



A Second Runway for Gatwick
Updated Scheme Design Submission

SD6

Surface Access

YOUR LONDON AIRPORT
Gatwick

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AC Module 2	Economy Impacts
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Executive Summary

In this report we address the following objectives from the Appraisal Framework:

“To maximise number of passengers and workforce accessing the airport via sustainable modes of transport”

“To accommodate needs of other users of transport networks, such as commuters, intercity travellers and freight”

“To enable access to the airport from a wide catchment area”

Gatwick Surface Access Proposition

Key findings:

Gatwick surface access will be transformed over the next five years by transport upgrades – road and rail – that are already planned and funded. As a result there will be step change in both the quality and scale of public transport access to the airport.

Taken together they will enable the airport to meet all the passenger demands from a second runway without any additional taxpayer investment and with a fraction of the disruption at Heathrow from tunnelling the M25, turning it into a 14 lane motorway and imposing a congestion charge.

Gatwick will achieve the highest use of sustainable modes of transport: it will achieve a 60% public transport mode share for customers (46m by 2050) and a 50% sustainable mode share for staff.

Gatwick's plans will accommodate the needs of other transport users: in 2040 and 2050 there will be enough road and rail capacity to serve the airport, background users and the economic growth generated. Both Network Rail and the Highways Agency support this analysis.

Gatwick's plans will provide access from the widest catchment area: 3.2m people live within 30 minutes, 10.8m within 45 minutes and 14.8m people within 60 minutes – better than any other UK airport.

Context

Our Airport Surface Access Strategy, endorsed by our stakeholder groups, builds on Gatwick's success to date and will be achieved by:

- Overall, our analysis shows that our Master Plan will deliver significant time savings for passengers of, on average, around 38 minutes for each one-way journey they make in a 2+2 (Gatwick second runway solution) versus a 3+1 (Heathrow runway 3 solution). For a return trip this equates with a time of some 76 minutes and would drive a significant economic benefit for passengers. Much of this saving relates to the time travelling to the airport.
- Almost tripling the capacity of the rail system, which is already planned to take place between 2012 and 2035, through a near doubling the frequency of trains, with longer trains and extending the reach of the rail network to serve over 1,000 stations;

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- Airport quality public transport: new trains, longer trains, better stations and a new state-of-the-art regional transport hub –the Gatwick Gateway;
- A train will leave Gatwick every 2 and ½ minutes for London;
- Additional, committed, lane capacity improvements on the M25 and M23 by the Highways Agency. Doubling the capacity of key road junctions to access the airport;
- Increasing the number of new bus and coach services serving more destinations and more frequently, with a new bus and coach station at the Gatwick Gateway;
- Facilitating seamless journeys with integrated rail / air tickets as part of our expanded Gatwick Connect product.
- Delivering a single, seamless interchange between the airport and surface access;
- Further innovations in passenger experience, customer service and information;
- Sustainable staff travel and 24/7 “access all hours” public transport services for passengers and staff;
- Reconnecting local communities and improving their transport.

Gatwick will meet the needs of all types of carriers and passengers: first, business and leisure. However, Gatwick will not only meet the key Commission objectives, it will also deliver a much broader range of benefits, which have been described elsewhere in this document:

- The Airport Surface Access Strategy supports the priorities of sustainable development through more sustainable transport modes.
- Gatwick will create up to 22,000 new jobs; and the excellent rail links will connect some of the most deprived boroughs and towns in England to those jobs, whilst also stimulating economic growth in those locations. Around 1 million people, within the 20% most deprived communities in England, live within 25 miles of Gatwick.
- Gatwick with a second runway, rather than a third runway at Heathrow, will disperse passengers over a much wider and extensive range of roads and railways. This results in less congestion, more reliable and more comfortable journeys.
- Gatwick 2+2 means that total time spent travelling to and from an airport to fly to and from a foreign or UK destination will be less than the concentrated 3+1 scheme - all passengers gain and on average some 80m passengers per annum will save 15 minutes each.
- It will add value with more passengers using the railways: benefiting the taxpayer by generating £3bn in revenue by utilising off-peak and contra-peak direction trains for 20 hours a day;
- Help generate a balanced North / South economic growth corridor and meet the needs of the London Plan;
- Gatwick will fully fund the M23 Junction 9 capacity upgrade, the A23 relocation and the Local Highway Development Fund, with no Government funding. All other required surface access infrastructure is already committed.

Our Airport Surface Access Strategy is low risk, deliverable and will have minimal adverse impact on our local communities both during construction and operation.

1. Introduction

This document presents the Surface Access case to the Commission for Gatwick Airport's second runway. It brings together the Runway 2 Airports Surface Access Strategy developed with key stakeholders, the Surface Access Assessment document and relates surface access to a number of other work-streams.

This document does not attempt to go into all the detail of the supporting documents, rather it highlights the salient elements of Gatwick's surface access case.

At its heart it demonstrates how Gatwick's strategy will deliver the Surface Access objectives adopted by the Commission:

- To maximise the number of passengers and workforce accessing the airport via sustainable modes of transport;
- To accommodate the needs of other users of transport networks, such as commuters, intercity travellers and freight;
- To enable access to the airport from a wide catchment area.

This document also demonstrates how Gatwick's Airport Surface Access Strategy contributes to the achievement of the other Airport Commission's objectives linked to surface access: Strategic Fit, Economic and Spatial Development, Local Economic Impact, Noise, Biodiversity, Carbon, Water and Flood risk, Place, Community, Use of public funds, Cost and Commercial viability.

In overall terms this case demonstrates that a second runway at Gatwick is best for Surface Access and therefore best for the UK, because it will move more customers, with higher quality services, from more origins and with greater ease than Heathrow and in a more sustainable manner. It will also avoid placing additional costs on the taxpayer – indeed it will generate some £3bn for Government through greater rail usage in the off peak, roughly double that of Heathrow.

Gatwick is confident of success as we are building on the strengths of the current surface access strategy, strong stakeholder support, proven performance, the committed and planned transport infrastructure improvements already underway as well as committing to fund new infrastructure and services.

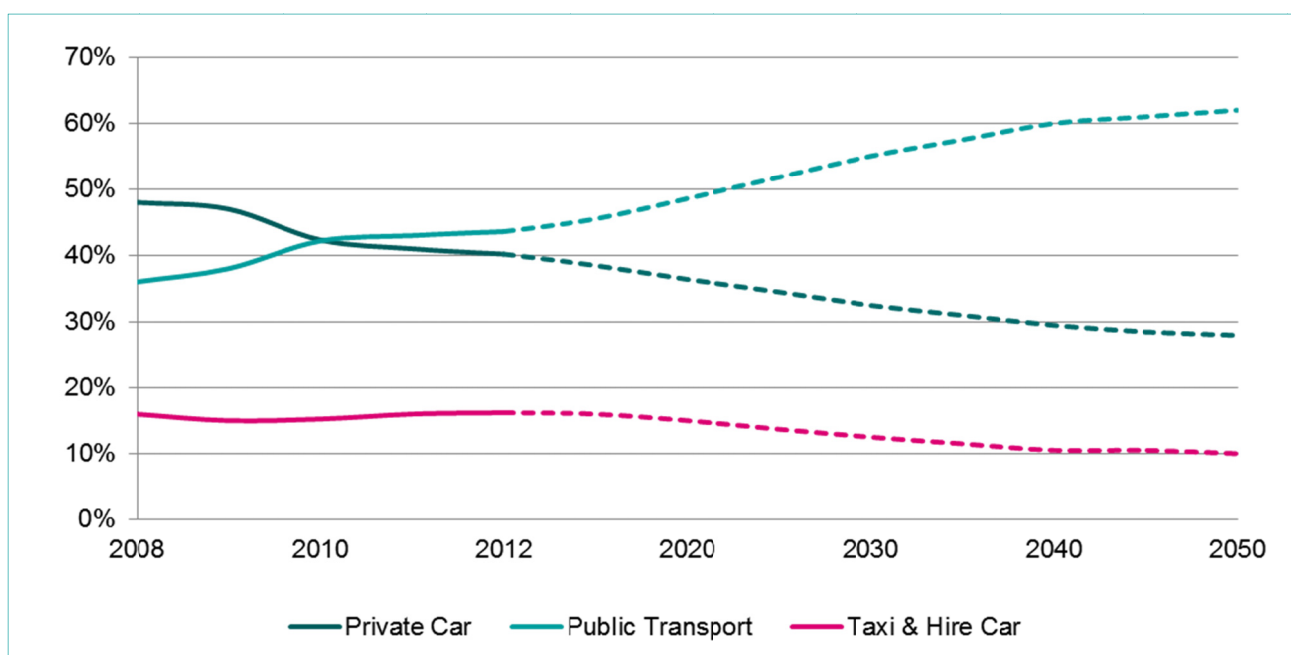
2. Best in class for public transport share

Objective: To maximise the number of passengers and workforce accessing the airport via sustainable modes of transport.

We will achieve public transport use of 60% for air passengers (Figure 1) and sustainable travel for 50% of staff by 2040 (Figure 2) – comparable with best globally and again better than alternative airports.

By 2040, Gatwick's transport partners will move some 45m of our customers by public transport. This is a realistic goal as Gatwick is already very close to achieving a 45% public transport mode share for air passengers: Gatwick's public transport mode share has been increasing year on year even as the airport has grown and it is already much higher than Heathrow.

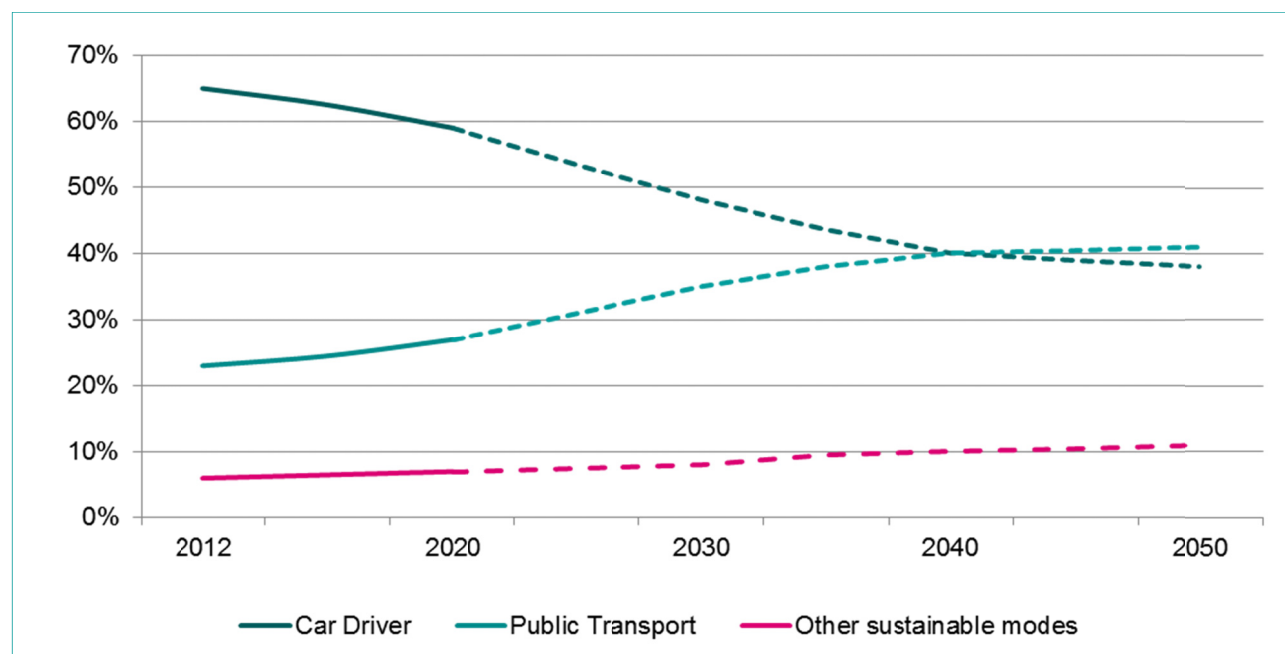
FIGURE 1: CHANGE IN MODE SHARE (AIR PASSENGERS)



(Source: Arup Surface Access Report)

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FIGURE 2: CHANGE IN MODE SHARE (EMPLOYEES)



(Source: Arup Surface Access Report)

Much of the rise to 60% (passenger) and 50% (staff) will stem from the transformational railway upgrades already under-way, allied to the new Gatwick Gateway transport hub – a single, simple, swift, above ground and coherent transport interchange serving the whole airport and local communities. The Gateway to airport connection will be direct, simple and immediate: 7 minutes or less from rail platform to check in at ALL three terminals. This hub will weld together all modes of transport including rail, coach, bus, car, cycle and walk and serve the needs of users, staff and the wider region alike.

The dominant factor in achieving this level of sustainable public transport use is the extensive rail network serving Gatwick. Unlike Heathrow, Gatwick is not served by stub roads or stub railway lines. Rather it is connected North, South, East and West giving it a huge reach: 3.2m people live within 30 minutes, 10.8m within 45 minutes, and 14.8m can reach Gatwick in under an hour compared to Heathrow's 11.7m.

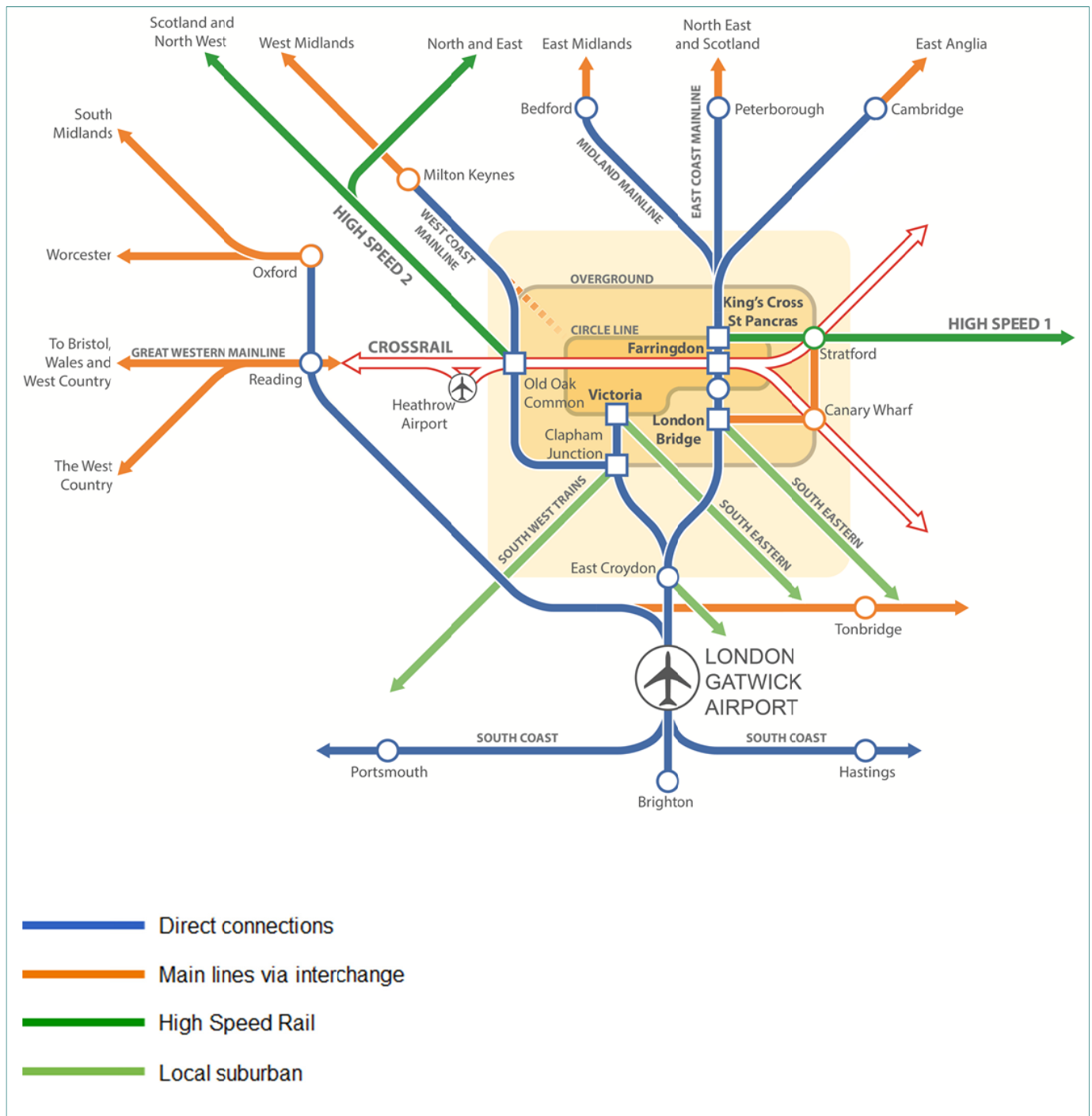
The progressive expansion of Gatwick with a second runway, and its rail links, will give consumers a much wider choice of both destinations (Figure 3) and of the “home” airport to travel to and from. This added convenience will save on average 80m passengers per year some 15 minutes travel time to their airport of choice.

Connectivity is already a key strength of Gatwick: rail already serves directly a far larger number of rail stations than Heathrow by an order of magnitude: 129 Gatwick, Heathrow 6. By 2019, Gatwick will be connected directly to 175 rail stations, and to over 1,000 rail and London Underground stations with a single change of platform. These 1,000 stations will act as “front doors” to Gatwick and help make public transport highly attractive to passengers and staff alike. Heathrow will still be able to offer direct connection to only 36 rail stations.

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Figures 3 – 5 demonstrate Gatwick's excellent connectivity by rail across the UK. Figure 6 illustrates how Gatwick's rail connectivity will enable us to connect with areas of deprivation and support the economic regeneration of these areas. Figure 7 demonstrates how well Gatwick is located to allow easy access by road and rail within its catchment area.

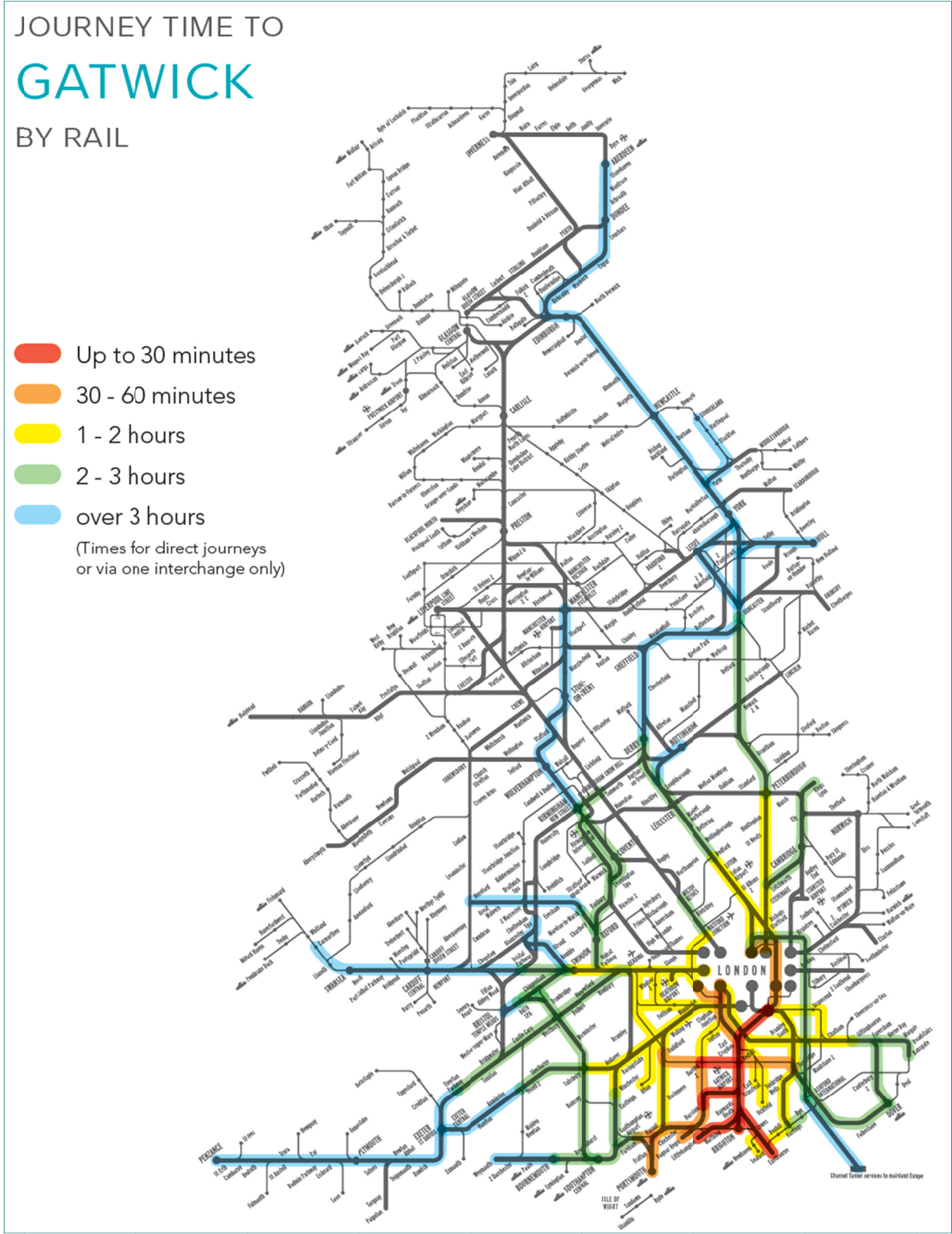
FIGURE 3: GATWICK'S RAIL CONNECTIVITY



(Source: Farrells)

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FIGURE 4: GATWICK’S REACH BY RAIL



(Source: Arup)

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As Figure 4 shows, Gatwick's catchment area is not just London and the South East. By 2020, with completion of the £6.5bn Thameslink programme, many Northern towns and cities will be a relatively short trip to Gatwick by rail: Cambridge 90 minutes (Heathrow 123 minutes), York 150 minutes (Heathrow 189 minutes) and Leeds less than 180 minutes (Heathrow 201 minutes). Gatwick will be an airport connected to and serving the whole nation.

Average journey times to Gatwick from within the UK by surface access will take around 60 minutes compared to Heathrow's 70 minutes.

Not only is rail convenient, it is swift. Trains to London will leave Gatwick every 2 and ½ minutes with a travel time of only 30 minutes to both the City of Westminster and the City of London, faster than from Heathrow.

Four of these 24 trains per hour will be non-stop Gatwick Express services to Victoria. These will be new high capacity 12 carriage trains that will most likely start from Gatwick for 24 hours a day, rather than the current 22 hours per day, as this aids operational resilience as well as providing superb customer service.

Rail from Gatwick serves most of the big interchanges directly: Victoria, London Bridge, Blackfriars and Farringdon – with King's Cross/St Pancras just 40 minutes away. Canary Wharf, via London Bridge and the Jubilee Line, is only 40 minutes and Waterloo 36 minutes. Trains to London Bridge will leave Gatwick every 6 minutes so the overall journey time into the heart of London's business district will be faster and more frequent than that from Heathrow, even after Crossrail is in operation.

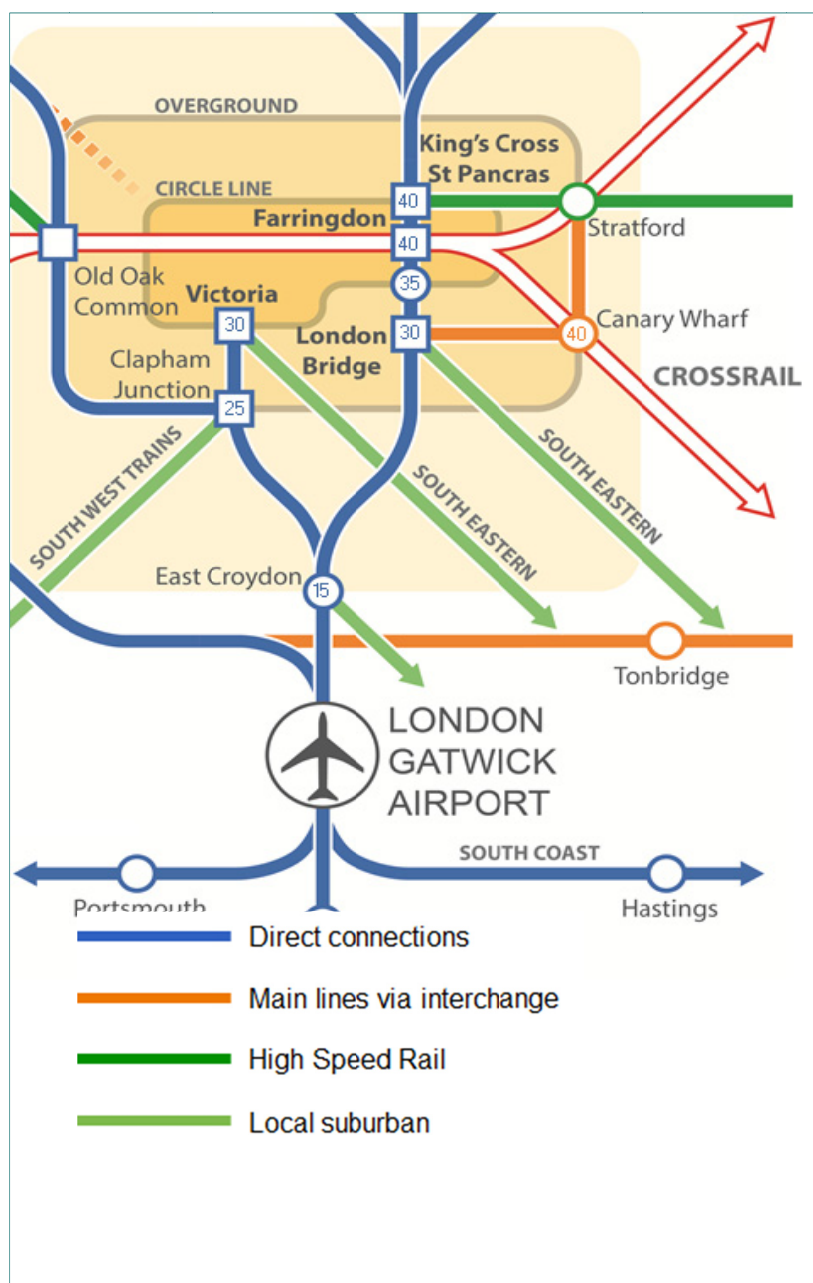
The improved train networks mean that Gatwick is within one change of all the main UK inter-city rail lines. This includes Great Western (Bristol, Wales and the South West), West Coast Mainline (Birmingham, Manchester, and Glasgow), Midland Mainline (Sheffield, Nottingham, and Derby), East Coast Mainline (Leeds, Newcastle, and Edinburgh) and South Eastern services for the continent. It will also connect to Crossrail at Farringdon and probably Crossrail2 at Clapham Junction. Connections to HS2 services would be via Old Oak Common.

Our target of 50% of air passengers and 20% of staff using rail will be met by growth in all directions, not just to and from London. The extensive network connectivity across the South will not only deliver sustainable travel, it will stimulate major regeneration benefits. The fan of rail lines reaching out from Gatwick mean that the 22,000 new jobs created by the airport by 2050 will be accessible from along the South coast, up the North/South corridor and down from South and North London. This will aid some of the most deprived towns and boroughs in the South and improve significantly their quality of life and access to employment opportunities. These benefits are considered in more detail in Section 5 and 6.

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FIGURE 5: RAIL CONNECTIONS FROM GATWICK

Rail from Gatwick gets you swiftly, conveniently and direct to where you want to go.

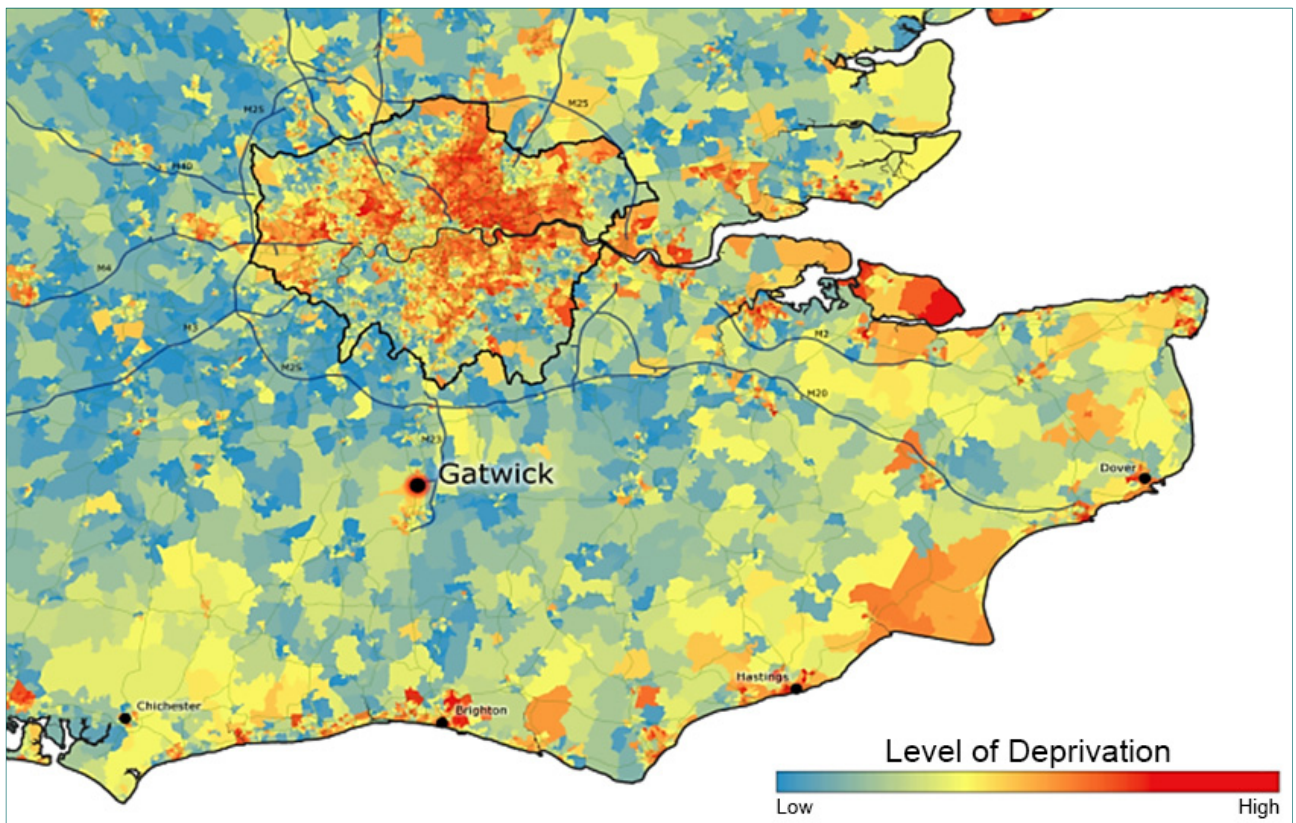


(Source: Farrells)

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FIGURE 6: AREAS OF DEPRIVATION WITHIN 30 TO 45 MINUTES OF GATWICK

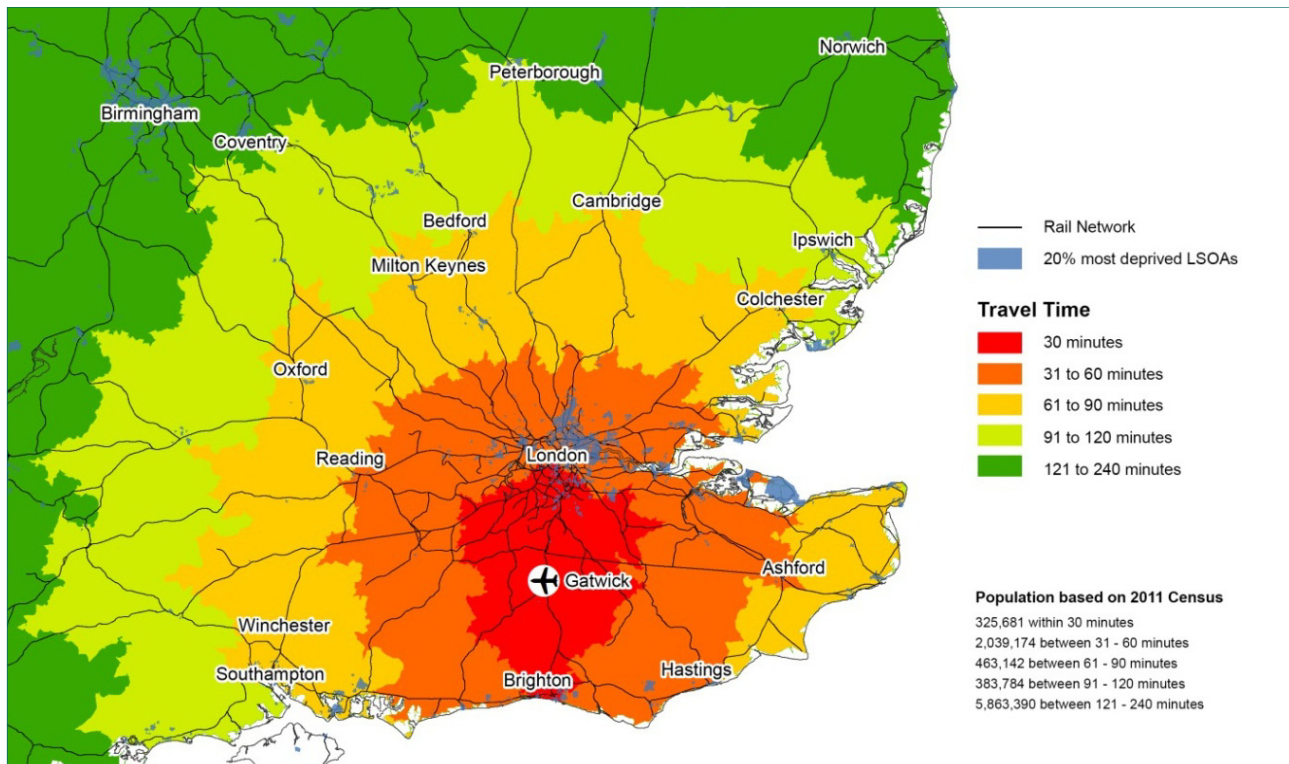
Areas of deprivation, along the South coast and into London: all well served by rail from Gatwick - most in around 30 to 45 minutes



(Source: Sheffield University)

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FIGURE 7: SURFACE ACCESS CATCHMENT TO GATWICK



(Source: Arup)

Supporting our overall Airport Surface Access Strategy, we plan for more passengers and staff to travel by bus and coach as well as rail. On average over 500 coaches arrive and depart from Gatwick each day, along with eight different local bus services calling over 400 times a day, direct to our terminals. Current mode shares for bus and coach are 8% for air passengers and 12% for airport staff: our immediate goal is to achieve 10% of passengers using bus and coach.

Key to our future success in this area will be continued collaborative working with Metrobus, our local bus operator and National Express for many of the longer distance coach services.

National Express and other coach operators are driving forward improvements to their services, and enhancing passenger experience and quality. Gatwick and National Express have committed to work together on developing new routes for air passengers, including:

- Kent (Margate - Ramsgate - Canterbury - Maidstone - Gatwick);
- Essex (Ipswich - Colchester - Chelmsford - Basildon);
- London and South East London;
- Along the M4 and M5 corridors to places such as Slough, Reading, Swindon, Bath, Gloucester and Exeter.

Bus and coach services will also benefit from new facilities at the Gatwick Gateway. The new interchange for buses and coaches would mean simpler journeys and better connections, with comfortable enclosed waiting areas on two levels.

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Staff travel is an important element of our strategy. Our goal is to achieve 50% of staff travelling sustainably. Key features in this programme include:

- 24hr access by rail and bus, critical for shift-workers and passengers alike;
- More and fast bus routes matched to shift patterns;
- Discounted bus, coach and rail travel for staff with smart and mobile ticketing and an integrated “Gatwick Travelcard” covering all public transport modes;
- More promotion of sustainable travel to all on-airport staff through “Gatwick Commuter”: our sustainable travel brand;
- Enhanced car sharing schemes;
- Further enhanced walking and cycle facilities and programmes with a new cycle hub at Gatwick Gateway;
- Promotion of electric and low emission vehicles.

3. Capacity – to accommodate all users

Objective: To accommodate the needs of other users of transport networks, such as commuters, intercity travellers and freight.

The 2040 road and rail networks serving Gatwick, after the upgrades already under-way and planned, will have sufficient capacity to meet the needs of all users, including commuters and freight.

Indeed there is enough road and rail capacity at all times between now and 2050.

Network Rail and the Highways Agency both agree this - they endorse the transport models and the conclusion that there is sufficient capacity on the road and rail networks serving the airport, to support a second Gatwick runway in 2040 and 2050, while also meeting other categories of demand. In arriving at this conclusion, we have taken a very robust approach to analysis using the demand for a worst case scenario – using the busiest hour, on the busiest airport day, in the busiest month - and there is enough capacity in 2040. As a sensitivity test we have also proven the capacity of the system in 2050.

This outcome is a reflection of the significant additional capacity from upgrades already underway on the rail and road networks.

For the rail system, the £6.5bn Thameslink programme and other planned upgrades by Network Rail will be transformational:

- More frequent and longer trains will be introduced for journeys via both London Bridge and London Victoria, this creates a near tripling of the number of carriages per hour that will come through Gatwick and of the overall capacity in each direction by 2035 in comparison to 2012;
- A train will leave Gatwick for London every 2 and ½ minutes;
- Commuter growth is driving these changes and even with a second runway air passengers make up less than 6% of the demand on the most congested part of the rail network around Clapham Junction;
- As a result of this the committed and planned schemes are to be funded by the Government's normal rail processes;
- There will be an increase from 14 trains in the peak hour from Gatwick to London increasing to 18 trains per hour by 2018 and up to 24 trains an hour by 2030;
- By 2030 with train lengthening (8 to 12 car trains) almost all trains leaving Gatwick will be made up of 12 carriages;
- Trains will head North from Gatwick every 2 and ½ minutes direct to a whole range of destinations including Cambridge, Peterborough, Bedford, Oxford and Milton Keynes;
- Northbound peak hour seats will increase to some 20,000 per hour – up 120%;
- The range of destinations - direct 175, and over 1,000 stations with a single change, will serve not only our customers but also background users and more than a million non-airport users who already use Gatwick Airport railway station.

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Rail capacity will be built up progressively through to 2035 by means of more trains, new timetables, and operational efficiency and infrastructure changes.

The additional rail capacity both for London Victoria and London Bridge (Thameslink) journeys will come from the introduction of:

- Longer trains providing more seats (8 – 12 car trains)
- The introduction of new and different types of rolling stock such as the new Thameslink trains with more capacity
- The provision of additional peak hour trains through planned upgrades to existing rail infrastructure eg. Stoats Nest Junction, East Croydon etc
- Through efficiency and resilience improvements to the rail infrastructure which generates the confidence to timetable more services
- Timetable efficiency gains as a result of the single Thameslink Franchise to be introduced in September 2014, removing competition and unnecessary train services from competing train companies.

For its part Gatwick is committed to developing our world class Gatwick Gateway transport hub which will move over 45m passengers a year, as well as millions of commuters from the local community around Gatwick.

It is likely that following the rail station concourse works planned for 2020 with Network Rail, there may be the need for further optimisation of the Airport rail station with a second runway. This may include additional lifts and escalators, platform facilities and minor signalling or track work at Gatwick to achieve maximum operational efficiency. Therefore within our cost plan we have allocated a further £50m funding.

Gatwick will also continue its long term commitment to work with the Rail Industry on long term rail development.

The full and agreed detail is included in our R2ASAS and in the supporting technical document including all the physical interventions. In summary:

Our priorities for Rail:

Gatwick Gateway and station improvements (committed and planned)

Dedicated non-stop Gatwick Express to London Victoria (committed)

Direct Thameslink services to Gatwick for Cambridge and Peterborough (committed)

Better Guildford, Reading and Oxford service via Redhill (committed and planned)

More capacity and resilience on the Brighton Main Line (planned)

Better Kent and South Coast connections, with more direct services (planned)

Direct services between Milton Keynes and Gatwick connecting to HS2 at Old Oak Common (proposed)

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Crossrail 2 and connections at Clapham Junction (proposed)

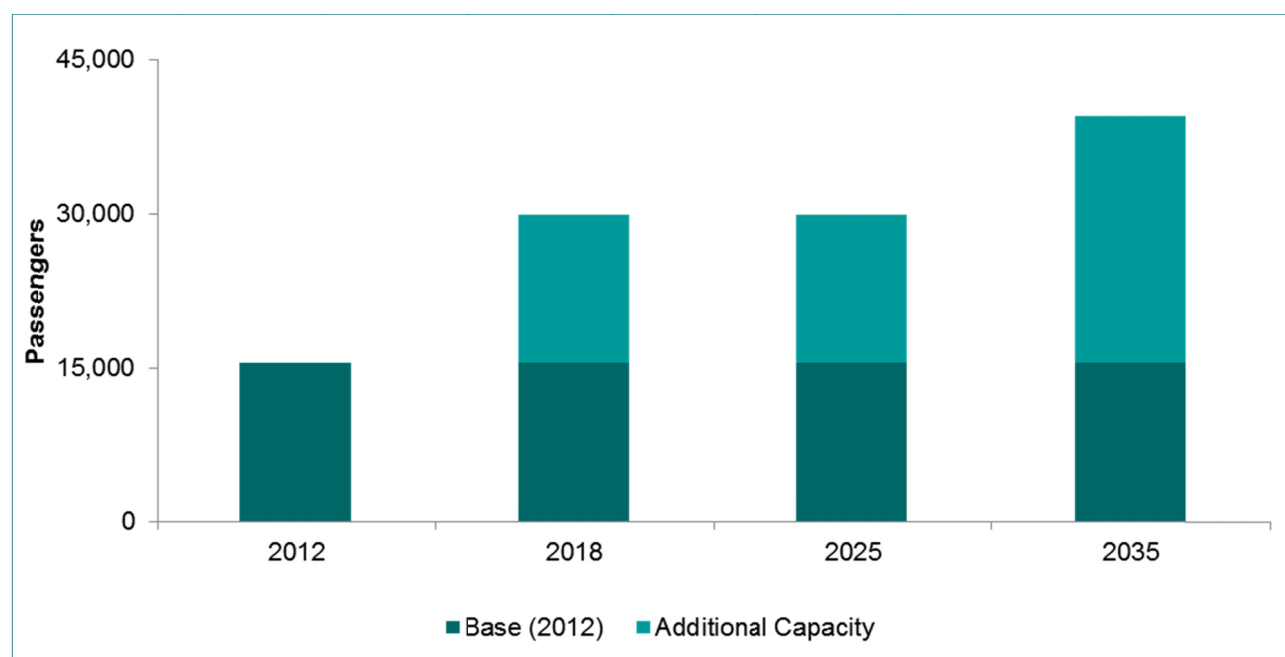
Masterplan development for Clapham Junction and improvements at East Croydon (planned)

Improved passenger experience with new ticketing, fare payment and information

Commitment to work with the railway industry on long term rail development

Capacity from Thameslink and other route enhancements to be delivered before 2024 is built up over time as Figure 8 illustrates. Indeed capacity always outstrips demand on rail even before the further capacity delivered by the new European Rail Traffic Management System (ERTMS) signalling to be installed in the 2030s.

FIGURE 8: PEAK HOUR CAPACITY ON BRIGHTON MAIN LINE THROUGH GATWICK



(Source: Arup Surface Access Report)

Today only 4% of rail capacity is used by air travellers on the busiest sections of the railway in the peak hours. This will rise to just 5-6% in 2035. Just as there is enough “rail line capacity”, so there is enough London station capacity. All the main stations we serve - Victoria, London Bridge, Blackfriars, City, Farringdon, St Pancras and King’s Cross have been or are being upgraded. Furthermore, the new rail routes, increased choice and extensive rail services will better balance loads around the UK transport system and improve overall system resilience. Good examples of this include direct rail services to Gatwick from Oxford, Reading, and Milton Keynes that avoid taking airport users through London.

For the road system, the Highways Agency (HA) has a comprehensive upgrade programme for the lower half of the M25 and the M23, including free flow tolling of the Dartford Crossing, smart motorways and hard shoulder running. Joint analysis with the HA shows that there is generally enough road space for the small additional peak hour car usage from a second runway: the exception being Junction 9 of the M23 where Gatwick will fund fully a doubling of motorway junction capacity.

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Our Priorities for Road

M23 Smart Motorway with hard shoulder running (committed)

Dartford Crossing Free Flow Tolling (committed)

M25 Junctions 5-7 Smart Motorway (committed)

Up to 100% extra capacity at M23 Junction 9 and better links to the A23 (planned)

Extra junction capacity at the airport terminals (planned)

Provide safe, reliable and simple routes, with intuitive wayfinding (planned)

Divert the A23 to the east of the airport (planned)

Close Lowfield Heath Road and prevent an increase in traffic through Charlwood (planned)

Divert Balcombe Road as a local road with connection to Antlands Lane/Shipleigh Bridge (planned)

Support TfL's Roads Task Force Strategy for the A23 into London (planned)

Support the Highways Agency Route Based Strategies for the M25, M23 and A27 (planned)

Develop a Local Highway Development Fund

We have designed and will fund improvements to the local road networks immediately around Gatwick, to be no more congested than today and to also provide greater resilience and smoother traffic flows. This means the same or better performance in terms of delays/road speeds as compared with today, with secondary benefits to local noise and air quality levels, economic activity and quality of life of those using and living along the affected roads. Our local support extends further afield, where we are committed to create a £10m Local Highway Development Fund to help communities address junction improvements and other road schemes where Gatwick is but one of a number of contributors to traffic.

Freight to support the airport's operations is already generally consolidated at source and then delivered to Gatwick's own logistics centre. The logistics centre then further consolidates the material and distributes it to airport end-users, cutting significantly airport vehicle movements.

The motorway system and airport roads will readily meet the future needs of airfreight. Airfreight is forecast to reach some 1,070,000 tonnes by 2050. Delivery or collection of this airfreight will be to the new freight centre to the North West of the airport that will be accessed directly from Junction 9 of the M23. It is predicted that there will be some 35 lorry loads to or from the freight centre in the peak hour: this is negligible in the context of the lane capacities provided.

Gatwick will not require the use of road user charging to achieve its targets or to meet the capacity requirements of the road network. We believe that in order for Heathrow's to achieve its claimed 50% public transport mode share and no more airport related car trips, it would have to remove more than 16,000 daily car trips generated by runway 3.

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Our analysis shows that the most likely way that Heathrow's claims could be achieved is by:

- 'Behavioural measures' such as a significant road user charging scheme, taking the form of either a cordon charge for access to the airport or an area wide charging schemes on the local road network. Experience with the London scheme suggests that a charge would need to be set at a level in the region of 4 times above the current London Congestion Charge (i.e. Heathrow charge of the order of £40 per vehicle) to secure a behavioural change of this magnitude;
- Increasing public transport trips from areas such as Reading by over 5 times current public transport demand (when Heathrow's public transport mode share has remained static for the last 5 years at 40%, in contrast to Gatwick's which has shown year on year increases to 44%); plus
- Achieving a 95% growth in bus and coach passengers – which equates to over 400 additional buses every day serving Heathrow.

Gatwick has put forward its strategy of achieving a robust 60% public transport mode share target based on:

- A comprehensive package of road and public transport measures which achieve the 60% mode share;
- 50% rail mode share through already planned transformational rail schemes such Thameslink which triple rail capacity, connect Gatwick to over 1,000 rail stations with 1 change, and mean a train leaving Gatwick every 2 and ½ minutes;
- Reducing 4 million employee car journeys a year without the use of road user charging.

4. Connectivity, time, geographic reach

Objective: To enable access to the airport from a wide catchment area and attract the highest possible public transport mode share

Gatwick already has, and will continue to have, far wider and better access by public transport than Heathrow. The connectivity, time saving and convenience of its public transport, from all points of the compass are unrivalled. Gatwick is also not dependent on new lines or uncertain funding.

Specifically:

- 3.2m people live within 30 minutes of the airport;
- 10.8m people live within 45 minutes of the airport;
- 14.8m people live within 60 minutes of the airport (Heathrow 11.7m);
- The Thameslink Programme means the whole of London is well within 1 hour of Gatwick and places such as Cambridge are about 90 minutes away with no change of train;
- Other rail upgrades underway mean direct trains from places such as Oxford, Milton Keynes and Peterborough are going to be available in the next 5-10 years;
- 175 mainline stations will serve Gatwick directly and over 1,000 stations with a single change.

Gatwick is therefore the most convenient and time-efficient airport for the most users, bar none. This is the most critical factor in attracting more users to public transport to access the airport and hence achieving our 60% air passenger and 50% staff sustainable transport mode share goals.

Transport planning for airport users recognises a distinct hierarchy of transport needs:

1. Reliable travel times both to, and slightly less importantly, back from the airport;
2. Convenient access to the travel mode of choice i.e. a local bus stop or local station and as few interchanges as possible on the trip;
3. Minimum transit time of total trip: comprising access time to the station, waiting and actual travel time on the train, station platform to terminal, in terminal time and taxiing time;
4. Cost of the trip; generally marginal costs and any ancillary costs such as parking charges.

This established logic pattern, of minimising total generalised cost, support our view that Gatwick can continue to increase its public transport mode share and will achieve its mode share targets because:

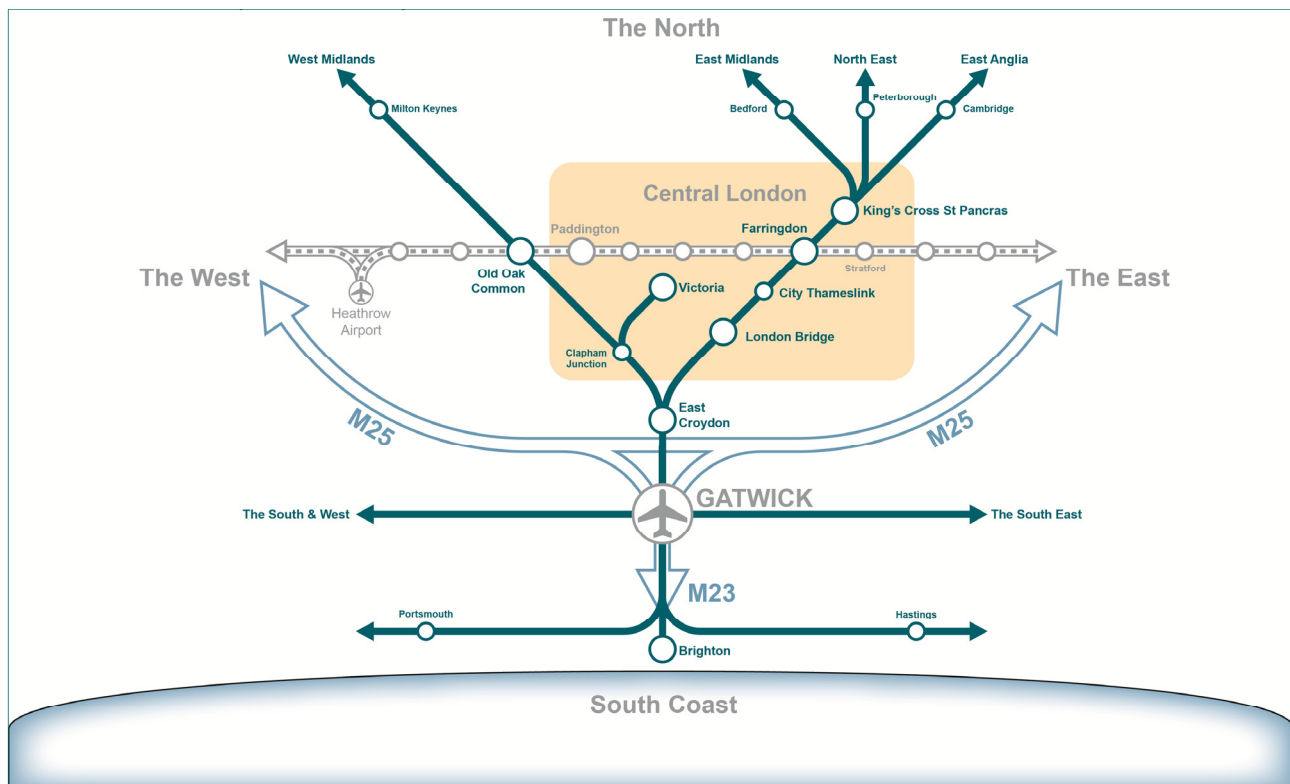
- Rail is regarded by passengers as a more reliable, certain and less stressful way of getting to and from the airport than using a car or taxi;
- 175 rail stations directly served by rail, up from 129 today, together with over 1,000 stations with one change of train will mean rail becomes increasingly convenient, time saving and attractive: many more people will have a station connection to Gatwick on their doorstep. This effect is even more pronounced where feeder bus services are extensive and frequent e.g. at Clapham Junction and Victoria;

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- The frequency of train services is increasing significantly along with more direct routes that avoid “dead legs” e.g. Oxford or Cambridge direct to Gatwick is much quicker than having to go in and out of London or change trains several times. A comfortable air-conditioned train service, with a choice to travel First Class, to Victoria or London Bridge every 2 and ½ minutes will be highly attractive;
- The Gatwick Gateway transport hub will be next to the terminals: all terminals will be accessible in less than 6 minutes from the rail platforms. The end to end trip between terminals will be 5 minutes;
- The airport is designed to be compact and efficient: it will deliver a Minimum Connection Time 45 minutes from any terminal to any terminal and 30 minutes for intra terminal transfers; this compares with Heathrow where inter-terminal times of up to 105 minutes are needed;
- In-terminal and taxiing times are designed to be low: in terminal time will be 10 minutes less than Heathrow, and average taxiing time will be 7 minutes – half that of Heathrow;
- Gatwick will overlay additional innovative customer-centric travel offerings e.g. for ticketing, information and customer service.

In total, for a day-return business traveller we aim to save around 60 minutes of time compared to Heathrow: a total of 20 minutes less time getting to and from the airport, a total of 20 minutes less time getting from the station platform to and from the terminal and a total of 20 minutes less in terminal time.

FIGURE 9: GATWICK WIDE CATCHMENT AND CONNECTIONS



(Source: Farrells)

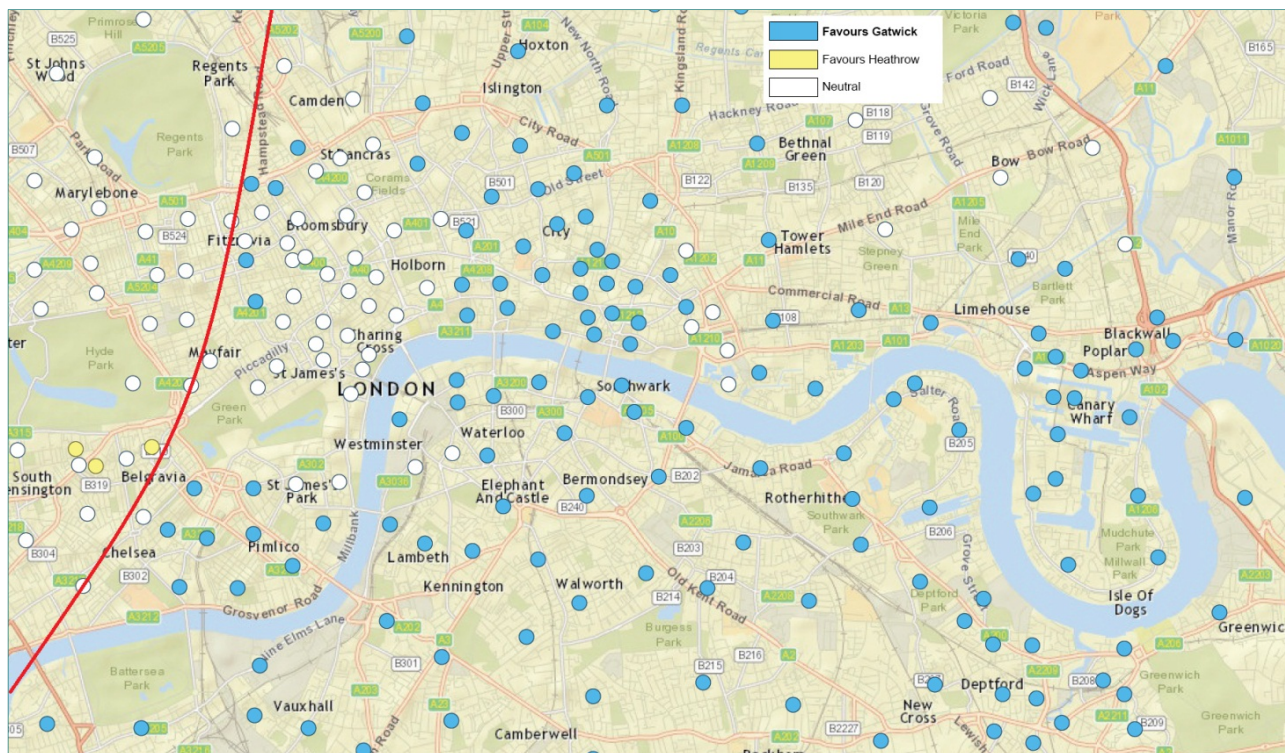
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The 2+2 runway solution also generates the best connectivity and shortest journey times for London and the South East as a whole. More destinations and the greater contestability of services will not only generate shortest travel to an airport and more choice for any particular journey, but also spread total customer load over a more extensive public transport network. In that sense Gatwick is a win-win-win: the best rail connectivity in of itself, the fastest trips to an airport for all and the least overall crowding on the rail and road networks.

From Gatwick people can also reach the most visited parts of London much faster than from Heathrow.

Figures 10, the blue dots show locations where it is faster to Gatwick, the white dots are neutral. For all locations to the right of the red line it is at least as quick to get to Gatwick for most Londoners. It is faster to get to Gatwick than to Heathrow by public transport.

FIGURE 10: GATWICK HEATHROW JOURNEY TIME COMPARISON (LONDON)

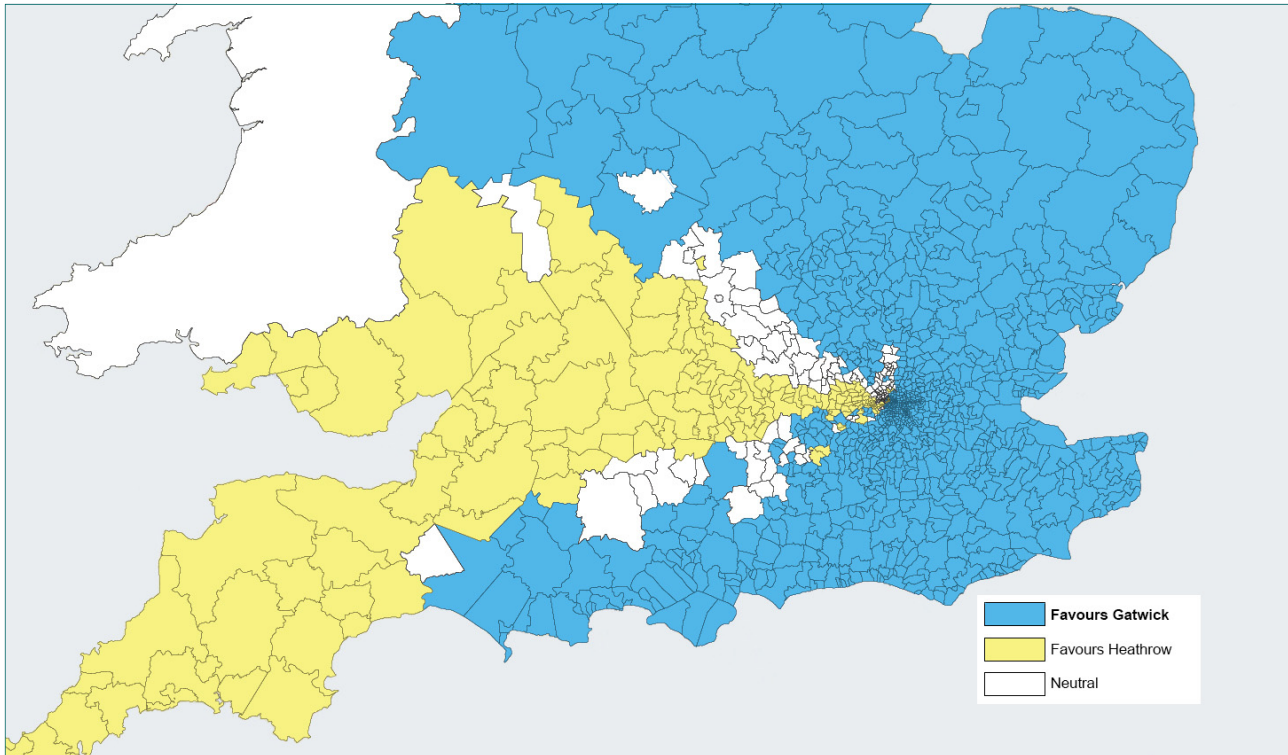


(Source: Arup Surface access Report)

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As Figure 11 below illustrates, if travelling from Reading, Swindon or Bristol it is faster to get to Heathrow by public transport (yellow zone). But for the majority of the population Gatwick is more convenient (blue zone). In the white zone it takes about the same time to either airport.

FIGURE 11: GATWICK HEATHROW JOURNEY TIME COMPARISON (ENGLAND)

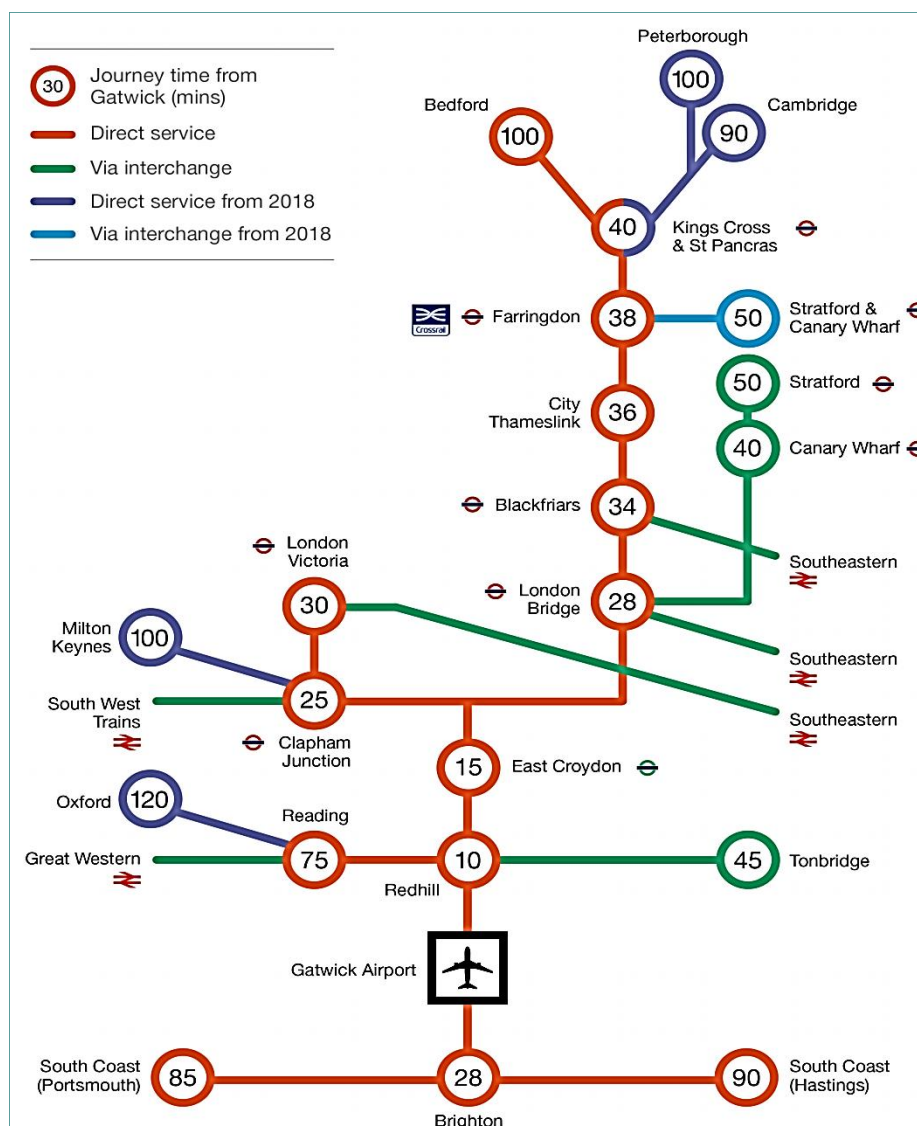


(Source: Arup Surface Access Report)

Gatwick's rail connections already fan out across all points of the compass North, South, East and West and this supports our current strength of connectivity. Gatwick already serves a far larger number of rail stations than Heathrow by an order of magnitude: 129 for Gatwick vs. Heathrow's 6. Through committed rail improvements this number will rise by 2019 to 175 rail stations direct, and over 1,000 stations with 1 connection, through improvements already happening.

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FIGURE 12: GATWICK RAIL JOURNEY TIMES



(Source: Arup Surface Access Report)

Whilst it is true that Gatwick outperforms Heathrow in total accessibility, there will always be some communities better served by Heathrow e.g. residents of Maidenhead, Slough and Paddington. However, by having more contested air routes, the 2+2 airport solution will also maximise consumer choice and also minimise overall consumer travel time to an airport that will get them to their desired foreign destination. In addition 2+2 will provide more balanced loads across the road and rail systems, alleviating the considerable stresses and strains on Heathrow's transport links that a third runway would create e.g. the M4/A4 corridor, M25 and M3.

Better access and connectivity via the rail network (e.g. Birmingham – Milton Keynes – Gatwick) will put less strain on the nation's rail system and avoids travel through London. Furthermore, all the key London termini and stations served by Gatwick have or are undergoing capacity upgrades e.g. Victoria, London Bridge, Blackfriars, Farringdon, King's Cross and St Pancras, meaning they are well placed to accept the increased volume of airport users: a capacity and quality gain.

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Customers prize most highly a local “front door” to access public transport, together with as few interchanges as possible to complete their journey to the airport. In that sense Gatwick’s superior rail connectivity will give it distinct edge in attracting users to public transport and we will work with the Train Operating, Bus and Coach Companies to boost our mode share through these “front doors”.

Good connectivity to public transport is also important for staff and to provide access to the new employment opportunities. Gatwick and its transport partners will support this through:

- A comprehensive Travel Plan covering both construction and operational staff;
- Offering 24 hour rail services: Gatwick is the only airport able to do this - crucial for shift workers;
- Fast, growing and frequent 24 hour bus networks, also geared to early shifts;
- Discounted travel on all public transport modes;
- Dedicated car sharing systems.

Good rail and road connections also mean regeneration benefits (jobs and housing) will extend to key areas of deprivation along the South Coast, as well as to some of the most deprived boroughs in London.

Public transport will also play a key part during the construction of R2 and will be used to help deliver an employment and skills package that supports youth employment, apprenticeships and developing a more effective and skilled workforce.

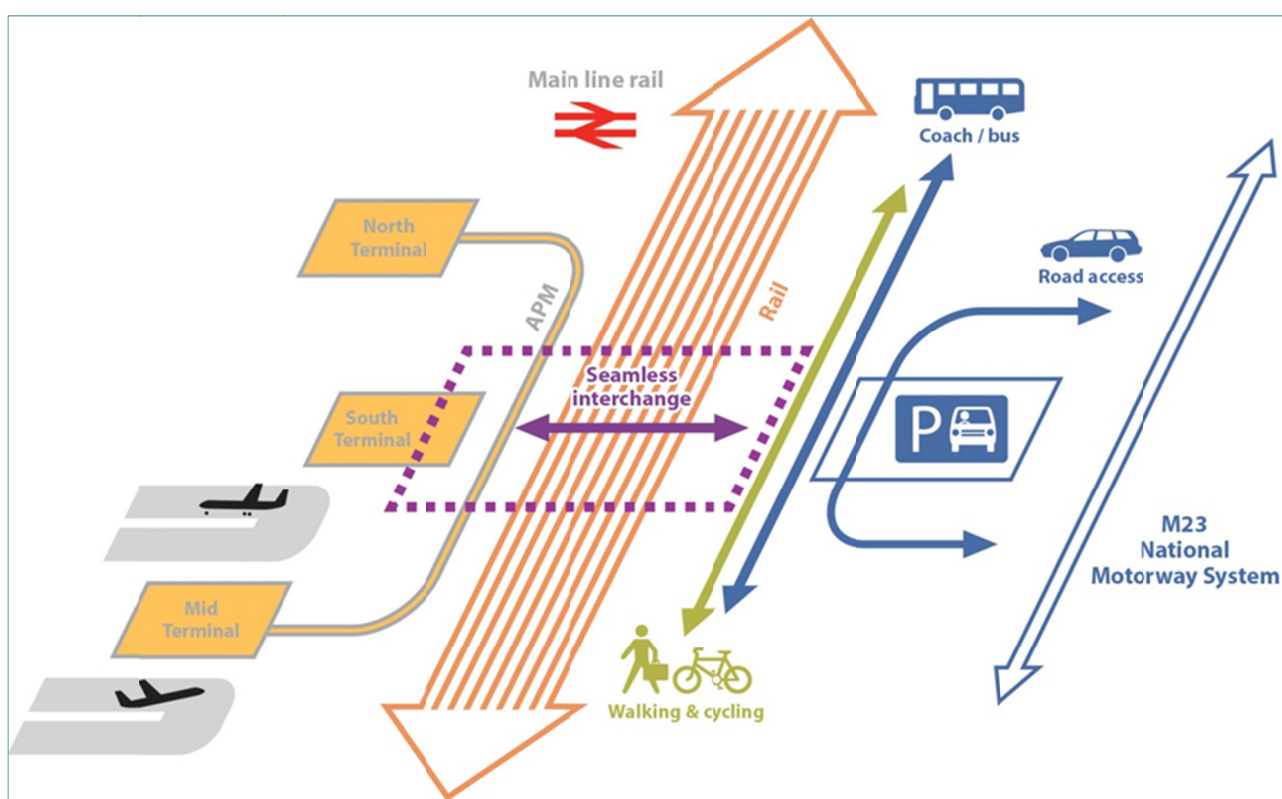
5. Passenger experience and service quality

Objective: To improve the experience of passengers and other users of aviation

As part of its commitment to enhancing the sustainability of its operations, Gatwick is committed to the delivery of seamless airport-quality transport facilities and airport-quality public transport services. Passenger experience by all transport modes is already measured and improvements targeted to address customer feedback. Progress to date is excellent, and as a gateway to London, the tourist surface transport experience is judged better than other airports and thus attracts more repeat visits. Similarly the airports rail links are valued by business: 97% of City users use rail to access Gatwick.

Since being in new ownership, Gatwick has been able to break the historical lack of improvements in the airport surface access infrastructure area and in four short years the new owner agreed to contribute and partner with Network Rail resulting in the newly opened Platform 7 at the airports Railway Station.

FIGURE 13: GATWICK GATEWAY MULTI MODAL INTERCHANGE



(Source: arup Surface Access Report)

The Gatwick Gateway will be an iconic and highly sustainable above ground building that integrates together rail, bus, coach, car, walking and cycling. By 2020, it is planned that the main rail component will be constructed and we will see a large new concourse built over the rail tracks at the same level as the terminal. This will be built to airport quality standards, with roughly double the current number of lifts and escalators.

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In 2013, the Government announced £50m funding for improvements to the rail station concourse, and planning is now underway to develop this and for Gatwick to enter into an agreement with Government. With a second runway, this facility would be developed further as a true integrated transport interchange into the Gatwick Gateway.

Immediately to the West, and abutting the rail concourse will be the South Terminal and the people movers that get passengers to the North and New Terminals in less than 2 and ½ minutes. To the other side of the rail concourse will be the high quality coach and bus concourse with enclosed waiting areas, retail and real time information. In addition a cycle hub and good walk access will be provided at ground level of the Gateway.

Within our cost plan we have included the following additional funds to develop the Gatwick Gateway:

- £50m to optimise the rail station to accommodate additional passengers and trains, this could be through additional lifts and escalators for passengers, passenger facilities on platforms, minor signalling and track works.
- £12.5m for a new bus and coach interchange linked directly to the main Gatwick Gateway.
- £12m for a new car rental consolidation centre again linked to the Gateway.
- £166m for a new Automated People Mover (APM) system between the North, South and New Terminal
- Linked cycle and walking routes

The new Gatwick Gateway will form a great “front of house” providing simple, swift and inclusive access right to the heart of the airport and a world-class interchange.

This means:

- Public transport to the airport will be direct, adjacent and immediate. It will be designed to be fully accessible and meet the needs of all, including passengers who may have reduced mobility or sensory impairment;
- Through airport (check-in to flight) transit is quicker and the people mover will get you from the Gateway to any terminal in 2 and ½ minutes;
- Transfers are quicker; the people mover will transfer passengers between the new and North terminals in under 5 minutes;
- Further investment in passenger information systems, integrated and smart ticketing will happen over the next few years. In the short term Oyster is arriving at Gatwick in 2014.

For quality, simplicity, speed, ease and convenience the Gatwick Gateway will be unrivalled and vastly better than the complex, subterranean and widely dispersed entry points at Heathrow.

Train services will be massively improved with £1.5bn of new trains on the Thameslink services, and with more train services and more destinations than ever before. The trains will be large, accessible, have toilets, first class seats and plenty of luggage space. A comparison of the new Thameslink trains and the Crossrail trains (Figure 14) shows that the Thameslink trains (Figure 15) have been designed with air passenger in mind. This is allied to the planned reliability and resilience programmes being driven by Network Rail, which will give Gatwick a new rail system well able to meet the needs of commuters as well as airport users.

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FIGURE 14: THAMESLINK AND CROSSRAIL ROLLING STOCK COMPARISON

Trains	Rolling Stock Designation	Crossrail	Thameslink
		Class 345	Class 700
	Length (metres)	200	242
	Maximum Speed (kph)	145	160
	Carriages	9	12
	No. under construction (sets)	65	115
	Seats	450	654
	Seats per carriage (ave.)	50	55
	Capacity (seats + standing)	1500	1740
	Toilets	No	4
	Accessible toilets	No	1
	Air-conditioned	Yes	Yes
	First Class	No	Yes
Service	Operating hours	24 (core section)	24 (inc Gatwick)
	Maximum frequency through core section (tph)	24	24
	Frequency (trains per hour, airport related)	4	8
	No. of stations served	38	69
	Total length of route (miles)	85	220
	Number of branches	2 west, 2 east	3 north, 2 south
	Airport station on trunk or branch	Branch	Trunk

(Source: Arup)

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FIGURE 15: NEW CLASS 700 THAMESLINK TRAINS



(Source: First Group)

Gatwick, unlike other airports, has always looked beyond its boundaries to help its customers: a front-gate to departure-gate philosophy that has stood it in good stead, e.g. its exemplary customer travel information and travel planning website. This reach-out to customers will be enhanced when Gatwick has over 1,000 stations acting as its front door: to capture the benefit from this, we will work with train operators to provide hosted Gatwick “contact points” at main interchange points such as London Bridge (Figure 16) to help passengers getting on or transferring between trains, review flight connection information, print out luggage tags and make their journey as straightforward and attractive as possible.

Other innovative transport measures we plan to deploy with our transport partners include:

- Further development of whole travel applications;
- Customer public transport loyalty schemes;
- Easily accessed carbon-offsetting schemes;
- Parking charges automatically discounted via Automatic Number Plate Recognition (ANPR) technology for low emissions vehicles;
- Smart parking technology;
- Energy capture technology at the Gatwick Gateway;
- Further use of hybrid and electric vehicles;
- Even more extensive use of the consolidation and distribution centre.

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In the longer term, we will continue to adopt leading, but robust, technology where it can add value to customers: but never at the expense of reliability and certainty.

FIGURE 16: CONTACT POINTS AT KEY INTERCHANGES



(Source: Farrells)

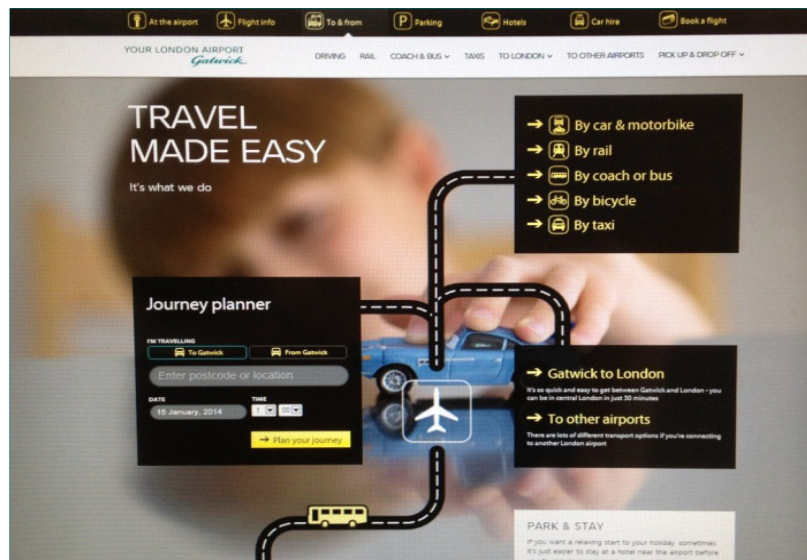
6. Local community and economy benefits

Objective: To produce positive outcomes for local communities and the local economy from any surface access that may be required to support the proposal

Our local community uses Gatwick to connect their journeys by all modes of transport so as to access jobs, services and leisure activities across the South East and further afield. Our plans will enhance this benefit further and help drive direct, indirect and induced economic growth, improve quality of life and support sustainable travel.

FIGURE 17: PASSENGER JOURNEY PLANNER

(<http://www.gatwickairport.com/to-and-from/>)



Gatwick rail station is already used by over 1m local passengers a year and the new Gatwick Gateway interchange (Figure 18) will deliver a whole range of new travel options for people across the region.

Local bus services have proven popular with staff, commuters and the community alike and the longer hours, better information and more frequent services are already much appreciated. The further extension of the Fastway programme of high quality bus services, supported by Gatwick's Passenger Transport Levy, will take this further still, potentially doubling the more than 400 bus service arrivals of today. This will benefit from the newly introduced low floor and inclusive bus fleet that even has free 4G Wi-Fi and mobile ticketing. The local community will therefore gain from improved access, from more services that operate for longer hours, more frequently and go to more destinations. In this way, our plan for more coach and bus services will thus meet the needs of airport users, the region and local residents.

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Our priorities for bus and coach

New and better bus and coach services to Kent, South and East London and the Sussex Coast (planned)

Enhanced quality bus services (Fastway 2 or 3) – local services with bus priority measures to achieve reliable journey times (planned)

High quality interchange and 24/7 “Access All Hours” (planned)

Gatwick Gateway facilities for bus and coach services (planned)

Ticketing, fare payment and information innovations (planned)

The addition of a second runway at Gatwick will mean some roads will need re-aligning, for example the A23: this will have a dedicated off road cycle-way and a separate pedestrian path. This and other road changes that we make will leave behind less congestion, improved resilience and a better, more simple, road system for local buses, taxis and car users. Our cycling and walking upgrades will create 9km more and better cycle routes, and will benefit airport users, local commuters and leisure users.

We also recognise that there may also be some minor impacts on local roads further afield. We will therefore set up a £10m Local Highway Development Fund to support additional road improvements by Local Authorities where Gatwick traffic is but one of a number of contributors to junction capacity issues.

Ultimately, however, the biggest positive impact locally will be jobs during construction and operation, both direct and indirect. Excellent public transport means that these opportunities will be open not only to our immediate communities but also to many of the most deprived communities along the South coast and those further North into London: Croydon, Lambeth, Lewisham, Southwark, and Hackney. In essence, the new airport will help create a North/South growth corridor, help achieve the London Plan, rebalance economies in the South East and London, and offer new opportunities for the 1m people who live in deprived local communities within 25 miles of Gatwick. This enhances their accessibility to a wider range of services and facilities and to different communities, supporting improvements in quality of life.

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FIGURE 18: GATWICK GATEWAY VISUAL



(Source: Farrells)

7. National and regional spatial and development strategies

Objective: To maximise benefits in line with the relevant long term strategies for economics and spatial development

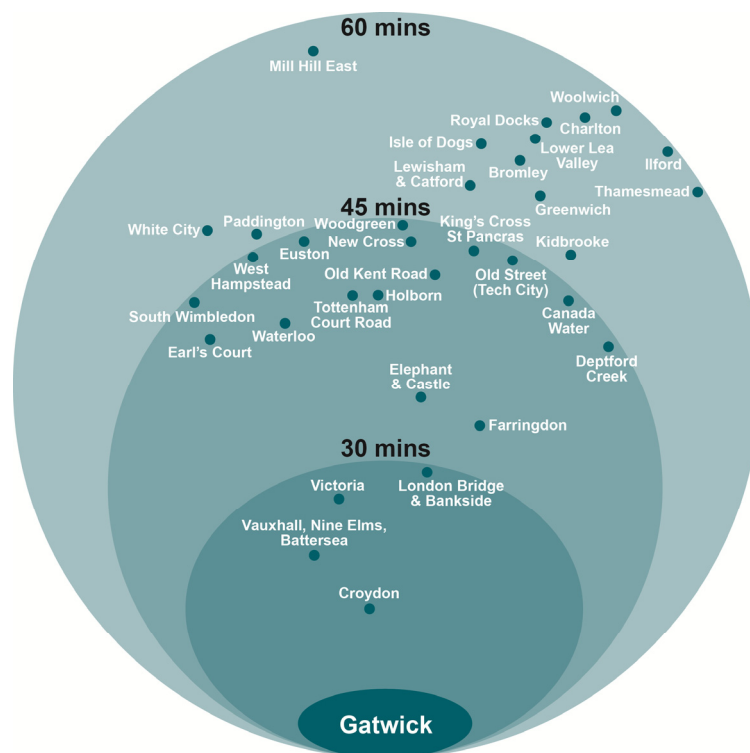
The three long-term economic and spatial development strategies most relevant to the expansion of Gatwick are:

1. The London Plan;
2. The Gatwick Diamond strategic statement; and
3. The Coast-to-Capital Local Enterprise Partnership strategy for growth.

Expansion of Gatwick will support and help make each of these strategies become a reality and aid economic growth across London and the South East.

Despite being located outside Greater London, Gatwick Airport has long been recognised as an important contributor to the London economy. Consequently, the development of Gatwick is very relevant to the London Plan: the spatial development strategy for London. As illustrated (Figure 19), Gatwick is within relatively short journey times from most development areas in London.

FIGURE 19: TIME TO LONDON DEVELOPMENT AREAS



Source: Arup Surface Access Report

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The London Plan looks to rebalance spatially the capital's economy. The expansion of Gatwick Airport, through the provision of a second runway, will contribute to this rebalancing of London's economy, providing linkages and connectivity to areas that have been earmarked for regeneration or have capacity for growth.

Surface access linkages are an important means of converting the benefits of connectivity by air into actual economic flows to and from London with the associated benefits of employment and wealth. The £6.5bn Thameslink upgrade programme lies at the centre of Gatwick's transport improvements that will facilitate flows of benefits to key growth areas North and South of the airport. This programme will transform how easy and fast it is to get from the airport into London, and vice versa.

London's key Opportunity and Regeneration areas will thus be assisted by the excellent surface transport links to and from an expanded Gatwick that will stimulate jobs and growth.

Economic and physical flows to key Opportunity and Regeneration Areas will be driven by the fast, frequent and reliable transport thus maximising regeneration benefits and catalytic effects e.g. increased employment, trade and foreign direct investment. Areas such as Croydon, Clapham Junction, London Bridge and Victoria are all within a 30 minute train journey, and key inner London areas earmarked for growth such as Victoria, Vauxhall, Nine Elms and Battersea, London Bridge and Bankside will all gain benefit from proximity to an expanded Gatwick. There will be a pull of economic geography south of the River Thames, rebalancing the spatial direction of the City in a way consistent with the London Plan.

Further North and centrally, within a 40 minute rail journey from Gatwick are key Central London nodes such as Tottenham Court Road, Farringdon, Kings Cross, Liverpool Street and Waterloo. The excellent North South rail services will help to support a revival of the North and North East London economies and support growth in the London - Stansted - Cambridge corridor, as highlighted in the London Plan. This growth has the potential to redress some of the historic and emerging imbalances in the London and South East economy.

Closer in, improved transport links to Gatwick will help bring forward growth in Tottenham and Finsbury Park, which arguably are at a tipping point to receive high levels of investment with their connections to many parts of the capital and the airports of both Stansted and Gatwick.

To the South, places like Croydon, Sutton and the Wandle Valley will see growth pulled South of the river, allowing for their development as business destinations to be realised. These parts of South London all have ambitious plans to deliver on jobs and growth and to see deprivation decrease with associated improvements in quality of life. The expansion of Gatwick will accelerate their development as destinations and a source of workforce for the expanded airport. Gatwick's employment strategy will help ensure that the benefits of an expanded airport are spread directly to those areas.

At a more local level, with Gatwick Airport at its core, the informal boundary of the 'Gatwick Diamond' stretches from the southern edge of London to the northern boundaries of Brighton and Hove. Proximity to Gatwick airport, good surface access and connectivity has helped the Diamond to grow as a national and international business location. Economic development, stimulated by the good transport links, will also be felt by towns along the South Coast: jobs created, directly and indirectly, by Gatwick during the build and operate phases will provide major opportunities for many of these communities.

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Growth at Gatwick Airport will deliver benefits for the local catchment area and boost the businesses within the Gatwick Diamond's growth. This growth will assist in delivering the visions in key economic development and planning documentation such as the Gatwick Diamond Strategic Statement and the Coast to Capital LEP Strategy for Growth. These documents include objectives such as development of a flourishing and competitive knowledge based economy with high levels of entrepreneurship, providing sustainable employment and operating in an environment which enables the Diamond to be recognised, nationally and internationally, as one of the top locations for businesses. Gatwick's expansion as a major international gateway will support these objectives.

8. Sustainable

Objective: Minimise and where possible reduce noise impacts

Pivotal to the Gatwick Airport Surface Access Strategy is the aim to minimise car use by passengers and staff alike, thus reducing as much as possible car-based sources of noise. The increase to 60% passenger public transport mode share will achieve some 1m fewer car trips per annum. Staff, even after nearly doubling in number, will still travel 20m fewer car miles with the 50% sustainable mode share.

A key design principle for the layout of the airport has been to separate as much as possible cars accessing the airport on the strategic road network, including the M23 and A23, from local traffic on local roads. Almost all airport related car users access via Junction 9 of the M23 and therefore do not travel on local roads.

Operational freight is already routed into Gatwick's successful operations consolidation and distribution centre, directly off the trunk route; cutting mileage, noise and carbon. Airfreight is directed to the airfreight facilities on designated routes, generally outside peak hours and post consolidation at source, contributing to reducing congestion and noise effects.

Any impact from small increases in traffic flows on local roads will be minimised by using low noise road surfaces and roadside noise barriers where re-aligned roads e.g. the A23, might impact on the few nearby properties. This overall road programme minimises noise, pollution and congestion in the surrounding communities.

Car users accessing the airport via Junction 9 drive straight into the airport and the drop zones or the new car parks adjacent to the M23. They therefore do not travel on local roads or impact on the surrounding communities.

Similar measures will be used during construction: these will include:

- A railhead for bulk materials e.g. sand, cement, rebar, and aggregates;
- Off-site lorry consolidation and marshalling yards;
- Timed master delivery schedules;
- Minimal use of local roads for freight vehicles or workforce who will be incentivised to use public transport;
- Negligible waste to be exported off-site;
- Early construction of any permanent noise bunds to minimise any local noise or light impacts.

Objective: To improve air quality

The area around Gatwick is already fully compliant with legal limits for air quality and there are expected to be continued improvements in future years. The main routes to and from the airport such as the M23 and A23 do not, and will not, create air quality problems and the area around the airport is relatively unpopulated.

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The significantly increased proportion of passengers and staff using public transport, walking and cycling will cut both carbon and pollutants. This thrust will be further strengthened by the short road distances of on airport traffic e.g. the car parks are adjacent to the M23.

The realignment of the A23 and other local roads has been designed to cut congestion in comparison to today and remove unnecessary car movements. Free flowing traffic and less congestion will reduce emissions of pollutants and will therefore improve air quality. NO₂, PM₁₀ and PM_{2.5} particulate levels are predicted to remain well within EU limit values and UK objectives.

The construction plant will be selected to meet latest emission standards and minimise noise, gases and particulates.

Objective: Biodiversity: protect and maintain natural habits and maintain biodiversity

The local transport upgrades and additions needed are not extensive or deleterious to biodiversity. Rather, we shall use them as a means of enhancing biodiversity where we can. We have also actively worked to ensure any road changes maintain areas of ancient woodland such as along the A23 and Balcombe Road diversions.

The portion of the Crawter's Brook river corridor which routes alongside the re-aligned A23 will provide opportunities for habitat creation and ecological connectivity, and a more pleasant route to access the airport for walkers and cyclists than at present.

Objective: Carbon: minimise carbon emissions during construction and operation

The best way of cutting carbon from surface access is achieving a high public transport and sustainable mode share. We will achieve 60% for passengers and 50% for staff by 2040.

For our customers, this means 50% travelling by rail and 10% by coach and bus. The remaining 40% of passengers travelling by road will benefit from enhancements to the trunk road networks, thus minimising fuel use and emissions.

Staff travel plans have already been very successful with a fast, growing and extensive bus travel network that operates at the shift times staff need. This is supported by both staff travel discounts and exemplary travel information for both bus and rail modes.

Success with staff travel to date also includes a reasonable level of walking and cycling to work at 2%. The new airport layout gives us the opportunity to embark on a further walking and cycling programme including new and stronger North/South and East/West cycle routes, aided by top class cycle hub facilities in the new Gatwick Gateway: 4% is a tenable target for the short/medium length commutes.

For the remaining staff that travel to work by car, we will continue to improve the take-up of the existing successful car sharing scheme for staff and will encourage use of electric vehicles where feasible, including installing charging points in our staff car parks and around the airport. Priority car park spaces will be given to electric or low emission vehicles and car sharers. On airport, we shall continue to make our own bus fleet as low or zero emission as we reasonably can.

New transport buildings, such as the new Gatwick Gateway interchange, will be carbon neutral in terms of energy use and use low carbon materials. We will endeavour to use footfall power generation for information and lighting. Maximum use will be made of recycling and re-use during the Gatwick new-build phase.

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A comprehensive Construction Transport Plan for materials and staff for the construction phase will help to minimise impacts and maximise effectiveness. This will include for example consolidation centres, a railhead for bulk materials, minimised muck-shift, and on-site remediation and shuttle buses from the rail stations.

Objective: Water and flood risk: protect ground and surface water sources, use water resources efficiently and minimise flood risk

Gatwick's current infrastructure plan contains projects to protect the airport from future floods even in the most extreme weather scenarios.

The new river alignment provides sufficient flood storage capacity to prevent flooding to the roads and airport. It will also allow opportunities to reduce the risk of flooding to communities downstream as well as for the airport.

FIGURE 20: RIVER MOLE PROPOSED CYCLE AND PEDESTRIAN FACILITIES



(Source: Arup Surface Access Report)

Sustainable drainage principles will be adopted for all transport infrastructure, with runoff from the roads attenuated and appropriately treated before passing into receiving water courses.

Low water use principles will be adopted, including where appropriate harvesting, grey and brown water management. In overall terms, we aim for the airport to use less potable water in 2050 than in 2010.

9. People, place, community, quality of life

The Gatwick second runway does not require any significant additional surface access upgrades that would result in significant disruption to or dislocation of existing communities or road users. This contrasts with the serious disruption which would inevitably result from expansion at Heathrow.

Where we have to alter local roads we will reconnect these with higher quality replacements. Furthermore, construction of the new road layouts will not impact on existing users and the road designs we use will reduce or remove conflict between local and airport traffic. We will design the main roads to have sufficient capacity and free flow traffic, thus reducing the need for motorists to use unsuitable minor roads.

Local road upgrades or realignments will also support better walking and cycling and provide green corridors that blend into the surroundings. For example, we will utilise the new river corridor to create a linear park for cyclists and walkers. A whole new network of strengthened cycle-ways will support leisure and work use by the local communities, enhancing healthy living, quality of life and green transport.

Local communities, and indeed the wider regional area, will also benefit significantly from the even better local bus networks and from the Gatwick Gateway transport hub. This will increase the number of local people (currently more than 1m annually) who already use Gatwick station: the enhanced mobility that strong public transport networks provide is a key contributor to quality of life, through enhanced accessibility to employment opportunities, recreation and community facilities and other communities.

Excellent public transport links by road and rail also give opportunities for the workforce to be drawn from a very wide catchment area: from Brighton to Bedford and across the whole South East. This will avoid overheating of the local housing market or over-burdening of public services and it will give major opportunities for some of the most deprived London and South Coast communities, and help them generate their own induced economic growth.

Where Gatwick does construct new transport facilities, their design will support high quality of life in accordance with design standards that will provide high quality passenger experience, ensuring accessibility for all and incorporating Secured by Design Standards. The facilities will result in low resource impact e.g. energy, water and raw materials, promote recycling and reuse, and are of aesthetic and architectural merit. Scalability, adaptability and flexibility will be built in, where appropriate, to allow for change over time including incorporation of relevant technological advances and innovations.

10. Resilience and operational risk

By its very nature, having a 2+2 airport solution for London and the nation will add resilience: not only against airport related operational risks but 2+2 will also mitigate surface access risks.

The design of the new airport and its supporting transport system has been done with resilience as an important objective. This is a natural development of Gatwick's existing operational relationships and proven joint operations planning with its transport partners: integrated resilience, co-ordination and contingency plans and arrangements already exist. These plans seek to prevent, anticipate or respond effectively to risks and events.

Roads: various measures will help deliver a resilient road system. These include the provision of enough lane capacity and enough junction capacity to cope with normal perturbations. Two motorway junctions will serve the airport (Junction 9 in normal circumstances and Junction 10 if needed) and resilience is further improved by creating two separate road corridors from Junction 9. Lastly, the ability to switch airport traffic to the A23 if necessary adds further resilience. The new airport and local road layout has also been designed with resilience in mind with alternative routes thought through.

Rail: the reliability of the rail system has improved over the last decade, however there is still more work to be done and hence Network Rail have embarked on a resilience programme addressing both current issues and climate change. This programme includes new platforms, new track layouts and a more resilient infrastructure, especially for signalling. This programme is already showing benefits, with Network Rail reporting that service reliability has improved dramatically in 2013 as a result of the resilience works that have already taken place.

This programme supplements the inherent resilience of the railways serving Gatwick e.g. multiple London destinations, Victoria and London Bridge, multiple rail lines and many platforms. Closer to Gatwick, there are a number of alternative lines when disruption occurs given the availability of two routes North of Gatwick – namely the Quarry Line and the Redhill line providing resilience by allowing for re-routing of services as appropriate. There is also scope to turn trains back at Three Bridges, helped by one of the new Thameslink depots being built there. Further North there are up to 5 sets of tracks and when re-signalled a fully independent line via Horsham and Epsom.

The introduction of the new Rail Operating Centre for the Brighton Main Line and Thameslink services at Three Bridges, just south of the airport, has also brought stronger operational relationships and more effective operational planning to the fore.

The upgrade of Gatwick Station, being undertaken in partnership with DfT and Network Rail, will enhance operational performance and add further operational resilience.

All of our facilities will be designed to Secured by Design standards and with flexible and scalable security measures.

The new runway and terminal site will be a secure island site and sub-sites, with suitable risk controls built-in following best practice from the London Olympic Park.

11. Affordable and financeable

Gatwick will invest some £800m in off and on airport transport improvements to support the second runway. This private investment is affordable and part of our deliverable and affordable financing package.

For the already planned and committed rail and road schemes to be delivered by Government, air passengers will deliver maximum value for the public sector from the current road/rail upgrades already underway e.g. Thameslink. They will generate some £3bn in additional fare-box income from the additional 25m rail users per annum. No additional taxpayer money will be needed for the specific upgrades necessary to support a second runway.

In addition a second runway at Gatwick will yield a broader economic and social legacy of greater employment, higher skills and a superb regional transport hub.

FIGURE 21: TWO RUNWAY MASTERPLAN VISUAL



(Source: Farrells)

12. Deliverable

Almost all of the planned road and rail upgrades are underway and will be completed before 2025, whether or not the second runway goes ahead.

The additional transport upgrades needed to support the second runway can be executed quickly at low risk and carry high benefits for the region and local communities e.g. M23 J9, A23 diversion, the Gatwick Gateway. Technically they are simple, based on proven technology and will cause little or no disruption to local users or communities.

The surface access upgrades on rail and road being delivered by Network Rail or the Highways Agency are conventional, proven, already underway and very low risk with respect to time, cost and the effectiveness of outcome.

Over and above these technical aspects of delivery, is the close involvement of, and support from, our communities and our transport partners. In that sense this is our collective transport plan which gives us the confidence to move forward collaboratively. The R2 Surface Access Strategy has been developed with:

- Our Local Authorities - West Sussex County Council, Surrey County Council, Kent County Council, East Sussex County Council, Crawley Borough Council, Brighton and Hove District Council;
- Network Rail;
- Highways Agency;
- Transport for London;
- Public transport operators and advisory bodies;
- Confederation of Passenger Transport;
- Sustrans;
- East Sussex Rail Alliance;
- Freight Transport Association;
- British Vehicle Rental and Leasing Association;
- Coast to Capital LEP;
- Gatwick Transport Forum;
- Gatwick's Passenger Advisory Group.

Conclusions and summary

Gatwick surface access will be transformed over the next five years by transport upgrades – road and rail – that are already planned and funded. As a result there will be step change in both the quality and scale of public transport access to the airport.

Taken together they will enable the airport to meet all the passenger demands from a second runway without any additional taxpayer investment and with a fraction of the disruption at Heathrow from tunnelling the M25, turning it into a 14 lane motorway and imposing a congestion charge.

Gatwick's Airport Surface Access Strategy thus delivers the Commission's three key transport objectives better than Heathrow:

1. **Gatwick will achieve the highest use of sustainable modes of transport:** it will achieve a 60% public transport mode share for customers and a 50% sustainable mode share for staff;
2. **Gatwick's plans readily accommodate the needs of other transport users:** there will be enough road and rail capacity to serve the airport, background users and the economic growth generated. Both Network Rail and the Highways Agency support this analysis;
3. **Gatwick's plans will provide access from the widest possible catchment area:** 3.2m people live within 30 minutes, 10.8m within 45 minutes and 14.8m within an hour – better than Heathrow's.

Our transport strategy, supported by our stakeholder groups, builds on Gatwick's success to date and will be achieved by:

- Almost tripling the capacity of the rail system, which is already planned to take place between 2012 and 2035, through a near doubling the frequency of trains, with longer trains and extending the reach of the rail network to serve over 1,000 stations;
- Airport-quality public transport: new trains, longer trains, better stations

In addition to the committed and planned schemes by Government, Gatwick commits to:

- Fully fund improvements required to M23 Junction 9 doubling its capacity, diverting the A23 and a small number of local roads required by the development.
- Set up a Local Highway Development Fund for Local Authorities to utilise to make local road improvements where Gatwick is one of a number of contributors
- Delivering a new state-of-the-art regional transport hub – The Gatwick Gateway – a single, seamless interchange between the airport and surface access; and
- Increasing the number of new bus and coach services serving more destinations, with higher frequencies through the Passenger Transport Levy and with a new bus and coach station at the Gatwick Gateway;
- Further innovations in passenger experience, customer service and information;
- Sustainable staff travel and 24/7 "access all hours" public transport services for passengers and staff;
- Enhancing connectivity for local communities, through new footpaths and cycleways

SD6 Surface Access Strategy

Gatwick's Airport Surface Access Strategy meets the needs of all passengers as well as the needs of other transport users – plus, travel times to, from and within the airport are faster than Heathrow.

Moreover, Gatwick will not only meet the key Commission criteria, it will also deliver much broader range of benefits:

Economic growth: Gatwick will create some 22,000 jobs; and the excellent rail links will connect some of the most deprived boroughs and towns in England to those jobs whilst also stimulating economic growth in those locations.

Spreading the load as well as the economic benefits: a second runway at Gatwick rather than another at Heathrow will disperse passengers over a much wider and extensive range of roads and railways: resulting in less congestion, more reliable and more comfortable journeys.

Less time and less hassle: by providing a balanced airport system of 2 runways at Gatwick and 2 at Heathrow this means that people will be closer to their nearest airport. This means that the total time spent travelling to an airport will be less: on average some 80m passengers per annum will save about 15 minutes each getting to an airport.

Wider legacy: the new **Gatwick Gateway** transport hub, serving rail, coach, bus, walk, cycle and car, will deliver a fully integrated regional public transport interchange to match the best in the world.

Cost and value: a second runway at Gatwick will:

- Add value, through more passengers using the railways: benefitting the taxpayer by some £3bn through filling up off-peak and contra main direction trains for 20 hours a day;
- Generate a balanced North/South economic growth corridor and meeting the needs of the London Plan; and
- Gatwick will pay a fair share of the costs of the additional transport upgrades necessary for a second runway. Gatwick will pay fully for all the proposed local road improvements including the Junction 9 capacity upgrade, the A23 relocation and the Local Highway Development Fund.

Certainty: our transport strategy is low risk, timely, deliverable and will cause minimal impact on our local communities during both construction and operation.

Gatwick will thus set new standards for integrated public transport to serve a global airport: swift, simple, sustainable and secure.

To summarise, for a second runway at Gatwick:

There is enough road and rail capacity: Network Rail and the Highways Agency agree this.

Consumers will save considerable time, be more comfortable and it will spread passenger loads across the whole of the South East.

The surface access infrastructure required will cost the Government no more money than planned for improvements that are in the pipeline. Gatwick will fully fund the specific additional requirements of the second runway.