

Table 6.1 Indicative list of transport schemes

Scheme	Description	cost	Anticipated completion		
			2013-2016	2017-21/22	post 2022
Rail					
Crossrail 1	Core scheme: Maidenhead and Heathrow in the west to Shenfield and Abbey Wood in the east	H			
High Speed 1	International services stopping at Stratford	L			
High Speed 1	Direct services to a wider range of European destinations (making use of new European infrastructure)	L			
High Speed 2	London to the West Midlands and beyond.	H			
Improved rail freight terminals to serve London	New and/or expanded rail freight terminals to serve London	L			
Improved rail freight routes	Rail link from Barking - Gospel Oak line to West Coast Main Line	M			
Improved rail freight routes	Further capacity enhancement for the Felixstowe - Nuneaton route	M			
Crossrail 1 extensions	Westerly extension(s) potentially to Reading/Milton Keynes/ Watford/ Staines (via Airtrack) and/or additional services to Heathrow and West Drayton Easterly extension from Abbey Wood - Gravesend	M			

Scheme	Description	cost	Anticipated completion		
			2013-2016	2017-21/22	post 2022
Crossrail 2 (formerly Chelsea-Hackney line)	Enhanced southwest – northeast London capacity and connectivity. Scheme detail to be reviewed to ensure maximum benefits and value for money	H			
London Over-ground- Capacity Improvement Programme	Scheme to provide a fifth carriage (and associated infrastructure works on the north, west and east London lines, as well as the Euston – Watford 'DC' line)	M			
London Over-ground	Barking - Gospel Oak line – electrification and train lengthening	L			
London Over-ground	Extension from Barking to Barking Riverside	M			
West Anglia	Stratford –Angel Road capacity enhancement to enable the running of 4 trains per hour.	M			
West Anglia	Further service enhancements (including four-tracking) across the whole of the Lea Valley line	M/H			
Essex Thameside	Further capacity increases including increased speeds on the Tilbury loop and more 12 car services	M			
South Central London	Ten-car capability on inner suburban Twelve-car capability and additional fast services (HLOS CP4)	M/L			
South Central London	Further CP5 capacity increases	M			

Scheme	Description	cost	Anticipated completion		
			2013-2016	2017-21/22	post 2022
Southeast London	Works to allow 12 car running on Sidcup Bexleyheath, Greenwich, Woolwich, Dartford, Rochester, Hayes & Sevenoaks routes and redevelopment work at Victoria and Charing Cross	M			
Southeast London	Further CP5 capacity increases	M			
Southwest London	Ten-car capability on inner suburban and Windsor lines (HLOS CP4)	M			
Southwest London	Further CP5 capacity increases	M			
Great Western	Electrification with associated change in rolling stock allocation	H			
Great Northern	Train lengthening (HLOS CP4)	L			
Great Northern	Further CP5 capacity increases	L			
Great Eastern	Further CP5 capacity increases including Bow Junction remodeling which will help increase frequency of outer suburban services from 24 to 28 tph	L			
West Coast	Further CP5 capacity increases	L			
Thameslink	End of 2018: 24 trains per hour through core, expanded network	H			
Thameslink	Make greater use of 12-car capability coverage	M			

Scheme	Description	cost	Anticipated completion		
			2013-2016	2017-21/22	post 2022
Rail termini enhancement	Passenger congestion relief/ onward movement capacity enhancement works. Schemes under development including the provision of step free access.	M			
Airport access	Improved access to Heathrow Airport from south London being considered	M			
Tube					
Jubilee line	Jubilee line upgrade in delivery phase to provide additional capacity and improve journey times. Under the World Class Capacity programme, further peak service train increases are planned, subject to fleet expansion.	M			
Northern line	Phase 1: Northern line upgrade in delivery phase to provide additional capacity and improve journey times	M			
Northern line	Phase 2: Northern line Upgrade 2 to deliver a further 20 per cent increase in capacity through the simplification and recasting of service patterns	M			
Northern line Extension	Extension of the Northern line from Kennington to Battersea to support the regeneration of the Vauxhall/ Nine Elms/Battersea area	M			

Scheme	Description	cost	Anticipated completion		
			2013-2016	2017-21/22	post 2022
Victoria line	Victoria line upgrade in delivery phase including new rolling stock and signalling to provide additional capacity and improve journey times. Under the World Class Capacity programme, further peak service train increases are planned, subject to fleet expansion.	M			
Piccadilly line	Piccadilly line upgrade to provide additional capacity and improve journey times First new trains expected to be delivered 2021/22	M			
Sub-Surface Railway (SSR)	Circle, District, Hammer-smith & City and Metropolitan lines upgrade (including new air-conditioned rolling stock and new signalling) to provide additional capacity and improve journey times	H			
Metropolitan line	Croxley rail link to Watford Junction	M			
Central line	Central line upgrade: Including new energy efficient and high capacity rolling stock and signalling	M			
Bakerloo line	Bakerloo line upgrade: Including new energy efficient and high capacity rolling stock and signalling	M			
Bakerloo line	Bakerloo line southern extension; potential scheme and route under investigation	H			

Scheme	Description	cost	Anticipated completion		
			2013-2016	2017-21/22	post 2022
Station refurbishment/modernisation/programme	Continuing programme of refurbishment/modernisation of stations	H			
Core asset renewal	Programme of core asset renewal to lock in benefits from the upgrades and maintain assets in a state of good repair	H			
Tube station congestion relief schemes	Congestion relief (and step free access) schemes, including Victoria, Tottenham Court Road, Bond Street, Bank Paddington (Hammer-smith & City line), Holborn, Camden. A targeted station capacity programme looking at further congestion relief schemes	H			
Energy-saving initiatives Regenerative braking and automatic train control	A programme of work to include low energy lighting, smart electricity metering at stations and low loss conductor rails To be implemented as an integral part of the Tube upgrade programme	L/M			
DLR					
Reconfiguration of train interiors	To temporarily relieve crowding until additional trains are procured	L			

Scheme	Description	cost	Anticipated completion		
			2013-2016	2017-21/22	post 2022
North Route Double Tracking (works associated with Crossrail funded- to be delivered by 2019)	To increase reliability, frequency and capacity of line	L			
Additional Rolling Stock	To support large scale developments e.g. Royal Docks and Olympic Park	L/M			
Station Improvement and capacity work:	<p>Improved efficiency of interchange to accommodate increased passenger flows resulting from large scale developments, including:</p> <p>Royal Albert and Gallions Reach station capacity upgrades</p> <p>Congestion relief at Canning Town</p> <p>Increase capacity for interchange between DLR and Crossrail (eg Custom House) to support Royal Docks developments</p> <p>Increase Shadwell and Pontoon Dock station capacity to accommodate increasing passenger flows</p>	L			

Scheme	Description	cost	Anticipated completion		
			2013-2016	2017-21/22	post 2022
DLR Extensions	Work to support the Mayor's ambition for enhanced rail access to Bromley and southeast London, including Overground, rail and DLR improvements. Work towards potential extensions of west of Bank, and east of Gallions Reach	H			
Tramlink					
Further enhancements to the Tramlink network	Potential extensions and/or capacity increases	L/M			
	Double tracking to Wimbledon	L			
Buses and bus transit					
Bus network development	Regular review of bus network to cater for population, housing and employment growth, maintain ease of use, attractive frequencies and adequate capacity, reliable services, good coverage, effective priority and good interchange with other modes.	M			
Low emission buses	Intention that all new buses entering London's fleet post 2012 be low emission (initially diesel hybrid)	M			
Bus stop accessibility programme	Improved accessibility of bus stops- ensure that 95% of bus stops are accessible by the end of 2016	L			

Scheme	Description	cost	Anticipated completion		
			2013-2016	2017-21/22	post 2022
High Quality Bus Priority	Bus priority / transit corridors- investment supporting economic revitalisation in London's Opportunity Areas by providing new links and services	L			
Bus Reliability	Bus reliability pinch points (annualised scheme) – scheme to identify around 30 sites where bus priority measures will be implemented to improve bus and road network reliability	L			
Cycling projects					
Central London Grid	Delivery of a central London 'Bike Grid' of high quality, high-volume cycle routes, using a combination of segregation and quiet shared streets, along with some innovative use of existing infrastructure.	L			
Quietways	A well-signed network of radial and orbital routes, mainly on low-traffic back streets, for those wanting a more relaxed cycle journey. Includes a central London 'Bike Grid' of high quality, high volume cycle routes, using a combination of segregation and quiet shared streets along with some innovative use of existing infrastructure	L			

Scheme	Description	cost	Anticipated completion		
			2013-2016	2017-21/22	post 2022
Greenways	A network of attractive and functional routes for walking and cycling to, and through, green spaces across the Capital.	L			
Cycle Super highways	New radial routes to central London and improvements to existing Cycle Super-highways. Including fast and substantially segregated cycle superhighways providing north-south and east-west routes through central London.	L			
Biking Boroughs	Final year (2013-14) of delivery of a package of infrastructure and supporting measures by thirteen outer London Boroughs.	L			
Mini-Hollands	Transformational change in up to four Outer London town centres to provide exemplar facilities for cyclists. Programmes will be based around providing cycle-friendly town centres, cycle routes and cycle superhubs at local railway stations.	M			
Cycle Superhubs at rail and tube stations	Mass cycle storage facilities with good security and cycle routes at rail and tube stations.	L			

Scheme	Description	cost	Anticipated completion		
			2013-2016	2017-21/22	post 2022
Cycle to School partnerships	Partnerships between boroughs, schools and local communities all working to make cycling to school easier and safer. Local infrastructure improvements will be delivered alongside supporting activities at a cluster of schools within a geographical area.	L			
Cycle parking	Continued delivery towards target of 80,000 spaces by 2016.	L			
Better Junctions	Better junctions that are addressing cyclist and pedestrian safety at over 30 key junctions in London, including: Bow roundabout; Holland Park roundabout; Aldgate gyratory; Swiss Cottage; Nags Head	L			
Walking and urban realm enhancements					
Enhanced urban realm and pedestrian environment	<p>London-wide 'better streets' initiatives to improve pedestrian connectivity and urban realm</p> <p>A range of gyratory removal schemes such as: Aldgate; Tottenham Court Road and Gower Street; Canning Town; Kender Street</p> <p>Series of urban realm / town centre enhancements such as: Camberwell; Clapham Gateway; Manford Way; Bromley North; Tolworth Broadway; Twickenham</p>	M			

Scheme	Description	cost	Anticipated completion		
			2013-2016	2017-21/22	post 2022
Improved access to stations and integration with surroundings	<p>Targeted programme of works to improve access to stations by different modes (walk, cycle, bus), enhance interchange and ensure local benefits, including:</p> <p>Crossrail urban realm complementary measures schemes at Bond Street; Tottenham Court Road and a number of inner/outer London stations</p> <p>Station and interchange enhancements: Chadwell Heath and Barking Station; Sutton Gateway; East Croydon</p> <p>Enhanced bus services and interchange at key Crossrail / Thameslink stations</p>	M			
Improved Wayfinding	Targeted introduction of on-street wayfinding specifically designed for pedestrians through Legible London at a variety of locations	L			
Increased tree and vegetation coverage	Target of five per cent increase in trees in London's parks, gardens and green spaces by 2025	L			

Scheme	Description	cost	Anticipated completion		
			2013-2016	2017-21/22	post 2022
Road Projects					
Achievement of a good state of repair of road infrastructure	Ongoing programme of maintenance to maintain the TLRN to a state of good repair through the renewal of carriageways, footways, tunnels, structures, bridges, drainage, vehicle restraint systems and other assets.	L/M			
Enhanced safety features- improving safety for all road users	Implementation of a number of projects including: Identifying locations for Dutch style roundabouts Early start traffic signal technology Technology to protect all vulnerable tunnels and structures by 2016	L			
21st Century road works- reducing delay	Projects include: Lane rental charges to minimise road work disruption Underground utility corridors to reduce the need for road-works	L/M			

Scheme	Description	cost	Anticipated completion		
			2013-2016	2017-21/22	post 2022
Greener Streets-implementation of a range of environmental measures	<p>A range of projects being implemented, including but not limited to:</p> <p>Extra low voltage traffic signals and centrally managed lighting systems</p> <p>Mayor's air quality fund eg green walls, no engine-idling campaigns, local green action zones</p> <p>Supporting expansion of car clubs</p> <p>Supporting more environmentally friendly vehicles, including introducing a Euro IV and NOx standard for London Buses in 2015</p> <p>Provision of infrastructure to support low emission road vehicles, including distribution networks for other alternative fuels including hydrogen and biofuels (unfunded)</p>	L/M			
Re-imagined streets and places	<p>A series of schemes to support growth and transform key areas of London including:</p> <p>Elephant and Castle northern roundabout; Kings Cross; Euston Road; Old Street; Waterloo IMAX</p>	L			

Scheme	Description	cost	Anticipated completion		
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Better management of road space to improve journey time reliability	<p>Implementation of a programme of schemes to improve journey time reliability on the TLRN including:</p> <p>Upgrading traffic signal control information to SCOOT (split cycle optimisation technique).</p> <p>Traffic Signals timing review at over 1,000 sites across London.</p> <p>A scheme to actively manage the Inner Ring Road</p>	L			
Better Crossings-improved safety for pedestrians	<p>New Crossing points (list of potential new crossing points on TLRN published by mid-2014)</p> <p>200 pedestrian countdown units at traffic signals by April 2014</p>	L			
Congestion hotspot busting-tackling key congestion areas	<p>Implement Mayor's £50m Blackspot fund by 2016.</p> <p>Continued programme of smaller scale corridor improvements to address congestion hotspots and improve journey time reliability.</p> <p>Bus and cycle priority points- implemented at key locations to improve journey times for these modes</p>	L			

Scheme	Description	cost	Anticipated completion		
			2013-2016	2017-21/22	post 2022
Capital Projects to support growth and tackle congestion	Series of capital schemes (often linked to developer funding) to help unlock growth, regenerate key areas; provide enhanced connections and tackle congestion / key constraints on the network, including: A13; Removal of Tottenham Hale Gyratory; Vauxhall; Wandsworth; Croydon	M			
Further gyratory, one-way system and bottleneck improvement works	Works proposed include: Ealing Broadway, Swiss cottage, Aldgate, High-bury Corner, Brent Cross/ Cricklewood, Wandsworth, Shoreditch Triangle, Stockwell, A10 Stoke Newington, Vauxhall Cross, Kings Cross	L/M			
Low Emissions Zone	Further LEZ enhancements and vehicle coverage	L			
Continue to work with Government on road pricing feasibility programme	As appropriate (see para 6.39A) review the option of road user charging and/or regulatory demand management measures to influence a shift to more CO2 efficient road vehicles and lower carbon travel options, such as walking, cycling and public transport. Share expertise and engage with development programmes as appropriate	L			

Scheme	Description	cost	Anticipated completion		
			2013-2016	2017-21/22	post 2022
London river services and river crossings					
Implement River Action Plan to achieve Mayoral target of 12 million passenger journeys on the river by 2020	The Action Plan aims to develop river services to their full potential. Its content is divided into four themes: Better Piers, Better Information and Integration, Better Partnership Working and Better Promotion	L			
New vehicle ferry between Gallions Reach & Thamesmead	In advance of a potential fixed link	L			
Promote the use of Thames and other waterways for freight movement	Enable freight access to waterways	L			
New walk/cycle Thames crossings	Including schemes in central London (e.g. the Garden Bridge) and walk/cycle links to access Isle of Dogs from east and west	M			
New and enhanced road vehicle river crossing(s) in east London (package of measures)	Programme of works under development to improve cross-Thames road links in east London including Silver-town tunnel	M			
Other					
Enhanced travel planning tools	Ongoing enhancements to information availability, including journey planner	L			

Scheme	Description	cost	Anticipated completion		
			2013-2016	2017-21/22	post 2022
Sustainable transport initiatives	<p>Initiatives to reduce the environmental impact of travel, make more efficient use of limited transport capacity and/or encourage active travel such as walking and cycling.</p> <p>Sustainable business travel should be influenced through the provision of integrated travel solutions and real time information delivered through mobile applications.</p> <p>Sustainable residential travel should be encouraged through the promotion of car free development, the use of car clubs, flexible working and active travel (walking and cycling)</p>	L			
Increased use of travel plans	Increased use and power of travel plans for workplaces, residences and schools and individuals	L			

Scheme	Description	cost	Anticipated completion		
			2013-2016	2017-21/22	post 2022
Continued development and roll-out of TfL Freight Plan initiatives	Implementing a programme of measures, drawing upon lessons learnt from the 2012 Olympic Road Freight Management programme. Other measures include: Town centre and area-based Delivery and Service Plans, relocating servicing to side streets to improve access, Construction and Logistics Plans and promotion of collaborative approaches such as consolidation centres and/or break-bulk facilities	L			
Promotion of freight best practice	Development and incentivisation of membership of the Fleet Operators Recognition Scheme (FORS) and develop improved communications with the freight sector.	L			
Changing behaviour/ managing demand	A variety of freight related projects to examine when and how deliveries are made	L			

KEY to Table 6.1 Indicative list of transport schemes and proposals

scheme cost	L	low	£0 - £100 million
	M	medium	£100 million - £1 billion
	H	high	£1 billion +

funding	funded	unfunded
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