less than 2 kilometres. At least 1.4 million more journeys per day could easily be made on foot and by bike instead of by car, tube and bus. This would relieve congestion on the roads and public transport, reducing the number of car journeys by 8.5 per cent and the number of tube and bus journeys by 7 per cent.

The greatest disincentive to cycling is its perceived

danger. While there has been welcome progress in the development of cycle lanes, there is still a lack of coordination and common thinking among boroughs. The routes are inconsistent and unlinked. Provisions for cycle parking are slow and patchy.

More needs to be done. Improving the cyclists' lot is one of the cheapest ways to improve movement in the capital.

Walking too provides an inexpensive way of relieving pressure on tubes and buses as well as providing other benefits. The Legible London programme is to be applauded but needs to gain the early acceptance of the boroughs if it is to work coherently.

#### LONDON 2012 AND GATEWAYS TO LONDON

In the lead up to 2012 the international transport links – rail termini, airports and roads – need to address how they welcome the visitor. The 'gateways' to London leave much to be desired, not just in the quality of the surrounding environment, but in assisting and guiding people to their destination.

#### ROAD CHARGING AND BUSES

The control of the car is a challenge that faces every major city in the world. London has taken brave policies in implementing congestion charging. Future use of car pricing using GPS tracking devices will advance the Mayor's aims to create a world class, sustainable city that can cater for an expanding population and economic growth.

While there have been enormous improvements over the last 4 years in the bus service, surely there is still room for some new thinking and possibly a major restructuring of some bus routes to make them feed key interchanges and hubs in a way that better uses scarce resources. If the Mayor's idea of clearing the buses from Oxford Street takes off, major route changes will be inevitable.

### **CREDITS**

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## BREAKFAST TALKS PROGRAMME

WEDNESDAY 8 NOVEMBER
PAYING FOR A BIGGER,
BETTER QUALITY LONDON

STEPHEN GLAISTER, PROFESSOR OF TRANSPORT AND INFRASTRUCTURE, IMPERIAL COLLEGE LONDON

THURSDAY 9 NOVEMBER

CIVILISING TRANSPORT TECHNOLOGY

DR ØYVIND ISAKSEN, CEO, Q-FREE; ODDVAR SOLEMSLI, Q-FREE; GIULLIO CEPPI, TOTAL TOOL

**WEDNESDAY 15 NOVEMBER** 

T5 - THE PASSENGER JOURNEY

DAVID BARTLETT, HEAD OF DESIGN – TECHNICAL LEADERSHIP, TERMINAL 5, BAA

**WEDNESDAY 22 NOVEMBER** 

EUROPE'S DESTINATION STATION - ST PANCRAS INTERNATIONAL

MIKE LUDDY, PROJECT DIRECTOR, LONDON AND CONTINENTAL RAILWAYS

**WEDNESDAY 29 NOVEMBER** 

HOW LONDON COULD
MOVE BETTER IF IT TRIED

STEVEN NORRIS, CHAIRMAN, 'QUALITY OF LIFE COMMISSION' TRANSPORT GROUP

THURSDAY 30 NOVEMBER

WHAT CAN LONDON LEARN FROM OTHER CITIES?

RICHARD WILLIAMS, MANAGING DIRECTOR TRANSPORTATION, MOTT MACDONALD

WEDNESDAY 6 DECEMBER
COMPLETING THE VISION
IAN BROWN, MANAGING DIRECTOR, LONDON RAIL

WEDNESDAY 13 DECEMBER

TRANSPORT, DEVELOPMENT AND THE LONDON PLAN

HENRY ABRAHAM, HEAD OF ECONOMIC DEVELOPMENT AND TRANSPORT, GLA

THURSDAY 14 DECEMBER

MOVING EAST - IS INFRASTRUCTURE THE KEY TO REGENERATION?

ROGER MCGLYNN, DIRECTOR, ATKINS

WEDNESDAY 10 JANUARY
THE OLYMPIC TRANSPORT PLAN

HUGH SUMMER, HEAD OF TRANSPORT, OLYMPIC DELIVERY AUTHORITY

THURSDAY 11 JANUARY

TAKING DLR TO THE GAMES

JONATHAN FOX, DIRECTOR, DOCKLANDS LIGHT RAILWAY

#### **BOOKING INFORMATION**

FREE ENTRY. FOR TICKETS, EMAIL
TALKS@NEWLONDONARCHITECTURE.ORG
REGISTRATION AND BREAKFAST FROM 8 AM
ALL TALKS START PROMPTLY AT 8.30 AM

