



Inner Thames Estuary Feasibility Study

*Response to Airports Commission Call for Evidence*

**The Mayor of London's Submission:  
Supporting technical documents**

**23 May 2014**

Title: Supplementary Information for Low, Medium, High and Optimal Performance and Cost Appraisal

Author: TfL

Purpose of paper:

This technical note provides supplementary information for TfL's low, medium, high and optimal performance appraisal of airport surface access provision.

**Key messages:**

- It is essential that the Commission appraises airport surface access proposals on a 'level playing field'.
- A low cost - low performing surface access plan should not be compared to a high cost – high performing proposition.
- Results of TfL's evaluation comparing equivalent airport surface access performance scenarios show that costs are broadly similar for each airport option.

TfL Planning **Technical Note**

## **Aviation Workstream:**

# **Technical Appendix: Airport Surface Access Scenario Appraisal TfL AC submission May 23<sup>rd</sup> - Surface Access**

May 2014

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## **1. Introduction**

- 1.1. This technical appendix complements information discussed in the Mayor's response to the Airports Commission in May 23<sup>rd</sup>.
- 1.2. It presents more detail on how TfL estimated costs for its low, medium, high and optimal performance appraisals for surface access for the three airport options: Inner Thames Estuary (ITE), Heathrow (LHR) and Gatwick (LGW).
- 1.3. Below is a series of tables that give more detail into TfL's cost and scheme assumptions for the low, medium, high and optimal appraisal scenarios (cost - £bns). Results are summarised in the graph below (figure 1.1).

Table I.1: TfL Appraisal of Airport Surface Access – LOW (£bns)

Low Performance - Short Term						
Airport	Year	MPPA	Description	Cost	Risk	Total
Heathrow	2026	100				
			LHR estimate for rail and road costs (LHR estimate for developer (0.9) + taxpayer costs (1.2) – risk assumptions are unclear)		n/a	2.1
			<b>TOTAL</b>		<b>n/a</b>	<b>2.1</b>
Gatwick	2025	70				
			LGW estimate for rail and road costs (developer contributions only – risk assumptions are unclear)		n/a	0.4
			<b>TOTAL</b>		<b>n/a</b>	<b>0.4</b>
ITE	2026	110				
			ITE low estimate for road costs	0.6	0.4	1.0
			ITE low estimate for rail costs	0.9	0.6	1.5
			<b>Highway</b>	<b>0.6</b>	<b>0.4</b>	<b>1.0</b>
			<b>Rail</b>	<b>0.9</b>	<b>0.6</b>	<b>1.5</b>
			<b>TOTAL</b>	<b>1.5</b>	<b>1.0</b>	<b>2.5</b>

Table 1.2: TfL Appraisal of Airport Surface Access - INTERMEDIATE

Intermediate Performance - short-medium Term						
Airport	Year	MPPA	Description	Cost	Risk	Total
Heathrow	2031	110				
			Some contribution to the following highway schemes: motorway network improvements, airport access, bus/coach facilities, further local highway improvements & implementation of road user charging, M25 and A4 in tunnel	2.0	1.3	3.2
			Some contribution to the following rail schemes: Western Rail Access to Heathrow, Southern Rail Access	0.8	0.6	1.4
			<b>TOTAL</b>	<b>2.8</b>	<b>1.9</b>	<b>4.6</b>
Gatwick	2031	80				
			Some contribution to motorway network improvements, airport access and bus/coach facilities	1.1	0.6	1.6
			Some contribution to upgrades of rail schemes and Gatwick station interchange	0.8	0.5	1.3
			<b>TOTAL</b>	<b>1.8</b>	<b>1.1</b>	<b>2.9</b>
ITE	2031	90+				
			Cost of airport highway access and mitigating impact on local and strategy roads on airport opening	1.6	0.9	2.5
			Cost of high-speed rail link, Crossrail and local rail enhancements	2.4	1.8	4.2
			<b>Highway</b>	<b>1.6</b>	<b>0.9</b>	<b>2.5</b>
			<b>Rail</b>	<b>2.4</b>	<b>1.8</b>	<b>4.2</b>
			<b>TOTAL</b>	<b>4.0</b>	<b>2.8</b>	<b>6.8</b>

Table 1.3: TfL Appraisal of Airport Surface Access – HIGH & OPTIMAL Scenarios LHR & LGW

		High Performance - Long Term - Full Appraisal				
Airport	Year	MPPA	Description	Cost	Risk	Total
Heathrow	2040	130+				
			Contribution to following highway schemes: motorway network improvements, airport access, bus/coach facilities, further local highway improvements & implementation of road user charging, M25 and A4 in tunnel	2.7	1.6	4.3
			Contribution to the following highway schemes: Western Rail Access to Heathrow, Southern Rail Access, recast of WRATH/HEX/Crossrail services and interchange at Old Oak Common	1.6	1.2	2.7
			<b>TOTAL 'HIGH' SCENARIO</b>	<b>4.3</b>	<b>2.8</b>	<b>7.0</b>
			<b>Optimum scenario includes: HS2 Spur, HSI-HS2 link and Link from Airtrack - Waterloo to Riverside via London Bridge &amp; Canary Wharf</b>	<b>6.0</b>	<b>4.6</b>	<b>10.6</b>
			<b>TOTAL OPTIMAL SCENARIO</b>	<b>10.3</b>	<b>7.4</b>	<b>17.6</b>
Gatwick	2040	84+				
			Contribution to motorway network improvements, airport access and bus/coach facilities ('high' scenario includes 75% of these costs)	1.6	0.8	2.4
			Contribution to upgrades of rail schemes and Gatwick station interchange ('high' scenario includes 75% of these costs)	0.9	0.6	1.5
			<b>New rail link from Gatwick to Central London - grade separated through urban areas</b>	<b>4.9</b>	<b>3.7</b>	<b>8.5</b>
			<b>TOTAL 'HIGH' SCENARIO</b>	<b>6.9</b>	<b>4.8</b>	<b>11.6</b>
			<b>TOTAL OPTIMAL SCENARIO</b>	<b>7.4</b>	<b>5.1</b>	<b>12.4</b>

Table 1.3 continued: TfL Appraisal of Airport Surface Access – HIGH & OPTIMAL Scenarios ITE

		High Performance - Long Term - Full Appraisal				
Airport	Year	MPPA	Description	Cost	Risk	Total
ITE	2040	150+				
			Cost of airport highway access and mitigating impact on local and strategy roads	2.7	1.3	4.0
			High speed links to HSI Riverside, including new rail river crossing	2.4	1.8	4.2
			Crossrail extension and local rail enhancements	1.6	1.2	2.8
			HSI-HS2 link & Old Oak Common Interchange	0.3	0.2	0.5
			High Speed Line - Riverside to Waterloo + stations	4.3	3.3	7.6
			Highway	2.7	1.3	4.0
			Rail	3.9	3.0	6.9
			TOTAL 'HIGH' SCENARIO	6.6	4.3	10.9
			TOTAL OPTIMAL SCENARIO	11.3	7.8	19.1

Figures 1.1: Summary of TfL Appraisal of Airport Surface Access

