

Hastings Strategy Development Plan  
South Coast Corridor Multi-Modal Study

Prepared for  
**Government Office for the South East**  
August 2002

**Halcrow Group Limited**

In association with:

Accent

Chris Blandford Associates

DTZ Peda

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Sustainable Futures

Camargue – PR media Consultants

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Southampton

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# South Coast Corridor Multi Modal Study Hastings Strategy Development Plan

## Contents Amendment Record

This report has been issued and amended as follows:

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1	2	Changes requested by GOSE	14/8/02	SCC
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# 1 Introduction

# 1 Introduction

## 1.1 *Background to the Strategy Development Plan*

1.1.1 The South Coast Corridor Multi Modal study (SoCoMMS) is being undertaken on behalf of the Government Office for the South East (GOSE). The study has developed a transport strategy for the South Coast between Southampton and Thanet. This in turn will be an important element of the Regional Transport Strategy being developed by the South East Regional Assembly.

1.1.2 The development of the transport strategy has made use of a strategic transport model, which has been specifically developed for SoCoMMS. The model represents an average hour between 0700 and 1900 and includes highway and rail network definitions. Travel forecasts have been developed for 2016 and 2030. A range of transport measures have been tested, either in isolation or in combination. The outputs from the strategic model have provided valuable information for the development of a transport strategy for the south coast.

1.1.3 The transport strategy that has emerged includes a range of interventions:

- local initiatives (public and private sector);
- local public transport improvements;
- strategic public transport improvements;
- targeted road improvements;
- freight initiatives;
- safety and mobility initiatives; and
- balance - demand management.

1.1.4 In order to provide further detail on the elements of the strategy, a series of Strategy Development Plans (SDPs) are being prepared. These include plans investigating measures within:

- South Hampshire;
- Chichester;
- Arundel;
- Worthing;
- Brighton and Hove;
- East of Lewes;

- Bexhill-Hastings;
- Local public transport; and
- Rail.

*1.1.5* The key issues to be considered as part of the Hastings Strategy Development Plan are:

- To assess the need for a Bexhill Link Road, under different land use development options and to examine its form and impacts, including economic benefit.
- To assess the potential for Corporate and School Travel Plans.
- To examine the contribution of local transport measures, including bus and rail.
- To examine the impact of the Strategy on regeneration within Hastings.

*1.1.6* Hastings has already been the subject of a specific multi-modal study, ‘Access to Hastings’, which reported in November 2000. The purpose of the ‘Access to Hastings Study was to ‘develop a sustainable and integrated strategy for access to and within the Bexhill and Hastings area, to promote competitiveness and the achievement of regeneration objectives’.

*1.1.7* The Government recognises Hastings as a priority area for regeneration. The Secretary of State’s decision on the Access to Hastings Multi Modal Study asked the Regional Development Agency (SEEDA) to formulate a regeneration plan for the Town. A task-force of local stakeholders was established and the Hastings and Bexhill Five Point Plan was established. There are a number of land use and transport implications from these proposals. In addition, the Government has recently recommended Hastings for Millenium Community status.

*1.1.8* The Hastings Strategy Development Plan will examine the SoCoMMS Strategy proposals in the context of the outcome of Access to Hastings Study, together with compatability, or otherwise, of the proposals inherent in the Hastings and Bexhill Five Point Plan.

## **2 Existing Travel Conditions**

## 2 Existing Travel Conditions

### 2.1

#### *Highways*

#### 2.1.1

The following 1998 demographic information for Hastings and Rother was obtained from the Office of National Statistics' (ONS) website.

	Hastings	Rother	East Sussex
Population	79,454	88,587	728,791
Households	35,521	40,551	331,620
Employment	33,460	30,243	308,307
% households with no car	39	26	34
Cars per household	0.83	1.06	0.94

#### 2.1.2

The table shows that in Hastings 39% of households do not own a car. This is higher than for East Sussex as a whole.

#### 2.1.3

The A259 Bexhill Road is the busiest road in the Bexhill and Hastings area, with an Annual Average Daily Traffic (AADT) flow of 31,200 in 2001. It provides the only suitable route between Bexhill and Hastings. The traffic flow along this road is constrained by the junctions with A2036 (Hastings Road) and De La Warr Road in the West and Harley Shute Road in the east. Restrictions are also caused by several more minor junctions along the route, and on-street parking along its length. The traffic problems are exacerbated in the west by traffic generated by the Ravenside Retail and Leisure Park.

#### 2.1.4

East Sussex County Council (ESCC) carried out roadside interview surveys on Bexhill Road in May 1999. These data were examined to identify travel desire lines along this section of the corridor. The raw data represent movements between 0700 and 1900. In order to estimate the composition of traffic on the corridor on a daily basis, the actual flows were expanded to reflect a 24 hour period. The study

corridor was broken down into a series of sectors. Table 2.1 identifies the distribution of Traffic along Bexhill Road.

2.1.5

The table shows that 66% of traffic using Bexhill Road is local in nature, travelling between Bexhill and Hastings. A further 14% of traffic is travelling between Bexhill/ Hastings and Eastbourne.

**Table 2.1: Distribution of Traffic Movements at Glyne Gap**

1999 RSI data A259: Glyne Gap	A27 corridor west Hove, Brighton & Newhaven	Lewes, Seaford, Polegate & Eastbourne	Bexhill & Hastings	Rye & Winchelsea	A259 corridor East of Rye & Winchelsea	Other	Total
A27 corridor west	0%	0%	1%	0%	0%	0%	<b>1%</b>
Hove, Brighton & Newhaven	0%	0%	1%	0%	0%	0%	<b>2%</b>
Lewes, Seaford, Polegate & Eastbourne	0%	0%	7%	1%	0%	0%	<b>8%</b>
Bexhill & Hastings	1%	1%	66%	2%	1%	3%	<b>80%</b>
Rye & Winchelsea	0%	0%	2%	0%	0%	0%	<b>3%</b>
A259 corridor East of Rye & Winchelsea	0%	0%	1%	0%	0%	0%	<b>2%</b>
Other	0%	0%	3%	0%	0%	0%	<b>4%</b>
<b>Total</b>	<b>1%</b>	<b>2%</b>	<b>80%</b>	<b>3%</b>	<b>2%</b>	<b>4%</b>	<b>100%</b>

2.2

***Mode Choice: Journey to work***

2.2.1

An updated database of movements was developed for the DTLR for use in multi-modal studies using 1991 Census journey-to-work information. These data were updated to 1997 on behalf of the DTLR to reflect population and employment changes. This database was obtained for use in the SoCoMMS study. The mode share for commuter trips in Hastings is shown below:

- Rail 1%
- Bus 6%
- Car 72%
- Cycle 1%
- Walk 20%.

2.2.2

The proportion of journeys to work made by car are higher than for other East Sussex towns such as Brighton and Hove (61%) and Eastbourne (59%). Hence,

the proportion of journeys made by bus and rail is very low. There are a number of reasons for this:

- Existing local bus and train services are unreliable, infrequent and do not meet social need.
- Public perception of the quality, efficiency and safety of local bus and train services is poor.
- Bus and rail fares and ticketing are inflexible and cost restricts the access of those on low incomes.
- Railway stations are relatively old and some are in poor condition.
- Rail rolling stock is the old slam door type.

2.3

2.3.1

**Local Bus**

The principal bus operator is Stagecoach, serving the Bexhill and Hastings area – but there are a number of small operators providing limited local or schools services. Altogether there are approximately 60 routes listed in the Hastings and Bexhill timetables. However, this seemingly abundance of routes disguises the fact that very few of the routes operate at more than 2 or 3 buses per hour. Many of the routes operate at very long intervals. A summary of route services in the town of Hastings is shown below:

	Maximum Number of Services
Total Services (excluding schools)	24
Hastings Rail Station	19
Conquest Hospital	9
School Services	8

2.3.2

Observations from the existing bus timetable and from consultation with Stagecoach indicate that the geographical distribution of the bus routes is complex. The timetable varies significantly by time of day and is complicated. Although there appear to be a large number of services within Bexhill and Hastings, many do

not operate on Sundays and most stop in the early evening. For example, the Conquest hospital is served by a total of 9 different routes but is poorly served in the evening which make it unattractive for visitors and staff, particularly from Bexhill. There is only one direct bus service from Bexhill to the Conquest hospital, with an hourly frequency outside peak times.

2.3.3 The highest peak hour bus frequencies occur on the following roads:

- the southern end of London Road – 10.5 buses per hour;
- Sedlescombe Road North – 5 buses per hour;
- The Ridge – 8 buses per hour;
- Bexhill Road (east of Glyne Gap) – 7 buses per hour.

2.3.4 A Quality Bus Partnership agreement exists between East Sussex County Council/ Hastings Borough Council and Stagecoach. A Quality Bus Corridor has been partially implemented along Battle Road, linking A2100/A21 with St Leonards and Hastings town centre. This is a particular route that is tailored to meet the requirements of the bus rather than those of the private car.

## 2.4 ***Corporate and School Travel Plans***

2.4.1 ESCC, Hastings Borough and Rother District Council are actively encouraging the formulation of Green/corporate travel plans. There are currently a number of initiatives being set up to develop corporate travel plans, although no data is available to indicate the success or otherwise of such plans.

2.4.2 A Green Travel Plan has recently been agreed for Bexhill College (Charters Ancaster). Similar initiatives are being developed at the NHS Conquest hospital and Ashdown House (Child Support Agency and Council offices).

2.4.3 There are a number of schools situated close to roads that are currently experiencing significant congestion problems. A TRL study was carried out, in 2001, to test 5 pilot school travel schemes in Hastings. A significant proportion of AM peak highway traffic demand is school traffic, so the potential for reducing traffic demand is considerable. This study recommended that a comprehensive Primary and Secondary school travel policy should be adopted in Hastings. There was co-operation between the Borough council, police and the health authority

with the pilot scheme. Press coverage was enthusiastic. Limited progress has been made towards developing a comprehensive school travel policy.

## 2.5

### ***Transport and the Economy***

#### 2.5.1

The poor performance of the Bexhill and Hastings economy is in part attributable to the absence of good strategic road and rail links. This can bring about significant disadvantages in retaining industry and commerce with competition from neighbouring counties. Restricted accessibility to jobs, shops, education and other facilities contributes to social exclusion. In Bexhill and Hastings this is exacerbated by the poor quality of the public transport network.

## **3 Strategy Elements**

## 3 Strategy Elements

### 3.1

#### ***Strategy Components***

#### 3.1.1

The SoCoMMS Strategy proposals affecting the Bexhill and Hastings area are:

- Bexhill Link Road
- Dual tracking of the rail line between Appledore and Ore, enabling improved journey times between Hastings and Ashford
- New stations at Glyne Gap and St Leonards Marina (and possibly Wilting Farm).
- Significant train service frequency enhancements, packaged as the 'East Coastway', including :
  - An express service between Southampton and Ashford (2 trains per hour in each direction)
  - Improved local rail service between Brighton and Ashford, giving rise to frequencies of 5 trains per hour, at Bexhill, St Leonards Warrior Square, Hastings and Ore.
  - Train frequencies of at least 3 per hour at St Leonards Marina and Glyne Gap (these could be increased if the closure of lightly used stations elsewhere were to go ahead).
  - Extension of the hourly service from London Victoria to Hastings to Ore.
- Improvements in local bus services, incorporating the use of Quality Bus Corridors.
- Measures to encourage walking.
- Implementation of school and corporate travel plans and teleworking.
- Increases in town centre parking charges.

### 3.2

#### ***Public Transport Elements***

#### 3.2.1

It has been assumed that the existing hourly rail service from Hastings to London Victoria, via Gatwick airport will be retained. The rail proposals, as they affect Hastings, are centered around the introduction of a half-hourly regional express service, a high frequency stopping service at all existing stations between Ore and Bexhill and two new stations at St Leonards Marina and Glyne Gap. The East Coastway train proposals are detailed in Appendix A.

3.2.2 The bus system in Hastings requires significant reorganisation in order to attract a wider cross-section of users. It is proposed that consultation takes place between the local authorities and the bus operator to rationalise and re-brand existing bus services in order to provide a more simplified route system, focussing on key land use attractions, along key ‘Quality Bus Corridors’, served by high frequency buses. A Quality Bus Corridor is a particular route that is tailored to meet the requirements of the bus rather than those of the private car. Significantly simplified timetable information should be introduced. The Quality Bus Corridors are discussed in more detail in chapter 6.

3.2.3 The South Coast Multi Modal Study Local Bus Strategy Development Plan has made provision of £2.5 million for infrastructure proposals.

### 3.3 ***Bexhill Link Road***

3.3.1 Proposals to provide new road infrastructure between Bexhill and Hastings to relieve the bottleneck at Glyne Gap have been suggested for a number of years. The ‘Access to Hastings Multi-Modal Study’ reported in November 2000 and included the Western and Eastern bypasses in one of its two preferred strategies. The Secretary of State for Transport rejected the construction of a Bexhill-Hastings by-pass, in 2001.

3.3.2 The Bexhill Link Road would follow the route of a dismantled railway line, from vicinity of the A269 (London Road)/A2036 (Ninfield Road) junction in North Bexhill. It would link with the existing B2092 (Queensway) close to the junction with Crowhurst Road,. The alignment considered would skirt the north edge of the Combe Haven SSSI environmental area.

3.3.3 Alternative road schemes tested include:

- extension of the route in the north by the addition of a link from Queensway/The Ridge to A21 (Link Road extension); and
- extending the Bexhill Link Road, around the western side of Bexhill, adjoining the existing A259 east of Pevensey (Bexhill Bypass).

3.3.4 An appraisal of the Bexhill Link Road is contained in Chapter 5.

### 3.4 ***Corporate Travel Plans***

3.4.1 The development of travel plans to encourage more efficient methods of travelling, particularly in the peak, are an important element of the Strategy within

the Hastings and Bexhill urban area. The Strategy is expected to represent a 30 year vision and thus there is opportunity to provide progressive measures to support such plans.

3.4.2 It is essential that sufficient funds are provided to promote travel plans and ensure their deliverability, both for resources in the companies themselves and within the local authority.

3.5 ***School Travel Plans***

3.5.1 A comprehensive school travel policy, covering primary and secondary schools, should be formulated and implemented. Work should build on that undertaken as part of the TRL study, commissioned by Hastings Borough Council. Priority should be given to developing school travel plans at schools represented in this study (reported in 2001), and implementing measures suggested in the Action Plans.

3.5.2 Corporate and school travel plans are discussed in more detail in chapter 6.

3.6 ***Highway Proposals: 2016 Do-minimum***

3.6.1 The following highway improvements have been assumed to be in place in the 2016 do-minimum situation:

- Lamberhurst Bypass;
- Polegate Bypass, including opening of A22 new route into Eastbourne;
- Quality Bus corridor improvements along Battle Road and The Ridge in Hastings.

3.7 ***Rail Proposals: 2016 Do-minimum***

3.7.1 The following rail improvements have been assumed to be in place in the 2016 do-minimum situation:

- train rolling stock improvements;
- electrification of the Hastings to Ashford rail link (a Go-Via re-franchise assumption that may not go ahead, although the SoCoMMS strategy component of dual tracking between Appledore and Ore will achieve a similar service improvement); and
- retention of direct rail service from Hastings to Victoria, via Gatwick airport.

### 3.8

#### ***Comparison with Access to Hastings Transport Proposals***

#### 3.8.1

The transport issues within Bexhill and Hastings were examined in 'The Access to Hastings Multi-Modal Study' which reported in November 2000. The study was charged with developing a sustainable and integrated strategy for the Hastings area to promote competitiveness and the achievement of regeneration objectives. Two preferred strategies were recommended. Each contained the following elements:

- Electrification of the Hastings-Ashford rail line and sufficient infrastructure investments to permit a fast service to operate from Hastings to Ashford calling only at Rye, in addition to the existing stopping service;
- The Bexhill-Ore metro- a turn up and go rail service using the existing line and new trains;
- A new rail station at Glyne Gap;
- The dualling of the A21 between Tonbridge and Pembury, along the line of the existing road;
- Further improvements to the A21, south of Pembury;
- Supporting measures, including a Bexhill-Hastings Travelcard; enhanced quality bus partnerships and parking restraint for commuters.

#### 3.8.2

In addition, one of the preferred strategies includes the construction of the Bexhill and Hastings Western and Eastern bypasses. In July 2001, the Secretary of State for Transport rejected the Eastern and Western Hastings bypasses because:

- there was not a convincing regeneration case (although employment would be generated in the area, this would not necessarily help those in most need);
- congestion would get worse in some areas; and
- the severe implications for the environment.

#### 3.8.3

There is consistency Between Access to Hastings and the South Coast Corridor Multi Modal Strategy proposals. In particular, the SoCoMMS strategy includes an enhanced local rail service, between Ore and Eastbourne, together with new stations at Glyne Gap and, in addition to the Access to Hastings assumptions, St Leonards Marina. Apart from the rejected Bexhill and Hastings Western and Eastern bypasses, there are no conflicting proposals, compared with the SoCoMMS strategy.

### 3.9

#### ***Comparison With Hastings and Bexhill Five Point Plan Proposals***

##### 3.9.1

The Hastings and Bexhill Five Point Plan assumes the following transport improvements:

- Timetabling improvements to Charing Cross and Gatwick Airport;
- Ashford to Hastings electrification;
- Bexhill to Ore metro;
- New railway stations at Bulverhythe, St Leonards West Marina, Glyne Gap and Wilting Farm;
- Willingdon chord;
- A21 Tonbridge to Pembury online dualling;
- A21 improvements South of Pembury; and
- Bexhill Link Road.

##### 3.9.2

The principles of the strategic Five Point Plan transport assumptions are consistent with the SoCoMMS strategy, although SoCoMMS does not consider directly the issue of better rail links to London. The A21 Lamberhurst Bypass and Ashford to Hastings electrification (which may not now go ahead) are assumed in the dominant networks. SoCoMMS has not tested the proposal for a new railway station at Wilting Farm on the Hastings to Charing Cross line, as it is a north-south route and therefore outside the remit of the study. However, if the Bexhill Link Road was built, a station at Wilting Farm could provide an alternative to the rural route currently used by rail passengers driving between Bexhill/North Hastings and Battle, to board London-bound trains. The station could also serve as an interchange hub along the Bexhill Link Road Quality Bus Corridor, as proposed in this study. From a regeneration perspective, Wilting farm could facilitate access to jobs in the high employment areas of Tunbridge Wells and Tonbridge. The case for a station at Wilting Farm would be strengthened if proposed land use developments in North Bexhill are to proceed.

##### 3.9.3

The Willingdon Chord is a proposed new length of track between Polegate and Stone Cross, to allow East-West train services not to reverse in and out of Eastbourne, thus reducing journey times. It is not proposed as part of the SoCoMMS strategy in the medium term (before 2016). This is because detailed analysis carried out in the SoCoMMS rail strategy development plan has concluded that the scheme would not be economically viable. The Chord does not significantly add to the benefits of the rail strategy and reduces the benefits to Eastbourne. The rationale behind the original proposal was that it would support the regeneration of Hastings. However, the high cost of the Chord and associated

works (over £30 million) would require a very strong regeneration case. SoCoMMS does not rule this out and such a possibility needs on-going monitoring. The case would be strengthened if funding could be secured from regeneration sources; e.g. regional development funds or developer contributions.

- 3.9.4 SoCoMMS assumes significantly improved local rail services between Ore and Eastbourne as the East Coastway rail service. The table in Appendix A shows the proposed train frequencies and stopping patterns. Analysis undertaken in SoCoMMS has shown that it would be beneficial to run the local trains through to Eastbourne. SoCoMMS assumes new stations at St Leonards marina and Glyne Gap. SoCoMMS also concludes that the onward journey opportunities provided by this timetable (e.g to Ashford, Gatwick, Brighton, Southampton, etc.) will reinforce regeneration benefits.
- 3.9.5 The half-hourly regional express service to Ashford will provide an excellent link to the Channel Tunnel interchange. Hastings would fall within three hours travel time of Brussels and Paris, at a very high service frequency. Few towns in Europe have such high frequency links to three capital cities, by any mode.
- 3.9.6 It is likely that significant benefits are to be gained in attracting local rail patronage by marketing these rail improvements as a comprehensive local metro style service, particularly in the context of the Millenium Community development proposals, around existing and proposed stations in Hastings. Significant investment in local station improvements is proposed in the SoCoMMS strategy. In addition, new rolling stock are to be introduced by the end of 2003.

## **4 Forecast Travel Conditions**

## 4 Forecast Travel Conditions

### 4.1 *Methodology*

4.1.1 A SATURN highway traffic model was used to analyse how traffic flows are likely to change between now and 2016, under different forecast highway travel conditions. The SATURN model was created by WS Atkins for the ‘Access to Hastings – Multi Modal Study’ and is validated for the 1999 AM peak hour (0800-0900). A series of matrices were developed to represent future highway demand. The methodology for producing the forecast demand matrices is explained below. The base year AM peak hour networks and matrices; together with the dominant network; were taken directly from ‘Access to Hastings’.

### 4.2 *Alternative Demand Scenarios*

4.2.1 There is likely to be significant land use development in Hastings and Bexhill over the period for which the Strategy is being developed. Thus, a series of matrices was created, representing progressive levels of demand in 2016:

- Background ;
- Brownfield (existing developed) sites;
- Hastings and Bexhill Five Point Plan; and
- Greenfield (undeveloped) sites.

4.2.2 Four alternative demand matrices were tested with the 2016 highway network representation:

- Background development scenario, assuming TEMPRO growth in trips outside Hastings and Rother and extrapolated small site completions within the study area;
- Brownfield development scenario, assuming all background growth in trips, together with forecast planning completions from large sites that are already developed; as identified by The Hastings and Rother Local Plans and updated by the planning authorities;
- Five Point plan scenario, assuming all development proposals recommended in the Bexhill and Hastings Five Point Plan, in addition to all trips assumed in the Brownfield development scenario; and

- Greenfield development scenario, assuming all identified large site development proposals on undeveloped land, together with all demand assumed in the Five Point Plan scenario.

4.2.3

The background highway demand for Bexhill and Hastings was developed by obtaining information on ‘windfall’ or small-site completions from the relevant authority. Short-term trends in small-site completions were extrapolated from 1999 where necessary to represent a 2016 demand scenario. Average trip rates for housing and employment sites were taken from the TRICS database. These trip rates are shown in appendix B. The trip rates are conservative for the following reasons:

- to assess whether the Bexhill Link Road is beneficial assuming low traffic growth; and
- to take into account the requirement to include affordable housing in new housing developments of which low car ownership is a characteristic.

4.2.4

The background demand for other areas was taken from TEMPRO forecasts in demand increase at county level and the 1999 matrix adjusted pro rata.

4.2.5

The remaining forecast matrices were developed by applying the TRICS trip rates to forecast planning data supplied by the local authorities. It is noted that no attempt was made to factor up the matrices to comply with the level of housing and employment development specified in the current ESCC Structure Plan, even with the greenfield scenario.

4.2.6

The brownfield land use development scenario incorporates current local plan proposals as provided by Hastings Borough Council and Rother District council. Sites of over 25 units were individually added to the demand matrix, using the trip distribution of an appropriate adjacent zone. A significant amount of both housing and employment development is proposed on the Western side of Hastings.

4.2.7

The following Bexhill and Hastings Five Point Plan land use development proposals were provided by Hastings Borough Council and are included in the Five Point Plan Matrix:

- Rye Harbour Access works and Phase 1 Development
- Pebsham Country Park (between Hastings and Bexhill)

- String of Pearls Millenium Community (Hastings), excluding schemes already in Local Plan:
  - Broomgrove and Ore valley Housing Regeneration
  - Warrior Square Station housing site
  - Brownfield Land assembly Trust (St Leonards)
  - West Marina housing developments
  - Bulverhythe housing.
  
- University proposal- Hastings town centre
  - Hastings Station Goods Yard
  - Observer Building
  - Queens Hotel.

4.2.8 The North Bexhill Business Park is part of the Five Point plan proposal. However, because it is proposed on land that is not currently developed, it was included in the Greenfield matrix, together with an estimated 1500 houses at Worsham Farm.

4.2.9 The land use planning assumptions for each demand scenario are included in Appendix C.

4.2.10 The Five Point Plan matrix was adopted as the central demand scenario. In March 2002, Lord Falconer agreed in principle to the Five Point Plan, together with £38 million in additional funds. In July 2002 the Millenium Community land use development proposals were approved by the Deputy Prime Minister. By using this land use development scenario, the extent to which the Bexhill Link Road is required, without the pressure from Greenfield development sites can be examined. This has implications for whether developers should be required to invest in new highway infrastructure.

4.2.11 As a sensitivity test, an alternative 'Five Point Plan' scenario was developed, using higher trip rates. This was to assess the extent to which less conservative assumptions in travel behaviour would affect the conclusions on the need for the Bexhill Link Road. It also represents increased trip-making behaviour due to the effects of economic regeneration, as a result of the Bexhill and Hastings Five Point Plan proposals.

4.2.12 Table 4.1 shows the forecast level of demand for each of the do-minimum land use development scenarios. These matrices were then adjusted by an overall average of

10%, to reflect the following reductions in highway demand arising from other elements of the SoCoMMS Strategy:

- teleworking, corporate travel plans, school travel plans;
- parking restraint in Hastings and Bexhill town centre;
- improved rail links services; and
- improved local bus services.

**Table 4.1: Forecast Demand for Trips with an Origin or Destination in Hastings or Bexhill**

		<b>Do-minimum</b>		
		<b>Demand</b>	<b>AM Peak</b>	<b>% Change</b>
		<b>Scenario</b>	<b>Trips</b>	<b>from 1999</b>
<b>1999</b>			17200	
<b>2016</b>	Background		18400	7%
	Brownfield		20100	17%
	5 Point Plan		20700	21%
	Greenfield		22400	30%
	5 Point Plan Sensitivity		21900	28%
		<b>Strategy without the Bexhill Link Road</b>		
		<b>Demand</b>	<b>AM Peak</b>	<b>% Change</b>
		<b>Scenario</b>	<b>Trips</b>	<b>from 1999</b>
<b>1999</b>			17200	
<b>2016</b>	Background		16600	-3%
	Brownfield		18100	5%
	5 Point Plan		18600	8%
	Greenfield		20100	17%
	5 Point Plan Sensitivity		19700	15%

## **5 Impact of the Bexhill Link Road**

## 5 Impact of the Bexhill Link Road

### 5.1 *Test Programme*

5.1.1 The impact of the Bexhill Link Road has been examined by using a SATURN model. The forecast highway demands generated under the alternative land use development scenarios were assigned to networks representing the 2016 do-minimum and the Bexhill Link Road. Table 5.1 illustrates the tests that were carried out:

**Table 5.1 2016 Model Tests Carried out for Hastings Strategy Development Plan**

Demand Scenario	Network				
	Do-minimum	Strategy Without Link Road	Strategy With Bexhill Link Road	Bexhill Link Road Plus Extension	With Western Bexhill Bypass
Background	*	*	*		
Brownfield	*	*	*	*	*
5 Point Plan	*	*	*	*	*
Greenfield	*	*	*	*	*
5 point Plan Sensitivity	*	*	*		

\* network/ matrix combination for each SATURN assignment model test

### 5.2 *Assignment Results*

5.2.1 Table 5.2 shows the forecast AM peak hour highway flows on key roads in the Bexhill and Hastings area, arising from the various model runs.

Table 5.2: Forecast AM Peak Modelled 2-Way Link Flows

	2016 Alternative Highway Networks						
	Base Year Observed	Modelled Base Year 1999	Do-min Plus <sup>1</sup>	Strategy (no Link Road) <sup>2</sup>	Strategy with Link Road <sup>3</sup>	Link Road Plus Extension <sup>4</sup>	Bexhill Bypass <sup>5</sup>
	<b>Background Growth Scenario</b>						
A259 Glyne Gap	3000	2900	3000	2800	2100	-	-
Queensway	700	700	600	600	900	-	-
The Ridge (W of Elphinstone Road)	1800	1700	1800	1700	1700	-	-
Gillsman's Hill	900	1000	1200	1000	1100	-	-
Seddlescombe Road North	2100	2000	2200	2000	2100	-	-
Harley Shute Road	1100	1000	1100	1000	600	-	-
<b>Brownfield Development Scenario</b>							
A259 Glyne Gap			3100	2900	2200	2200	2200
Bexhill Link Road			-	-	1200	1200	1300
Bexhill Link Road to A21 extension			-	-	-	600	600
Queensway			600	500	900	900	1000
The Ridge (W of Elphinstone Road)			1900	1800	1800	1800	1800
Gillsman's Hill			1400	1100	1200	1200	1200
Seddlescombe Road North			2300	2200	2200	2200	2200
Bexhill Bypass (W of Bexhill)			-	-	-	-	200
Harley Shute Road			1200	1100	600	600	700
<b>Five Point Plan Development Scenario</b>							
A259 Glyne Gap			3100	3000	2200	2200	2200
Bexhill Link Road			-	-	1300	1300	1400
Bexhill Link Road to A21 extension			-	-	-	600	600
Queensway			800	600	1000	1000	800
The Ridge (W of Elphinstone Road)			1800	1800	1800	1800	1800
Gillsman's Hill			1400	1200	1200	1200	1200
Seddlescombe Road North			2300	2200	2200	2200	2200
Bexhill Bypass (W of Bexhill)			-	-	-	-	200
Harley Shute Road			1200	1200	700	700	700
<b>Five Point Plan Sensitivity Test</b>							
A259 Glyne Gap			3200	3100	2300	-	-
Bexhill Link Road			-	-	1400	-	-
Bexhill Link Road to A21 extension			-	-	-	-	-
Queensway			1100	900	900	-	-
The Ridge (W of Elphinstone Road)			1400	1400	1400	-	-
Gillsman's Hill			1500	1400	1300	-	-
Seddlescombe Road North			2400	2200	2300	-	-
Bexhill Bypass (W of Bexhill)			-	-	-	-	-
Harley Shute Road			1300	1300	700	-	-
<b>Greenfield Development Scenario</b>							
A259 Glyne Gap			3200	3100	2300	2300	2200
Bexhill Link Road			-	-	1600	1700	1700
Bexhill Link Road to A21 extension			-	-	-	800	800
Queensway			900	600	1100	1100	1100
The Ridge (W of Elphinstone Road)			1900	1900	1900	1900	1900
Gillsman's Hill			1400	1200	1200	1300	1300
Seddlescombe Road North			2300	2200	2200	2200	2200
Bexhill Bypass (W of Bexhill)			-	-	-	-	300
Harley Shute Road			1300	1200	600	700	700

Notes

- 1 Includes committed highway improvements only; A21 lamberhurst by-pass, Polegate Bypass, A22 new route into Eastbourne, Quality bus corridors in Hastings
- 2 Includes the estimated highway effects of all SoCoMMS strategy elements except the Link Road; local public transport improvements, corporate and green travel plans and parking restraint
- 3 New Bexhill Link Road connecting North Bexhill (via London Road) to West Hastings (via Queensway)
- 4 Bexhill Link Road extension from The Ridge/Queensway to A21
- 5 Bexhill Bypass extends the Link Road around the western side of Bexhill, adjoining the existing A259, east of Pevensey

- 5.3 ***2016 Do-Minimum. Compared with the Base Year:***
- 5.3.1 With the exception of Queensway in the background only growth scenario, table 5.2 shows an increase in traffic on all roads included in the table in the 2016 do-minimum situation, compared with the base year.
- 5.3.2 Both Gillsman’s Hill and Seddlescombe Road North show an increase in traffic of at least 200 vehicles in all demand scenarios. This is arising in part from new land use developments in the West of Hastings. The largest forecast increase in traffic flows along Gillsman’s Hill (500 vehicles) and Seddlescombe Road North (400 vehicles) occur in the sensitivity test for the Five Point plan scenario.
- 5.3.3 Developments on Greenfield sites in North Bexhill are forecast to cause an increase in traffic on Bexhill Road , Harley Shute Road and Queensway.
- 5.3.4 The increase in flows on Gillsman’s Hill and The Ridge are likely to cause significant disbenefits to the human environment in the local residential area.
- 5.4 ***Five Point Plan Development Scenario***
- 5.4.1 The Five Point plan demand scenario was taken as the most likely demand scenario and further analyses of the SATURN model results are reported.
- 5.4.2 The principal reassignment effect of the Bexhill Link Road is a reduction of around 700 vehicles (25%) along A259 Bexhill Road, together with a slightly lower reduction along Harley Shute Road. This reassignment of traffic causes an increase of approximately 400 vehicles on Queensway. Traffic flows are also reduced along the B2204/B2095 South of Battle and A2100 from Hastings to Battle. The reason for this is that traffic travelling between West and North Bexhill and the A21, is using the Bexhill Link Road, rather than a route through more environmentally unsuitable roads via Battle.
- 5.4.3 A select link analysis was carried out for a number of key roads in order to determine the distribution of trips following the introduction of the Link Road. Table 5.3 shows that around 57% of traffic using the Bexhill Link Road is local, with an origin or destination in Hastings. A Total of 33% of trips are between Bexhill and locations outside the Bexhill/Hastings Study area. Table 5.3 also shows that around 10% of traffic on The Ridge West is travelling between Bexhill and other areas and therefore likely to be using the Link Road. Less than 5% of the traffic using Gillsman’s Hill has an origin or destination in Bexhill. Around 50% of traffic using Gillsman’s Hill has an origin or destination outside the Bexhill and

Hastings Study area. Only 8% of traffic using the Bexhill Link Road is distributed between Hastings and other areas. It is therefore unlikely that the Bexhill Link Road is generating traffic along Gillsman's Hill.

5.4.4

During the public consultation, numerous concerns were expressed that the Bexhill Link Road would cause an increase in traffic on The Ridge, east of the A21 and on roads in the Wishing Tree residential areas, particularly Gillsman's Hill. These concerns were shared by ESCC, Hastings Borough Council and Rother District Council. In comparison with the do-minimum transport network, the Hastings SATURN assignment model does not indicate that the Bexhill Link Road causes significant increases in local traffic in these residential areas in 2016, even for the high demand scenario.

5.4.5

Different assumptions in the forecast distribution of traffic might demonstrate that the Bexhill Link Road would be more likely to assign traffic to unsuitable local roads. In this case, traffic management measures would be necessary to alleviate inappropriate routing of traffic.

**Table 5.3: Composition of Traffic Using Key Roads: 2016 Five point plan Scenario**

The Ridge West of Elphinstone Road				
	Hastings	Bexhill	Other	Total
Hastings	9%	0%	32%	41%
Bexhill	2%	0%	3%	5%
Other	29%	4%	20%	54%
Total	40%	5%	55%	100%

Gillsman's Hill				
	Hastings	Bexhill	Other	Total
Hastings	44%	0%	33%	77%
Bexhill	3%	0%	0%	3%
Other	18%	0%	1%	20%
Total	65%	0%	34%	100%

Bexhill Link Road				
	Hastings	Bexhill	Other	Total
Hastings	0%	28%	3%	31%
Bexhill	29%	0%	21%	50%
Other	5%	12%	2%	19%
Total	34%	40%	26%	100%

5.4.6

Table 5.4 shows the effect of the Bexhill Link Road on AM peak travel time, distance and speeds for trips within Bexhill and Hastings. The table shows that the Link road reduces travel times and distances by 11% in the corridor, compared to the Strategy without the Link Road. The average speed of 29 kph remains similar. The alternative road improvements do not provide significantly increased benefits, above the proposed Link Road itself., although the Bexhill Bypass reduces travel times by a further 3%.

**Table 5.4: Change in Vehicle Hours in Bexhill and Hastings**

		Strategy without Bexhill Link Road	Bexhill Link Road	Bexhill Link Road Plus Extension	Bexhill Bypass
	Vehicle-Hours	1454	1287	1287	1256
	Vehicle KM	42420	37542	37586	37552
	Speed (km/h)	29	29	29	30
% Change from Base Strategy	Vehicle-Hours	-	-11%	-11%	-14%
	Vehicle KM	-	-11%	-11%	-11%
	Speed (km/h)	-	0%	0%	2%

5.5

### ***Greenfield Land Use Development Scenario***

5.5.1

This land use development scenario contains the highest level of 2016 forecast demand, resulting in an overall increase in AM peak trips of 30% within/to and from Bexhill or Hastings. Most of these trips (75%) originate from the proposed business park at Sidley and housing development at Worsham Farm, both in North Bexhill. Together, these developments are assumed to generate 1600 trips in the AM peak hour. Adjustments would have to be made to the road network to enable this level of demand to be accommodated.

5.6

### ***Link Road Attributes***

5.6.1

The model results show that a single carriageway, local distributor road would provide sufficient capacity to accommodate traffic demands under all demand scenarios, including the Greenfield development scenario. The conclusions from this work are consistent, assuming the alternative demand scenarios.

5.6.2

A wider single carriageway road might be considered, however, to facilitate Quality Bus Corridor improvements. In the modelling undertaken for the Hastings

Strategy Development Plan, a capacity of 2000 vehicles per hour/single direction was assumed, with an operating speed of 30 mph.

5.6.3 Traffic demand on Queensway is likely to be a maximum of 1000 vehicles in the AM peak hour (1400 in the high demand scenario arising from the sensitivity test). This indicates that road widening is not required along Queensway. The model results show that the alternative schemes considered; the Link Road with the extension to A21 and the Bexhill By-pass; do not afford any significant increase in relief of the Glyne Gap bottleneck, compared with the Bexhill Link Road itself. This is due to the majority of traffic using Bexhill Road being local in nature.

5.6.4 However, traffic travelling from The Ridge/ Queensway to A21 has to complete a complex movement via a right turn into Junction Road. It is possible that more detailed modelling (for example micro-simulation modelling) of this junction will strengthen the case for such a link.

#### 5.7 ***Alternatives to the Bexhill Link Road***

5.7.1 A possible alternative to relieving the bottleneck along Bexhill Road would be on-line improvements to increase capacity. This could be achieved by removing on-street parking and/or widening the A259. This is difficult as the on-street parking in this location is mainly residential. The capacity of Bexhill Road is also restrained by the junctions at Glyne Gap and Harley Shute Road. These would need to be significantly remodelled to afford any decrease in congestion. They are unlikely to provide a realistic solution, except in the short-term. The human environment along Bexhill Road would deteriorate due to increased traffic and its effects.

5.7.2 In order for on-line improvements to provide adequate increase in highway capacity throughout the 30 year Strategy horizon, together with necessary bus priority measures, it would be necessary to consider the sensitive issue of removing the property fronting along the road and the construction of grade separated junctions. Online improvements to Bexhill Road would not facilitate the proposed greenfield developments in North Bexhill and associated economic benefits.

#### 5.8 ***Bexhill Link Road Appraisal Summary***

5.8.1 An economic and environmental appraisal was carried out for the Bexhill Link Road, the results of which are summarised in the Appraisal Summary Table (AST) below. The economic appraisal was carried out using TUBA. The economic benefits of the Bexhill Link Road were calculated by comparing the benefits to the

Strategy without the Link Road, rather than the do-minimum situation. In this way, the benefits due to the Link Road could be assessed in isolation. This analysis was carried out using the 2016 Five Point Plan demand scenario, containing:

- background growth;
- proposed planning developments on existing developed sites; and
- land use developments proposed in the Bexhill and Hastings Five Point Plan.

#### 5.8.2

The cost of the Bexhill Link Road is assumed to be £24 million at 2001 prices. Land costs are assumed to be £2.1 million. Based on these input costs, the Net Present Value of the Bexhill Link Road is estimated to be £26.5 million (1998 prices discounted to 1998 values), compared to the Strategy components without the Link Road. The Benefit/Cost ratio is 2.7.

Strategy		Bexhill Link Road	Problems	Present Value Cost To Government £ 15.7m
OBJECTIVE	SUB- OBJECTIVE	QUALITATIVE IMPACTS	QUANTITATIVE MEASURE	ASSESSMENT
ENVIRONMENT	Noise	The Bexhill Link Road would provide a reduction in noise levels to the residents along Bexhill Road. Other strategy elements unlikely to bring about noticeable decrease in noise throughout the study area.		
	Local Air Quality	Removal of traffic along Bexhill Road will help to improve air quality for local residents. There are concerns about the air quality in Bexhill Road and a monitoring process is underway. The results of this and any necessary action are to be considered by Hastings Borough Council in the near future. Corporate and school travel plans and local public transport measures will also contribute to a decrease in air pollution, through a decrease in car use.	NO2: 12 zones "winners" NO2: 2 zones "losers" NO2: 1 zones no change PM10: 12 zones "winners" PM10: 0 zone no "losers" PM10: 2 zones "no change"	Emissions estimate NO2: -28,558  Emissions estimate PM10: - 1,023
	Greenhouse Gases			Reduction of 3,775 tonnes of CO2 for 2016 (-11%) against future do-minimum
	Landscape	The Bexhill Link Road will have detrimental impacts on landscape pattern, particularly valley-side landform and valley form and on pasture landcover. Environmental impact on the landscape may be mitigated with the building of a viaduct rather than embankments across the Combe Haven Valley.		Large Negative Impact
	Townscape	Any road widening is likely at the southern end of the Bexhill Link Road will have a significant impact on the character of Bexhill, and the houses fronting the road in particular. A smaller impact elsewhere. The houses on Bexhill Road are likely to enjoy improved townscape.		Moderate Negative Impact
	Heritage of Historic Resources	The proposed Bexhill Link Road will probably affect the setting of three Grade II listed buildings and a number of archaeological sites. The scheme may directly impact upon a range of archaeological sites. The scheme will sever and severely compromise the relatively cohesive and intact historic landscape between Bexhill and Hastings. The scheme may impact upon currently unidentified archaeological and palaeo-environmental deposits.		Moderate Negative Impact
	Biodiversity	The Bexhill Link Road route is in the vicinity of the Combe Haven SSSI with resultant risk of runoff into the SSSI. The route also runs through the disused railway SNCL.		Serious Adverse
	Water Environment	The Bexhill Link Road would cross the Combe Haven river system (a system in miniature, making it vulnerable to pollution) and follow its north shore for some of its length.		Significant negative impact
	Physical Fitness	Measures to improve cycling, such as a segregated cycleway along the Link Road, are likely to bring about an increase in cycling and therefore improve physical fitness. It is unclear what changes in the number of cyclists will occur. The topography in Hastings makes cycling difficult in many parts of the town.		Beneficial Impact
	Journey Ambience	The Bexhill Link Road will also reduce traveller stress through a decrease in congestion along Bexhill Road.		Large Beneficial Impact
SAFETY	Accidents	Accident savings along Bexhill Road and Harley Shute Road due to reduction in traffic flows.		Beneficial Impact
	Security			
ECONOMY	Transport Economic Efficiency	The Link Road provides significant economic benefits above all other elements of the Strategy combined. The Link Road extension to A21 may provide further economic benefits. Analysis of traffic model results indicate that a Bexhill bypass does not indicate further economic benefits, compared to the Link Road with the extension to A21.		User Benefits: NPV £26.5M Private Providers: NPV £0 Public Providers NPV £15.7M Other Government NPV £-3.0M Benefit/Cost ratio BCR= 2.7
	Reliability	The Bexhill Link Road will improve journey time and reliability for road users. Implementation of a Quality Bus corridor along the Bexhill Link Road will enhance reliability for those travelling by bus.		Moderate Beneficial Impact
	Wider Economic Impacts	The Bexhill Link Road will improve accessibility to employment areas in West Hastings. The Link Road will facilitate the development of a Quality business park, and housing in North Bexhill.		Large
ACCESSIBILITY	Option Values	The Bexhill Link Road will provide an alternative route between Bexhill and (particularly West Hastings) and also between Bexhill and the A21 (thus avoiding less suitable rural roads to the north of Bexhill). Local and strategic accessibility will be improved.		Large Beneficial Impact
	Severance	The Bexhill Link Road will provide relief from existing severance caused by the bottleneck along Bexhill Road.		Slight positive impact
	Access to the Transport System	Implementation of a Quality Bus Corridor along the Bexhill Link Road will improve access between Bexhill and Hastings (particularly the Western employment areas and the Conquest hospital), for those without a car. Improved access from Bexhill to strategic road network, particularly if the extension to A21 is incorporated.		Beneficial Impact
INTEGRATION	Transport Interchange	Possibly improved access to rail network via parkway station and bus interchange via Quality Bus Corridor at Wilting Farm.		Beneficial Impact
	Land-Use Policy	The Bexhill Link Road would help East Sussex County Council to fulfill existing Structure Plan housing requirements.		Beneficial Impact
	Other Government Policies	Consistent with other Government policies relating to access to employment opportunity, reducing road accidents, promoting urban regeneration and promoting slow modes. Consistent with Hastings and Bexhill Five Point Plan proposals.		Beneficial Impact

## **6 Local Transport Initiatives**

## 6 Local Transport Initiatives

### 6.1 *Local Public Transport*

6.1.1 Stagecoach is the only local bus operator in Hastings. The existing network of services is too complex and the operator would like to rationalise these services to provide a more frequent and reliable service along key corridors.

6.1.2 As specified in chapter 3, it is recommended that local public transport measures to serve the proposed Millenium Community developments along the Hastings railway line should focus on an enhanced local rail service, with an integrated bus service, linking the communities to key land uses in the North of Hastings.

6.1.3 The key corridors proposed, together with suggested scheme details, are shown below:

Corridor	Proposal
London Road/ Battle Road	Complete Quality Bus Corridor priority scheme, enhance service
The Ridge	Enhance service, implement Quality bus corridor, 'loop' via Elphinstone Road/Hastings Rail Station/Grand Parade/London Road/ Sedlescombe Road North
Bexhill Link Road (proposed)	Introduce Quality bus corridor from Bexhill Station/ via London Road/ Bexhill Link Road/ Queensway (penetrating employment areas)/ Conquest hospital
Bexhill Road	Enhance service, implement Quality bus corridor
Wrestwood Road	Enhance service, implement Quality bus corridor between Turkey Road/Ninfield Road and Glyne Gap

6.1.4 The above proposals facilitate local bus services interchange with local rail stations at Bexhill, Glyne Gap, St Leonards Warrior Square and Hastings.

6.1.5 Fare structures must be simple, easily understandable and ticketing integrated with local rail services.

6.1.6 A proportion of people in deprived wards is likely to be considered ‘unemployable’ for various reasons. Local bus fares need to be lower than in other towns on the South Coast corridor, to facilitate affordability from non-car owning households in the poorer areas of Hastings.

6.1.7 Local buses were considered as an alternative to serving the expanding communities situated around existing and proposed railway stations in Hastings. However, the density of development, townscape and topography surrounding these sites, particularly in the St Leonards area would make it difficult to implement a Quality Bus service. In addition, enhanced local rail services, packaged as an ‘Ore-Bexhill (or Eastbourne)’ service would be better placed to encourage regeneration of the deprived wards within which the proposed Millenium Community developments are situated. Ore, Hastings and Warrior Square stations fall within 4 of the 5 most deprived wards in the borough of Hastings.

## 6.2 ***Corporate Travel Plans***

6.2.1 A ‘Step-Change’ in the provision of opportunity for Travel Plans is recommended. This should be incorporated into planning policy for all significant commercial developments proposed in the Hastings and Bexhill Five point Plan, to support urban regeneration and sustainability objectives. Within this context Hastings and Bexhill could become a beacon as ‘Local plan best-practice’. In particular, the Hastings University and Millenium Community proposals should actively adopt local travel plan measures.

6.2.2 Detailed elements for such schemes should include components such as the following:

- Condition of planning permission should include requirement to set up corporate travel plans (on a sole company or co-operative basis), where this is practicable.
- Increased use of internet (e-mail) and computerised databases to encourage car pooling.
- Better management of car parking on existing industrial estates (such as Ponswood and Castleham) with a travel plan office to provide co-ordination and information.

- Rationalisation of parking provision on older industrial sites, such as Castleham, (with appropriate investment) with the possibility of land being freed up to give gains in development opportunities.
- Designation of travel plan officer for each major employment site/industrial area.
- Hastings Borough should have Travel Plan Officer to provide information and advice, particularly for groups of small companies to facilitate co-ordination.
- Provision of good quality cycling facilities including secure cycle and equipment storage and pleasant changing/showering facilities.
- Financial incentives for employers and employees to use sustainable transport means (car pooling, bus, train, walk, cycle), funded from taxing employer spaces.
- Financial incentives could include grants for companies moving into redeveloped business sites, willing to adopt corporate travel plan principles.

### 6.2.3

Some of these elements are likely to be considered radical and unachievable by communities at the present time. With careful promotion, organisation planning and involvement of local businesses, the principles should evolve and become increasingly adopted over the 30 year Strategy period. Initiatives are already being pursued by the business community. For example, the Chamber of Commerce has expressed an interest in developing a corporate travel plan for groups of companies situated on the industrial estates along Queensway. Funding and availability of resources has been a constraint on developing these plans. There are, however, a number of large employers in the Bexhill and Hastings area.

## 6.3

### ***School Travel Plans***

#### 6.3.1

Elements of school travel plans could include the following measures:

- Increasing use of ‘walking buses’.
- Efficient use of computerised databases and e-mail for organising car pool travel and walking buses.
- Information campaigns on the human, environmental and health benefits of walking to school, for children and parents.
- Traffic management measures to facilitate walking and increase pedestrian safety such as humped crossings, 20 mph speed limits, improved footways.
- Provision of secure cycle storage facilities.

6.3.2 As elsewhere in the South Coast Corridor, the Strategy aims to promote the use of local rail services to provide local public transport, together with a complementary local bus service, integrated with key rail stations and focussed along a number of high frequency corridors.

#### 6.4 ***Walking***

6.4.1 Walking is an important mode, both for individual trips and as an access mode to public transport. Measures should be adopted to exploit opportunities to encourage walk trips where this is practicable:

- School travel plans should contain components to encourage walk trips to school.
- ‘Home Zone’ arrangements should be incorporated in housing developments on existing brownfield sites, particularly in the Millenium Community proposals, where they would also increase access to proposed local bus and rail improvements.

6.4.2 ‘Home Zone’ arrangements are particularly important for deprived areas as:

- They would reduce the incidence of child road casualties that characterise these areas.
- Walking is free and increases accessibility for the socially excluded;
- They would lead to environmental improvements and a stronger sense of community.

6.4.3 The design of ‘Home Zone’ traffic management measures needs to give careful consideration to involving local businesses to ensure that they benefit from such proposals.

#### 6.5 ***Consistency with Local Transport Plan***

6.5.1 The current ESCC local transport plan contains a package of improvements to improve non-car accessibility to and within Bexhill and Hastings. The programme includes pedestrian and cycle accessibility improvements and bus operation accessibility improvements in three Quality Bus Corridors. Three Quality Bus Corridors are planned:

- Battle Road, linking A2100/A21 with St Leonards and Hastings town centre (already partially implemented);

## **7 Regeneration Issues**

# 7 Regeneration Issues

## 7.1 *Introduction*

7.1.1 This section seeks to identify the wider economic impacts resulting from the implementation of the Strategy on Hastings. The assessment seeks to build on the approach outlined in the GOMMMS framework, as well as ongoing research into the impact of improved accessibility on local economic activity. The assessment also makes reference to the ongoing research<sup>1</sup> by Steer Davies and Gleave (SDG) for the DfT concerning the link between new transport infrastructure and economic development.

7.1.2 In the following sections the recent performance of the local economy in Hastings is assessed. This is followed by a description of the estimated changes in accessibility to the area following the implementation of the Strategy and finally, the impact it is likely to have on the local economy is assessed.

## 7.2 *Economic Background*

7.2.1 In summary, the local economy in Hastings has struggled to keep pace with growth in other areas in the South East in recent years. This is reflected in a range of economic and social indicators which provide an illustration of this relative economic decline. Some headlines include:

- Hastings is the most deprived town in the South East with 5 wards in the worst 10% of the country (measured in terms of the Index of Multiple Deprivation). Furthermore, there is considerable evidence of social need with a high proportion single parents, people claiming benefits and unemployed. Crime rates are also higher than elsewhere in the South East.
- Hastings has a higher proportion of its population on low incomes than of other local authority in the GOSE region.
- Unemployment in Hastings is over double the national average, 5.3% in Hastings compared to 2.5% for the South East. Furthermore, some wards

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<sup>1</sup> Guidance on the Economic Impact Report, Stage 1 Report December 2001, DTLR

in Hastings are particular unemployment black spots with jobless rates between 8 and 14% (Castle, St Leonards and Maze Hill).

- One third of all unemployed people in East Sussex live in Hastings.
- Hastings has the second lowest weekly earnings of any county or unitary authority in the South East.
- The economy is reliant on a narrow range of employment sectors including public services (health, education and social services), tourism and manufacturing. These sectors are particularly cyclical in nature and make the economy subject to swings in employment.

7.2.2 Recognition of the poor performance of the local economy and its social consequences has resulted in a range of assistance to the area, including Assisted Area status, Objective 2, Neighbourhood Renewal Fund and several Single Regeneration Budget awards. Most recently, a package of assistance from central Government has been announced for Hastings and Bexhill as a consequence of a SEEDA led taskforce.

7.2.3 A key factor contributing to the worsening economic performance of Hastings in recent years has been that, while many areas of the South East have enjoyed a step change improvement in their accessibility to the national economy, Hastings has not benefited. Thus its ability to attract mobile inward investment and also to retain existing businesses has declined. The relative failure to attract new industries, due to its perceived isolation, has reinforced the reliance on cyclical and declining employment sectors.

### 7.3 ***Accessibility Analysis***

7.3.1 As part of the strategic modelling an Accessibility Model has been developed which estimates changes in transport accessibility resulting from the implementation of the Strategy. This is measured in terms of how many jobs are considered to be within 45 minutes travel time. Furthermore, accessibility is calculated by the use of deterrence functions which weight the importance of jobs by location. This means that a higher weight is placed on local jobs, and less weight on jobs which have a higher travel time.

7.3.2 The results of the Accessibility Model runs following the implementation of the Strategy in the Hastings are shown in Tables 7.1 and 7.2 below. The tables show the percentage improvement in the number of jobs accessible for all wards in Hastings by both road and public transport respectively.

Accessibility Improvement (%)	Ward Name
0-5%	Broomgrove, Ore,
5-10%	Silverhill, St Helens, Elphinstone, Mount Pleasant, Braybrooke, Old Hastings, Maze Hill, Hollington, Ashdown, Gensing, Wishing Tree, Castle, Central St Leonards
10-15%	West St Leonards

**Table7.1: Accessibility Improvements for Hastings – road based trips**

Accessibility Improvement (%)	Ward Name
0-20%	Castle
20-40%	–
40-60%	West St Leonards, Hollington, Ore, Ashdown, Wishing Tree, Maze Hill, Broomgrove
60-80%	St Helens, Elphinstone, Mount Pleasant, Old Hastings, Silverhill, Central St Leonards, Gensing, Braybrooke

**Table7.2: Accessibility Improvements for Hastings – PT based trips**

7.3.3 It is evident that significant improvements in accessibility result from the implementation of the Strategy. Accessibility to jobs in Hastings increases by between 5-15% for road trips and 40-70% for rail based trips. In the case of the former, the improvement is mainly attributable to the provision of the Link Road, whilst the improvement in rail trip accessibility can be largely attributed to the significant journey time reduction for rail trips to Ashford.

7.3.4 The impact of the strategy on journey times by rail is shown in Figure 7.1. In addition to journey time savings, a key benefit to rail users in Hastings is the increase in service level to a number of important locations in the study area following the implementation of the Strategy. This not only provides a step change improvement in accessibility but also results in a significant improvement in reliability for rail users.

7.3.5 It should be noted that the reduced accessibility of Polegate is due to the additional station stops from the local train services at the two new stations.

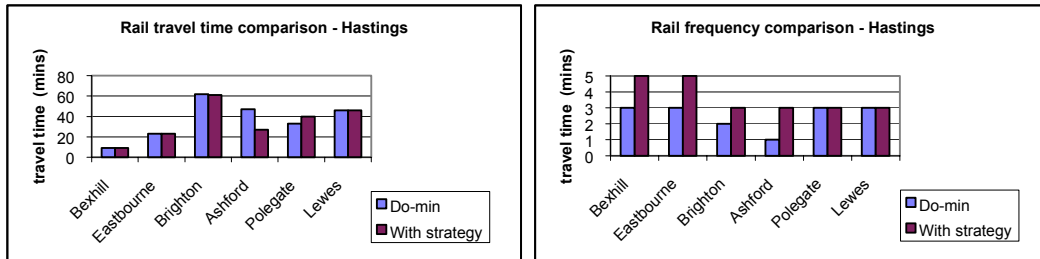


Figure 7.1: Summary of Strategy Improvements for Rail

7.3.6 The relative importance of accessibility for the local economy was highlighted in a survey of the business community in Hastings. The survey results clearly identified two of the three main factors which would influence outside firms to locate in Hastings are an improved road network (90% of respondents) and improved rail links (62%). Likewise failure to improve transport infrastructure (both road and rail) was cited as one of the main reasons which may cause firms to leave the area.

7.4 ***Regeneration Impact***

7.4.1 It is evident that the improvement in accessibility to Hastings resulting from the Strategy is likely to be significant. However, the question remains as to what impact this will have on the generation of employment opportunities in the Hastings area. The SDG guidance note (which is currently under further development) provides detailed advice in the approach to estimating economic development benefits resulting from transport infrastructure investment. It recommends any estimate of employment generation should be substantiated by a detailed assessment of the local labour market and how the project tackles market failures in the economy. Furthermore, any subsequent job estimation resulting from transport projects should be subject to rigorous scrutiny. Given the strategic nature of the current study, it is difficult to quantify the absolute number of jobs likely to be created. Without such an analysis, it is only possible to undertake a qualitative review of the likely wider impacts on the local economy following improvements in accessibility.

7.4.2 In addition to the improvements in accessibility, it is important to consider the transport improvements in the wider context of urban renewal and regeneration in the area. There is a range of other development proposals planned for Hastings

which will also have a positive affect on the local economy. These are outlined in the Hastings and Bexhill Five Point Plan and include:

- Regeneration measures and urban renaissance involving the redevelopment of selected brownfield sites, the provision of additional commercial floorspace together with significant new housing provision. Overall, this is forecast to generate some 1500 new jobs over 10 years.
- Stimulation of Business Innovation, Enterprise, Creativity and Technology Transfer. This is forecast to generate some 330 new jobs over 10 years.
- Higher Education Centres of Excellence involving the expansion of the teaching infrastructure in the town, which is forecast to generate some 130 new jobs over 10 years.
- Broadband Information and Communications Technology (ICT) Applications.
- Transport Improvements including improved rail links to Gatwick as well as a metro between Bexhill and Ore.

7.4.3 Overall, the Five Point Plan is estimated to result in a 3.2% increase in local GDP over 10 years.

7.4.4 The likely benefits to the Hastings economy specifically arising as a result of the implementation of the Strategy will include:

- A significant improvement in access to additional jobs for local labour.
- Increased accessibility through improved rail links will enable unemployed labour to more easily access jobs in growth areas such as Ashford.
- Lower transport costs for Hastings based firms.
- Increased accessibility is likely to have a significant positive impact on the local tourism sector. In particular improved rail access to Ashford should encourage visitors using the Channel Tunnel Rail Link from both London and Europe.
- A significant regeneration impact for Hastings town centre should occur following the completion of the Link Road as well as the proposed metro.
- Regeneration potential of local rail service improvements on selected Hastings wards.
- Release of development land for proposed business park following the completion of the Link Road.
- Improved rail links to the north may encourage people to live in Hastings and commute to work locations in Ashford and London. In-migrants

who work in London are likely to have higher than average skills levels and incomes – and a large proportion of their incomes are likely to be spent in the local economy of Hastings.

7.4.5 The SoCoMMS strategy is likely to result in a number of additional benefits beyond those addressed in the Five Point Plan:

- Higher service frequencies and lower journey times to Ashford (two fast and one stopping service per hour). Ashford is one of the fastest growing towns in Europe and gateway to the Channel Tunnel. Hastings will be within a regular three hour journey time of three European cities.
- The Hastings-Bexhill-Eastbourne axis will be served by five trains every hour, throughout a corridor of around 250,000 people. The regeneration potential of this corridor has been overlooked by previous local studies. Through its high frequency rail proposals, SoCoMMS emphasises the social and economic synergies at a strategic level.

7.4.6 The Strategy supports the Regional assembly's spatial strategy, through both local and regional accessibility improvements.

7.4.7 It is clear that Hastings is an area that is in need of a boost to restore its economic fortunes. The recent economic decline of the area has in part been the result of poor accessibility to rest of the South East. The infrastructure improvements as proposed in the Strategy will clearly result in a step change in the level of accessibility for, and within, the town which in combination with the other development initiatives will make a major contribution to urban renewal. Finally, the benefits outlined above are direct benefits arising from the impact of improved accessibility. Further knock-on indirect benefits may also arise through multiplier effects in the local economy.

7.4.8 Finally, a core consideration of the SoCoMMS strategy and a key issue within the GOMMMS framework is deliverability. This embodies fundability, affordability and wider stakeholder acceptance. Regeneration benefits will only be realised in practice from measures capable of being delivered.

## **8 Conclusions and Recommendations**

## 8 Conclusions and Recommendations

### 8.1

#### **Summary**

#### 8.1.1

The Hastings Strategy Development Plan has aimed to develop the elements of the SoCoMMS strategy within the Hastings and Bexhill urban area. The report has examined in greater detail the existing travel conditions in Hastings and undertaken comprehensive analysis towards forecasting how demand for travel will change by 2016. The strategy components have been developed with specific reference to Hastings and Bexhill and their contribution towards developing a successful strategy for the urban area has been examined. In particular, the Strategy has been assessed to determine its effect on urban regeneration.

#### 8.1.2

The Strategy elements recommended for Hastings are:

- the Bexhill Link Road;
- significant train service frequency enhancements, packaged as the 'East Coastway', including :
  - An express service between Southampton; and
  - Improved local rail service between Brighton and Ashford, with two new stations (St Leonards West Marina and Glyne Gap);
- improved local bus services, including Quality Bus Corridors and Quality Bus Partnerships;
- measures to encourage walking;
- development of initiatives to encourage corporate travel plans;
- adoption of school travel plans and comprehensive primary and secondary school travel policy; and
- increased investment to support local and public transport measures.

### 8.2

#### **Highways**

#### 8.2.1

In the 2016 Do-minimum situation, there will be a significant increase in traffic flows on all roads in Bexhill and Hastings, compared with the base year. Traffic is expected to grow by up to 30% from 1999 levels, assuming development of greenfield sites. After allowing for the ameliorating effects of other elements of the SoCoMMS strategy reducing highway demand by 10%, this increase is expected to be a maximum of 17%, in a central demand scenario. This level of traffic cannot be accommodated on the existing road network.

8.2.2 The increase in traffic on some of these roads, including The Ridge and Gillsman's Hill, are likely to cause considerable disbenefit to local activity and the human environment. Traffic restraint and mode shift measures introduced as part of the SoCoMMS strategy will ameliorate this increase in part. The model does not predict that the Bexhill Link Road will cause a significant reassignment of traffic on The Ridge and Gillsman's Hill, although this is intuitively likely to be the case.

8.2.3 Based on model analyses using the Five Point Plan model demand scenario, it is recommended that the Bexhill Link Road should be included in the SoCoMMS strategy. This recommendation is robust for all land use demand scenarios tested. Advantages of the Bexhill Link Road include:

- Improvements in local accessibility between Bexhill and Hastings with better communications between Bexhill and NW Hastings (District hospital).
- Use of Bexhill Link Road as a Quality Bus corridor will increase accessibility for non-car users, contributing to urban regeneration initiatives.
- Improvements in strategic accessibility between Bexhill and A21 and re-routing of traffic from unsuitable rural roads;
- Re-instatement of suppressed trips contributing to greater economic benefits.
- A reduction in accidents along Bexhill Road.
- Improvements to the human environment (noise and air quality) along Bexhill Road and Harley Shute Road, through a reduction in traffic levels.

8.2.4 Disadvantages of the Bexhill Link Road are:

- Impact on the physical environment- Although the alignment of the Bexhill Link Road would avoid passing through AONB and SSSI land, it would run along the boundary of Combe Haven SSSI designated area and have an adverse effect on the physical environment.
- Possible adverse environmental impact due to routing of traffic along unsuitable roads in Hastings (although these effects are not predicted by the assignment model).

8.2.5 The analysis of the economic benefits of building the Bexhill Link Road has been based on land use assumptions that take into account windfall, proposed brownfield site completions and developments arising from the Hastings and

Bexhill Five Point Plan. The estimated benefit is likely to be conservative. This is because no adjustment was made in the central scenario to reflect increased trip-making behaviour arising from the urban regeneration initiatives inherent in the Plan. Traffic forecasts have not been factored to reflect higher increases in National Road Traffic Forecasts (NRTF). The estimated NPV of the Bexhill Link Road is £26.5 million (1998 prices discounted to 1998 values), compared to the forecast situation incorporating all other Strategy elements; rail, bus, parking restraint and soft measures. Additional benefits from the regeneration impacts of the scheme could add up to 20% to this value.

#### 8.2.6

Despite the environmental disbenefits, the Bexhill Link Road is an important component of the Strategy in Hastings. Analysis has shown that the bottleneck along Bexhill Road between Glyne Gap and Harley Shute Road will worsen considerably over time as traffic flows increase; giving rise to continuing decline in the human environment along this road. Local public transport and 'soft measures' will have only a limited effect in ameliorating traffic congestion along Bexhill Road. On-line improvements will not resolve the problem in the long term, without comprehensive destruction of existing buildings, which will have additional impact on the human and physical environment in this location. The Link Road will provide local and, potentially, strategic economic and accessibility benefits. As land use developments in North Bexhill cannot be accommodated without increased highway capacity, the Link Road also addresses wider economic regeneration issues.

#### 8.2.7

The analysis undertaken in this study indicates that the Bexhill Link Road should have the character of a local distributor road, with at-grade junctions providing links with the existing road network. A wide single carriageway is recommended to enable a segregated cycle-way to be accommodated. It should support a Quality Bus corridor to facilitate improvements in the local bus service between Hastings and Bexhill, which is a major weakness in the present system. In this way the Link Road would provide more diverse benefits to the community. As far as possible, the construction of the Link Road should be carried out in such a way to limit impact on the physical environment.

#### 8.2.8

The Hastings Strategy Development report has not specifically addressed the issue of improving road access from the north, from Tonbridge to Pembury and South of Pembury, as recommended by the Access to Hastings Study, and approved by the Minister for Transport. Feasibility work into these schemes is already being undertaken by the Highways Agency and is considered to be beyond the remit of

the Study, which is looking at improving transport communications along the South Coast corridor. The Hastings Strategy Development Plan has, however, investigated improving strategic access to the A21 in North Hastings, with the Link Road to A21 extension.

8.2.9

From a strategic regeneration perspective, there is a strong case to improve access from The Ridge/Queensway to the A21. This should be considered within the context of the proposals being developed for A21 by the Highways Agency. However, the current SATURN model used does not allow conclusive recommendation on the extent to which the specific improvement tested is required. Further modelling analyses need to be carried out in this respect. The proposed extension would run through AONB land. The traffic demands for this movement will increase if the Greenfield developments north of Bexhill are realised. It is worth considering as a mechanism for improving the accessibility of proposed housing and employment areas in North Bexhill to the strategic highway network. The Link Road extension could also provide a means for introducing better traffic management opportunities in the A21/ The Ridge area. Analysis in this study has shown that a more comprehensive Bexhill Bypass does not provide additional benefits at Glyne Gap, compared with the Bexhill Link Road and is not justified.

8.3

### ***Rail***

8.3.1

Hastings is the focus for the SoCoMMS 'East Coastway' rail strategy. Major rail improvements are recommended, including:

- major upgrading of the line to Ashford, with two new fast services each hour;
- a regional express service, serving all existing Hastings stations, with onwards limited stops to other major coastway destinations;
- five trains per hour stopping at Ore, Hastings, St Leonards Warrior Square, Bexhill and Eastbourne, providing a metro-style service through a conurbation of around ¼ million people.; and
- two new stations at St Leonards West Marina and Glyne Gap.

8.4

### ***Local Public Transport***

8.4.1

Similarly, adequate funding and resources will be instrumental to the deliverability of local public transport improvements. The study recommends:

- improvement in local bus services, including service frequencies and integration with local rail stations;
- completion and development of ‘Quality Bus corridors’, including Bexhill Link Road;
- strengthened ‘quality bus partnership’ between East Sussex County Council/ Hastings Borough Council and bus operator.

8.4.2 Local bus fares need to be lower than in other towns on the South Coast corridor, to facilitate affordability from non-car owning households in the poorer areas of Hastings. Fare structures must be simple, easily understandable and ticketing integrated with local rail services.

8.4.3 It is recommended that local public transport measures to serve the proposed Millenium Community developments along the Hastings railway line should focus on enhanced local rail service, with an integrated bus service, linking the communities to key land uses in North and West Hastings.

#### 8.5 ***Corporate and School Travel Plans***

8.5.1 The local authorities actively encourage the development of Corporate and School travel plans. Corporate travel plans should be a fundamental component of all major land use planning proposals, including those proposed in the Hastings and Bexhill Five point Plan. However, deliverability of these measures is dependent on adequate funding and resources for such initiatives and it is thus important that these are made available. Funding is also needed to encourage the development of a comprehensive school travel policy as recommended in the 2001 TRL study.

#### 8.6 ***Regeneration***

8.6.1 Hastings is an area that is in need of a boost to restore its economic fortunes. The recent economic decline of the area has in part been the result of poor accessibility to rest of the South East. The infrastructure improvements as proposed in the Strategy will result in a step change in the level of accessibility for the town which in combination with the other development initiatives will make a major contribution to urban renewal. There will be direct benefits arising from the impact of improved accessibility. Further knock-on indirect benefits may also arise through multiplier effects in the local economy.



**Appendix B: Trip Rate Assumptions**

	Central		High		Calculation factor
	0800-0900 Arrivals	0800-0900 Departures	0800-0900 Arrivals	0800-0900 Departures	
Households	0.120	0.440	0.290	0.763	per household
College	0.112	0.016	0.112	0.016	per student
Employment Sites	0.230	0.260	0.864	0.176	per employee

Source: Central: Trics 4.7 (Adjusted for college)  
 High: Access to Hastings (WS Atkins)

**Appendix C: Land Use Development Assumptions for Hastings and Rother**

	Hastings Housing	Employees	College (Students)	Rother Housing	Employees	Pebsham Country Park
Background and Unidentified Small Site Developments	1540			348		
Development on Existing Urban Sites (Brownfield)	1996	1209		2301	516	
Development Assumptions in Five Point Plan	800		2000	0	4375	*
Development on Undeveloped Land (Greenfield)	344	750		1722	3850	

Assume 1 worker per 32 m2