

A380 South Devon Link Road (Kingskerswell Bypass)

Supplementary Report

November 2007

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1: Introduction

- 1.1 This report supplements the original report of the “*Kingskerswell Bypass Economic Impact Study*” which was undertaken by SQW in association with BBP Regeneration and Cambridge Econometrics in 2002. The original study was undertaken before the Department for Transport (DfT) accepted a recommendation from the Standing Advisory Committee on Trunk Road Assessment (SACTRA) in 2003 that an Economic Impact Report (EIR) should be prepared for major road schemes in regeneration areas where the wider economic benefits are not captured by a conventional cost benefit analysis.
- 1.2 This supplementary report has been prepared to provide an Economic Impact Worksheet for the proposed Kingskerswell Bypass which is now known as the A380 South Devon Link Road. The aim of an Economic Impact Report (EIR) is to:
- “Demonstrate how the proposed scheme will impact on the Regeneration Area’s economy. It should...explain how the proposed scheme can be expected to reduce unemployment, either by generating new jobs or by improving access to existing jobs”¹.*
- 1.3 This report focuses specifically on the preparation of an EIR Worksheet for the A380 South Devon Link Road in accordance of the requirements of the Department for Transport (DfT) EIR Guidance. It provides an explanation and interpretation of the EIR Worksheet and supplements the wider assessment of the potential economic impact of the proposed link road which was presented in the 2002 Kingskerswell Bypass Economic Impact Study.

Overview

- 1.4 The preferred option for the proposed A380 South Devon Link Road is similar to the major road scheme that was examined for the original Kingskerswell Bypass Economic Impact Study. It comprises a 2 lane dual carriageway between the southern edge of Newton Abbot and the northern edge of Torquay. It includes a new single lane flyover at the Penn Inn junction at Newton Abbot, a grade separated junction at Aller Cross on the northern edge of Kingskerswell and a traffic signalled split lane junction at Kerswell Gardens at Torquay. The likely economic impacts of the “next best option” which substitutes a traffic signalled roundabout at Aller Cross and a “low cost option” which is limited to a single carriageway between Aller Cross and Kerswell Gardens are assessed briefly in the final chapter of this report.
- 1.5 Our analysis of the economic impact of the proposed road scheme is based on the preferred option (see above), a core “Regeneration Area” (RA) and a wider area or “Hinterland” (HL) as required by the DfT Guidance. The core “Regeneration Area” for this study is the district of Torbay which is identified by the South West Regional

¹ Transport Analysis Guidance (TAG) Unit 3.5.8, “The Wider Economic Impacts Sub-Objective”, June 2003

Spatial Strategy (RSS) as one of the region's towns that is in need of regeneration (Spatial Strategy Statement, para 1.3.1). The RSS also identifies Torbay as one of 21 Strategically Significant Cities and Towns (SSCTs) that requires support for its economic and service role and for its regeneration (Spatial Strategy Statement, para 3.1.3).

- 1.6 In addition to this the South West Regional Economic Strategy (RES) also highlights the needs of "disadvantaged communities" as part of securing "Strong and Inclusive Communities" (Strategic Objective 2). The RES Delivery Framework builds on this strategic objective as it aims to "support areas with the greatest concentration of multiple deprivation" specifically including Torbay (Regional Priority 2B).
- 1.7 The wider "Hinterland" for the study is made up of the districts that surround Torbay: Exeter, Plymouth, South Hams and Teignbridge. This area has been selected because 99% of the Torbay workforce commutes from within the combined RA and the HL².
- 1.8 It should be noted that the focus on a specific "regeneration area" required by the EIR Guidance means that the study area for this assignment is different from the study area that was adopted for the 2002 study. In the original Kingskerswell Bypass Economic Impact Study, the economic impact of the proposed bypass was examined over the broader study area comprising Torbay, South Hams and Teignbridge.
- 1.9 The rationale of the EIR Worksheet is to focus on the needs and problems of specific regeneration areas and to show how a major road scheme could create jobs and reduce local unemployment and deprivation. It therefore aims to assess the impact of the road scheme in terms of:
 - the number of new jobs created in the RA and the HL that will be taken by RA residents
 - the number of existing jobs in the RA and the HL that will now be taken by RA residents as a result of improved accessibility
 - less the number of jobs in the RA that will now be accessed by HL residents.
- 1.10 The EIR worksheet identifies a series of key steps to achieve this which we have subdivided between the economic baseline element and the economic impact element of the analysis :
 - Economic baseline
 - An overview of the scheme and its location
 - An assessment of transport and the economy in the RA including a description of the local economy, the role transport plays, other constraints on economic development and why the proposed scheme is expected to lead to increased employment in the RA.

² Census 2001 Travel to Work

- Numeric information about the existing number of jobs in the RA and the workforce living there. This step also identifies the current number of vacancies, the number of residents who are unemployed and the skills profile of the workforce.
- Numeric information about the current number of “accessible jobs” in the HL and the size of the “accessible workforce” living there.
- A summary of this numeric information indicating how many jobs and vacancies are currently accessible to residents of the RA.
- Economic impact
- A description of the quantified impacts of the proposed road scheme including improvements to travel time, travel cost and travel reliability, quality and capacity.
- An estimate of the number of extra existing jobs outside the RA that the proposed scheme will bring into the commuting range of residents of the RA.
- An estimate of the changes in the “accessible workforce” available to existing employers in the RA. This includes increased access to the workforce in the RA and increased access to the workforce living in the HL.
- Examples of how the proposed road scheme will improve access for businesses in different economic sectors in the RA to their markets and suppliers.
- An estimate of new jobs likely to be created through the expansion of existing businesses, inward investment and increased access to workforce as a result of the proposed road scheme. This step also estimates how many new jobs are likely to be taken by RA residents.
- A summary of the expected gains in employment for residents of the RA in both new and existing jobs in the RA and the HL.
- An assessment of the reductions in employment of RA residents due to improved access for workers living in the HL or increased wage and retail competition resulting from the proposed road scheme.
- A summary of the gains and losses of employment for residents of the RA and the consequent net change in employment.

Methodology

- 1.11 The descriptive entries in the EIR Worksheet (Questions 1 to 5, 11 and 14) have been drawn directly from the findings of the 2002 Economic Impact Study and then updated by SQW and Parsons Brinckerhoff where necessary. However, no further work has been undertaken to supplement the original study other than the preparation of the EIR Worksheet and this explanatory report
- 1.12 The numeric data required for the EIR Worksheet has been drawn from various different sources including the Census of Population (2001), the Annual Business

Inquiry (ABI), the Annual Population Survey (APS) and Nomis vacancy data. This data has then been used in the analysis in conjunction with various calculations and assumptions which are explained in the body of this report.

Structure of report

- 1.13 Chapter 2 explains the “economic baseline” element of the EIR Worksheet (Questions 6 to 10) and then Chapter 3 explains the “economic impact” element (Questions 11 to 20).
- 1.14 Chapter 4 of the report summarises and interprets the key findings of the EIR Worksheet analysis in comparison with the original economic impact report. It then presents a revised Appraisal Summary Table (AST) and the completed EIR Worksheet itself.

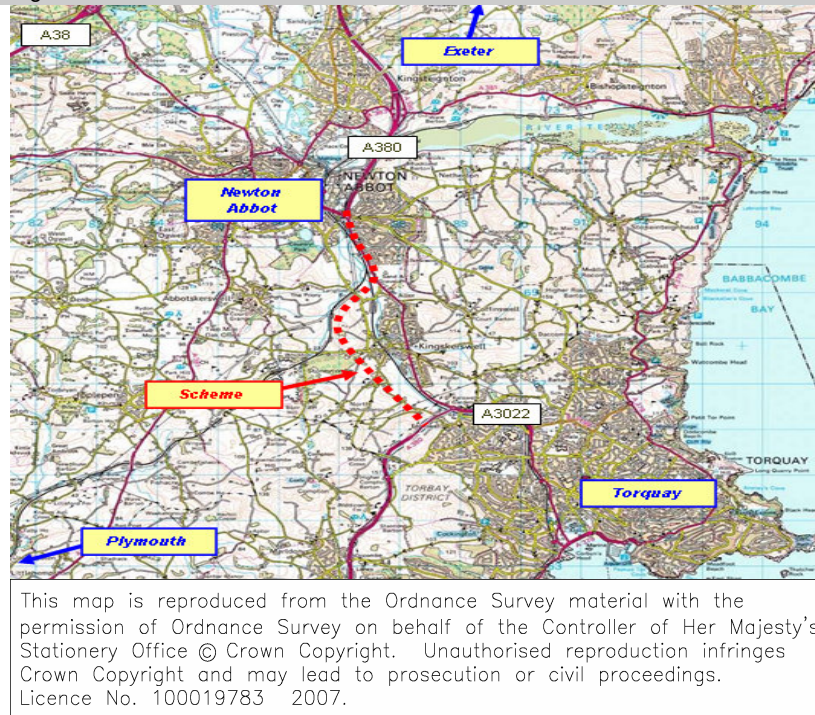
2: Economic baseline

- 2.1 This chapter presents the different data sources, assumptions and calculations that have been made in preparing the “economic baseline” element of the EIR Worksheet (Questions 1 to 10). It shows the sources and methodology used to determine the breakdown of employment and travel patterns in the core Regeneration Area (RA) and its Hinterland (HL).
- 2.2 The “economic baseline” element of the EIR Worksheet responds to questions on:
- the scheme and its location
 - transport and the economy in the RA
 - jobs and people in the RA
 - jobs and people in the HL
 - total accessible jobs and vacancies for residents of the RA

The scheme and its location

- 2.3 The proposed Kingskerswell Bypass scheme comprises a 2 lane dual carriageway for the A380 between the Penn Inn Roundabout in Newton Abbot and the Kerswell Gardens junction at the northern end of the Torbay Ring Road. It includes full junction facilities at each end and also with the existing A380 at the northern end of Kingskerswell. Associated side road alterations are also included. The proposed link road would provide the "missing link" in the existing high quality road links between the M5 at Exeter and the Torbay area. Figure 2-1 shows the location of the scheme.

Figure 2-1 Scheme location



Source: Parsons Brinckerhoff

Transport and the economy in the RA

2.4 The description of transport and the economy in the RA (Questions 2 to 5 of the EIR Worksheet) includes both qualitative and quantitative information and is based on SQW's report of the original Economic Impact Study (2002). It has been updated by SQW and Parsons Brinckerhoff to reflect subsequent changes in the area.

Jobs and people in the RA

2.5 The first step in assessing the quantitative aspects of the EIR Worksheet is to review the baseline of jobs, workforce, vacancies and unemployment in the RA (Questions 6 and 7).

2.6 The response to Question 6 presents the current total of jobs and vacancies in the RA and the corresponding skills breakdowns. The total number of jobs in the RA is 47,266 (taken from ABI employment data, 2005) and the total number of vacancies is 1,034 (taken from Nomis vacancy data, 2007).

2.7 The EIR Worksheet requires a skills breakdown of current employment in four skill levels:

- Managerial & professional
- White collar
- Skilled manual

- Unskilled

2.8 The total number of jobs in the RA has been converted into EIR skills levels by mapping the Standard Industrial Classification (SIC) of jobs onto Socio Economic Groups (SEG) using the methodology set out in the DfT Guidance TAG Unit 3.5.13. The current sector split of the workforce by SIC is shown in Table 2-1.

Table 2-1 Employment by SIC category (percentage)

	Exeter	Plymouth	South Hams	Teignbridge	Torbay
Agriculture, hunting and forestry	0.1	0.1	3.4	1.6	0.1
Fishing	0.0	0.0	0.2	0.1	0.2
Mining and quarrying	0.0	0.2	0.4	0.9	0.0
Manufacturing	4.4	13.0	12.8	9.9	6.9
Electricity, gas and water supply	1.1	0.5	0.1	0.0	0.3
Construction	4.6	4.1	5.7	8.2	4.4
Wholesale/retail trade; repair, etc	16.3	16.3	17.1	20.7	19.9
Hotels and restaurants	5.1	6.2	11.1	9.7	15.9
Transport, storage and communication	6.7	4.8	9.3	3.7	2.6
Financial intermediation	2.7	2.5	0.7	1.2	1.4
Real estate, renting, business activities	16.3	12.9	11.5	13.2	11.0
Public admin/defence; social security	12.9	7.5	3.8	4.7	4.0
Education	9.8	11.7	8.0	7.8	8.5
Health and social work	15.6	15.8	10.4	12.8	20.2
Other community, social/personal service	4.4	4.4	5.7	5.6	4.7
Private households with employees	0.0	0.0	0.0	0.0	0.0
Extra-territorial organisations/bodies	0.0	0.0	0.0	0.0	0.0

Source: ABI Employment Analysis (2005)

2.9 The conversion of SIC jobs data in Table 2-1 into the skills split of SEG jobs data using the TAG method is shown in Table 2-2.

Table 2-2 SEG Employment in percentage terms³

	RA (%)
Managerial & professional	21
White collar	37
Skilled manual	25
Unskilled	17

Source: ABI data for Torbay converted to SEG according to guidance in TAG Unit 3.5.13

2.10 The skills breakdowns of jobs and vacancies for Question 6 have been calculated by applying the percentages in Table 2-2 to the total jobs and total vacancies in the RA⁴ (para 2.6). The response to Question 6 is shown below.

³ There is a difference in terminology within the TAG units. We have assumed that 'Unskilled' in the EIR Worksheet refers to 'low skilled manual' workers in TAG 3.5.13 and that 'white collar' refers to 'office' workers.

⁴ We have assumed that the proportion of vacancies and unemployed workers by skill level corresponds to that of employed workers.

6 Provide a breakdown of the current jobs located in the RA, indicating skill levels and vacancies.	Skill level	Jobs (A)	Vacancies	
			Number (B)	%
	Unskilled	8,199	179	17%
	Skilled manual	11,844	259	25%
	White collar	17,356	380	37%
	Managerial & professional	9,867	216	21%
	Total	47,266	1,034	100%

2.11 The skills breakdown of the resident workforce and unemployed workers in the RA in the response to Question 7 have been calculated by applying the percentages in Table 2-2 to the total resident workforce and unemployment. The total workforce in the RA is 58,200 (taken from Annual Population Survey (APS) economic activity data for 2006) and the total unemployment in the RA is 3,500⁴ (also taken from APS 2006⁵).

7 Provide a breakdown of the workforce resident in the RA, indicating skill levels and numbers of unemployed.	Skill level	Workforce (C)	Unemployed	
			Number (D)	%
	Unskilled	10,106	607	17%
	Skilled manual	14,599	877	25%
	White collar	21,392	1,285	37%
	Managerial & professional	12,162	731	21%
	Total	58,258	3,500	100%

Jobs and people in the Hinterland

2.12 Continuing the review of the baseline situation, Questions 8 and 9 look at jobs, workforce, vacancies and unemployment in the HL that surrounds the RA. The response to Question 8 shows the jobs and vacancies in the HL that are “accessible” to residents in the RA together with the skills breakdowns.

2.13 The EIR is primarily concerned with the number of jobs that are “accessible” to workers resident in the RA and the number of workers resident in the HL that are accessible to employers in the RA. The focus is on accessibility to jobs and workers rather than the resident population (many of whom would not travel into or out of the RA for work). Throughout our analysis, we have defined “accessible jobs” as the number of jobs located in the HL that are taken by workers resident in the RA and “accessible workers” as the number of workers that live in the HL and work in the RA. All RA residents are considered to be “accessible” to jobs in the RA. We have used the 2001 Census Travel to Work data as the basis for determining “accessibility”.

2.14 The accessibility ratios for the various local authority areas in the HL which are needed for the response to Question 8 have been calculated from the 2001 Census Travel to Work data and are shown in Table 2-3.

⁵ The APS data is the appropriate measure of unemployment because the alternative “Claimant Count” measure only includes those claiming the Jobseekers Allowance.

Table 2-3 Accessibility ratios for accessible jobs (% of core area workers that take jobs in the HL)

Ratio	Exeter	Plymouth	South Hams	Teignbridge	Total
Accessible jobs	3%	1%	4%	8%	16%

Source: *Travel to Work, 2001*

2.15 The numbers of jobs in each district in the HL that are “accessible” to workers resident in the RA have been calculated by applying the accessibility ratios shown in Table 2-3 to the number of workers in the RA and are shown in Table 2-4. The total number of employed and self-employed residents of the RA is 54,200 (APS, 2006).

Table 2-4 Accessible Jobs

	Exeter	Plymouth	South Hams	Teignbridge	Total
Accessible jobs	1,458	639	1,978	4,534	8,608

Source: *Resident employed and self-employed in the RA multiplied by the accessible jobs ratio*

2.16 The numbers of total vacancies and accessible vacancies in each district of the HL are shown in Table 2-5. The figures for vacancies (taken from Nomis job vacancy data) have been multiplied by the accessibility ratios to calculate accessible vacancies.⁶

Table 2-5 Vacancies and accessible vacancies

	Exeter	Plymouth	South Hams	Teignbridge	Total
Vacancies	2067	1801	709	812	5,389
Accessible vacancies	56	21	26	68	171

Source: *Nomis Vacancy data, Annual Population Survey (2006)*

2.17 The proportions of employment within each SEG in the HL are shown in Table 2-6 to provide a basis for estimating the numbers of accessible jobs and accessible vacancies in each group in the HL. The conversion of the ABI skills data into SEGs has been carried out in the same way as for the RA (para 2.7 et seq) except that data for the HL has been used instead (Table 2-4 and Table 2-5).

Table 2-6 SEG employment in percentage terms⁷

	Hinterland (%)
Managerial & professional	22
White collar	38
Skilled manual	24
Unskilled	17

Source: *ABI converted according to guidance in TAG Unit 3.5.13*

2.18 The skills breakdowns of accessible jobs and accessible vacancies for Question 8 have been calculated by multiplying the total accessible jobs and the total accessible

⁶ This assumes that the proportion of jobs taken up in each district is the same as the proportion of jobs going to each district. The travel to work evidence suggests that there is no more than a 1% inaccuracy (plus or minus) in applying this.

⁷ There is a difference in terminology within the TAG units. We have assumed that ‘Unskilled’ in the EIR Worksheet refers to ‘low skilled manual’ workers in TAG 3.5.13 and that ‘white collar’ refers to ‘office’ workers.

vacancies in the HL (Table 2-54 and Table 2-6) by the percentages of employment in each SEG (Table 2-6).

8 Provide a breakdown of the accessible jobs located outside the RA, indicating skill levels and vacancies.	Skill level	Jobs (E)	Vacancies ⁴	
			Number (F)	%
	Unskilled	1,438	28	17%
	Skilled manual	2,037	40	24%
	White collar	3,270	65	38%
	Managerial & professional	1,863	37	22%
	Total	8,608	171	100%

2.19 The response to Question 9 shows the accessible workforce and the unemployed workforce that is resident in the HL. The accessibility ratios for “accessible workers” which have been calculated from the 2001 Census Travel to Work data by the same method as “accessible jobs” (explained in para 2.13) are shown in Table 2-7.

Table 2-7 Accessibility ratios (% of workforce in each district commuting to RA)

Ratio	Exeter	Plymouth	South Hams	Teignbridge	Total
Accessible workforce	1%	1%	4%	10%	16%

Source: TTW 2001

2.20 The accessible workforce in the various local authority areas of the HL which has been calculated by multiplying the workforce in the HL by the workforce accessibility ratios is shown in Table 2-8.

Table 2-8 Accessible workforce

	Exeter	Plymouth	South Hams	Teignbridge	Total
Accessible workforce	340	1,185	1,661	6,044	9,230

Source: APS 2006, TTW 2001

2.21 The accessible workforce that is unemployed in the various local authority areas of the HL has been calculated by multiplying the unemployment figures by the workforce accessibility ratios is shown in Table 2-9⁴.

Table 2-9 Number of accessible workforce that is unemployed

	Exeter	Plymouth	South Hams	Teignbridge	Total
Unemployment	2,500	8,200	1,000	1,300	13,000
Accessible unemployed	17	83	39	130	270

Source: APS 2006, TTW 2001

2.22 The skills breakdown of the accessible workforce and the accessible unemployed in the HL which has been calculated by multiplying the accessible workforce and the accessible unemployed by the percentages of employment in each SEG (Table 2-6) provides the response required by Question 9.

9 Provide a breakdown of the accessible workforce resident in the RA hinterlands, indicating skill levels and numbers of unemployed.	Skill level	Workforce (G)	Unemployed	
			Number (H)	%
	Unskilled	1,542	45	17%
	Skilled manual	2,184	64	24%
	White collar	3,507	102	38%
	Managerial & professional	1,997	58	22%
	Total	9,230	270	100%

Total accessible jobs and vacancies for residents of the RA

2.23 Question 10 of the EIR Worksheet provides a summary of information already given in response to Questions 6 to 9. It shows that there is a total of 55,874 “accessible jobs” for RA residents in the HL and a total of 1,205 “accessible vacancies”.

10	Accessible jobs in the RA = A	Accessible jobs outside the RA = E	Total accessible jobs (I=A+E)	Accessible vacancies in the RA =B	Accessible vacancies outside the RA =F	Total accessible vacancies (J=B+F)
Unskilled	8,199	1,438	9,637	179	143	322
Skilled manual	11,844	2,037	13,881	259	203	462
White collar	17,356	3,270	20,626	380	325	705
Managerial & professional	9,867	1,863	11,730	216	185	401
Total	47,266	8,608	55,874	1,034	856	1,890

2.24 A summary of the wide variety of baseline data sources that have been used for Questions 6 to 10 of the EIR Worksheet is shown in Table 2-10.

Table 2-10 Summary baseline date

	Regen Area (RA)	Hinterland (HL)				Total
		Torbay	Exeter	Plymouth	South Hams Teignbridge	
Jobs and people in the RA						
Jobs (ABI 2005) (Question 6)	47,266					
Workforce (APS - Economic Activity, 2006) (Question 7)	58,200					
Vacancies (NOMIS) (Question 6)	1,034					
Unemployment (APS, 2006) (Question 7)	3,500					
Resident employed & self-employed (APS) (Question 8)	54,200					
Jobs and people in the hinterland						
Jobs (ABI 2005) (Question 8)		84,921	104,722	33,689	40,569	263,901
Vacancies (NOMIS) (Question 8)		2,067	1,801	709	812	5,389
Accessibility ratio from Torbay (TTW, 2001) (Question 8)		3%	1%	4%	8%	16%
Accessible jobs (Question 8)		1,458	639	1,978	4,534	8,608
Accessible vacancies (Question 8)		56	21	26	68	171
Workforce (APS - Economic Activity, 2006) (Question 9)		51,500	116,700	42,100	60,300	270,600
Unemployment (APS, 2006) (Question 9)		2,500	8,200	1,000	1,300	13,000
Accessibility ratio into Torbay (Question 9)		1%	1%	4%	10%	16%
Accessible workforce (Question 9)		340	1,185	1,661	6,044	9,230
Accessible unemployed Question 9)		17	83	39	130	270

2.25 The SEG percentage splits for the RA and the HL which have been used in calculating the responses to Questions 6 to 10 of the EIR Worksheet are summarised in Table 2-11. They have been used throughout the following economic impact analysis but are not repeated there.

Table 2-11 SEG Employment in percentage terms⁸

	RA (%)	Hinterland (%)
Managerial & professional	21	22
White collar	37	38
Skilled manual	25	24
Unskilled	17	17

Source: ABI converted according to guidance in TAG Unit 3.5.13

⁸ There is a difference in terminology within the TAG units. We have assumed that 'Unskilled' in the EIR Worksheet refers to 'low skilled manual' workers in TAG 3.5.13 and that 'white collar' refers to 'office' workers.

3: Economic impact

- 3.1 This chapter presents the different data sources, calculations and assumptions that have been made in preparing the “economic impact” element of the EIR Worksheet (Questions 11 to 20). It shows the sources and methodology used to determine the breakdown of employment and travel patterns in the core Regeneration Area (RA) and its Hinterland (HL).
- 3.2 The “economic impact” element of the EIR Worksheet responds to questions on:
- existing jobs in the HL taken by residents of the regeneration area
 - existing jobs in the of the RA taken by HL residents
 - new jobs in the of the RA taken by of the RA residents
 - new jobs in the HL taken by of the RA residents

Quantified Impacts of the Scheme

- 3.3 The response to Question 11 about the quantified impacts of the proposed A380 South Devon Link Road provides some specific examples of the impact on travel times based on the area wide traffic model that has been developed in preparing the design for the scheme.
- 3.4 The proposed road scheme provides a higher level of service and is in line with the quality of the rest of the route from the M5 to the Penn Inn Roundabout at Newton Abbot. It would provide grade-separated junctions along the route, with a high-capacity at-grade junction at the southern end, linking to the Torbay ring road. The existing capacity of the route is approximately 1,200 to 1,300 vehicles per hour and it is expected to increase with the construction of the proposed link road to 1,500 to 1,800 vehicles per hour at the grade-separated junction at Penn Inn and 3,000+ vehicles per hour on the dual carriageway section. The anticipated effect of this on travel times for a selection of trips is shown in Table 3-1 for the ‘AM peak’. We selected the ‘AM peak’ for this analysis because it is considered to comprise the most concentrated maximum traffic flow throughout the day and therefore provides the most representative assessment of journey time improvements.

Table 3-1 Journey times (minutes) in the AM peak (08:00 – 09:00)

	Base Year (2005)	2013 - Do Something	Difference ⁹	Difference (%)*
Newton Abbot - Torquay	18.9	17.2	-1.7	-9%
Torquay - Newton Abbot	21.9	20.2	-1.7	-8%
Torquay - A38 / A380	30.9	28.9	-2	-6%
A38 / A380 - Torquay	32.7	26.4	-6.3	-19%

Source: Parsons Brinckerhoff

Access to existing jobs outside the RA

- 3.5 Question 12 of the EIR Worksheet asks how many existing jobs in the HL will become accessible to residents of the RA and how many of these jobs will be taken by these residents. We have based our assessment of “accessibility” on the actual existing commuting patterns in the RA and the HL as defined in Chapter 2 (para 2.12 et seq) which has been selected from the various methods suggested in the EIR Guidance. We have therefore devised a method for estimating the expected change in the accessibility ratio (shown in Table 3-2) which can be applied to the numbers of existing jobs to determine how many new jobs are brought into range and how many of them would be taken by RA residents.
- 3.6 The proposed South Devon Link Road is expected to reduce journey times between Torbay and Exeter and between Torbay and Newton Abbot. Table 3-2 shows the baseline travel time and the expected change in travel time. Trips within Torbay, between Torbay and South Hams and between Torbay and Plymouth are not expected to be affected by the proposed link road and are therefore not included in the table.

Table 3-2 AM Peak (08:00 – 09:00) travel times from Torbay before and after the scheme

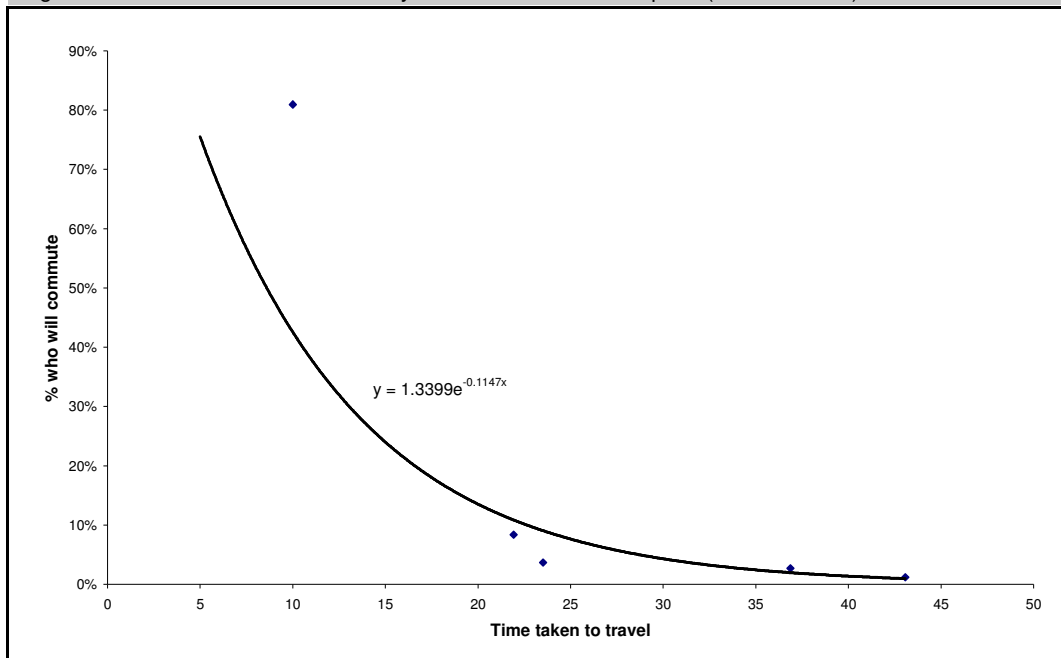
Journey	Baseline (2005) travel time (minutes)	Revised travel time	Change in travel time
Torbay to Exeter	36.9	34.9	2.0
Torbay to Teignbridge (Newton Abbot)	21.9	20.2	1.7

Source: Parsons Brinckerhoff

- 3.7 The existing relationship between travel times and commuting has been analysed to estimate the impact of reduced travel times on the numbers of workers who are likely to commute from the RA in the AM peak and the consequent change in accessibility. The travel times and the numbers commuting were plotted and a ‘best fit’ relationship estimated as shown in Figure 3-1. Travel times between the southern end of the proposed link road and the rest of the RA have been assumed to average 10 minutes as no empirical data is readily available.

⁹ The baseline situation has been used for this analysis (rather than the do-minimum situation) because it enables the propensity to commute to be based on the observed values which are available.

Figure 3-1 Travel time and accessibility from the RA in the AM peak (08:00 – 09:00)



Source: Parsons Brinckerhoff (travel times), Travel to Work / ABI (number of commuters)

3.8 The equation for the trend line in Figure 3-1 has been used to estimate the impact of changes in travel times on accessibility. Recognising the relatively low number of points from which the curve has been determined, we have mapped the new points for workers commuting out of the RA as $y = 1.3399e^{-0.1147x}$ plus or minus the distance between the observed value and the trend. Existing travel times and commuting patterns are compared with expected travel times and commuting patterns when the link road has been constructed in Table 3-4¹⁰ to show the effect of the revised accessibility ratios on the number of journeys.

Table 3-3 The impact of the link road on accessible jobs

Journey	Baseline (2005) AM Peak travel time (minutes)	Baseline number of commuters	Revised AM Peak travel time	Change in travel time	Post-scheme number of journeys	Change in number of journeys
Torbay to Exeter	36.9	1,458	34.9	2.0	1,728	270
Torbay to Teignbridge (Newton Abbot)	21.9	4,534	20.2	1.7	5,827	1,293

Source: Parsons Brinckerhoff, SQW

3.9 Some 1,564 existing jobs in the HL are expected to be taken by RA residents as a result of the proposed link road. The expected change in the number of commuting journeys is 270 + 1,293 (as shown in Table 3-4) and the total increase is shown in Question 12. It provides a combined estimate for existing jobs brought into range and for residents of the RA gaining employment from these jobs because it is based on actual existing commuting patterns.

¹⁰ The baseline situation has been used for this analysis (rather than the do-minimum situation) because it enables the propensity to commute to be based on the observed values which are available.

12 For residents of the RA, how many extra <i>existing</i> jobs outside the RA will the scheme provide access to? How many residents are expected to find employment as a result?	Skill	Existing jobs brought into range (K)	Residents of the RA gaining employment from these jobs (L)
	Unskilled	261	261
	Skilled manual	370	370
	White collar	594	594
	Managerial & professional	338	338
	Total:	1,564	1,564

Changes to the accessible workforce for employers in the RA

3.10 Question 13 asks how much the accessible workforce would be increased for employers in the RA as a result of the proposed link road. It also asks how much existing job opportunities might be increased in the RA and how many RA residents might take those jobs.

3.11 We have estimated the change between the baseline travel time and the change in travel time for trips into Torbay (Table 3-4) to determine how much the accessible workforce would increase using the same method as before (Figure 3-1). As with Question 12, trips within Torbay, between Torbay and South Hams and between Torbay and Plymouth are not expected to be affected by the proposed link road and are therefore not included in the table.

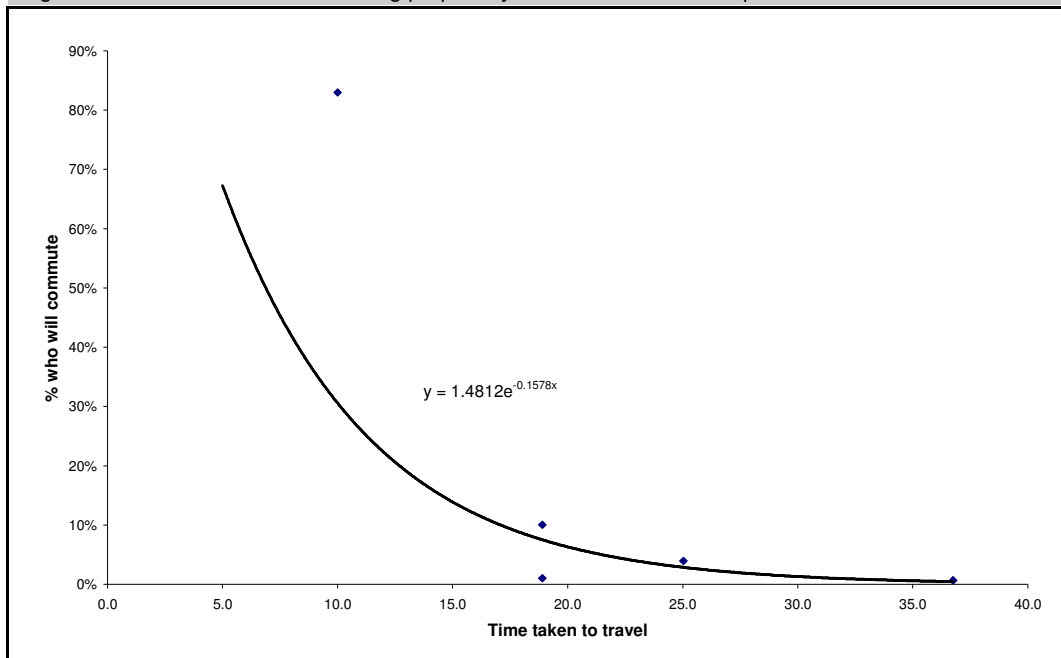
Table 3-4 AM Peak (08:00 – 09:00) travel times into Torbay before and after the scheme

Journey	Baseline (2005) AM Peak travel time (minutes)	Revised AM Peak travel time	Change in travel time
Exeter to Torbay	36.8	30.5	6.3
Teignbridge (Newton Abbot) to Torbay	18.9	17.2	1.7

Source: Parsons Brinckerhoff

3.12 We have estimated the likely effect of reduced journey times on commuter patterns into the RA in the AM peak by analysing the existing relationship between travel times and commuting into Torbay (Figure 3-2). As before (Figure 3-1), we have assumed that RA travel times average 10 minutes as no empirical data is readily available.

Figure 3-2 Travel time and commuting propensity into the RA in the AM peak



Source: Parsons Brinckerhoff (travel times), Travel to Work / ABI (number of commuters)

3.13 The equation for the trend lines in Figure 3-2 has been used to estimate the impact of changes in travel times on accessibility. Recognising the relatively low number of points from which the curve has been determined, we have mapped the new points for workers commuting out of the RA as $y = 1.4812e^{-0.1578x}$ plus or minus the distance between the observed value and the trend.

3.14 The effect of revised accessibility ratios on the number of commuting journeys into Torbay has been calculated by comparing the existing travel times and commuting patterns with the expected travel times and commuting patterns as a result of the proposed link road¹¹. This shows that a total of 1,100 HL residents (the sum of 432 and 688) are likely to take jobs in the RA as a result of the proposed link road. This increase in the accessible workforce is included in the response to Question 13.

Table 3-4 The impact of the link road on the accessible workforce

Journey	Baseline (2005) AM Peak travel time (minutes)	Baseline number of commuters	Revised AM Peak travel time	Change in travel time	Post-scheme number of journeys	Change in number of journeys
Exeter to Torbay	36.8	340	30.5	6.3	772	432
Teignbridge (Newton Abbot) to Torbay	18.9	6,044	17.2	1.7	6712	668

Source: Parsons Brinckerhoff, SQW

3.15 Question 13 goes on to ask how many residents of the RA are likely to gain jobs as a result of the increase in the accessible workforce. No figures are given in the table

¹¹ The baseline situation has been used for this analysis (rather than the do-minimum situation) because it enables the propensity to commute to be based on the observed values which are available.

because the improvements in accessibility expected as a result of the proposed link road will not improve journey times within Torbay.

- 3.16 Finally, Question 13 asks how many new jobs are likely to be created as a result of the increase in the accessible workforce that could result from the proposed link road. No figures are given for this because it is not possible to distinguish between new jobs created by business expansion and new jobs created by inward investment. Instead, estimates for new jobs that might be created by the increased accessible workforce are provided in combined Questions 15/16 (explained in more detail below). The response to Question 13 is therefore shown without this information.

13	For existing employers in the RA, by how much is the accessible workforce increased? How many residents of the RA will find employment as a result? If employers expand as a result, how many extra jobs are expected? How many of these will go to residents of the RA?	Skill	Accessible workforce without scheme = G	Increase in accessible workforce (M)	Residents of RA gaining employment due to better access (N)	New jobs due to increased accessible workforce (O)	Residents of RA gaining employment from new jobs (P)
		Unskilled	1,542	191	0	-	-
		Skilled manual	2,184	276	0	-	-
		White collar	3,507	404	0	-	-
		Managerial & professional	1,997	230	0	-	-
		Total:	9,230	1,100	0	-	-

Access to suppliers and markets

- 3.17 Question 14 asks for a qualitative description of the improved access to suppliers and markets for selected sectors within the local economy. The response is based on previous work that was undertaken by SQW in the original Kingskerswell Economic Impact Study

New jobs

- 3.18 The EIR Worksheet identifies three sources of new jobs that could be created as a result of the proposed link road. These are:
- expansion of existing businesses responding to improved access to markets and suppliers
 - inward investment

- increased accessible workforce
- 3.19 This combines part of Question 13 (as described above) and Questions 15 and 16. These three questions have therefore been combined into one table because the split between these three sources of new jobs cannot be estimated from the information available,
- 3.20 Cambridge Econometrics provided employment forecasts for the original Kingskerswell Economic Impact Study for a combined study area comprising Torbay, South Hams and Teignbridge¹² that showed that 7,960 new jobs could be created as a result of the proposed link road. We have assumed that these additional jobs would be created within each local authority area in line with existing employment patterns¹³ as shown in Table 3-5.

Table 3-5 The split of new jobs between the districts

	Workforce (ABI 2005)	Percentage	Forecast new jobs (SQW and Cambridge Econometrics)
South Hams	33,689	28%	2,207
Teignbridge	40,569	33%	2,657
Torbay	47,266	39%	3,096
Total	121,524	100%	7,960

Source: Cambridge Econometrics, SQW

- 3.21 We estimate that the proposed link road could create 3,096 new jobs in Torbay (the RA) and 4,864 (2,207 + 2,657) elsewhere in the HL (Table 3-5)¹⁴. The EIR tables for Questions 15 and 16 do not provide columns to show new jobs that are likely to be created inside and those that are likely to be created outside the RA. We have therefore added these additional columns to the combined table as well as the proportions of RA residents that are likely to take up the new jobs in the RA and in the HL. The original forecast of 3,096 new jobs likely to be created in the RA is reduced by the total accessible workers ratio (Table 2-7) to estimate that 2,506 of these jobs are likely to be taken up by RA residents. The accessible jobs ratio (Table 2-3) suggests that 584 of the 4,864 jobs that are likely to be created in the HL will be taken by RA residents (as shown in the combined table for Questions 13, 15 and 16).

¹² Additional jobs will also be created in Exeter and Plymouth. No figures are available for these therefore they have not been included. As a result it should be noted that this is a conservative assumption.

¹³ In reality it appears likely that the majority of additional jobs in the HL will be in Teignbridge as it is more affected by the road.

¹⁴ These forecast jobs include both direct and indirect jobs (multipliers and other additionality calculations are included within the Cambridge Econometrics Forecasts).

New jobs due to:						
<ul style="list-style-type: none"> • expansion of existing businesses responding to improved access to markets and suppliers (Q15) • inward investment (Q16) • increased accessible workforce¹⁵ (Q13 'O') 						
13 & 15 & 16	Indicate the number of jobs expected to be created among existing businesses and through inward investment as a result of improved access to markets and suppliers	Skill	Extra jobs from expansion of existing businesses and inward investment in the RA (Q & S)	Extra jobs from expansion of existing businesses and inward investment in the Hinterland (Q & S)	Residents of RA gaining employment from these jobs in the RA (R & T)	Residents of RA gaining employment from these jobs in the Hinterland (R & T)
		Unskilled	537	812	435	98
		Skilled manual	776	1,151	628	138
		White collar	1137	1,848	920	222
		Managerial & professional	646	1,053	523	126
		Total:	3096	4864	2,506	584

Summary of gains in employment resulting from the scheme

3.22 The gross gains in employment that are expected to result from the proposed link road are shown in the response to Question 17. They include the sum of the 3,091 jobs created in the RA that are likely to be taken by residents of the RA (2,506 in para 3.21)) and the new jobs created in the HL that are likely to be taken by residents of the RA (584 in para 3.21)). This is shown as 'new jobs expected to go to RA residents' in Question 17. They also include the total 1,564 existing jobs in the HL that could be taken by residents of the RA as a result of the accessibility improvements delivered by the proposed link road (from Question 12). This is shown as 'residents into existing jobs elsewhere' in Question 17. The total gross estimated increase in employment for RA residents which is likely to result from the link road is therefore 4,654 which is shown in the final column of Question 17.

¹⁵ This shows the combined results of questions 15 and 16 and question 13 column 'O'. The two questions and column 'O' have been combined because the data available is not split between jobs created as a result of the 'expansion of existing businesses', jobs created through 'inward investment' and jobs created 'due to increased accessible workforce'. However, an indication of 'inward investment' jobs based on the property development assessment of the Torbay Ring Road sites in the RA suggests that these might comprise 900 of the total 3,096 jobs which are estimated to be created in the RA.

17	Total new jobs from expansion and/or inward investment (U=O+Q+S) ¹⁶	Current unemployed workforce in RA = D	New jobs expected to go to RA residents (V=P+R+T) ¹⁷	Residents into existing jobs in the RA = N	Residents into existing jobs elsewhere = L	Total increase in employment among residents of RA. (W=V+N+L)
Unskilled	1,350	607	532	0	261	794
Skilled manual	1,927	877	766	0	370	1,136
White collar	2,985	1,285	1,142	0	594	1,736
Managerial & professional	1,699	731	650	0	338	988
Total	7,960	3,500	3,091	0	1,564	4,654

Reduction in employment of RA residents due to increased access from workforce outside the RA

3.23 A great deal of information is requested and then provided in the response in Question 18. However, the selection for the calculation of accessibility ratios and an accessible workforce that are based on existing actual commuting patterns short-cuts much of the intervening information that is requested in Question 18. We estimate that the “implied reduction in employment for residents of the RA” (in the last column) is 1,100 jobs which is equal to the number of existing jobs in the RA that will be taken by workers that are resident in the HL residents (para 3.14). The response to Question 18 is presented in the next chapter but is not repeated here because its key result is included in Question 20 (see below).

All other reductions in employment among residents of RA

3.24 Questions 19 asks for an assessment of the number of jobs likely to be lost as a result of increased competition arising from the proposed link road. The responses to these points can be summarised as:

- There will be no losses in employment due to wage competition because wage levels in the RA and the HL are similar.

¹⁶ In the EIR worksheet the ‘Total new jobs from expansion and/or inward investment’ is further sub divided by how many of these jobs are: ‘Potential – based on calculations only’; ‘Not committed but supporting evidence available’; or ‘Firm commitments available’. All of the new jobs from expansion and/or inward investment are ‘Potential –based on calculations only’. This sub-division has therefore not been shown here but is shown in the EIR table in Chapter 4.

¹⁷ The reference has been changed from “unemployed residents” to “RA residents” because columns ‘P’, ‘R’ and ‘T’ refer to all RA residents and not just the unemployed.

- There are unlikely to be any employment losses through retail competition because the proposed road link road does not make it significantly easier to access major shopping centres in the RA or the HL.
- The employment losses for RA residents as a result of increased in-commuting from the HL have already been estimated to be 1,100 jobs.
- No other forms of increased competition have been identified and therefore no additional employment losses have been assumed.

Summary of change in employment of residents of the RA

3.25 The response to Question 20 summarises the various estimates of likely employment gains for residents of the RA as a result of the proposed link road. It shows that 4,654 additional jobs are likely to be created for RA residents but are likely to be offset by losses of 1,100 jobs which are expected to be taken by workers resident in the HL. The net increase in employment for RA residents as a result of the proposed link road is therefore likely to be 3,554 jobs. However, this does not include an additional 590 jobs that are expected to be created in the RA that will be taken by HL residents as these are not included the DfT EIR process.

20	Gain in employment = W	Losses in employment = e	Net change in employment = W - e
Unskilled	794	191	603
Skilled manual	1,136	276	861
White collar	1,736	404	1,332
Managerial & professional	988	230	758
Total	4,654	1,100	3,554

4: EIR Worksheet

- 4.1 This final chapter of the report summarises and interprets the results of the Economic Impact Report (EIR) Worksheet analysis based on the previous chapters of the report and the DfT Guidance on EIRs. It then presents a revised Appraisal Summary Table for the proposed South Devon Link Road and the EIR Worksheet itself.
- 4.2 The supplementary assessment of the economic impact of the proposed A380 South Devon Link Road presented in this report is based on the “preferred option” described in Chapter 1 and Question 1 of the EIR Worksheet. The “preferred option” comprises a 2 lane dual carriageway between the southern edge of Newton Abbot and the northern edge of Torquay. A brief commentary on the likely economic impact of the “next best option” and the “low cost option” for the proposed link road is presented later in this chapter of the report.

Summary and interpretation

- 4.3 The key findings of the EIR Worksheet analysis are that:
- Without the proposed road scheme, there are currently 55,874 “accessible jobs” for residents of the RA of which 47,266 of which are located in the RA.
 - Without the proposed road scheme, the “accessible workforce” is currently 67,488 of which 58,258 live in the RA.
 - The proposed link road will affect travel times, reducing the journey time from the A38-A380 junction (on the western side of Exeter) to Torquay by two minutes and reducing the journey time in the opposite direction by six minutes in the AM peak period (08:00 – 09:00).
 - The proposed link road will enable 1,564 residents of the RA to access jobs in the HL but it will also enable 1,100 of the HL workforce to access jobs in the RA.
 - The proposed link road is estimated to create an additional 7,960 jobs through the expansion of existing businesses, the attraction of inward investment and an increase in the available workforce.
 - Some 3,096 of these additional jobs are expected to be created in the RA and 4,864 are expected in the HL - it is estimated that 2,506 of the jobs created in the RA and 584 of the jobs created in the HL will go to RA residents.
 - The total gain in employment for the RA as a result of the proposed link road is estimated to be 4,654 jobs but 1,100 existing RA jobs are likely to be taken by HL residents because of improved accessibility to the RA - the net change in employment is estimated at 3,554 jobs.

- Another 590 new jobs are expected to be created in and to benefit the RA but they are likely to be taken by HL residents.
- 4.4 The significance of these findings is that the proposed link road will not only help to create new jobs within Torbay but it will also improve access to jobs in the wider area for residents of the RA. These benefits will assist Torbay's economic development and regeneration and reduce the current high levels of unemployment. The proposed link road will also create more jobs in the HL and bring more workers into the Torbay area.
- 4.5 The original economic impact study of the Kingskerswell Bypass concluded that some of the benefits and impacts could happen without any other public sector intervention but that others will need complementary actions to secure the full potential beneficial impacts of the proposed link road. These recommendations still stand and we reiterate three of them in particular in this report. They apply directly to Torbay – the RA – and to the issue of job creation for local residents – the primary focus of the EIR Worksheet.
- **Development of employment sites on the Torbay Ring Road.** Various employment sites currently exist and are proposed for development within and around Torbay. These sites will play a very important part in the development of Torbay's economy as they will not only provide employment space for existing businesses that expand as a result of the proposed link road but they will also provide sites for potential inward investors looking to locate within Torbay. We suggest that Torbay Council and the South West of England Regional Development Agency should investigate the potential to prepare and implement an integrated development action plan in conjunction with local employers, landowners and developers. This would need to be reflected in Supplementary Planning Guidance and the preparation of new-style Local Development Frameworks (LDFs) for the area.
- **Coordinated skills training to meet the occupational needs of growing sectors.** Skill levels in Torbay are notably lower than the surrounding districts and the national average. A step change is required in the skill levels of Torbay residents if they are to access and benefit from the whole range of different jobs created. We suggest that Torbay Council work with the Local Learning and Skills Council and local training providers to consider what additional skills training opportunities could be provided in the Torbay area to equip local people with the skills that are likely to be needed by the key growth sectors which could result from the job creation arising from the proposed link road.
- **Improve Torquay town centre.** In order to prevent an increase in residents using the proposed link road to leave the area to access larger scale retail and leisure facilities outside of the RA and to draw shoppers into the RA, we propose that Torbay Council should work together with local tourism, retail, leisure and development interests to undertake a major enhancement of Torquay town centre. We envisage that this partnership initiative should take the opportunity to look again at the

potential of this central area and to identify opportunities to enhance retail and leisure facilities beyond current proposals both for residents and visitors alike.

“Next Best” and “Low Cost” options

- 4.6 The likely economic impact of the “next best option” which substitutes the signalised roundabout at Aller Cross will generally be rather less than the economic impact of the “preferred option” for the proposed link road that has been assessed in this supplementary report. The omission of a grade separated junction at Aller Cross on the northern edge of Kingskerswell will reduce the estimated savings in journey times and the expected improvements in accessibility that we have estimated could arise from the “preferred option”.
- 4.7 The likely economic impact of the “low cost option” which is limited to a single carriageway between Aller Cross and Kerswell Gardens will generally be much less than the economic impact of the “preferred option” for the proposed link road that has been assessed in this supplementary report. The reduction from two lane to a single lane dual carriageway and the omission of road widening and improvements between the Penn Inn roundabout at Newton Abbot and Aller Cross at Kingskerswell will significantly reduce the traffic capacity of the proposed link road and therefore significantly reduce the estimated journey time savings and accessibility improvements that are likely to arise from the “preferred option”.

Appraisal Summary Table

- 4.8 The original economic impact study of the Kingskerswell Bypass included a suggested input to the Appraisal Summary Table (AST) that was required for the application for approval and funding for the scheme. We have amended the suggested input into the AST in the light of the EIR Worksheet analysis undertaken for this supplementary report by adding in some key figures from the EIR Worksheet to the Economic Development line and to the Regeneration line (see next page for the full Appraisal Summary Table).
- 4.9 We suggest that the synopsis of our revised input to the AST that is now required should be:
- “The proposed link road could generate significant additional employment in Torbay (3,554 net additional jobs) and would help overcome current limitations on the local tourist industry, create property development opportunities and support regeneration in deprived areas”.

Suggested revised inputs to the NATA Appraisal Summary Table for the A380 South Devon Link Road
Note : this revised AST reflects the findings of the supplementary EIR Worksheet analysis (November 2007)

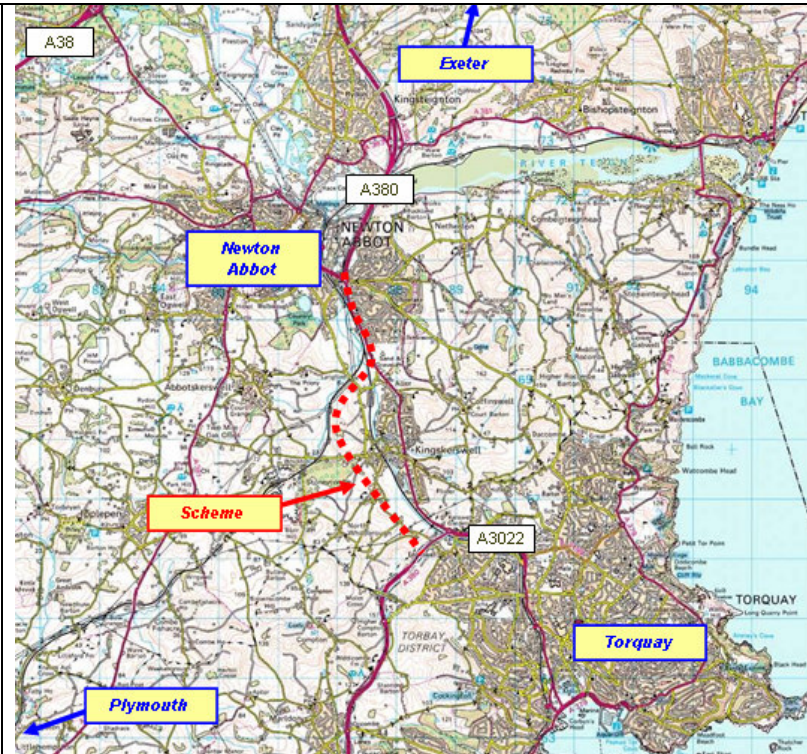
Sub-criteria	Qualitative impacts	Quantitative measure	Assessment
Policy context	The proposed A380 South Devon Link Road generally accords with the key objectives of the Regional Planning Guidance, the Regional Economic Strategy, the strategy for the Plymouth-Devon Arc of the EC Objective 2 Programme, the South West Tourism Strategy, the Devon Travel and Transport Plan, the Devon County Structure Plan and the Local Plans and Economic Development Strategies for Teignbridge, Torbay and South Hams.	-	Supportive and beneficial
Economic development	The proposed link road is estimated to generate significant additional employment and gross value added in Torbay and also in the surrounding areas of South Devon. It is also expected to contribute to the development of local business, retail and tourism activity, contribute to the resolution of current constraints on growth and open up various opportunities for business development. It could assist economic development particularly in the deprived inner urban parts of the area and in the economic drivers around the fibre optics cluster in the Torbay area.	About 7,960 net additional jobs and about £168 million net additional GVA (£ 1995) overall in South Devon within 5 years of the link road construction. An estimated net increase of 3,554 jobs specifically within Torbay (the EIR Regeneration Area).	Beneficial but it will require public and private sector partnership action to secure the potential benefits
Tourism development	The proposed link road is expected to overcome current limitations on the local tourist industry and open up opportunities to upgrade the quality and turnover of the tourism offer in the Torbay area. It would remove the current bottle-neck at Kingskerswell for visitors wanting to visit the area and for visitors staying in the Bay to take day trips into surrounding urban and rural areas.	About 750 net additional jobs and about £23 million turnover (£ 2001) in the tourist industry (part of the overall estimates above).	Beneficial but it will require positive public and private sector partnership action to secure the potential benefits
Property development	The proposed link road is expected to create development opportunities particularly within the Newton Abbot / Kingskerswell area, in the Torbay Ring Road area and to a lesser extent in Torquay town centre. The scale of provision required for the net additional employment which cannot be accommodated within existing and currently committed employment land and buildings will have to be determined in future reviews of the Structure Plan and Local Plans.	About 4,300 net additional jobs could be provided on potential development sites (part of the overall estimates above)	Beneficial but it will require public and private sector partnership action to secure the potential benefits
Regeneration	The proposed link road could support regeneration within the deprived inner urban areas of Torbay but it is likely that many of the additional jobs which could be suitable for currently unemployed people would arise in the resort areas particularly along the seafront and also in existing and potential employment areas and town centres in the Torbay area.	The estimated 3,554 net additional jobs in Torbay will help to improve the local economy and reduce the current high levels of unemployment.	Beneficial but it will require public and private sector partnership action to secure the potential benefits

EIR Worksheet

- 4.10 The EIR Worksheet for the Appraisal of Wider Economic Impacts of major road schemes (TAG Unit 3.5.10) which has been prepared for this assignment complies with the DfT EIR Guidance and is based on the analysis of source data explained in the previous chapters of this report. It supplements the original Economic Impact Study of the proposed Kingskerswell Bypass which is now known as the A380 South Devon Link Road.

The scheme and its location		Opening year: 2013	Comparison year: 2005
1	Provide maps and supporting text locating the scheme and the RA(s) on which it is expected to impact.	<p>The Regeneration Area (RA) is the administrative area of Torbay Borough Council. The Torbay area and surrounding areas (Teignbridge and South Hams Districts and Exeter and Plymouth Cities) are set within a fairly narrow coastal strip between the English Channel and Dartmoor. This coastal strip is divided by the Rivers Exe, Teign, Dart and Tamar whose key bridging points provide the sites for Exeter, Newton Abbot, Totnes and Plymouth. Exeter is a fast growing and attractive provincial centre which depends on a variety of professional and administrative services while Plymouth depends more on its naval base and associated industries.</p> <p>The proposed A380 South Devon Link Road scheme comprises a 2 lane dual carriageway for the A380 between the Penn Inn Roundabout in Newton Abbot and the Kerswell Gardens junction at the northern end of the Torbay Ring Road. It includes full junction facilities at each end and with the existing A380 at the northern end of Kingskerswell. Associated side road alterations are also included. The proposed link road would provide the "missing link" in the existing high quality road links between the M5 at Exeter and the Torbay area.</p>	

1
(cont)



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Transport and the economy in the RA		
2	Provide a description of the economy in the RA: its chief sources of employment, the markets in which its employers operate, the recent performance and the prospects for the future if no action is taken.	The Regeneration Area can be characterised by a generally expanding local economy, although there are several pockets of serious unemployment and social deprivation. The main contributors to the local economy have been tourism, the fishing industry and, more generally, the service sector and manufacturing, which at the time of the 2002 study received an injection of inward investment, which boosted employment. However, this was offset by the decline in the telecommunications sector which resulted in the loss of over 4,000 jobs in the area. There is a locally significant fibre-optics industry which could provide a nucleus for future economic growth but it was (at the time of the 2002 study) also experiencing serious job losses as part of current cutbacks in the global market. Employment was generally in line with the national average, at 74.6% of the working age population, and unemployment (at 5%) was consistently above both the national and the regional averages. Although most of the area enjoys a degree of economic success, there is a need to regenerate economic activity in the various pockets of economic and social disadvantage as some areas within the Regeneration Area have lagged behind the successes of other areas as they have suffered from higher unemployment, lower GDP and earnings, and health deprivation and are currently in the top 10% most deprived areas nationally.
3	Describe the ways in which transport is currently a constraint on economic activity in the area. Focus on why expansion is inhibited by current transport provision.	Transport is currently a constraint on economic activity because of high levels of traffic congestion which makes retention of existing companies difficult and damages the prospects of attracting other inward investors. Business growth, the fishing industry, tourism activity and property development are also currently throttled by the severe road access problems through Kingskerswell.
4	Describe any other constraints inhibiting economic activity, and measures being taken to reduce them.	Other constraints currently inhibiting economic activity include: Lower skill levels in the Regeneration Area than the surrounding districts and the national average, particularly in literacy and numeracy. The peripherality of the area which results in higher skilled younger people tending to move away to pursue their careers which in turn means that there are few young professionals in the area and an increasing proportion of elderly people. The area currently has little to attract inward investment because it lacks good quality road and rail infrastructure and a Higher Education institution with associated research and development activity.
5	Explain in words why the proposed scheme will contribute to increased economic activity in the RA, and higher employment. This increase should derive from changes to transport costs, times and reliability.	The proposed link road is estimated to generate significant additional employment and gross value added in Torbay and also in the surrounding areas of South Devon because it will provide the “missing link” in high quality road access into the Torbay area from the M5 at Exeter linking into the rest of the country. It is expected to contribute to the development of local business, retail and tourism activity, contribute to the resolution of current constraints on growth and open up various opportunities for business development. It could assist economic development particularly in the deprived inner urban parts of the area and in the economic drivers around the fibre optics cluster in the Torbay area.

Jobs and People in the RA					
6	Provide a breakdown of the current jobs located in the RA, indicating skill levels and vacancies.	Skill level	Jobs (A)	Vacancies	
				Number (B)	%
		Unskilled	8,199	179	17%
		Skilled manual	11,844	259	25%
		White collar	17,356	380	37%
		Managerial & professional	9,867	216	21%
	Total	47,266	1,034	100%	
7	Provide a breakdown of the workforce resident in the RA, indicating skill levels and numbers of unemployed.	Skill level	Workforce (C)	Unemployed*	
				Number (D)	%
		Unskilled	10,106	607	17%
		Skilled manual	14,599	877	25%
		White collar	21,392	1,285	37%
		Managerial & professional	12,162	731	21%
	Total	58,258	3,500	100%	
<p>For Tables 6 and 7 as well as following tables, the split between SEGs has been calculated from ABI data for SIC groups.</p> <p>* Unemployment uses data from the Annual Population Survey instead of the claimant count as this provides a more complete picture than just those claiming benefits.</p>					

Jobs and People in the RA hinterlands					
8	Provide a breakdown of the accessible jobs located outside the RA, indicating skill levels and vacancies.*	Skill level	Jobs (E)	Vacancies	
				Number (F)	%
		Unskilled	1,438	29	17%
		Skilled manual	2,037	40	24%
		White collar	3,270	65	38%
		Managerial & professional	1,863	37	22%
	Total	8,608	171	100%	
9	Provide a breakdown of the accessible workforce resident in the RA hinterlands, indicating skill levels and numbers of unemployed.*	Skill level	Workforce (G)	Unemployed	
				Number (H)	%
		Unskilled	1,542	45	17%
		Skilled manual	2,184	64	24%
		White collar	3,507	102	38%
		Managerial & professional	1,997	58	22%
	Total	9,230	270	100%	
<p>* Throughout our analysis, we have defined “accessible jobs” as the number of jobs located in the HL that are taken by workers resident in the RA and “accessible workers” as the number of workers that live in the HL and work in the RA. All RA residents are considered to be “accessible” to jobs in the RA. We have used the actual existing commuting patterns from the 2001 Census Travel to Work data as the basis for determining “accessibility”.</p>					

Total accessible jobs and vacancies for residents of the RA							
10	Accessible jobs in the RA = A	Accessible jobs outside the RA = E	Total accessible jobs (I=A+E)	Accessible vacancies in the RA =B	Accessible vacancies outside the RA =F	Total accessible vacancies (J=B+F)	
Unskilled	8,199	1,438	9,637	179	29	322	
Skilled manual	11,844	2,037	13,881	259	40	462	
White collar	17,356	3,270	20,626	380	65	705	
Managerial & professional	9,867	1,863	11,730	216	37	401	
Total	47,266	8,608	55,874	1,034	171	1,890	
Quantified impacts of the scheme							
11	Provide specific examples of how the scheme will affect travel times, costs and reliability. Give quantified examples where possible.	Travel times:		Base Year (2005)	2013 - Do Something	Difference	Difference (%)^a
			Newton Abbot - Torquay	18.9	17.2	-1.7	-9%
			Torquay - Newton Abbot	21.9	20.2	-1.7	-8%
			Torquay - A38 / A380	30.9	28.9	-2	-6%
			A38 / A380 - Torquay	32.7	26.4	-6.3	-19%
		Travel reliability, quality, capacity:	The scheme provides a higher level of service and is in line with the quality of the rest of the route from the M5 to Penn Inn Roundabout. The scheme would provide grade-separated junctions along the route, with a high-capacity at-grade junction at the southern end, linking to the Torbay ring road. The capacity of the route would also increase accordingly; the existing capacity is approximately 1200-1300 vehicles per hour, which would increase to 1500-1800 vehicles per hour across the grade-separated junction at Penn Inn and 3000+ on the dual carriageway section.				

Access to existing jobs outside the RA				
12	For residents of the RA, how many extra <i>existing</i> jobs outside the RA will the scheme provide access to? How many residents are expected to find employment as a result?	Skill	Existing jobs brought into range (K)*	Residents of the RA gaining employment from these jobs (L)*
		Unskilled	261	261
		Skilled manual	370	370
		White collar	594	594
		Managerial & professional	338	338
		Total:	1,564	1,564

The two columns above are equal because jobs brought into range are already defined in terms of the residents of the RA that gain employment from them. A full explanation is provided in Chapter 3 of the accompanying text.

Changes to the accessible workforce for employers in the RA							
13	For existing employers in the RA, by how much is the accessible workforce increased? How many residents of the RA will find employment as a result? If employers expand as a result, how many extra jobs are expected? How many of these will go to residents of the RA?	Skill	Accessible workforce without scheme = G	Increase in accessible workforce (M)	Residents of RA gaining employment due to better access (N)	New jobs due to increased accessible workforce (O)	Residents of RA gaining employment from new jobs (P)
		Unskilled	1,542	191	0	-	-
		Skilled manual	2,184	276	0	-	-
		White collar	3,507	404	0	-	-
		Managerial & professional	1,997	230	0	-	-
		Total:	9,230	1,100	0	-	-

Column N above has a sum of zero jobs because the link road does not affect accessibility for journeys that start and end in the RA. New jobs due to increased accessible workforce (O and P) have been included with the combined Questions 15 and 16 below as described in the accompanying report.

Access to suppliers and markets			
14	For existing employers in the RA, describe how access to markets and suppliers will be improved. For instance, give changes in travel times to locations where markets and suppliers are located, or to the national transport network, such as motorways, airports and seaports. Indicate how significant these changes are compared to operating margins for businesses in the RA. Explain why, if at all, these changes are likely to lead to new jobs, either by expansion of existing businesses or new inward investment.	Sector	Location of suppliers & markets, improvements gained.
		Tourism	The proposed link road is expected to overcome current limitations on the local tourist industry and open up opportunities to upgrade the quality and turnover of the tourism offer in the Torbay area. It would remove the current bottle-neck at Kingskerswell for visitors wanting to visit the area and for visitors staying in the Bay to take day trips into surrounding urban and rural areas. This is expected to create substantial employment growth in the tourism-related sectors.
		Manufacturing (especially Fibre Optics)	The link road would help overcome current problems of congestion and the unpredictability of journey times that seriously affect staff, clients and suppliers in the manufacturing sector (and especially the fibre optics sectors). Removing these barriers could help encourage future inward investment decisions and create additional employment in the sector.
		Retail	The link road would help to attract shoppers to the RA and other hinterland areas by increasing accessibility and reducing town centre congestion. This is expected to generate a significant increase in employment in this sector.
		Distribution	The proposed link road is expected to generate growth in employment in the distribution sector as it helps to improve accessibility throughout the area.
		Fishing	Brixham port in Torbay is the largest fishing ports by value of catch in England and more than 60% of its catch is non quota species. This is attracting attention from major companies in the fish processing industry. The proposed link road would help to overcome the current problems of congestion affecting this industry and could help encourage major companies to locate within Torbay.

New jobs due to:						
<ul style="list-style-type: none"> expansion of existing businesses responding to improved access to markets and suppliers (Q15) inward investment (Q16) increased accessible workforce* (Q13 'O') 						
15 and 16	Indicate the number of jobs expected to be created among existing businesses and through inward investment as a result of improved access to markets and suppliers	Skill	Extra jobs from expansion of existing businesses and inward investment in the RA (Q & S)*	Extra jobs from expansion of existing businesses and inward investment in the Hinterland (Q & S) *	Residents of RA gaining employment from these jobs in the RA (R & T) *	Residents of RA gaining employment from these jobs in the Hinterland (R & T) *
		Unskilled	537	812	435	98
		Skilled manual	776	1,151	628	138
		White collar	1137	1,848	920	222
		Managerial & professional	646	1,053	523	126
		Total:	3096	4864	2,506	584
<p>* This shows the combined results of Questions 15 and 16 and column 'O' in Question 13. The two questions and column 'O' have been combined because the data available is not split between jobs created as a result of the 'expansion of existing businesses', jobs created through 'inward investment' and jobs created 'due to increased accessible workforce'. However, an indication of 'inward investment' jobs based on the property development assessment of the Torbay Ring Road sites in the RA suggests that they might comprise 900 of the total 3,096 jobs which are estimated to be created in the RA.</p>						

Summary of expected gains in employment position resulting from the scheme						Target year: 2016*			
17	Total new jobs from expansion and/or inward investment (U=O+Q+S)	These jobs comprising:			Current unemployed workforce in RA = D	New jobs expected to go to RA residents (V=P+R+T)**	Residents into existing jobs in the RA = N	Residents into existing jobs elsewhere = L	Total increase in employment among residents of RA. (W=V+N+L)
		Potential – based on calculations only	Not committed but supporting evidence available	Firm commitments available					
Unskilled	1,350	1,350	-	-	607	532	0	261	794
Skilled manual	1,927	1,927	-	-	877	766	0	370	1,136
White collar	2,985	2,985	-	-	1,285	1,142	0	594	1,736
Managerial & professional	1,699	1,699	-	-	731	650	0	338	988
Total	7,960	7,960	-	-	3,500	3,091	0	1,564	4,654
<p>*2016 has been used as the target rather than the road opening year of 2013 as this allows for the impact of the road to work its way through the economy</p> <p>** SQW correction - The reference has been changed from “unemployed residents” to “RA residents” because columns ‘P’, ‘R’ and ‘T’ refer to all RA residents and not just the unemployed.</p>									

Reduction in employment of RA residents due to increased access from workforce outside RA												
	WITHOUT SCHEME						WITH SCHEME					
18	Accessible workforce for employers in RA = G + C*	Of whom, living outside RA X=G	Ratio 1 = X/(G+C)	Total employed in RA = A*	Of whom, Resident outside RA (Y)	Ratio 2 = Y / B	Accessible workforce for employers in RA a = G + C + M*	Of whom, resident outside RA Z = G + M	Ratio 3 = Z / a	Employed in RA b = A + V*	Of whom, resident outside RA c = b x ratio 2 x ratio 3 / ratio 1	Implied reduction in employment for residents of RA = d
Unskilled	11,648	1,542	13%	8,199	1,302	16%	11,839	1,733	15%	8732	1,533	191
Skilled Manual	16,783	2,184	13%	11,844	1,881	16%	17,058	2,460	14%	12610	2,219	276
White Collar	24,898	3,507	14%	17,356	2,756	16%	25,302	3,911	15%	18498	3,224	404
Managerial & Professional	14,159	1,997	14%	9,867	1,567	16%	14,389	2,227	15%	10517	1,833	230
Total	67,488	9,230	14%	47,266	7,507	16%	68,588	10,330	15%	50357	8,809	1,100
* SQW corrections - The references have been changed to more accurately reflect the column titles												

All other reductions in employment among residents of RA					
19	Losses due to wage competition	Losses due to retail competition	Losses due to other forms of increased competition	Losses due to access from external workforce	Total loss of employment among RA residents (e)
Unskilled	0	0	0	191	191
Skilled manual	0	0	0	276	276
White collar	0	0	0	404	404
Managerial & professional	0	0	0	230	230
Total	0	0	0	1,100	1,100
Summary of change in employment of residents of the RA					
20	Gain in employment = W	Losses in employment = e		Net change in employment = W - e	
Unskilled	794	191		603	
Skilled manual	1,136	276		861	
White collar	1,736	404		1,332	
Managerial & professional	988	230		758	
Total	4,654	1,100		3,554	