



Whitehill & Bordon Eco-town
Traffic Management Strategy
Hampshire County Council

February 2013

QM

Issue/revision	Revision 1	Revision 2	Revision 3	Revision 4
Remarks	SECOND DRAFT	FINAL DRAFT	FINAL REPORT	FINAL REPORT
Date	16/03/12	13/04/12	17/09/2012	19/02/2013
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Project number	11581409	11581409	11581409	11581409
File reference	J:\11581407 - Whitehill Bordon - Traffic Management Study\TEXT\REPORTS\Whitehill & Bordon Eco-town TM Strategy - February 2013			

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Executive Summary

The aim of this study is to develop a Traffic Management Strategy that will provide practical and deliverable strategies for the implementation of physical and softer measures to reduce the impact of the Eco-town proposals on local villages and communities, and to discourage the use by traffic of inappropriate routes.

It should be noted that this Strategy aims to address long-term Traffic Management issues on the local highway network due to the future development of the proposed Eco-town. Therefore, before implementation of the Eco-town, measures may be introduced by the highway authority in the short-term which help to ameliorate the local concerns highlighted in this study. Taking this into account, Town and Parish Councils should continue to discuss their issues and the resolution of these with HCC in the intervening period.

The Eco-town aims to deliver a development of 4,000 new homes along with a new town centre that provides commercial floorspace and retail development to support the town, along with 5,500 new jobs.

Data has been collected from a wide range of sources, all of which form an essential part of understanding the characteristics of the local highway network. These include an initial desk based study, numerous site visits, accident and traffic flow data provided by Hampshire County Council and local consultation with Town and Parish Councils likely to be affected by the development of the Eco-town. This allowed for a detailed understanding of local traffic issues on the highway network surrounding the proposed Eco-town.

A number of key corridors or areas have been identified for assessment following this initial review of background data. These corridors were then assessed against a matrix of Traffic Management measures which considered what schemes could be implemented, how issues could be solved and what schemes were or were not appropriate for the local surroundings.

From this matrix a proposed Traffic Management Strategy has been developed for each corridor or area, which aims to solve local issues, primarily to direct traffic onto more appropriate roads. Estimated costs of implementing these strategies have also been provided.

The strategies have identified the need to ensure that traffic remains on the most suitable routes, which is primarily the strategic route network (A and B roads); on these routes the Strategy aims to mitigate the potential impact of the development by addressing locally identified issues and those identified through an independent review of likely impact.

On routes that are currently, and will in the future be deemed as unsuitable, the proposed Strategy intends to deter traffic from using these routes, through more direct measures such as speed reducing features and more permanent measures such as one-way streets and road closures.

In formulating these strategies, the importance of local engagement is recognised, and therefore certain measures (such as village treatments and enhanced gateways) can only be finalised with further consultation with Town and Parish Councils. Further to this, each Town and Parish Council has been consulted on the draft traffic management strategy. As a result the proposals contained in this report, where applicable, take account of feedback received from public consultation.

In all of the above the Strategy has tried to retain the character of each settlement/village in the study area, together with measures that not only help to mitigate the impact of the Eco-Town proposals but also to improve their area such as in environmental improvements, safety improvements and by addressing severance issues.

1 Preamble and Background

1.1 INTRODUCTION

1.1.1 WSP has been commissioned by Hampshire County Council (HCC) to complete a Traffic Management Strategy for villages and key local routes surrounding the proposed Whitehill & Bordon Eco-town.

1.2 BACKGROUND

1.2.1 Whitehill & Bordon is one of four towns in England which has been designated as an Eco-town. The Eco-town project has been given government funding to deliver a sustainable and exemplary development. The vision is for whole town regeneration of the existing housing, much improved new facilities, a new town centre, more employment and approximately 4,000 new homes.

1.2.2 An Emerging Transport Strategy sets out a framework for the future Whitehill & Bordon transport system that will provide for the needs of the future population and will enhance the viability of the town. It aims to support population growth and reduce the negative aspects of existing car-dominated travel patterns. This Strategy recognises the need to produce a Traffic Management Strategy that will *“consider possible improvements and strategy approaches to reducing the traffic impact that may arise on local villages and communities.”*

1.3 OBJECTIVES OF TRAFFIC MANAGEMENT STRATEGY

1.3.1 The aim of this study is to develop a Traffic Management Strategy that will provide practical and deliverable strategies for the implementation of physical and softer measures designed to reduce the traffic impact of the Eco-town proposals on local villages and communities, and to discourage the use of inappropriate traffic routes.

1.3.2 It should be noted that this Strategy aims to address long-term Traffic Management issues on the local highway network due to the future development of the proposed Eco-town. Therefore, before implementation of the Eco-town, measures may be introduced by the highway authority in the short-term which help to ameliorate the local concerns highlighted in this study. Taking this into account, Town and Parish Councils should continue to discuss their issues and the resolution of these with HCC in the intervening period.

1.4 METHODOLOGY

1.4.1 The methodology for developing a Traffic Management Strategy is based upon the need to gain an in depth understanding of local transport issues and traffic behaviour along routes and villages surrounding the proposed Eco-town, then reconcile these against potential Traffic Management measures which will help resolve such issues. As a result, this study has followed a four stage approach:

- Stage One – Gather information on the character and context of routes and villages, the speed of traffic and existing accident records through desk based research and information supplied by HCC.
- Stage Two – Using the information gathered in Stage 1 as a starting point for discussion; arrange consultation meetings with local town and parish councils to further discuss local transport issues and traffic behaviour on routes and villages surrounding the proposed Eco-town.
- Stage Three – Identify potential traffic management measures and assess the benefits of installing such measures.

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- Stage Four – Propose a Traffic Management Strategy incorporating measures that will help resolve existing and future transport and traffic issues.
 - Stage Five – Conduct a further local consultation on each proposed Traffic Management Strategy and report feedback.

1.5 REPORT STRUCTURE

1.5.1 This report is set out in the following structure:

- Chapter Two reviews the national, regional and local policy and guidance relating to the consideration, design and implementation of Traffic Management schemes;
- Chapter Three reviews the specific Eco-town transport studies which have been undertaken to-date that feed into the development of the Transport Management Strategy;
- The methods of data collection are detailed in Chapter Four;
- Chapter Five details the consultation meetings held with Parish and Town Councils which was used to identify and discuss local traffic and highway issues, and review the draft Traffic Management Strategies;
- The consultation responses from Town and Parish Councils is summarised in Chapter Six;
- Chapter Seven provides an evaluation of the Traffic Management measures available for each local situation;
- The proposed Strategy for each corridor is shown in Chapter Eight; and
- Chapter Nine follows on from these proposals by discussing the second stage of consultation.

1.5.2 Please note that all figures and drawings discussed within this report can be found at the end of the document, with the exception of Figure 1 contained in Chapter Four.

2 National and Local Policy Context

2.1 INTRODUCTION

2.1.1 This section provides a review of national, regional and local policy and guidance relating to the implementation of Traffic Management Schemes.

2.2 NATIONAL POLICY AND GUIDANCE

MANUAL FOR STREET 1 & 2 (DFT, 2007 AND 2010)

2.2.1 Manual for Streets primarily sets out design, construction, adoption and maintenance of new residential streets but is also applicable to existing residential streets subject to re-design. The document recognises the need for designers to place a high priority on meeting the needs of pedestrians, cyclists and public transport users and that increased consideration should be given to the 'place' function of streets. This is relevant in the design of any Traffic Management schemes.

2.2.2 Manual for Streets 2 builds on the guidance contained in MfS 1, exploring in greater detail how and where its key principles can be applied to busier streets and non-trunk roads.

TRAFFIC IN VILLAGES: SAFETY AND CIVILITY FOR RURAL ROADS – A TOOLKIT FOR COMMUNITIES (DORSET AONB PARTNERSHIP, 2011)

2.2.3 The traffic in villages toolkit (a best practice guidance for Dorset County Council) aims to provide advice and information on the range of Traffic Management measures and initiatives available to parish councils and community groups. The document, produced by Dorset AONB Partnership, builds on a number of pilot projects around the UK (including Buriton in Hampshire) and focuses on the importance of community engagement being at the heart of addressing rural transport issues.

2.2.4 The document notes that reducing speeds and minimising the adverse effects of traffic involves integrating the design and management of streets and village spaces with the special qualities of place. It also calls for new skills in partnership working and a combination of professional skills in engineering, urban design, planning and landscape architecture to reconsider conventional highway measures.

LOCAL TRANSPORT NOTE 1/11 – SHARED SPACE (DFT, 2011)

2.2.5 This document considers the use of 'shared space', which is a design approach that changes the way streets operate by reducing the dominance of motor vehicles through lower speeds and encouraging drivers to behave more accommodatingly towards pedestrians.

LOCAL TRANSPORT NOTE 1/08 – TRAFFIC MANAGEMENT AND STREETScape (DFT, 2008)

2.2.6 LTN 1/08 considers the general principles of good design, especially in regards to minimising the various traffic signs, road markings and street furniture associated with Traffic Management schemes. The documents states that Traffic Management schemes must satisfy regulatory requirements, meet functional objectives, provide clarity and safe movement for all road users but also consider and provide visual quality of the streetscape.

LOCAL TRANSPORT NOTE 1/07 – TRAFFIC CALMING (DfT, 2007)

2.2.7 This document, commissioned by the Department for Transport, brings together in one document a summary of the research commissioned by the DfT together with research from external sources, to provide advice on the use of traffic calming measures. The document states that when preparing Traffic Management schemes for rural locations and villages the following points should be considered:

- comprehensive measures are required throughout the village if significant speed reductions are to be obtained;
- entrance treatment (gateways) at villages can reduce speeds in their vicinity by up to 10 mph, but for reductions to be maintained in the village, additional measures need to be used;
- the amount of speed reduction broadly mirrors the type of scheme: simple gateway signing and marking provides small reductions, while gateways comprising very striking visual measures or physical measures produce greater benefits;
- the level of speed reduction, following the installation of a traffic calming scheme on a main road, is likely to be affected by the pre-existing speed limit, the magnitude of the 'before' speeds, the new speed limit and the traffic calming measures used;
- conspicuous traffic signing and road marking measures can bring about large speed reductions (up to 15 mph) at entries to villages on trunk roads, when used together for high visual impact. Repeated use through the village can also reduce speeds, but is unlikely to achieve 85th percentile speeds below the posted speed limit;
- if the spacing of measures is too great, any speed reduction is localised; and
- residents are unlikely to be satisfied with schemes that do not achieve their expectations of reducing speeds below the new/retained speed limit, and it is important not to raise their hopes unrealistically.

TRAFFIC ADVISORY LEAFLET 1/04 – VILLAGE SPEED LIMITS (DfT, 2004)

2.2.8 Traffic Advisory Leaflet 1/04 seeks to give examples of traffic calming measures available to encourage compliance with 30mph speed limits in villages. The document contains advice on the sighting of speed limits.

TRAFFIC ADVISORY LEAFLET 1/00 – TRAFFIC CALMING IN VILLAGES ON MAJOR ROADS (DfT, 2000)

2.2.9 This document provides a summary of research undertaken by TRL to monitor and report on comprehensive traffic calming schemes installed in villages, particularly on major roads. The overall objective of the project was to understand if traffic calming schemes could be designed that would reduce the 85th percentile speed of vehicles to no more than the relevant speed limit at each location.

2.2.10 A total of nine schemes were monitored, all of which contained a range of Traffic Management measures discussed in the review of LTN 1/07. In summary, this study found the following results:

- Where gateways were installed (village entrance treatments) there was a reduction in inbound speeds at all but one site of between 3-13mph for mean speeds and up to 15mph for 85th percentile speeds;
- The largest reduction in speed at the various gateways, relative to the magnitude of speeds prior to implementation, occurred at narrowed entries to a 20mph zone;
- At a site where the gateway was less conspicuous (to fit in with the location) the speed reductions were less than sites with bolder signs;
- In regards to speed of traffic within the villages, the mean speed reduced by between 2-12mph and the 85th percentile speed up to 14mph with the traffic calming in place;
- Physical traffic calming features within the village resulted in speed reductions of between 7mph and 12mph;
- The introduction of speed cameras introduced after traffic calming reduced traffic speeds by no more than 2mph; and
- A series of refuges, linked by central hatching reduced traffic speeds by only 2-3mph.

TRAFFIC ADVISORY LEAFLET 11/00 – VILLAGE TRAFFIC CALMING – REDUCING ACCIDENTS (DFT, 2000)

2.2.11 This document assessed the effect on accidents of traffic calming measures in 56 villages. Most villages were subject to a 30mph or 40mph speed limit and were split into three categories containing various levels of traffic calming measures, from simple road markings to gateways and other vertical or horizontal deflection measures.

2.2.12 It showed that the frequency of killed or seriously injured severity accidents decreased between 40% and 57% as a result of the traffic calming techniques and all severity accidents reduced by between 15% and 25%. Other key findings were that:

- a 1mph reduction in mean speed would result in a 4.3% reduction in all injury accidents and a 10% reduction in all KSI accidents;
- schemes with physical measures would reduce mean speeds by almost 30%; and
- the most substantial measures would be the most effective in terms of speed reduction and accident reduction.

TRAFFIC ADVISORY LEAFLET 1/94 – VILLAGE SPEED CONTROL GROUP – A SUMMARY (DFT, 1994)

2.2.13 This document summaries the key finding of the Village Speed Control Work Group (VISP) report. The report monitored 24 villages where traffic calming had been installed and differentiated between villages with only gateway features, villages with only traffic calming measures within the village and villages that had measures on approaches and within the village.

2.3 REGIONAL POLICY

THE SOUTH-EAST PLAN – REGIONAL SPATIAL STRATEGY FOR THE SOUTH EAST (2010)

2.3.1 Although the Government intends to abolish the regional tier of planning and revoke the South East Plan under powers contained in the Localism Act 2012, the

document remains as part of the development plan until abolished by Order (expected in spring 2012).

2.3.2 Contained within the South East Plan is the Regional Transport Strategy (RTS), which sets out the long-term regional framework for the development of the transport system in the region. Although there are no specific policies in the RTS relating to Traffic Management T1 and T7 are appropriate to this study.

2.3.3 Policy T1: Manage and Invest require local development documents to ensure that their management policies and proposals:

- include measures that reduce the overall number of road casualties; and
- include measures to minimise negative environmental impacts of transport and, where possible, to enhance the environment and communities through such interventions.

2.3.4 Policy T7: Rural Transport directs local transport plans, amongst others, to:

- include a rural dimension to transport and Traffic Management policies, including looking for opportunities to improve provision for cyclists and pedestrians between towns and their nearest villages.

2.4 LOCAL POLICY

HAMPSHIRE COUNTY COUNCIL LOCAL TRANSPORT PLAN 2011 TO 2031 (2011)

2.4.1 The Hampshire LTP sets out the long-term vision for how the transport network in Hampshire will be developed over the next 20 years. It will help realise HCC's vision of *"safe, efficient and reliable ways to a get around a prospering and sustainable Hampshire."*

2.4.2 The LTP contains a specific Transport Strategy for Central Hampshire, which includes the Whitehill & Bordon study area. It is noted that as a result of anticipated levels of housing and employment growth, it is essential that management, protection and mitigation measures are introduced to ensure that traffic does not lead to a significant damage to the quality of life of rural communities within the area.

2.5 SUMMARY

2.5.1 The key points from the policy review undertaken in this section are as follows:

- Community engagement is vitally important to the acceptability of local Traffic Management schemes;
- A single approach cannot be employed across a variety of locations due to need to consider individual local characteristics of each area;
- For Traffic Management measures to be successful they should be highly visible, consistent and regularly spaced to be effective; and
- The success of village entrance treatments (gateway schemes) can be enhanced through the implementation of further Traffic Management measures in the village itself.

3 Eco-town Proposals

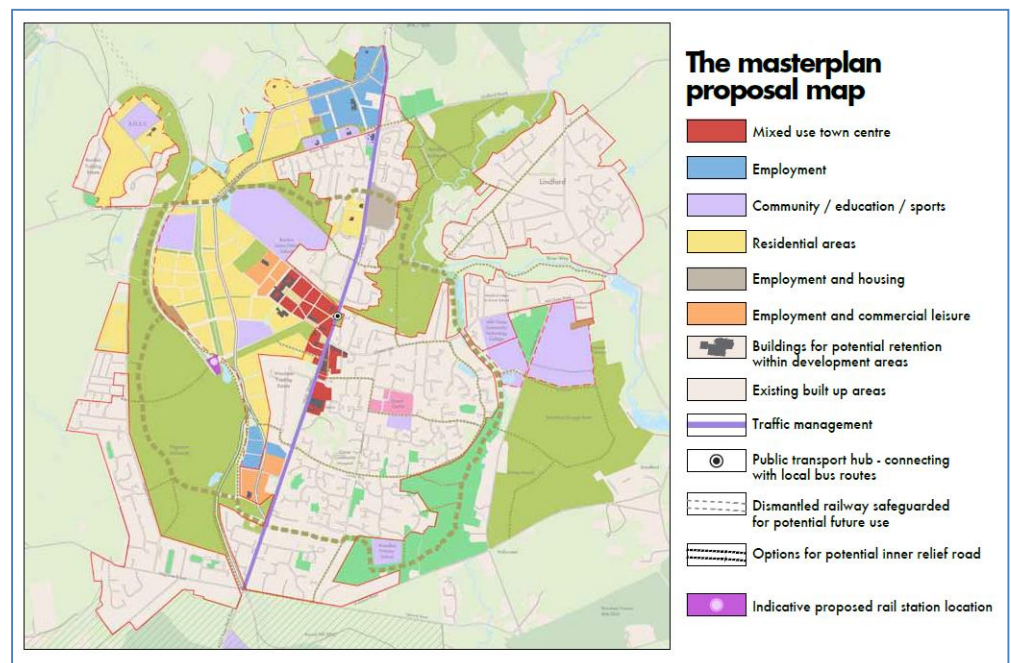
3.1 INTRODUCTION

3.1.1 This section provides a summary of the latest Eco-town proposals including the 2012 Masterplan and Emerging Transport Strategy.

3.2 ECO-TOWN MASTERPLAN (2012)

3.2.1 The vision for Whitehill & Bordon Eco-town will put the outstanding natural environment at the heart of the regeneration with new facilities, leisure opportunities, jobs, education, infrastructure and housing provided to enhance this unique area and create a model sustainable community. The Eco-town aims to deliver a development of 4,000 new homes along with a new town centre that provides commercial floorspace and retail development to support the town, along with 5,500 new jobs.

Diagram 2.1 – The proposed Masterplan (2012)



3.2.2 In summary, the 2012 Masterplan proposes:

- a new mixed-use town centre at a location linking Prince Phillip Barracks to the existing shops on the High Street and Chalet Hill, with around 50,000sqm of mixed retail and commercial floorspace;
- two new primary schools and a new secondary school;
- skills training and further education facilities through the expansion of Mill Chase Community Technology College;
- sites for new commercial leisure facilities;
- around 4,000 new homes within identified new residential neighbourhoods and the town centre;
- a public sports hub with leisure centre and pitches;
- local health care and emergency services;

- around 70,000sqm of commercial floorspace and opportunities across the masterplan for the creation of at least 5,500 new jobs;
- around 90 hectares of new public green-spaces which provide Suitable Accessible Natural Green-space (SANG) to mitigate against human impacts on nearby European protected species and habitats;
- a central public transport hub supported by a three-tier bus strategy providing services at town, local and regional level;
- construction of an inner relief road within Whitehill & Bordon, offering an alternative route for through traffic and removing non-local traffic from the town centre;
- retrofitting of existing homes and businesses to improve energy efficiency and reduce utility bills; and
- a biomass powered combined heat and power plant (CHP), expanded recycling centre and community 'swap-shop'.

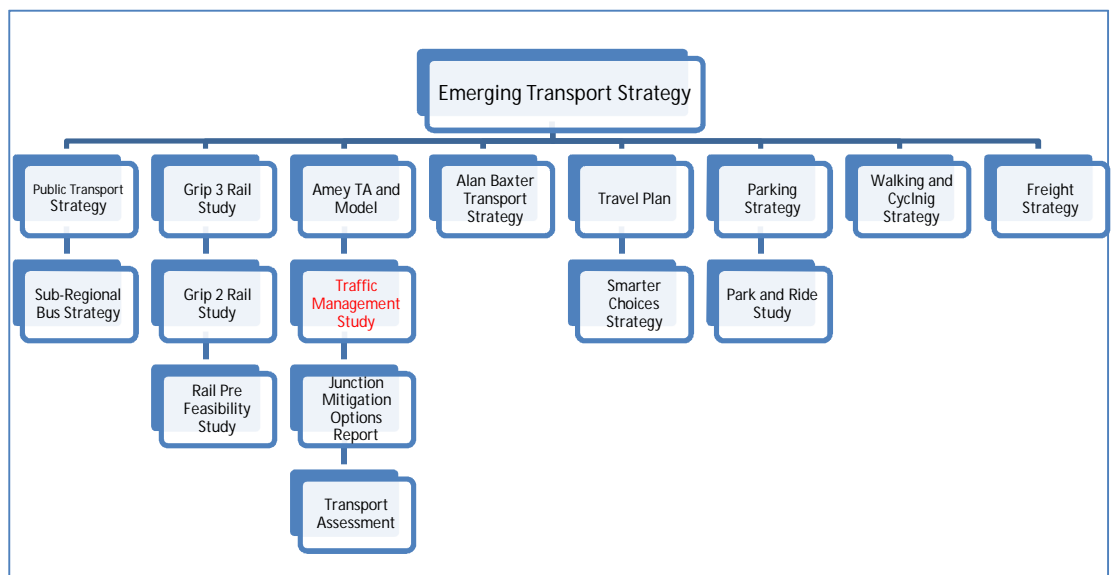
3.2.3 The implementation of proposals contained within the masterplan are driven by timing of the MoD withdrawal from the site, which has been confirmed as 2015. The development proposals will be split into four stages and development is anticipated to be completed between 2029 and 2033.

3.3 EMERGING TRANSPORT STRATEGY (SEPTEMBER 2011)

3.3.1 The Emerging Transport Strategy sets out a framework for the future Whitehill & Bordon transport system that will provide for the needs of the future population and will enhance the viability of the town. It aims to support population growth and reduce the negative aspects of existing car-dominated travel patterns.

3.3.2 The document brings together the findings of a number of completed transport studies and provides direction and a policy approach to the future development and implementation of the transport strategy in Whitehill & Bordon. The diagram below shows how the current and future planned study and strategy work informs the Emerging Transport Strategy.

Diagram 2.2 – Eco-town Transport Documents



3.3.3 The Transport Strategy for Whitehill & Bordon seeks to align with local and national policy, but also to challenge and innovate the way in which transport demand is managed and infrastructure and services are provided. There are three overarching themes for the emerging Transport Strategy; as follows:

- **Reducing the need to travel outside the town** – By providing the appropriate jobs and facilities within the town itself, travel to surrounding towns and service centres can be significantly replaced by more local journeys and trip lengths reduced. Minimising both the number and length of trips will provide positive benefits to the operation of the local roads and to the environment.
- **Managing car demand within and outside to the town** – While acknowledging that the car will play an important role in the operation of the future town, pro-active management of car trips within and external to the town can minimise the negative impacts of car travel, and appropriately mitigate and overcome adverse implications of car use.
- **Enabling sustainable transport for all trips** – Transport within the town will be reprioritised away from the car and towards high quality public transport systems and walking and cycling, which will provide and enable easy and safe access to facilities and jobs. New approaches to sustainable transport will be employed to promote a shift away from the private car.

3.3.4 Development of the Eco-town will provide for the delivery of targeted local transport network improvements to improve the management and efficiency of the local transport network. Where necessary increased capacity will be provided to ensure that there are no significant detrimental impacts to the safety and operation of the local transport network associated with the development proposals. Targeted improvements will be phased with development and will include:

- engineering measures within local villages and on key routes to discourage inappropriate traffic usage;
- junction improvements to, where necessary, improve capacity and operation;
- intelligent traffic signals improvements to better manage the transport network and safety improvements to reduce the risk of accidents; and
- to provide for all modes of travel to safely use the transport network.

3.3.5 In order to implement such improvements the Emerging Transport Strategy recognises the need to produce a Traffic Management Strategy that will ***“consider possible improvements and strategy approaches to reducing the traffic impact that may arise on local villages and communities.”***

3.3.6 The Transport Strategy also notes that a number of local settlements will experience an increase in traffic as a result of the Eco-town development, particularly Bentley, Blacknest, Oakhanger, Greatham, Lindford and Wrecclesham.

3.4 TRANSPORT ASSESSMENT

3.4.1 Amey Consulting were commissioned by HCC to undertake a Transport Assessment (TA), using a Traffic Model produced by MVA Consultancy. The TA assessed the impacts of the development for the proposed opening year of 2026 and future year of 2036. As part of this study, a range of alternative scenarios and iterations were considered, with the preferred Masterplan (scenario 3) summarised as:

- Option 1 (Masterplan) – 4,000 residential dwellings and employment space to support 5,500 jobs;
- 50% car mode share (as required by national Eco-town guidance) and 50% trip containment; and
- A325 Traffic Management – assumes the implementation of Traffic Management measures along the A325 in the town centre to reduce speeds and to encourage the perception of the A325 as a less attractive route for through traffic.

3.4.2 An assessment of each scenario was then completed on a number of key junctions and links within and surrounding Whitehill & Bordon. The key junctions identified include all major junctions along the A325, all connections to the strategic road network and other important junctions on the local network.

3.4.3 In addition to the junction assessments, analysis of increased traffic flow, journey time and traffic volumes were completed for key links within the study area. The impact on peak hour link flow (taken directly from the Amey TA) is shown in Table 3.1 below, and has been used to inform the study area for this Traffic Management project. Scenario 3, as shown in Table 3.1, refers to the preferred Masterplan for the Eco-town as described in paragraph 3.4.1.

Table 3.1 Eco-town Peak Hour Link Flow Impact

Village	Road	Location	2026 AM Peak Baseline Traffic Flow	2026 AM Baseline plus Eco- town Traffic Flow	2026 PM Peak Baseline Traffic Flow	2026 PM Baseline plus Eco- town Traffic Flow
Blacknest	Blacknest Rd NB	Between Frith End Rd and Isington Rd	42	215	9	10
	Blacknest Rd SB		29	201	32	36
Bentley	London Rd EB	Between Hole Lane and School Lane	55	228	9	10
	London Rd WB		23	197	22	27
Blackmoor	Drift Rd EB	Between Blackmoor Rd and bus stop	86	107	35	36
	Drift Rd WB		100	102	55	55
East Worldham	B3004 EB	Between Pookies Lane and Blanket St	458	514	507	541
	B3004 WB		699	769	393	411
Greatham	Petersfield Rd NB	Between A325 (Petersfield Rd) and Longmoor Rd	60	68	51	57
	Petersfield Rd SB		144	214	109	199
Headley	B3002 EB	Between The Paddock and High St	247	294	195	245
	B3002 WB		206	239	164	189
Kingsley	B3004 EB	Between Sickles Rd and Churchfields	141	165	200	192
	B3004 WB		216	238	181	140
Lindford	B3002 EB	Between High Street and Mill Lane	254	301	200	251
	B3002 WB		225	259	165	191
	B3004 NB	Between Chase Rd and Windsor Rd	466	523	289	287
	B3004 SB		255	341	530	578
Liphook	B2070 NB	Between Larch Close and B2131	378	391	175	185
	B2070 SB		199	242	236	232
	B2131 EB	Between B2070 and Midhurst Rd	289	293	181	190
	B2131 WB		233	243	244	253
	B2171 NB	Between B3004 and Tower Rd	178	194	80	86
	B2171 SB		59	100	74	65
	B3004 NB	Between B2171 and Post Office	199	242	236	232
	B3004 SB		378	391	175	185

Table 3.1 (Continued) Eco-town Peak Hour Link Flow Impact

Village	Road	Location	2026 AM Peak Baseline Traffic Flow	2026 AM Baseline plus Eco-town Traffic Flow	2026 PM Peak Baseline Traffic Flow	2026 PM Baseline plus Eco-town Traffic Flow
Oakhanger	Oakhanger Rd NB	Between junction labelled Oakhanger and Lions Field	339	481	117	195
	Oakhanger Rd SB		213	319	184	243
Passfield	B3004 NB	Between Hollywater Rd and Passfield Rd	247	292	294	284
	B3004 SB		492	512	269	282
	Hollywater Rd EB	Between Lynchborough and B3004	250	271	149	149
	Hollywater Rd WB		193	224	176	193
Selborne	B3006 NB	Between Huckers Lane and Gracious St	208	318	120	92
	B3006 SB		370	364	341	289
Standford	B3004 NB	Between Tulls Lane and Whitehill Rd	286	283	326	286
	B3004 SB		366	388	275	282
	Standford Hill EB	Between Whitehill Rd and B3004	110	111	33	22
	Standford Hill WB		39	64	56	41
	Whitehill Rd EB	Between Private Drive and B3004	217	215	211	197
	Whitehill Rd WB		180	196	133	129
Wrecclesham	A325 NB	Between Weydon Lane and School Hill	929	950	837	966
	A325 SB		916	1101	1295	1464
	B3384 EB	Between School Hill and A325	186	201	121	110
	B3384 WB		140	148	186	194

3.4.4 From the results shown in the Amey TA, the following trends are apparent:

- **Blacknest and Bentley** experience an increase in traffic flow in the AM peak and a very small increase in the PM peak;
- **Blackmoor** experiences an increase in traffic flows in the AM peak;
- **East Worldham** experiences an increase in traffic flows in the AM and PM peaks;
- **Greatham** experiences an increase in traffic flows during both the AM and PM peak scenarios;
- **Headley** experiences traffic flow increases in both peak periods. Given the proximity of the two villages, an increase in traffic is also likely to be experienced in **Grayshott**;
- **Kingsley** experiences an increase in traffic flows on the B3004 in the AM peak but decrease in traffic in the PM peak;
- **Lindford** experiences a small increase in traffic flows along the B3004 in the AM and PM peaks;

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- **Liphook** experiences a small increase in traffic flows through the village in the AM and PM peaks.
 - **Oakhanger** experiences an increase in traffic flows in both the AM and PM peak;
 - **Passfield** experiences an increase in traffic flows in the AM peak and PM peak.
 - **Standford** experiences an increase in traffic flows in the AM peak but a decrease in traffic in the PM peak;
 - **Selborne** experiences an increase in traffic flows during the AM peak but a decrease in the PM peak on the B3006; and
 - **Wrecclesham** is anticipated to experience an increase in traffic on the A325 in the AM and PM peaks.

3.5 JUNCTION MITIGATION REPORT

3.5.1 As part of the TA completed for the Eco-town the project group (East Hampshire District Council, HCC, Highways Agency and Surrey County Council) identified 20 key junctions for assessment. Of these, the TA has identified that 10 of these junctions will operate at or near capacity in the peak hours in 2026 with the development, as proposed, in place, namely:

- A31/B3001 Hickleys Corner;
- A31/A325 Coxbridge Roundabout;
- A325/School Hill Mini-roundabout;
- B3004/Paper Mill Lane Junction;
- A325/Tesco Access/Woolmer Way Junction;
- A3/B3006 Roundabout;
- A325/B3004 Junction;
- A325/Liphook Road/Firgrove Road Roundabout;
- A325/Petersfield Road Roundabout; and
- A325/A3 (Eastbound) Slips.

3.5.2 In addition, a further three key junctions would require a minimum of 50% car mode share and 50% trip containment to be achieved for the junctions to operate within capacity. These junctions are:

- B3004/Oakhanger Road Junction;
- A325/B3002 Station Road Junction; and
- B3006 Petersfield Road.

3.5.3 Further to these findings, a Junction Mitigation Options Report has been completed by Amey Consulting in 2011 which identifies potential improvement works for the junctions identified as being at or near capacity with development of the Eco-town. This report showed that the impact of the development can be mitigated through the implementation of the proposed junction improvements outlined in Table 3.2. These

mitigation measures will be considered as part of any future Traffic Management Strategy.

Table 3.2 – Proposed Junction Mitigation Works

Junction Location (Highway Authority Responsible)	Proposed Works	Communities Affected
A31/B3001 Hickleys Corner (SCC)	Signal junction improvement including provision of pedestrian footbridge	Bentley, Blacknest and Wrecclesham.
A31/A325 Coxbridge Roundabout (SCC)	Roundabout Improvement	Bentley, Blacknest and Wrecclesham.
A325/School Hill Mini-roundabout (SCC)	Replacement with Traffic signals	Bentley, Blacknest and Wrecclesham.
A325/B3004 Junction (HCC)	Signal junction improvement	Kingsley, East Worldham, Blackmoor and Oakhanger.
B3004/Paper Mill Lane Junction (HCC)	Replacement with double Mini-roundabout	Kingsley, East Worldham, Blackmoor and Oakhanger.
A325/Tesco Access/Woolmer Way Junction (HCC)	Implement MOVA	Whitehill & Bordon plus Passfield and Lindford indirectly.
A325/Liphook Road/Firgrove Road Roundabout (HCC)	Roundabout Improvement	Whitehill & Bordon plus Passfield and Lindford indirectly.
A325/Petersfield Road Roundabout (HCC)	Roundabout Improvement	Whitehill & Bordon plus Passfield and Lindford indirectly.
B3004/Oakhanger Road Junction (HCC)	Replacement with Traffic signals	Kingsley, East Worldham, Blackmoor and Oakhanger.
A325/B3002 Station Road (HCC)	Replacement with Roundabout	Whitehill & Bordon plus Passfield and Lindford indirectly.
B3006/Petersfield Road Junction (HCC)	Priority junction improvement	Greatham
A325/A3 (Eastbound) Slips (HA)	Roundabout Improvement	Greatham
A3/B3006 Roundabout (HA)	Roundabout Improvement	Greatham

3.6 SUMMARY

3.6.1 The documents outlined in this section represent the latest proposals for the Eco-town redevelopment and as such will be given due consideration in developing the Traffic Management Strategy.

4 Data Collection

4.1 INTRODUCTION

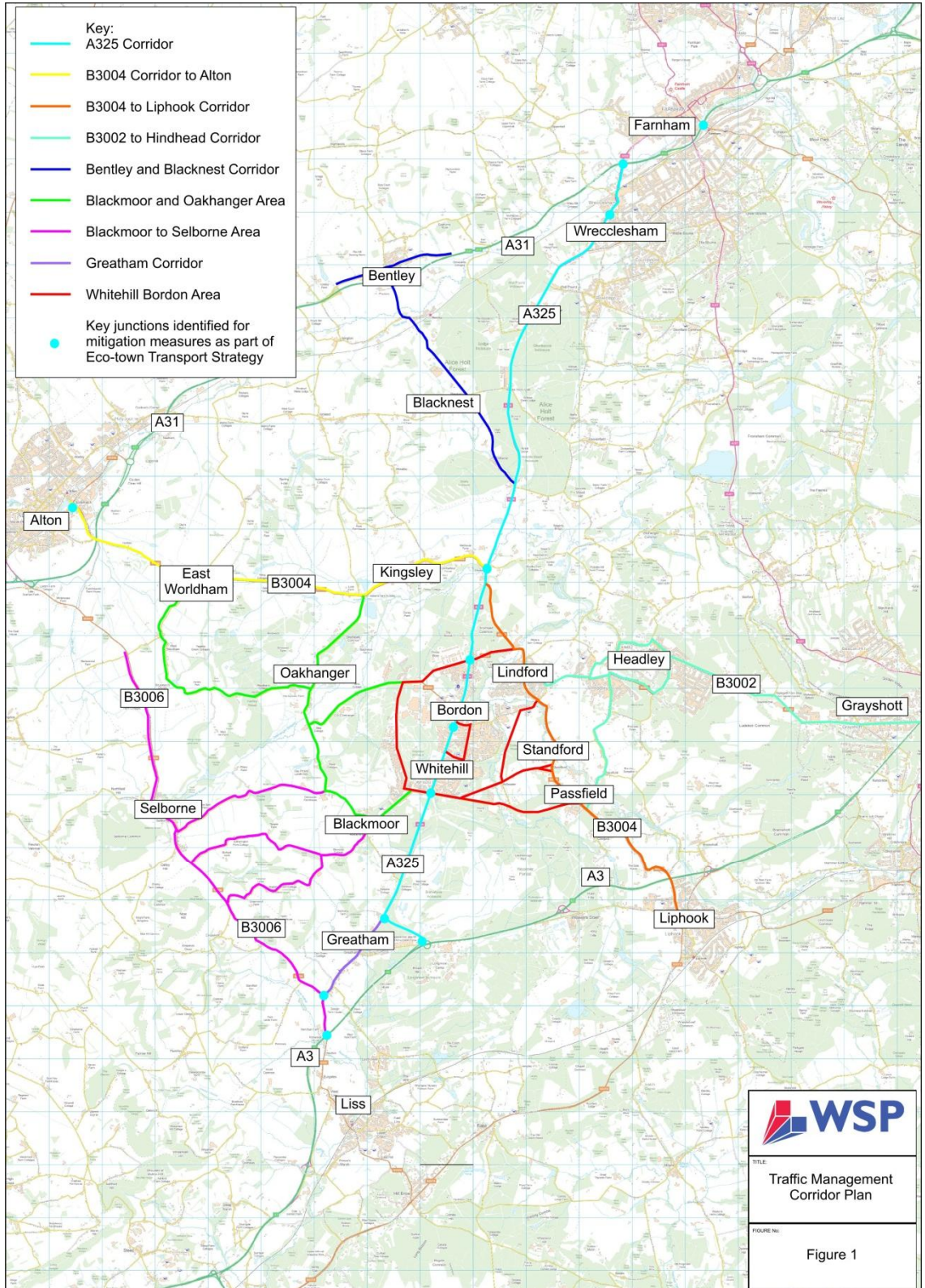
4.1.1 This section provides details of the data collection exercises completed to help inform the proposed Transport Management Strategy. Data has been collected from a wide range of sources, all of which form an essential part of understanding the characteristics of the local highway network.

4.1.2 Through analysis of this data, a number of key routes, corridors and areas have been identified linking Whitehill & Bordon to the surrounding area. As part of this data analysis, it became clear that certain routes or areas shared the same characteristics or concerns (e.g. traffic using unsuitable routes) and as such a corridor approach allows these to be considered in unison. These routes will be used in the description of issues, assessment of measures and formulation of Traffic Management strategies. These corridors are described below and shown graphically on Figure 1:

- **A325 Corridor:** The A325 between the A3 to the south and A31 to the north.
- **B3004 to Alton Corridor:** A route between the A325 and A31 / Alton. Traffic can join this route at the A325 / B3004 Sleaford Traffic Signals, Oakhanger Road (Kingsley) or Blanket Street (East Worldham).
- **B3004 to Liphook Corridor:** A north to south link along the B3004 from Lindford to Liphook.
- **B3002 to Hindhead Corridor:** A route along the B3002 linking Whitehill & Bordon to Hindhead.
- **Bentley and Blacknest Corridor:** Frith End Road to London Road linking the A325 to the A31, avoiding Wrecclesham.
- **Blackmoor and Oakhanger Area:** A route between Whitehill & Bordon and the B3004 via either Oakhanger Road or Blacknest Road.
- **Blackmoor to Selborne Area:** A route along either Sotherington Lane or Honey Lane to Selborne and the B3004.
- **Greatham Corridor:** A link from the A325 to the B3006 and A3 roundabout through Greatham.
- **Whitehill & Bordon Area:** The highway network through and surrounding Whitehill & Bordon, taking account of the area from Hogmoor Road to the west and Hollywater Road to the East. This does not include the A325, which is covered in the A325 Corridor.

4.1.3 In defining these corridors it should be stressed that this has been done only to help group and define existing concerns and potential traffic management measures. The definition of these corridors does not imply a strategy that will direct traffic to and from the Eco-town along these routes, except for the A325.

Figure 1 - Corridors Identified for Traffic Management Strategy



4.2 EXISTING CONDITIONS

4.2.1 An audit of each route has been undertaken, which utilised a range of information sources and helped build a detailed knowledge of each corridor. This audit combined the use of map data, numerous site visits and parish council websites and recorded information such as existing speed limits, Traffic Management measures, the context and character of each area and existing local concerns.

4.2.2 Further to this, video surveys were undertaken to document the existing Traffic Management measures present in each village. Through driving each route it was possible gain an appreciation of how each route operates in terms of traffic flow and behaviour and also recognise key characteristics of the area.

4.3 DATA PROVIDED BY HAMPSHIRE COUNTY COUNCIL

4.3.1 Various data has been supplied by HCC to further expand on the background data collated as part of the desk based study and site visits. These are discussed below.

PERSONAL INJURY ACCIDENT DATA

4.3.2 Personal Injury Accident data has been provided by Hampshire County Council for the most recent five year period (October 2006 to 2011) for the key highway corridors surrounding Whitehill & Bordon. This assessment has been undertaken using the routes and corridors identified in Section 4.1 and are summarised in Table 4.2. Locations of accidents are shown on relevant corridor plans (Figures 2 to 14).

Table 4.2 Personal Injury Accident Analysis

Location	Severity		
	Slight	Serious	Fatal
A325 Corridor	11	4	0
Bentley & Blacknest Corridor	8	1	0
B3004 to Alton Corridor	8	8	2
B3004 to Liphook Corridor	9	3	2
Whitehill & Bordon to Liphook	14	7	0
B3002 Headley	10	2	1
Blackmoor & Oakhanger Corridor	9	4	0
Blacknest to Selborne / B3004	10	1	0
Greatham Corridor	11	0	0
Whitehill & Bordon Area -Firgrove Rd to Station Rd	6	2	1
Whitehill & Bordon Area –Liphook Road to Hollywater Road	14	7	0

4.3.3 In addition to a review of accident data, the HCC Road Safety Team has provided additional road safety data in regards to existing accident cluster sites and future road safety schemes. This showed that the area surrounding the proposed Eco-town contains no identified cluster sites and as a result there are no road safety schemes planned.

TRAFFIC SPEED/VOLUME DATA

4.3.4 Traffic speed and volume data has also been provided by HCC for the highway network surrounding the proposed Eco-town. This data has been used in the assessment of each route and in development of the Traffic Management Strategy.

4.4 HCC TRAFFIC MANAGEMENT TEAM FEEDBACK AND HCC CAPITAL WORKS PROGRAMME

4.4.1 HCC has provided details of local Traffic Management issues and their future capital works programme for East Hampshire for review against the area surrounding the proposed Eco-town. This was reviewed to ensure that schemes have been considered in the development of the future Traffic Management Strategy. The following schemes are proposed in HCC's capital works programme.

B3004 LINDFORD TRAFFIC MANAGEMENT SCHEME

4.4.2 A traffic calming scheme in Lindford was completed in February 2012, which includes the provision of a raised table at the B3004 / Chase Road / Frensham Lane / Headley Road junction, provision of pinch points and road narrowing. This will help provide safer pedestrian access along the B3004 Liphook Road by promoting easier and safer access.

4.4.3 Lindford Parish Council has recently applied for a 20mph speed limit on the B3004 for the recently completed traffic calmed area. If successful this scheme will be implemented at some point in 2013.

A325 SPEED LIMIT REVIEW (2012/13 TO 2013/14)

4.4.4 As part of the countywide speed limit review, HCC has recently confirmed proposals to change the speed limit on sections of the A325 corridor as described below:

- A decrease in the speed limit from 60mph to 50mph from 180m north of Station Road to 140m south of B3004 (North of Whitehill & Bordon);
- An increase in the speed limit from 30mph to 50mph from 100m south of Firgrove Road roundabout to 260m south of roundabout (South of Whitehill & Bordon);
- A decrease in the speed limit from 60mph to 50mph from 260m south of Firgrove Road roundabout to 560m south of roundabout (South of Whitehill & Bordon);
- A decrease in the speed limit from 50mph to 40mph from 160m south of Binstead Road to 440m north of Binstead Road (Bucks Horn Oak); and
- A decrease in the speed limit from 50mph to 40mph from 50m south of Fullers Lane to 110m south of Fullers Lane (Holt Pound).

4.4.5 These proposals will be incorporated into Traffic Management proposals prepared as part of this study.

B3004 EAST WORLDHAM (2012)

4.4.6 This scheme has provided a pedestrian refuge island on the B3004, located close to the village hall in order to provide pedestrian crossing facilities to and from the residential properties to the north and south of the B3004.

B3004 STANDFORD LANE (2012/13)

4.4.7 This scheme involves the provision of a new footway link near the Robin Hood pub on Standford Lane. This will improve safety for pedestrians accessing the pub from local residential properties in Standford.

BLACKNEST ROAD, BINSTED & BENTLEY – WEIGHT LIMIT REVIEW (2011/12)

4.4.8 A review of signing is currently being undertaken to assist vehicles using Blacknest Road. As part of this, proposals will be developed for consultation and improvements proposed for the A31 and other sites in Bentley, with the aim of assisting correct HGV routing that avoids the low bridge on Blacknest Road.

BLACKNEST ROAD, BINSTED & BENTLEY – SPEED LIMIT REVIEW (2013)

4.4.9 It is proposed that the existing national speed limit on Blacknest Road will be replaced by a 40mph speed limit in February 2013. This reduced speed limit will apply between north of Frith End and north of the railway bridge south of Bentley, therefore removing the presence of a national speed limit along the Blacknest corridor.

BLACKNEST CORRIDOR RAILWAY BRIDGE – ONE-WAY WORKING TRAFFIC SIGNALS (2013/14)

4.4.10 Taking account of a request from local residents, HCC has agreed to investigate the implementation of one-way working traffic signals at the railway bridge south of Bentley to improve safety and reduce potential vehicle collisions.

CONDE WAY, BORDON – ROAD MARKINGS IMPROVEMENT (2012/13)

4.4.11 Following concerns from local residents relating to speed of traffic and driver behaviour at the junction with Forest Road, HCC has proposed the implementation of road marking improvements, with further studies to be completed to confirm if additional measures are required.

GRAYSHOTT ROAD, HEADLEY – PEDESTRIAN CROSSING (COMPLETED 2012)

4.4.12 HCC have recently installed a courtesy crossing on Grayshott Road to improve safety for pedestrians using this route. This crossing includes dropped kerbing, tactile paving, reflective bollards plus better signing and marking at the existing bus stop. This crossing has been implemented following a fatal accident at this location.

ARFORD ROAD, HEADLEY – 20MPH SPEED LIMIT (2012/2013)

4.4.13 Proposals are currently under development to implement a 20mph speed limit in Headley Village centre between the junctions with the B3002 and Wheatsheaf Court. This scheme is being implemented to improve safety of pedestrians and other road users using the village centre.

CROSSWAYS ROAD, GRAYSHOTT – TRAFFIC CALMING (2012/2013)

4.4.14 As a result of the increase in traffic on Crossways Road since the Hindhead Tunnel opened, HCC have proposed a scheme to slow existing traffic speeds and discourage the use of this route. This scheme will include the provision of speed cushions, priority narrowing, formalisation of on-street parking and junction treatment works.

4.5 AREAS WITHIN NATIONAL PARK DESIGNATION

4.5.1 Certain areas around Whitehill & Bordon currently fall within the South Downs National Park, which means they are protected areas where the natural environment and cultural heritage should be conserved and enhanced. The villages that fall within National Park designation are Blackmoor, parts of Oakhanger, Selborne, East Worldham, Binsted and Blacknest. As such any traffic management measures proposed for these locations will need to respect their status within protected areas.

4.6 SUMMARY

4.6.1 This section has provided details of the data collection methods used in identifying and assessing the corridors and areas which form the basis for the preparing a Traffic Management Strategy. Through assessment of such data, it has been possible to gain a detailed understanding of each corridor and area, which provides key background information for local consultation meetings and potential Traffic Management concerns discussed in the next two sections.

4.6.2 In addition to the schemes identified above HCC are also investigating a number of other potential Traffic Management schemes for implementation as part of the future capital works programme.

5 Town & Parish Council / Public Consultation

5.1 INTRODUCTION

5.1.1 A series of three public consultation phases have been undertaken to support the traffic management study. The first phase of consultation gathered information on local Traffic Management issues and concerns, the second phase consulted on draft strategies for each Town and Parish Council and the third consultation was conducted on the full Draft Traffic Management Study. Each phase is described in more detail below.

5.2 PHASE 1 CONSULTATION

5.2.1 Following on from assessment of background data discussed in Section 4, consultation meetings were arranged with Town and Parish Councils surrounding Whitehill & Bordon to gather further knowledge of local traffic issues and views on existing Traffic Management. These meetings were a key part of developing draft Traffic Management strategies for each Town and Parish Council.

5.2.2 At meetings with local Parish Councils, WSP outlined the latest details of the Eco-town Masterplan, the anticipated impact on traffic flows, potential junction mitigation works and potential Traffic Management techniques and measures. Members of the Town and Parish Council were then able to raise any local traffic concerns and issues, which were recorded and marked on plans where appropriate.

5.2.3 Each meeting lasted between one to one and a half hours, allowing ample time to discuss local concerns with each Town and Parish Council. Bentley, Binsted and Greatham Parish Councils also submitted further details to WSP after the meeting which added further detail to topics discussed. Minutes from each meeting and other correspondence received from each Parish Council are provided in Appendix A for information.

5.2.4 A full schedule of Town and Parish Council meetings held is shown in Table 5.1. Prior to these meetings, HCC also requested comments from local County and District Councillors. As a result Councillors Adam Carew, Mark Kemp-Gee, Pat Frost David Munro, and Ferris Cowper all attended Town / Parish Council meetings to discuss local Traffic Management concerns.

Table 5.1 – Town & Parish Council Meeting Schedule

Parish Council	Date of Meeting
Bentley Parish Council	10 th November 2011
Binsted Parish Council	24 ^d November 2011
Greatham Parish Council	17 th November 2011
Grayshott Parish Council	22 nd August 2012
Lindford Parish Council	9 th November 2011
Headley Parish Council	28 th November 2011
Bramshott & Liphook Parish Council	9 th November 2011
Selborne Parish Council	23 ^d November 2011
Kingsley Parish Council	9 th November 2011
Farnham Town Council	16 th December 2011
Whitehill Town Council	23 ^d November 2011
Worldham Parish Council	24 ^d November 2011

5.3 PHASE 2 CONSULTATION

5.3.1 A second phase of consultation meetings was held in June and August 2012. This allowed for the opportunity to ensure the review of existing conditions was correct, discuss the draft Traffic Management measures proposed in this strategy and for alternative schemes to be proposed by consultees. This second phase of consultation included all those Parish and Town Councils that were consulted within the first phase of meetings.

5.3.2 Responses relating to existing local traffic concerns have been incorporated in Section 6 of this report, whilst Section 7 outlines the proposed Traffic Management Strategy for each area also taking account of comments received during the second round of consultation meetings. Minutes from the second phase of consultation and other correspondence received is provided in Appendix B for reference.

5.4 PHASE 3 CONSULTATION

5.4.1 A final consultation exercise was completed on the Draft Traffic Management Strategy between 1st October and the 14th December 2012. During this period, a copy of the Draft Traffic Management Strategy, accompanied by a response questionnaire, was made available on the Eco-town website and for public review at the Forest Community Centre and Bordon Library. All local stakeholders included in the first two consultation phases were notified of this consultation exercise. The responses received are collated in Appendix C by respondent with details provide as to how the issues identified have been addressed in the final strategy.

5.4.2 As with the second phase consultation, responses received during the third consultation exercise have been incorporated in Section 6 and Section 7 of this report.

6 Summary of Existing Concerns

6.1 INTRODUCTION

6.1.1 Following the consultation exercise the items raised at the various meetings have been summarised and recorded in this section by route / corridor. Full minutes from each meeting are included in Appendix B. As stated in Section 5, this section takes account of all consultation responses.

6.1.2 The comments and concerns detailed below represent a direct recording of the issues raised by the various Town and Parish Councils and have not been validated with further information; they are therefore a direct representation of the views expressed and not necessarily those of HCC nor WSP.

6.2 A325 CORRIDOR (INCLUDING WRECCLESHAM)

6.2.1 Table 6.2 below provides a summary of the concerns raised by the Town and Parish Councils along this corridor, which are represented graphically in Figures 2 and 3.

Table 6.2 – A325 Corridor Concerns Raised by Town & Parish Councils

Area	Road	Concerns Raised by Parish Councils
Wrecclesham	A325 through Wrecclesham	Speed and volume of traffic, traffic congestion and air quality concerns
	A325 through Wrecclesham	Accidents and collisions at / with Railway Bridge
	A325 through Wrecclesham	Lack of pedestrian crossings and community severance
	A325 / School Lane	Mini-roundabout congested at peak times
	Riverdale	Alternative route northbound to avoid the A325 / School Lane mini-roundabout
	A325 / A31 Coxbridge roundabout	Congestion and accidents at junction
A325 between Wrecclesham and Whitehill & Bordon	A325 / Binstead Road / Dockenfield Street (Bucks Horn Oak)	Speed limit too high and accidents at junction. Unsafe layout. Difficult to exit onto A325 in PM peak
	A325 / Frith End Road	Speed limit too high on A325 / unsafe layout
	A325 / B3004 Traffic Signals	Speed limit too high and accidents at junction
Whitehill & Bordon	A325 / Lindford Road	Volume of traffic and congestion
	A325 through Whitehill & Bordon	Air quality concerns
	A325 through Whitehill & Bordon	Traffic congestion through Whitehill & Bordon encouraging drivers to use inappropriate alternative routes
A325 south of Whitehill & Bordon	A325 / Petersfield Road	Speed limit too high – vehicles fail to give way at roundabout

6.2.2 It can be seen from the above that the main concerns raised along this corridor relate to the volume of traffic and congestion, speed of traffic and the perceived impact on safety. Through Wrecclesham, the use of Riverdale was identified as an alternative route to avoid the A325 / School Lane roundabout and there were also concerns over the lack of pedestrian crossing facilities and community severance along the A325.

6.2.3 In addition to these issues representatives from Farnham Town Centre and Surrey County Council expressed the desire for HCC to pursue the development of Wrecclesham Relief Road, which would link the A325 to the A31 around the location of Holt Pound Lane. It is understood that Surrey County Council has identified this as a potential future major scheme. The impact of the likely traffic generated by the Eco-town, on its town, has not demonstrated that the Wrecclesham Relief Road would be required. This proposal falls outside the scope of the study.

6.3 B3004 TO ALTON CORRIDOR

6.3.1 Table 6.3 below provides a summary of the concerns raised by the Parish Councils along this corridor which are also shown graphically on Figure 4 and 5.

Table 6.3 – B3004 to Alton Corridor Concerns Raised by Parish Councils

Area	Road	Concerns Raised by Parish Councils
Kingsley	B3004	High volumes of HGVs
	B3004 through Kingsley	No pedestrian crossing facilities in village
	B3004 / Oakhanger Rd	Traffic congestion during AM peak and accidents at junction
	Sickles Lane and South Hay Lane	Alternative route to A31 to avoid Sleaford traffic signals and A325
	Church Street	Alternative route to A31 to avoid Sleaford traffic signals
East Worldham	B3004 through East Worldham	Speed and volume of traffic, especially on Worldham Hill, and volume of HGVs
	B3004 between East Worldham & Kingsley	Speed of traffic
	Blanket Street	Speed and volume of traffic using this route as alternative route from Oakhanger
	Wyck Street	Speed and volume of traffic
	B3004 Worldham Hill	No footway to houses at eastern end of the village
	B3004	Poor maintenance of highway
B3004 west of East Worldham	B3004 west of East Worldham	Accidents along B3004

6.3.2 In summary, the volume and speed of traffic passing through each village was the main concern expressed by each Parish Council, along with the routes used north and south of each village to access Oakhanger and Farnham. Kingsley Parish Council also made particular reference to the level of HGVs passing through the village and the lack of pedestrian crossing facilities. The latter of these points was considered particularly important when taking account of the recently opened Kingsley Centre in the centre of the village, which provides a range of services to local residents. Worldham Parish Council were mainly concerned about the speed of traffic and volume of HGVs, both approaching the village and through East Worldham itself, with particular problems on Worldham Hill.

6.4 B3004 TO LIPHOOK CORRIDOR

6.4.1 Table 6.4 below provides a summary of the concerns raised by the Parish Councils along this corridor which are shown graphically in Figure 6.

Table 6.4 – B3004 to Liphook Corridor Concerns Raised by Parish Councils

Area	Road	Concerns Raised by Parish Councils
Lindford	B3004 / B3002 junction	Accidents at junction
	B3004 through Lindford	It is not clear to drivers that they are entering Lindford from the south
	B3004 through Lindford	Altis Hardware store often experiences congestion and parking problems, leading to delays on the B3004
	B3004 north and south of Lindford	Speed and volume of traffic through Lindford, particularly HGVs
	B3004 / Windsor Road junction	Mini-roundabout is often ignored by drivers heading along the B3004
	B3004 through Lindford	No pedestrian crossing facilities in village
Passfield and Standford	B3004 south of Lindford	Speed and volume of traffic and poor conditions for cycling
	B3004 / Whitehill Road	Accidents at junction and poor visibility
	B3004 / Hollywater Road junction	Accidents at junction and poor visibility
B3004 south of Passfield	B3004 between Passfield and Liphook	Speed of traffic and poor conditions for cycling
	B3004	Poor cambers on some corners
	Burgh Hill Road and Church Lane	Use of inappropriate route between B3004 & A3 by HGVs

6.4.2 From the table, it is clear that parish and town councils raised a range of different concerns relating to Traffic Management conditions along the B3004 to Liphook corridor. For example, in Lindford the parish council were concerned that drivers were not aware that they were entering the village from the south and that there was a lack of crossing facilities available. South of Lindford, the main concerns related to the speed of traffic on the B3004 and safety at junctions, which are likely to be linked.

6.5 B3002 TO HINDHEAD CORRIDOR

6.5.1 Table 6.5 below provides a summary of the concerns raised by the Parish Councils along this corridor which are shown graphically on Figure 7 and 8

Table 6.5 – B3002 Concerns Raised by Parish Councils

Area	Road	Concerns Raised by Parish Councils
Lindford	B3002 through Lindford between Lindford Bridge and Mill Lane	Speed and volume of traffic / HGVs
	B3002 through Lindford	It is not clear to drivers that they are entering Lindford from the south
Headley	B3002 through Headley	There is no pavement or street lighting on the B3002 between the junctions with Arford Road and Beech Hill Road.
	B3002 through Headley	Speed and volume of traffic / HGVs and poor conditions for cycling
	B3002 close to Badgerswood Doctors Surgery	Lack of pedestrian crossing facilities
Headley Down	B3002 close to St Francis Church	Lack of pedestrian crossing facilities
	B3002 between Glayshers Hill roundabout and Maple Way	Lack of pedestrian crossing facilities
	Eddeys Lane	Alternative route avoiding the Glayshers Hill / B3002 roundabout
	B3002 through Headley Down	Speed and volume of traffic / HGVs
West of Grayshott	B3002	Speed of traffic between Headley and approaching village centre and poor conditions for cycling
	B3002 / Kiln Way Junction and B3002 / Firway junction	Poor visibility and speed of traffic makes the use of this junction difficult / dangerous

Table 6.5 (continued) – B3002 Concerns Raised by Parish Councils

Area	Road	Concerns Raised by Parish Councils
Grayshott Village Centre	B3002 / Crossways Junction	Number of conflicting vehicle movements makes it difficult to cross at this junction
	B3002 Headley Road	Volume of traffic makes it difficult for pedestrians to cross the road
	B3002 Headley Road	There is a poor environment for pedestrians in the main shopping area – need to shift balance away from vehicles.
	B3002	Existing kerb-build outs provide poor pedestrian crossing facilities. Existing bollards and street furniture also do not fit with village environment.
	Crossways Road	Speed and volume of traffic
	B3002 & Crossways Road	Inadequate provision of off-street parking
	B3002 & Crossways Road	Issues of traffic noise and pollution in village centre
East of Grayshott	B3002 & Crossways Road	Issues of traffic noise and pollution

6.5.2 As Table 6.4 shows the main concerns on the B3002 through Headley and Headley Down relate to the speed and volume of traffic using the B3002 and the lack of pedestrian crossing facilities at certain locations. In addition to this, a concern was also raised in relation to the use of Eddeys Lane as an alternative route to avoid the B3002 / Glayshers Lane roundabout.

6.5.3 In regards to the B3002 through Grayshott the main concerns relate to a poor crossing provision and environment for pedestrians, both within the main village centre and on approach. In addition to this, the speed and volume of traffic was also mentioned as concern on the B3002 and Crossways Road, the latter of which is used as an alternative route to the A3.

6.6 BENTLEY & BLACKNEST CORRIDOR

6.6.1 Table 6.5 below provides a summary of the concerns raised by the Parish Councils along this corridor which are also shown graphically in Figures 9 & 10. In addition to the meetings held with the Parish Councils, Binsted and Bentley have also submitted reports to WSP which summarised the main Traffic Management concerns along the Bentley and Blacknest Corridor. These reports have been thoroughly reviewed, with the concerns raised included in the Table below.

Table 6.6 – Bentley & Blacknest Corridor Concerns Raised by Parish Councils

Area	Road	Concerns Raised by Parish Councils
Frith End and Blacknest, south of Bentley	A325 / Frith End Road junction	Inadequate width for HGVs turning left into Frith End Road
	Frith End Road	Inadequate width for HGVs to pass in proximity to junction with A325.
	A325 / Binsted Road junction (Bucks Horn Oak)	Junction configuration is unsafe
	Whole Corridor	Speed & volume of traffic using route to access the A31
	Frith End Road / Blacknest Road	High number of accidents and HGVs turning at Blacknest Road / Binsted Road / Frith End Road crossroads
	Blacknest Road	Speed and volume of traffic / dangerous for cyclists and pedestrians. No pavements or street lighting.
	Binsted Road, west of junction with Blacknest Road	Speed of traffic and inappropriate speed limit.
	Station Road	Speed and volume of traffic
	Whole corridor	HGV weight restrictions being ignored – too many HGVs on unsuitable routes

Table 6.6 (continued) – Bentley & Blacknest Corridor Concerns Raised by Parish Councils

Area	Road	Concerns Raised by Parish Councils
Bentley	London Road / Station Road	Accidents at London Road / Station Road junction and lack of pedestrian crossing facilities.
	London Road / Station Road	Traffic congestion in peak hours and poor visibility due to parked vehicles
	London Road	<p>Speed and volume of traffic</p> <p>Bentley Primary School on-street parking / drop-offs and safety. London Road becomes single-carriageway working at school times.</p> <p>Bentley Business Park, Industrial Estate and shops generate significant levels of traffic and parking throughout the day</p>

6.6.2 In summary, the main concerns raised in relation to the on the Bentley & Blacknest corridor are in regards to existing volume of traffic and its speed through each village.

6.7 OAKHANGER AREA

6.7.1 Table 6.7 below provides a summary of the concerns raised by the Parish Councils along this corridor which are also shown graphically in Figures 11 & 12.

Table 6.7 – Blackmoor & Oakhanger Area Concerns Raised by Parish Councils

Area	Road	Concerns Raised by Parish Councils
Whole Corridor	Whole Corridor	Volume of traffic using route and unsuitability of roads to access the B3004 avoiding the A325 through Whitehill & Bordon
	Whole Corridor	HGV 7.5t weight limit is ignored
	Whole Corridor	Lack of footways, especially in relation to traffic / HGV volumes
Oakhanger	Oakhanger Road through village	Speed and volume of traffic. Also, concerns over HGV access to Anerobic Digester through village
	Oakhanger Road through village	Traffic congestion in peak hours
	Blanket Street	Speed and volume of traffic
	Oakhanger Road through village	No pavements in some parts of village
	Oakhanger Road through village	Vehicles speeding through chicanes located at village green
	Oakhanger Road	Use of Gibbs Lane through Shortheath Common as an alternative route from Whitehill & Bordon

6.7.2 In summary the main concerns on the Oakhanger corridor relate to the volume and speed of traffic that passes through each village to avoid delays in Whitehill & Bordon and along the A325, and the use of routes by HGVs where weight limits are in place. As a result, the lack of footways and pedestrian safety have also been identified as a concern.

6.8 BLACKMOOR TO SELBORNE AREA

6.8.1 Table 6.8 below provides a summary of the concerns raised by the Parish Councils along this corridor which are shown graphically in Figure 13.

Table 6.8 – Blackmoor to Selborne Area Concerns Raised by Parish Councils

Ref	Road	Concerns Raised by Parish Councils
Whole Corridor	Whole Corridor	Traffic impact on South Down National Park areas and unsuitability of roads to cater for additional traffic
Blackmoor	Drift Road	On-street parking outside St Matthews School
	Drift Road	Accidents on bends through Blackmoor
	Drift Road and Blackmoor Lane	Number of HGVs travelling through Blackmoor
	Whole Corridor	Volume of traffic using route to access the B3004 avoiding the A325 through Whitehill & Bordon
	Whole Corridor	Lack of footways
Selborne	B3006 through Selborne	Speed and volume of traffic
	Sotherington Lane	Speed and volume of traffic
	Honey Lane	Speed and volume of traffic
	B3006 through Selborne	Accidents at traffic calming locations

6.8.2 It can be seen from the above that the main concerns raised along this corridor relate to the volume and speed of traffic through Blackmoor, on the B3006 through Selborne and the Sotherington Lane and Honey Lane routes that link Selborne to Whitehill & Bordon.

6.9 GREATHAM CORRIDOR

6.9.1 Table 6.9 below provides a summary of the concerns raised by the Parish Council along this corridor which are shown graphically in Figure 14.

Table 6.9 – Greatham Corridor Concerns Raised by Parish Councils

Ref	Road	Concerns Raised by Parish Councils
Whole Corridor	Whole Corridor	Traffic travelling through Greatham from the A325 to access the A3 to / from Whitehill & Bordon
	Whole Corridor	Speed of traffic
Petersfield Road	A325 / Petersfield Road junction	Traffic heading southbound on the A325 does not give-way to traffic on the roundabout from Greatham due to their speed on approach
	Petersfield Road / Digby Way junction	Traffic turning onto Petersfield Road not giving way to traffic heading southbound from Digby Way
	Petersfield Road	On-street parking outside cottages is a safety hazard
	Petersfield Road	No pedestrian crossing facilities in village, especially near school or where footways end on one-side road
	Petersfield Road	Drivers not adhering to priority rules at pinch points and chicanes through village.
	Petersfield Road	Inadequate street lighting at existing traffic calming features.
	Petersfield Road	Traffic congestion between traffic calming features, especially at peak times

6.9.2 For the Greatham corridor the concerns raised relate to the level of traffic that travels through the village in order to access the A3 to / from the A325 and Whitehill & Bordon. This issue is compounded by perceived poor driver behaviour at existing Traffic Management measures and junctions on Petersfield Road.

6.10 WHITEHILL & BORDON AREA

6.10.1 Table 6.10 below provides a summary of the concerns raised by the Town and Parish Councils along this corridor which are also shown graphically on Figure 15.

Table 6.10 – Whitehill & Bordon Concerns Raised by Town & Parish Councils

Ref	Road	Concerns Raised by Town Council
East of A325 / Firgove Road / Liphook Road roundabout	Liphook Road / Walldown Road / Hollywater Road / Mill Chase Road / B3004	Volume of traffic using route to avoid congestion on the A325 through Whitehill & Bordon
	Firgove Road / Hogmoor Road / Station Road	Volume of traffic using route to avoid congestion on the A325 through Whitehill & Bordon
	Whitehill Road / Hollywater Road / Walldown Road / Liphook Road	Speed of traffic and inappropriate speed limits
	Whitehill Road / Hollywater Road junction	Limited visibility
	Liphook Road / Hollywater Road	Limited visibility
	Liphook Road / Walldean Road	Limited visibility
Conde Way / Forest Road	Conde Way / Forest Road / Chalet Hill	Alternative route to avoid the A325 / Tesco / Woolmer Road traffic signals
	Forest Road	Vehicles speeding to get through traffic calming features
	Conde Way	On-street parking and lack of pedestrian crossing facilities
Whitehill & Bordon Town Centre	Budds Lane junction	Extremely difficult right turn during peak hours
	Chalet Hill Traffic Signals	Accidents at junction and poor air quality
	Pine Hill / Apollo Drive	Vehicles ignoring existing road closure to Forest Centre

Table 6.10 (continued) – Whitehill & Bordon Concerns Raised by Town & Parish Councils

Ref	Road	Concerns Raised by Parish Councils
Hogmoor Road	Hogmoor Road	Speed of traffic
	Hogmoor Road	No footway or street lighting at northern end (after tank crossing)
	Firgrove Road / Hogmoor Road junction	Problems with on-street parking close to junction and vehicles turning right from Firgrove Road cutting the corner into Hogmoor Road.
	Hogmoor Road / Spruce Avenue	Accidents at junction
Shortheath Common	Gibb's Lane	Use of route across Shortheath Common avoiding Oakhanger

6.10.2 As can be seen in Table 6.9, there were a range of different concerns raised in regards to the area around the Whitehill & Bordon Area, but they mainly relate to traffic using alternative routes to the east and west of Whitehill & Bordon to avoid congestion on the A325. To the east, Liphook Road / Walldown Road / Hollywater Road are used and to the west Firgrove Road / Hogmoor Road and Station Road are used as alternative routes.

7 Option Evaluation

7.1 INTRODUCTION

7.1.1 This section provides a review and evaluation of the Traffic Management options available for each corridor or area discussed in the previous section. Also, once this review has been completed, a proposed Traffic Management Strategy is provided based around the issues identified and available options.

7.2 POTENTIAL TRAFFIC MANAGEMENT MEASURES

7.2.1 There are a broad range of Traffic Management measures available for use in rural and village scenarios like those areas surrounding the proposed Whitehill & Bordon Eco-town. For all measures, careful consideration needs to be given to the area where such Traffic Management measures are to be implemented. Where possible, incorporating Traffic Management measures into the rural or historic surroundings should be considered. This will achieve the required Traffic Management objectives without having a detrimental impact on the character of the location.

7.2.2 In evaluating traffic management measures, it is recognised that the implementation of common Traffic Management measures in rural locations is difficult to achieve without 'urbanising' the area. As a result it is important to ensure that the design of final schemes includes local engagement to ensure they are appropriate and in keeping with the local area. Therefore, whilst this section outlines many of the standard traffic calming techniques available, it is recognised that where possible these measures should be incorporated into the surrounding environment and that psychological approach to traffic management should be pursued as set-out in the 'Traffic in Villages Toolkit'.

PSYCHOLOGICAL TRAFFIC CALMING FEATURES (THE 'TRAFFIC IN VILLAGES TOOLKIT' APPROACH)

7.2.3 The traffic in villages toolkit (a best practice guidance for Dorset County Council) emphasises that reducing speeds and minimising the adverse effects of traffic involves integrating the design and management of streets and village spaces with the special qualities of place. In doing so, traffic calming can be achieved through the provision of 'self-reading' roads that inform drivers to reduce speeds and improve drivers' awareness of their surroundings. Such measures are intended to build upon the principles of 'place making' to make villages more distinctive and influence driver behaviour when passing through villages.

SPEED LIMITS

7.2.4 A reduction in speed limit is a simple Traffic Management measure, which can improve safety and inappropriate use of routes. However, the implementation of speed limits requires careful consideration as such limits need to be enforceable. For example, the introduction of a 20mph speed limit should be accompanied by traffic calming measures, along with entry treatments and gateways, unless where the existing highway geometry ensures that speeds are maintained below 20 mph.



7.2.5 20mph speed limits are considered ideal for areas where there is an existing accident record or where there are likely to be high concentrations of pedestrians or cyclists. It should also be noted, however, that short lengths of 20mph speed limits are unlikely to be observed. Selborne is considered a good example of a 20mph scheme.

7.2.6 Shared space schemes tend to support the reduction of speed limits to 20mph, where the level of demarcation between pedestrians and vehicles is reduced (through features such as level surfaces) and a street's sense of place is enhanced. Such schemes improve the environment for pedestrians and cyclists through decreased traffic speeds, increased interaction and removing the physical and psychological barrier between different road users.

7.2.7 Shared space is often applicable where the buildings fronting the street have a strong heritage or cultural significance. It is particularly suitable where the quantity and type of surrounding land-use generates a high level of pedestrian demand for uses other than simply movement through the space. Shared space can also be appropriate at junctions or squares, where pedestrian desire lines are more diverse. Such settings, where streets come together, can provide good opportunities for creating distinct focal points.

7.2.8 30mph speed limits are used in urban areas but there has also been the recent HCC 'Village 30' programme, which considered the provision of such a speed limit through all villages in the county. Traffic calming on 30mph roads is generally used to ensure that 85th percentile speeds do not exceed 30mph or to secure substantial speed reductions. There are a number of self-enforcing measures which can be used to prevent the 85th percentile speeds of traffic exceeding 30mph including speed humps, speed cushions, thumps, horizontal deflections and mini-roundabouts. The speed

control characteristics of other measures (e.g. narrowings, traffic islands and pedestrian refuges) may not be sufficient on their own to keep speeds below 30mph.

7.2.9 The use of 40mph and 50mph speed limits is often employed to improve safety on roads which were previously subject to a national speed limit. They are also often used as 'buffer zones' between 30mph areas and higher speed limits. Vertical measures such as road humps and speed cushions are not permitted on roads with speed limits above 40mph but rumble devices, build-outs, chicanes, pinch points, narrowings, islands, pedestrian refuges, gateways and roundabouts are permitted. Such schemes will require careful planning to ensure a safe and effective scheme.

VERTICAL MEASURES

7.2.10 The provision of vertical traffic calming measures (humps, thumps, speed cushions, rumble devices or strips, raised crossings and junction tables) can have a significant impact on traffic speeds. Road humps are the most widely used form of traffic calming device because they have proved to be effective at controlling speeds and are generally applicable to most road layouts. Schemes can consist purely of road humps or area-wide schemes can often be enhanced by a variety of measures.



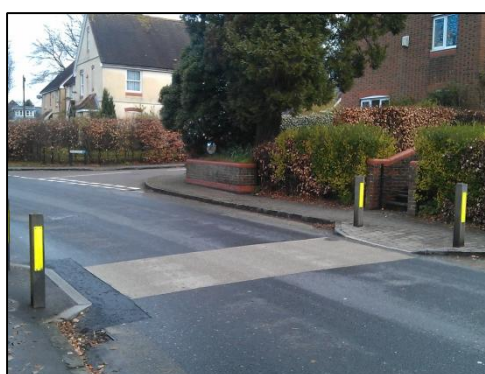
HORIZONTAL MEASURES

Carriageway Narrowing

7.2.11 Carriageway narrowing can consist of pinch points / kerb build-outs or chicanes and can be achieved by the use of physical measures, by road markings and coloured surfacing, by reallocation of road-space or by a combination of all of these methods.

7.2.12 Chicane designs vary considerably but most fall into two broad categories

- single-lane working, consisting of staggered build-outs, narrowing the road so that traffic from one direction has to give way to opposing traffic; and
- two-way working, using build-outs to provide deflection, but with lanes separated by road markings or a central island.



7.2.13 The design of such schemes requires careful consideration as most carriageway narrowing schemes still allow vehicles to be driven relatively quickly though the available gap, and as a result somewhat reliant on heavy traffic volumes to slow traffic speeds.

7.2.14 Examples of pinch points around Whitehill & Bordon are in place on Petersfield Road in Greatham and Forest Road in Whitehill & Bordon. Also, existing use of chicanes can be seen in Selborne and Greatham.

Gateways and Entry Treatments

7.2.15 Gateways are used to signify the entry into a village or traffic calmed area and generally consist of a distinctive change in road surface, a prominent sign to alert drivers to the area and sometimes additional traffic calming measures, such as rumble devices. The use of gateways is considered to be a significant tool in the implementation of Traffic Management measures in rural areas. Guidance on Gateways states that they should be as conspicuous as possible (whilst keeping with the character of the location), and their effectiveness is generally governed by this.



Road markings and Traffic Signs

7.2.16 The provision or revision of road markings and signs can provide a simple but effective form of Traffic Management. However, when using these in rural locations, such features should be used sparingly so not to detract from the character of such settlements. The following measures are available for use:

- **Speed roundel markings** are white thermoplastic elongated circles with the speed limit in the centre which are laid on the road carriageway surface. These can only be used with speed limit repeater signs, either at speed limit boundaries or within speed limit areas. As speed limit repeater signs are not permitted on 30mph roads with street lighting roundel markings cannot be installed in such circumstances.



- **Coloured surfaces** and surfaces with high skid resistance are often used at the approaches to pedestrian crossings or roundabouts to assist drivers when braking for pedestrians or other vehicles. These are usually in a contrasting colour, which may have the added effect of alerting the drivers. When implementing such measures in rural locations it is important to consider the impact of contrasting colours on the character of the surrounding area. Therefore, where possible, the use of beige surfacing is preferable in rural areas.
- **Changes in surface texture** can encourage lower speeds, but it is important that the skid resistance for any material used for traffic calming is adequate for the type and speed of traffic carried.
- **Central hatched road markings** can be used to discourage drivers from overtaking and can also give the impression that the road is narrower than it is in reality. Placing them on a coloured background can give additional emphasis.

-
- **Edge of carriageway road markings** can be used to narrow the carriageway and bring vehicles closer together, thereby reducing traffic speeds.

MINI-ROUNDBABOUTS

7.2.17 Mini-roundabouts have been incorporated into many traffic calming schemes, often as the first measure encountered. Mini-roundabouts are recommended for use on urban single-carriageway roads where the speed limit is 30 mph or less. They have central islands with a diameter up to 4 metres that are capable of being driven over by large vehicles.



7.2.18 The use of mini-roundabouts can provide a method of slowing traffic speeds through junctions, but must be designed to provide suitable deflection for approach vehicles. Otherwise the junctions are likely to be ignored and have little impact on vehicle speeds.

VEHICLE ACTIVATED DEVICES

7.2.19 Vehicle Activated Signs (VAS) are used as traffic calming measures to address inappropriate speed where conventional signing has not been effective. Such signs can display a range of messages when activated by a vehicle and can display a range of messages such as the speed limit, the vehicle speed or appropriate warning signs to notify drivers of highway features ahead.



STREET LIGHTING

7.2.20 The provision of street lighting is a useful measure to improve safety and is required where road hump schemes are provided. Chicanes and other narrowings should also be conspicuous in both day and night-time conditions and LTN 1/07 states there should always be adequate street lighting in areas around chicanes. Careful consideration needs to be given where street lighting is to be installed so not to reduce the rural nature of an area.

CHANGE OF JUNCTION PRIORITY

7.2.21 A change in priority at a junction can have a significant impact on safety and travel times along a route and thus is a useful Traffic Management tool when trying to reduce the use of unsuitable routes. The use of such measures could involve a simple change of priority at a T-junction or removal or provision of a mini-roundabout. When implementing such measures it is important to consider the wide ranging impacts in order to ensure that it does not have a detrimental impact on surrounding areas of the highway network.

ONE-WAY STREETS AND ROAD CLOSURES

7.2.22 One-way streets and road closures are a method of significantly reducing traffic by preventing use by through traffic, but the wide ranging impacts of such schemes must be given full consideration. Where one-way streets are implemented it is also considered useful to employ other traffic calming features to ensure traffic speeds do not become excessive.

7.3 AREA WIDE REVIEWS

7.3.1 Through the data collection exercises covered in previous sections it has become apparent that there is a need to review a number of traffic related aspects from an area wide perspective. This is discussed further in paragraphs 7.3.2 to 7.3.8.

TRAFFIC SIGNAGE STRATEGY

7.3.2 Parish Councils raised their concerns about the existing use of local routes by traffic from outside of Whitehill & Bordon, and that traffic signing could be modified to improve this situation. Taking this into account, it is recommended that a comprehensive review of existing route signage is undertaken within Whitehill & Bordon and on the main highway network. This is to ensure that drivers are directed to major trip attractors (e.g. Guildford, Farnham) via the primary routes of the A325 and A3 rather than along parts of the secondary road network. For example, in Whitehill & Bordon itself it would be beneficial to direct vehicles to the A3 and Guildford via the Woolmer Road, rather than along the B3004 or B3002. The correct provision of such route signage will ensure that vehicles are directed along the most appropriate routes instead of roads not designed to carry high volumes of traffic.

FREIGHT ROUTING/ STRATEGY

7.3.3 The routing of freight vehicles and specifically the use of unsuitable routes by HGVs has been raised at a number of the consultation events. From this it can be seen that freight routing is a significant issue for these corridors and the villages along them. It is not possible to deal with freight routing in isolation by looking at each corridor and it is therefore necessary for a wider area wide review of freight routing to be undertaken. At present, very few weight limits apply on the road network surrounding Whitehill & Bordon and these are listed below:

- Oakhanger Road and all roads joining the B3004 west of the A325 are subject to a 7.5 tonne weight limit;
- Firth End Road, Blacknest Road and Station Road are subject to a 7.5 tonne weight limit;
- B3006 between the Greatham and Alton; and
- Burgh Hill Road, which joins the B3004, is subject to a 7.5 tonne weight limit.

7.3.4 This freight strategy would need to look at providing routes for freight vehicles which avoid unsuitable routes such as narrow lanes and low bridges which will need to be complemented by on site traffic signing.

7.3.5 It is recommended that a freight routing strategy is undertaken separate to this report.

SPEED LIMIT STRATEGY

7.3.6 The speed of traffic through the villages has also been raised as a concern in the majority of consultation events. Where possible the proposed Traffic Management strategy has tried to consolidate and provide consistent speed limits for each corridor. However, speed limits are only effective if they are set at a realistic level which is relevant to the type and characteristics of the road.

7.3.7 An overall speed limit review should be undertaken separate to this report which takes our recommendations, those from the 'A and B speed limit review' and 'Village 30' initiative recently undertaken to ensure consistency and correct application of speed limits across the area.

7.3.8 There may then be an opportunity to liaise with the enforcing authority (Hampshire Police) to arrange co-ordinated activities to enforce the proposed speed limits.

7.4 MATRIX OF SCHEME OPTIONS

7.4.1 In formulating the final Traffic Management Strategy it is essential to review the suitability of measures discussed in Section 7.3 against individual areas and locations that make up each corridor or area identified. This has been completed through the development of a matrix for each corridor, which considers the use of Traffic Management measures either separately or in combination for sections of each route. The development of such a matrix provides a robust assessment of each corridor against available Traffic Management measures.

7.4.2 Appendix D provides a matrix for each corridor or area defined in Chapter Four. The green text in each table highlights options which are suitable for consideration at each location and red text highlights where measures should not be used.

Further to this, Table 7.1 provides a matrix of available Traffic Management Options against the key objectives of this study, reducing the impact of additional traffic generated by the proposed Eco-town and discouraging the use of inappropriate routes.

Table 7.1 Matrix of Traffic Management Measures

Traffic Management Objectives	Traffic Management Measure										
	Psychological Traffic Calming Approach	Speed Limit Reduction (20, 30, 40, 50mph)	Vertical Measures (humps, cushions, speed tables)	Carriageway Narrowing & Chicanes (Pinch-Point / Build-Out, Single-Lane / Two-Way, Gateway)	Road markings, traffic signs (roundels, hatching, coloured surfacing, removal of white lining)	Rumble Strip / Area	Mini-roundabout	Vehicle Activated Signs	Street Lighting	Change of Junction Priority	One-Way Streets & Road Closures
Reducing traffic speed	Encourages drivers to reduce speeds and improve drivers' awareness of their surroundings	Yes, but any reduction in speed limit should be realistic and enforceable. Use of speed limits below 30mph would generally only be acceptable through villages and 20mph would require additional traffic calming features.	The use of vertical measures will usually have the greatest impact on traffic speeds in comparison with other Traffic Management measures. Such measures can only be installed in 20mph and 30mph speed limits.	Reduced carriageway width is likely to reduce traffic speeds through Traffic Management features but consideration should be given to vehicles speeding through such measures. Gateway features are particularly effective at reducing traffic speeds through villages, especially when installed alongside other Traffic Management measures.	Horizontal Traffic Management measures such as road markings can generally be used to help enforce speed limits but when used to highlight hazards they can also be used as speed reduction measures. Removal of white lining and replacement of edge of carriageway markings can be used to reduce the width of a road and push vehicles closer together, thus reducing traffic speeds.	Can be used to reduce traffic speeds over short stretches of a route and can be installed as part of other measures such as enhanced gateways.	Can be used to reduce traffic speeds through a junction.	Can be used to help enforce speed limits.	May increase traffic speeds in some circumstances and also urbanise rural areas.	Can be used to reduce traffic speeds through a junction.	Unlikely to decrease traffic speeds and consideration needs to be given to potential for one-way streets to increase traffic speeds.
Discouraging use of route		Through a reduction in speeds and increased travel time, a reduction in speed limit can discourage the use of a particular route. However, these reductions would have to significant to have a noticeable impact on journey times.	Likely to have a significant impact on the attractiveness of a route due to reduced speeds, increased journey times and perception of vertical Traffic Management measures.	Carriageway narrowings and chicanes may discourage the use of a route by reducing traffic speeds and increasing journey times. However, a number of measures may be required to have a significant impact on the perceived attractiveness of a route.	Unlikely to discourage use of a route when used alone but can be effective as part of features such as enhanced gateways and environmental improvement schemes.	Unlikely to discourage the use of a route when used in isolation.	Can discourage use of route through increasing journey times.	Can be used to help enforce speed limits or warn drivers of approaching hazard	No	Can discourage use of route through increasing journey times.	Can be used to significantly discourage or stop the use of a route.
Reducing accidents	It is likely that the number and/or severity of accidents will be reduced with any reduction in traffic speeds.						Dependent upon site characteristics.	May help reduce accidents occurring at night.	Dependent upon site characteristics.	Can be used to remove vehicle conflicts and thus improve safety.	
Improving pedestrian environment	Such schemes improve the pedestrian environment by emphasising the village as a place rather than a through route.	Provision of 20mph and 30mph speed limits will help improve conditions for pedestrians, especially if implemented alongside environmental improvement schemes.	Use of vertical measures can improve the pedestrian environment by helping to enforce speed limits through villages. However, consideration should also be given to potential impacts on air quality and noise as a result of installing such measures.	Carriageway narrowings can often be implemented as part of schemes to widen footways and or provide crossings points for pedestrians.	Can improve pedestrian environment when implemented as part of a scheme that enforces or reducing speed limits in villages	Could improve the pedestrian environment by helping to enforce speed limits through villages. However, consideration should also be given to potential impacts on air quality and noise as a result of installing such measures.	Mini-roundabouts do not provide ideal crossing opportunities due to junction operation.	Not directly but improvements can be made through enforcement of speed limits.	Could help improve pedestrian safety.	Depends on junction type.	Can often be implemented as part of schemes to improve the pedestrian environment of a village centre.
Acceptable to the public	Usually supported by the public	A reduction in speed limit will generally be supported by local town and parish councils.	Unlikely to be acceptable.	The provision of features that improve the pedestrian environment or highlight the starting point of a village are likely to receive a positive reaction. The use of other chicanes is likely to receive mixed views.	Likely to be acceptable as long as due consideration is given the context and character of the area where they are installed.	Likely to receive mixed views, depending on the location in regards to proximity to residential properties	Likely to receive mixed views, due to driver behaviour at some mini-roundabouts.	Likely to be acceptable due to enforcement of speed limit.	Likely to receive mixed views due to the need to balance safety and keep the rural nature of villages.	Depends on junction type.	Depends on access needs.

8 Proposed Traffic Management Strategy

8.1 INTRODUCTION

8.1.1 Following completion and review of the matrix of Traffic Management measures, a proposed Traffic Management Strategy has been prepared for each corridor or area. The background research and consultation as illustrated through this report has helped to guide the formulation of each Strategy and the options selected have been recommended to address the concerns raised based on best practice and guidance.

8.1.2 The development of the strategies below has tried to illustrate how proposed options intend to address the concerns raised by the relevant groups. It should be noted that it has not been possible to address all issues identified through scheme development but all the issues raised have been passed to the Highway Authority. In these situations, HCC remains responsible for developing improvement measures (in consultation with local stakeholders) that will help ameliorate existing concerns.

8.1.3 The proposed strategy for each corridor or area included within this section takes account of comments received during all three phases of consultation which have taken place with each town or parish council (as discussed in Section 5). The original traffic management strategies consulted upon during the second phase of consultation have been provided in Appendix B of this report for completeness.

8.1.4 In addition, it should be highlighted that this Strategy aims to address **long-term** Traffic Management issues on the local highway network due to the future development of the proposed Eco-town. Therefore, before implementation of the Eco-town, measures may be introduced by the highway authority in the short-term which help to alleviate the local concerns highlighted in this study. Taking this into account, Town and Parish Councils should continue to discuss their issues and the resolution of these with HCC in the intervening period.

8.1.5 For each corridor or area, the proposed strategy aims to reduce the impact of traffic generated by the Eco-town. This can involve discouraging the use of inappropriate routes or improving the pedestrian environment and enforcing speed limits on parts of the primary and secondary route network.

8.1.6 It should also be noted at this stage that these proposals do not represent the final Strategy for each corridor or area and further consultation will be required with the local stakeholder groups as part of the design and construction of the proposals. As a result the following points should be taken into consideration when viewing these proposals. This follows the 'Traffic in Villages' Toolkit, which places community engagement at the heart of the design process.

- At a number of locations it is proposed to implement environmental improvements which will help to address not only the concerns raised at that location but also provide the opportunity to enhance the quality of local environment. In these scenarios some potential options have been proposed but it is intended that the proposals and designs for these locations should be taken forward in collaboration with the local stakeholders.
- Enhanced gateways should be designed so they are conspicuous but also acceptable to the local surroundings and residents. As a result, it is considered appropriate to allow for local stakeholders to be involved in the final design of such features.

8.1.7 In developing the strategies contained within the this report, it is noted that that there is a comprehensive network of footpaths and bridleways that cross parts of the highway network and are used by horse riders, walkers and cyclists, and that safe crossing points should be provided at these locations. Therefore, when final traffic management proposals are being developed they should include local County and District members, the local community and all relevant highway user groups in consultation.

8.1.8 The phasing of the proposals contained within the Strategy will be dependent upon the impact of the Eco-town development as it is delivered.

8.1.9 In addition to details of proposed measures, an estimate of costs for each option proposed has been provided. These are estimates based on best practise and previous experience of the implementation of these types of measures and therefore they are representative of outline design and for information only.

8.2 A325 CORRIDOR TRAFFIC MANAGEMENT STRATEGY

8.2.1 The A325 is a strategic route enabling vehicular movement from the A3 in the south to the A31 in the north and is (as designated) subject to high volumes of traffic of both cars and freight vehicles, including HGVs. As a result of this, it is anticipated that Wrecclesham will experience an increase in traffic flows in each of the AM and PM peaks (as identified in Table 3.1) and as such the measures proposed aim to reduce the impact of traffic generated by the Eco-town by reducing traffic speeds and providing crossing facilities to improve the pedestrian environment and reduce severance.

8.2.2 The Strategy also includes the proposed junction mitigation works as put forward in the Junction Mitigation Report which will look to address the congestion issues on the A325 in Whitehill & Bordon, plus traffic management measures at the entrance to Whitehill & Bordon to improve adherence to speed limits (thus reducing the potential impact of additional traffic).

8.2.3 The proposed Strategy is indicated in Table 8.2 and illustrated in Figure 15 and Figure 16.

Table 8.2 – A325 Corridor Traffic Management Strategy

Area	Item Raised	Proposal	Why Selected	Cost
Wrecclesham	Traffic congestion during peak periods on A325	Proposal under traffic mitigation report for A325 / A31 Coxbridge roundabout to be improved	To improve traffic flows and congestion and along the A325	No cost under this study
		Proposal under traffic mitigation report for A325 School Lane mini-roundabout to be converted to traffic signals	To improve traffic flows and congestion and along the A325	No cost under this study
	Traffic speed entering Wrecclesham village	Enhanced village gateways on both approaches	Village gateways have been shown to indicate to drivers that they are entering a village and therefore a different environment	£40k
	Concern of crossing busy roads	Provision of one signalised pedestrian crossing and up to two informal crossing points with carriageway narrowing	Will improve accessibility for pedestrians to cross the road and will also reduce the available width of the carriageway which will help to reduce speeds	£80k

Table 8.2 (continued) – A325 Corridor Traffic Management Strategy

Area	Item Raised	Proposal	Why Selected	Cost
Wrecclesham	Severance issues on A325 at School Lane junction	Environmental improvements along A325 and School Lane in vicinity of local shops and junction to improve the visual environment and to make it easier for pedestrians to cross the roads – could include shared space scheme	Opportunity to incorporate wider enhancements to the area along with improving opportunities to cross the road and helping to reduce the speed of traffic	£100k
	Use of Riverdale as an alternative to avoid A325/School Lane junction	Provision of speed cushions and pinch-points	To discourage the use of this route as an alternative to the A325.	£80k
A325 between Wrecclesham and Whitehill & Bordon	Speed limit at Holt Pound	Speed limit to be reduced from 50mph to 40mph as part of HCC speed limit review	To improve safety	No cost under this study
A325 between Wrecclesham and Whitehill & Bordon	Speed limit at Bucks Horn Oak	Speed limit to be reduced from 50mph to 40mph as part of HCC speed limit review	To improve safety	No cost under this study
	Speed limit between Bordon and junction with B3004	Speed limit to be reduced from 60mph to 50mph as part of HCC speed limit review	To improve safety	No cost under this study
A325 through Whitehill & Bordon	Speed of traffic approaching Whitehill & Bordon	Enhanced village gateways to north and south of Whitehill & Bordon	Village gateways have been shown to indicate to drivers that they are entering a village and therefore a different environment	£40k
	Use of existing A325 when proposed “relief road” is complete	Shared space scheme and 20mph speed limit between junction with Station Road and Conde Way	To reflect the change in function from a primary route to a town centre	No cost under this study
	A325 / Station Road junction – congestion and queuing	Proposal under traffic mitigation report for traffic signals to be replaced by roundabout	To improve traffic flows and congestion and along the A325	No cost under this study
	A325 / Tesco junction – congestion/queuing	Proposal under traffic mitigation report for MOVA to be implemented here	MOVA allows for better control and efficiency at single junctions – therefore reducing traffic congestion and queues	No cost under this study
	A325 / Liphook Road / Firgrove Road roundabout – congestion/queuing	Proposal under traffic mitigation report to improve roundabout	To improve traffic flows and congestion and along the A325	No cost under this study

Table 8.2 (continued) – A325 Corridor Traffic Management Strategy

Area	Item Raised	Proposal	Why Selected	Cost
A325 south of Whitehill & Bordon	A325 speed limit south of A325 / Liphook Road / Firgrove Road roundabout	Speed limit to be increased from 30mph to 40mph directly south of the roundabout and decreased from 250m to 560m south of the roundabout	Existing speed limits are inappropriate	No cost under this study
	A325 / Petersfield Road roundabout – congestion/queuing	Proposal under traffic mitigation report to improve roundabout	To improve traffic flows and congestion and along the A325	No cost under this study
	A325 / A3 slip roads	Proposal under traffic mitigation report to improve junctions	To improve traffic flows congestion and safety	No cost under this study
TOTAL COST				£340k

8.2.4 The Traffic Management Strategy for the A325 can be split into four areas namely Wrecclesham, between Wrecclesham and Whitehill & Bordon, the A325 through Whitehill & Bordon and south of Whitehill & Bordon.

8.2.5 For Wrecclesham the proposed Strategy aims to reduce the impact of traffic by providing improved facilities for pedestrians and implementing a shared space approach to the area surrounding the A325 / School Lane junction. These proposals are shown graphically in Figure 15.

8.2.6 For the A325 corridor between Wrecclesham and Bordon there is proposed speed limit reductions at Holt Pound and Bucks Horn Oaks to improve safety, whilst within Whitehill & Bordon there are proposed junction improvements at the junctions with Station Road, Tesco and Firgrove Road / Liphook road. South of Bordon it is proposed to change the existing speed limit directly south of Bordon, and improve the A325 / Petersfield Road and A325 / A3 junctions. These proposals are shown on Figure 16.

INNER RELIEF ROAD & A325 THROUGH WHITEHILL BORDON

8.2.7 A critical element of the Emerging Transport Strategy to manage car demand is the construction of an inner relief road within Whitehill & Bordon, running through the new development areas from Whitehill in the south and re-joining the existing A325 to the north Station Road / Liphook Road / A325 junction. The inner relief road will offer an alternative route for 'through' traffic, removing non-local traffic from the town centre, and will also deliver quality access to the new communities and facilities.

8.2.8 As part of delivery of the inner relief road, it is proposed to carry out significant improvements to the existing A325 High Street in the centre of Whitehill & Bordon, with it being re-designed to make it a less attractive for through-traffic, to reduce traffic speeds and promote the sharing of space that creates a better environment for pedestrians and cyclists. The first phase of public consultation on the design of the A325 through Whitehill and Bordon was completed on the 14th December 2012 and forms a separate study to this Traffic Management Strategy.

8.2.9 Once the inner relief road and A325 scheme are complete traffic flows will generally be balanced across the two roads, both of which will be designed to comfortably accommodate future traffic flows and provide appropriate walking and cycling facilities.

8.3 B3004 CORRIDOR TO ALTON TRAFFIC MANAGEMENT STRATEGY

8.3.1 The B3004 is a strategic route for vehicles traveling between the A325, Alton and A31 and as a result experiences high volumes of traffic of both car and freight vehicles, including HGVs. Given the links that the B3004 provides to Alton and the A31, the Eco-town is anticipated to increase traffic on this route during the peak hours (as identified in Table 3.1). Taking this into account, the proposed Strategy aims to minimise the impact of this additional traffic by reducing traffic speeds (by improving adherence to speed limits) whilst also reducing community severance through provision of improved pedestrian crossing facilities.

8.3.2 The Strategy also includes the proposed junction mitigation works as put forward in the Junction Mitigation Report where appropriate. The proposed Strategy is indicated in Table 8.3 below and illustrated in Figure 18 and 19.

Table 8.3 B3004 Corridor to Alton Traffic Management Strategy

Area	Item Raised	Proposal	Why Selected	Cost
B3004 east of Kingsley	Speed limit too high between Sleaford traffic signals and Kingsley	Reduction of speed limit from 60mph to 50mph	To reduce speed of traffic approaching Kingsley and Sleaford traffic signals	£10k
Kingsley	Speed of traffic travelling through Kingsley	Provision of enhanced village gateways approaching Kingsley	Village gateways have been shown to indicate to drivers that they are entering a village and therefore a different environment	£40k
	Lack of pedestrian crossing facilities in Kingsley	Provision of three informal crossing points and / or central islands (similar to the existing crossing points in Selborne)	Will improve accessibility for pedestrians to cross the road and will also reduce the available width of the carriageway which will help to reduce speeds	£45k
East Worldham	Speed of traffic travelling through East Worldham, especially on Worldham Hill	Provision of enhanced village gateways approaching East Worldham	Village gateways have been shown to indicate to drivers that they are entering a village and therefore a different environment	£40k
		Provision of Vehicle Activated Sign showing speed of vehicle on Worldham Hill plus installation of rumble strip	To reduce speed of traffic speed and improve safety going down Worldham Hill	£10k

Table 8.3 (continued) - B3004 Corridor to Alton Traffic Management Strategy

Area	Item Raised	Proposal	Why Selected	Cost
B3004 west of East Worldham	Speed of traveling between East Worldham and Alton where have been a number of accidents	Reduce speed limit from 60mph to 40mph	To reduce traffic speeds and improve safety	£10k
	B3004 / Paper Mill Lane junction – congestion/queuing traffic	Proposal under traffic mitigation report to replace junction with double mini-roundabout	To improve traffic flows and congestion	No cost under this study
TOTAL COST				£155k

8.3.3 The Traffic Management Strategy for the B3004 aims to ensure traffic impacts on residents of Kingsley and East Worldham are reduced through the provision of enhanced pedestrian crossing facilities and reduced traffic speeds. The Strategy also aims to improve safety to the west of East Worldham through a reduction in speed limit from 60mph to 40mph.

8.3.4 At the second consultation meeting held with Kingsley and Worldham Parish Councils the proposed traffic management strategy was positively received. Kingsley Parish Council welcomed the installation of pedestrian crossing points through the village, provision of gateways and a reduced speed limit between the village and A325. The proposed location of the eastern gateway was questioned but after a review the proposed location is still considered to be appropriate. The third public consultation included a response regarding the inappropriate use of Sickles Lane and South Hay Lane as an alternative route to Farnham and the A31. Although this issue is acknowledged, given that each of these routes already has 7.5t a weight limit (except for access) and a number of farm accesses, it is not appropriate to provide physical measures on these routes.

8.3.5 In East Worldham, the Parish Council welcomed the proposed strategy, much of which aligned with on-going discussions which have been undertaken with HCC and the police. In regards to the proposed gateways, the Parish Council questioned whether these could be located further away from the village but the already proposed location is considered to be appropriate given the start of the built-up area. In the third phase of public consultation concerns were raised in regards to the consideration of freight movements, but as noted in Section 7.3 it is recommended that a comprehensive freight strategy is completed separately from this Traffic Management Strategy.

8.3.6 In addition to the proposals for Kingsley, it should be noted that the proposed strategy for the Oakhanger Corridor will reduce traffic using this route to access the B3004, which is also expected to reduce the number of vehicles using South Hay Lane and Sickles Lane as part of a longer route to Farnham or the A31.

8.4 B3004 CORRIDOR TO LIPHOOK TRAFFIC MANAGEMENT STRATEGY

8.4.1 The B3004 is a strategic route for vehicles traveling between Bordon and Liphook and as such experiences high volumes of car and freight traffic, including HGVs. Given the links to Liphook and locations south east of Whitehill & Bordon, the Eco-town is anticipated to increase traffic flows during the AM and PM peak hours on the B3004 as identified in Table 3.1. Taking this into account the proposed Strategy aims to reduce the impact of traffic generated by the Eco-town by reducing the speed of traffic speed located along the B3004 and improving safety.

8.4.2 The proposed Strategy is indicated in the Table 8.4 and illustrated in Figure 20.

Table 8.4 B3004 Corridor to Liphook Traffic Management Strategy

Area	Item Raised	Proposal	Why Selected	Cost
Lindford	Speed limit between Lindford and Bordon	Reduction of speed limit from 40mph to 30mph approaching Bordon	To reduce traffic speeds travelling through Whitehill & Bordon	£10k
	Vehicles ignoring B3004 / Windsor Road mini-roundabout	Re-configuration of roundabout	To improve driver behaviour and safety at this junction	£20k
	Speed of traffic through Lindford	Reduction of speed limit between Headley Road and Windsor Road to 20mph	To reduce traffic speeds through Lindford	£50k
	Lack of pedestrian crossing facilities in Lindford	Provision of signalised pedestrian crossing in village centre	To improve pedestrian crossing facilities	£60k
	It is not clear to drivers that they are entering Lindford from the south	Provision of enhanced gateway at start of 30mph speed limit	Village gateways have been shown to indicate to drivers that they are entering a village and therefore a different environment	£20k

Table 8.4 (continued) - B3004 Corridor to Liphook Traffic Management Strategy

Area	Item Raised	Proposal	Why Selected	Cost
Standford	Speed of traffic on B3004 through Stanford	Provision of coloured / textured surfacing on bends that does not detract from the local environment	To enforce speed limit and improve safety	£8k
		Provision of 30mph speed limit carriageway roundels	To enforce speed limit and improve safety	£1k
	B3004 / Stanford Hill Road junction – accidents	Provision of enhanced gateway at start of 30mph speed limit	Village gateways have been shown to indicate to drivers that they are entering a village and therefore a different environment	£40k
		Carriageway narrowing on Stanford Hill and junction table installed	To reduce traffic speeds on approach to junction and improve safety	£25k
B3004 between Passfield and Liphook	Speed of traffic on B3004 between Passfield and Liphook	Provision of enhanced gateway at change to 30mph speed limits	Village gateways have been shown to indicate to drivers that they are entering a village and therefore a different environment	£40k
		Provision of coloured surfacing on sharp bends that does not detract from the local environment	To reduce traffic speeds and improve safety	£8k
		Provision of 40mph speed limit roundels	To reduce traffic speeds and improve safety	£1k
	B3004 / Hollywater Road junction - accidents	Provision of Vehicle Activated Signs on approach to Hollywater Road junction warning vehicles of junction	To reduce traffic speeds on approach to junction and improve safety	£10k
		Carriageway narrowing on Hollywater Road and junction table installed to reduce traffic speeds on approach	To reduce traffic speeds on approach to junction and improve safety	£25k
	TOTAL COST			

8.4.3 It is clear from the table above that the traffic management strategy for the B3004 to Liphook corridor aim to reduce traffic speeds and enforce speed limits along the B3004. This will help to reduce the impact of traffic along the route. This Strategy is shown graphically on Figure 20.

8.4.4 Overall, the proposed traffic management strategy received positive comments during the second and third phases of public consultation and was deemed to cover the existing concerns raised during the first phase of public consultation. The proposed area wide signage review was also welcomed by all Parish Councils.

8.4.5 In regards to Lindford, the Parish Council requested the consideration of a 20mph speed limit through the village around the area of the recently installed traffic calming scheme, the installation of a signalised pedestrian crossing and an improved gateway to the south of the village. Following an assessment of such requests these have been included in the proposed traffic management strategy for Lindford.

8.4.6 Further south on the B3004, it was considered that the proposed 30mph speed limit between Passfield and Liphook would be inappropriate and would be better limited to the Walldown Road and Hollywater Road junctions. Also, to help discourage the use of Burgh Hill Road as an alternative route between the B3004 and A3 it was agreed that consideration would be given to reducing the existing speed limit from 60mph to 40mph. Given the single track nature of this route, a reduction in speed limit would also help improve safety.

8.5 B3002 TO HINDHEAD CORRIDOR TRAFFIC MANAGEMENT STRATEGY

8.5.1 The B3002 is a strategic route for vehicles travelling between Whitehill & Bordon, Hindhead and the A3 and as such experiences high volumes of car and freight traffic, including HGVs. Table 3.1 showed that in Lindford and Headley, the B3002 is likely to experience an increase in traffic as a result of the Eco-town during the AM and PM peak hours and as a result Grayshott (although not assessed) is also likely to experience a similar increase. Taking account of the classification of the B3002 the strategy below aim to reduce the impact of traffic generated by the Eco-town by reducing traffic speeds, improving pedestrian crossing facilities and discouraging the use of inappropriate minor routes.

8.5.2 The proposed Strategy is indicated in Table 8.5 and illustrated in Figure 21 and 22.

Table 8.5 - B3002 to Hindhead Corridor Traffic Management Strategy

Area	Item Raised	Proposal	Why Selected	Cost
Lindford	Speed of traffic travelling through Lindford	Carriageway narrowing opposite Bordon Angling Centre	To reduce traffic speeds and provide informal crossing point	£15k
		Provision of enhanced gateways at southern entrance to Lindford	Village gateways have been shown to indicate to drivers that they are entering a village and therefore a different environment	£20k
Headley and Headley Down	Speed of traffic travelling through Headley	Provision of enhanced gateways at change to 30mph speed limits	Village gateways have been shown to indicate to drivers that they are entering a village and therefore a different environment	£70k
	Lack of pedestrian crossing facilities in Headley	Provision of three informal crossing points and / or central islands (similar to the existing crossing points in Selborne)	Will improve accessibility for pedestrians to cross the road and will also reduce the available width of the carriageway which will help to reduce speeds	£30k
	Speed of traffic travelling through Headley	Environmental improvement scheme including consideration of alternative traffic movements in village centre	These improvements will reduce traffic speeds around the B3002 / High Street junction and improve facilities for pedestrians.	£50k

Table 8.5 (continued) - B3002 to Hindhead Corridor Traffic Management Strategy

Area	Item Raised	Proposal	Why Selected	Cost
Headley and Headley Down	Use of Edeys Lane as an alternative route	Environmental improvement scheme to consider the closure of route to through traffic	These proposals would prevent Edeys Lanes from being used as a through route.	£50k
West of Grayshott village centre	Speed of traffic west of Grayshott	Reduction of speed limit on the B3002 from 50mph to 40mph and provision of speed limit roundels between west of the junction with Firway and west of the junction with Waggoners Way	To reduce traffic speeds and improve safety, especially at the junction with Kiln Way	£12k
		Reduction of speed limit on the B3002 from 40mph to 30mph between west of the junction with Waggoners Way and east of the junction with Vicarage Gardens	To reduce traffic speeds and improve safety	£10k
Grayshott Village Centre	Difficult for pedestrians to cross at fiveways junction	Provision of Raised Junction Table	To reduce traffic speeds approaching junction	£10k
	Poor pedestrian environment / difficult to cross Headley Road	Environmental improvement scheme to consider shared space design	To improve the pedestrian environment in the village, both on Headley Road and Crossways Road	£100k
All routes approaching village	Speed of traffic approaching village	Provision of enhanced gateways at change to 30mph speed limits	Village gateways have been shown to indicate to drivers that they are entering a village and therefore a different environment	£80k
TOTAL COST				£447k

8.5.3 The traffic management strategy for the B3002 to Hindhead corridor is based upon three distinct parts, taking account of the villages of Lindford, Headley and Grayshott. For Lindford, the strategy primarily aims to reduce traffic speeds through the village whilst in Headley, proposals are made to improve pedestrian crossing facilities and remove the use of Edeys Lane as an alternative route for through traffic using the B3002. For Grayshott the strategy aims to reduce traffic speeds and improve the pedestrian environment in the village centre.

8.5.4 At the second consultation meeting Headley Parish Council noted that issues concerning use of alternative routes through High Street, Long Cross Hill and Churt were no longer a concern, due to the opening of the A3 tunnel at Hindhead. It was also noted that there is a need for pedestrian crossings to be installed at various locations in the village. As a result of these comments, the proposed traffic management strategy has been updated to better reflect the existing conditions, both along the B3002 and through other streets in Headley. This includes the provision of enhanced gateways and measures to enforce the 'access only' restrictions on Eddeys Lane.

8.5.5 The Traffic Management Strategy for Grayshott is based upon reducing traffic speeds approaching the village centre and improving the pedestrian environment within the centre itself. During the third phase of public consultation, Grayshott Parish Council requested that the proposed 40mph speed limit west of Grayshott is extended to Headley Down, but this section of the B3002 is considered to be inappropriate for such a limit given its straightness and lack of frontages. The proposed environmental improvement scheme for the village centre in particular will be developed in consultation with the Parish Council.

8.6 BLACKNEST AND BENTLEY CORRIDOR TRAFFIC MANAGEMENT STRATEGY

8.6.1 Blacknest and Bentley are located to the north of Whitehill & Bordon, with Frith End Road and Blacknest Road running north to south between Frith End and Bentley. The corridor provides an alternative route for traffic between the A325 and A31, avoiding Wrecclesham and the Coxbridge roundabout which often experience traffic congestion and delays during peak hours. As a result, it is anticipated that the Eco-town will result in an increase in traffic on the Blacknest and Bentley corridor (as shown in Table 3.1). Taking this into account the traffic management strategy aims to reduce the potential increase in traffic from the Eco-town by proposing a range of measures which will reduce traffic speeds (thereby increasing journey times) and make the route less attractive for through traffic.

8.6.2 The proposed Strategy is indicated in Table 8.6 below and illustrated in Figures 23 and Figure 24. In addition to this Strategy, the proposed signage and freight routing strategies (which are to be developed separately to this report) will further discourage the use of the Blacknest and Bentley Corridor by through traffic.

Table 8.6 – Blacknest & Bentley Corridor Traffic Management Strategy

Area	Item Raised	Proposal	Why Selected	Cost
Frith End	Speed and volume of traffic through Frith End	Provision of enhanced village gateways approaching Frith End with pinch points or chicanes	Village gateways have been shown to indicate to drivers that they are entering a village and therefore a different environment. Pinch points or chicanes will reduce traffic speeds and discourage HGVs from using Frith End	£50k
		Provision of pinch point or chicane in centre of Frith End	To reduce traffic speeds and discourage use of route	15k
		Reduction of speed limit through Frith End from 40mph to 30mph	To reduce traffic speeds and discourage use of route	£10k
Blacknest Road and Station Road between Frith End and Bentley	Speed and volume of traffic on Frith End Road and Blacknest Road through Blacknest crossroads & accidents at Blacknest crossroads	Reduction of speed limit on Frith End Road and Blacknest Road from 60mph to 40mph	To reduce traffic speeds approaching Blacknest crossroads, discourage use of route and improve safety	No cost under this study
		Provision of pinch point or chicane north and south of Blacknest crossroads	To reduce traffic speeds approaching Blacknest crossroads, discourage use of route and improve safety	£30k
		Provision of pinch point or chicane north of Blacknest Industrial Estate	To reduce traffic speeds and discourage use of route, especially by HGVs	15k

Table 8.6 (continued) – Blacknest & Bentley Corridor Traffic Management Strategy

Area	Item Raised	Proposal	Why Selected	Cost
Blacknest Road and Station Road between Frith End and Bentley	Speed and volume of traffic on Station Road	Reduction of speed limit to Blacknest Road from 60mph to 40mph	To reduce traffic speeds approaching Blacknest crossroads, discourage use of route and improve safety	No cost under this study (to be implemented in February 2013)
	Inadequate width under railway bridge for large vehicles to safely pass	Provision of pinch point and traffic signals with one-way working	To reduce traffic speeds, improve safety and discourage use of route	£100k
Bentley	Speed and volume of traffic through Bentley	Provision of enhanced village gateways approaching Bentley	Village gateways have been shown to indicate to drivers that they are entering a village and therefore a different environment	£40k
		Provision of pinch point or chicane at village gateway south of Bentley	To reduce traffic speeds and discourage use of route	15k
		Extension of 30mph limit to west of Pax Hill and east of village	To reduce traffic speeds through Bentley	£10k
		Environmental improvement scheme between Station Road junction and School Lane. This could include pinch points at either end with single lane working through village centre, passing points and widened footways.	To enhance village centre, reduce traffic speeds and discourage use of route	£100k

8.6.3 As show in Table 8.6, the Traffic Management Strategy for the Blacknest and Bentley corridor is based upon the aim of reducing the impact of the Eco-town by discouraging traffic from using the route as an alternative to the A325. This will be achieved through a reduction of traffic speeds and an increase in journey times along the Blacknest corridor and the provision of an environmental improvement scheme in the centre of Bentley.

8.6.4 At the second and third phases of consultation, Binsted Parish Council and Bentley Parish Council agreed that in general all existing issues were covered in the report but were concerned that the proposed strategy was not suitable to reduce existing and future levels of traffic using the Blacknest corridor. As a result, the proposed strategy has now been revised to include more significant measures (i.e. pinch points or chicanes) which reduce traffic speeds and discourage the use of the Blacknest and Bentley corridor. It should be noted, however, that the provision of such physical measures is subject to detailed design and consultation to ensure they are appropriate

for the surrounding environment and take into account local experience in Selborne and Greatham. Taking this into account, chicanes or pinch points should therefore be conspicuous to approaching drivers at all times to avoid accidents and should be designed in a way which does not encourage poor driver behaviour (e.g. speeding through chicanes and failing to give-way to oncoming traffic).

8.7 OAKHANGER AREA TRAFFIC MANAGEMENT STRATEGY

8.7.1 Oakhanger is located to the west of Whitehill & Bordon, with the surrounding highway network providing a link between the Eco-town, the B3004, Kingsley and East Worldham. As a result of this, these routes are regularly used by traffic avoiding congestion on the A325, particularly through Bordon and at the traffic signal junction with the B3004 at Sleaford, with Table 3.1 showing that Eco-town is anticipated to increase traffic through this corridor in the AM and PM peaks. Taking this into account the proposed Traffic Management Strategy aims to discourage the use of these routes by through traffic by reducing traffic speeds, increasing journey times and enhancing the village environment.

8.7.2 The proposed Strategy is shown in Table 8.7 below and graphically on Figure 25. In addition to this Strategy, the proposed signage and freight routing strategies (which are to be developed separately to this report) will further discourage the use of the Oakhanger area by through traffic.

Table 8.7 - Oakhanger Area Traffic Management Strategy

Area	Item Raised	Proposal	Why Selected	Cost
Oakhanger	Speed and volume of traffic through Oakhanger	Provision of enhanced village gateways approaching Oakhanger	To reduce traffic speeds and discourage use of route	£80k
		Extension of 30mph speed limit to south of junction with Oakhanger Road	To reduce traffic speeds and discourage use of route	£10k
	Speed and volume of traffic and lack of footway on part of Oakhanger Road through Oakhanger	Environmental improvement scheme on the area between village green and junction with Blankett Street and reduction in speed limit to 20mph. This should include pinch points at either end with single lane working through village, passing points and informal footways.	To enhance the village centre, to reduce traffic speeds and discourage use of route	£150k
	B3004 / Oakhanger Road junction – traffic queues on Oakhanger Road in the AM peak	Proposal under traffic mitigation report to replace existing junction with traffic signals – however, it is recommended that the existing priority junction remains in place as traffic signals will encourage use of route through Oakhanger	To discourage use of route	No cost under this study
Shortheath Common	Use of Shortheath Common as an alternative route avoiding Oakhanger	Development of signage strategy, consideration of barriered access and provision of cattle-grids at access points to common	To discourage use of route	No cost under this study
TOTAL COST				£240k

8.7.3 Existing concerns in Oakhanger relate to the level of traffic that currently passes through each village when travelling between Whitehill & Bordon and the B3004, which is predicted to increase as a result of the Eco-town. As a result, the proposed Traffic Management Strategy aims to reduce the attractiveness of Oakhanger as a through route by the implementation physical measures (e.g. pinch points or chicanes) and an environmental improvement scheme which will change the way in which Oakhanger Road operates through the village centre. This strategy will be particularly effective at reducing volumes of HGV traffic through the village.

8.7.4 An Infrastructure Plan for Shortheath Common presently in draft form is being prepared by the County Council's Culture Communities and Rural Affairs Department to address how improvements to protect the habitat can be made particularly by removing through vehicular traffic. There was popular support for proposed measures such as the provision of a barriered access and the provision of cattle-grids.

8.8 BLACKMOOR AND SELBORNE AREA TRAFFIC MANAGEMENT STRATEGY

8.8.1 The Blackmoor and Selborne area includes Blackmoor village centre, Drift Road, Sotherington Road and Honey Lane links between Whitehill & Bordon and the B3006 from the A3 through to north of Selborne. As a result, it is estimated that the Eco-town will result in an increase in traffic on these routes as shown in Table 3.1.,

8.8.2 Whilst the B3006 provides a strategic route for traffic traveling between the A3 and Alton, Honey Lane and Sotherington Lane are narrow country lanes which are inappropriate for use by high volumes of traffic. Taking this into account, the Traffic Management study for this corridor aims to reduce levels of traffic using such routes and also reduce the impact of traffic in Selborne and Blackmoor.

8.8.3 The proposed Strategy is shown in Table 8.8 below and graphically on Figure 26. In addition to this Strategy, the proposed signage and freight routing strategies (which are to be developed separately to this report) will further discourage the use of the Blackmoor & Selborne area by through traffic.

Table 8.8 – Blackmoor to Selborne Area Traffic Management Strategy

Area	Item Raised	Proposal	Why Selected	Cost
Blackmoor	Speed of traffic through Blackmoor	Environmental improvement scheme incorporating a 20mph speed limit. This should include pinch points at either end with single lane working through the village, passing points and informal footways.	To reduce traffic speeds and discourage use of route	£100k
Between Blackmoor and Selborne	Volume of traffic using Honey Lane as a route between Whitehill & Bordon and Selborne	Consideration of carriageway narrowing to provide single-track with passing places on wider sections of Honey Lane & Sotherington lane west of Blackmoor	To reduce traffic speeds and discourage use of route	£150k
	Volume and speed of traffic on the B3006 through Selborne	Environmental improvement scheme to help enforce 20mph speed limit	To enhance the village centre and to reduce traffic speeds	£50k

Table 8.8 (continued) – Blackmoor to Selborne Area Traffic Management Strategy

Area	Item Raised	Proposal	Why Selected	Cost
Selborne	Volume and speed of traffic on the B3006 through Selborne	Provision of enhanced village gateways approaching Selborne and 30mph and 20mph speed limits	Village gateways have been shown to indicate to drivers that they are entering a village and therefore a different environment	£40k
B3006 south of Selborne	Traffic speeds between A3 and Selborne	Reduction in speed limits to 40mph	To reduce traffic speeds and improve safety	£10k
TOTAL COST				£350k

8.8.4 The Traffic Management Strategy for the Blackmoor to Selborne area aims to enhance the village centres of Selborne and Blackmoor whilst also reducing the use of Blackmoor, Sotherington Lane and Honey Lane as a route to / from Whitehill & Bordon. Through the proposed changes to the way in which the highway operates both within Blackmoor village centre and on routes towards Selborne it is hoped that the impact of traffic on these routes will be greatly reduced.

8.8.5 The proposed strategy responds to concerns raised during the second and third phases on public consultation in regards to the measures not being significant enough to deter through traffic from using this route. Whilst the final strategy responds to these concerns, it should be noted that the provision of physical measures is subject to detailed design, should be appropriate to the surrounding environment and be designed in such a way that does not lead to poor driver behaviour. Such measures should also be considered alongside potential impacts on the neighbouring village of Oakhanger and therefore the phasing of such measures must be considered holistically.

8.9 GREATHAM TRAFFIC MANAGEMENT STRATEGY

8.9.1 Greatham is located to the south of Whitehill & Bordon, where Petersfield Road provides a link between the A325, B3006 and A3. As shown in Table 3.1, Greatham is anticipated to experience an increase in traffic during the AM and PM peaks as a result of the Eco-town. Due to the existing levels of traffic that already use this corridor, Petersfield Road (the main north to south link) has a range of Traffic Management measures in place through the village including chicanes and pinch points. Despite these, the parish council has expressed concerns that the use of Petersfield Road still provides a quicker link between the B3006 and A325 when compared with using the strategic A3 route. As a result of this, the proposed Traffic Management Strategy aims to discourage the use of Petersfield Road by slowing vehicle speeds through the traffic and thus increasing journey times.

8.9.2 The proposed Strategy is shown in Table 8.9 below and graphically on Figure 25. In addition to this Strategy, the proposed signage and freight routing strategies (which are to be developed separately to this report) will further discourage the use of the Greatham Corridor by through traffic.

Table 8.9 – Greatham Corridor Traffic Management Strategy

Area	Item Raised	Proposal	Why Selected	Cost
North of Greatham	A325 / Petersfield Road roundabout – traffic congestion/queuing	Proposal under traffic mitigation report to improve roundabout	To improve traffic flows and reduce congestion along the A325	No cost under this study
Greatham	Speed and volume of traffic on Petersfield Road between A325 and Longmoor Road	Carriageway narrowing and junction table at Digby Way / Petersfield Road junction	To slow traffic entering Petersfield Road and improve driver behaviour	£15k
		Provision of enhanced village gateway on Petersfield Road	Village gateways have been shown to indicate to drivers that they are entering a village and therefore a different environment	£20k
		Provision of 30mph speed limit roundels	To enforce speed limit	£1k
		Installation of speed cushions to accompany existing pinch point	To reduce speed of traffic travelling through Greatham	£5k
		Raised informal crossing installed between bus stops on Petersfield Road	To reduce traffic speeds, provide a pedestrian crossing point and provide parking bays for cottages	£10k
		Installation of speed reducing features (e.g. mini-roundabout) at junction with Longmoor Road	To reduce speed of traffic on Petersfield Road	£20k

Table 8.9 (continued) – Greatham Corridor Traffic Management Strategy

Area	Item raised	Proposal	Why selected	Cost
Greatham	Speed and volume of traffic on Petersfield Road between Longmoor Road and B3006	Installation of Speed Cushion to accompany existing pinch point	To reduce speed of traffic travelling through Greatham	£10k
		Raised table to be installed and speed limit reduced to 20mph around area of Greatham Primary School and Village Hall	To reduce speed of traffic travelling through Greatham	£30k
		Installation of Speed Cushion to accompany existing pinch point	To reduce speed of traffic travelling through Greatham	£10k
		Provision of enhanced village gateway on Petersfield Road	Village gateways have been shown to indicate to drivers that they are entering a village and therefore a different environment	£20k
South of Greatham	B3006 / Petersfield Rd junction – traffic congestion and queues	Carriageway narrowing and tightening of junction, rather than measures proposed in junction mitigation report	To reduce speed of traffic travelling through Greatham	£10k
	B3006 / A3 roundabout	Proposal under traffic mitigation report to improve roundabout	To improve traffic flows and congestion	No cost under this study
TOTAL COST				£151k

8.9.3 The aim of the Traffic Management Strategy for Greatham is to discourage through traffic from using this route by slowing traffic speeds through the village. This is reflected through the provision of vertical measures throughout the village and carriageway narrowing at junctions to the northern and southern ends of Petersfield Road.

8.9.4 At the second consultation meeting, the majority of the proposed measures were supported by the Parish Council. With regards to the installation of a mini-roundabout at the Petersfield Road / Longmoor Road junction, the Parish Council expressed concerns over potential queuing on Petersfield Road southbound as a result of the high number of vehicles which turn right into Longmoor Road during the peak hours. As a result, it is recommended that the installation of a mini-roundabout at this location is subject to the completion of detailed junction capacity assessment.

8.9.5 In addition, the Parish Council requested the consideration of a 20mph speed limit between the school and church on Petersfield Road to complement the proposed traffic management measures. Given the characteristics of this part of the village, a reduction in speed limit is considered as appropriate and has been included in the strategy

8.10 WHITEHILL & BORDON AREA TM STRATEGY

8.10.1 The A325 runs north to south through Whitehill & Bordon, which due to its strategic nature experiences high levels of traffic flows (including freight traffic) throughout the day. This is covered under the A325 Traffic Management Strategy discussed in Section 8.2. The Strategy for the Whitehill & Bordon area therefore considers concerns raised by town and parish councils relating to the use of alternative routes to the east and west of the A325, along Hogmoor Road and Hollywater Road. These are routes which are unsuitable to carry high volumes of traffic and therefore the Traffic Management Strategy aims to discourage the use of these. The proposed Traffic Management Strategy is described in Table 8.10 below and shown graphically on Figure 26. This Strategy does not include the A325, which is discussed in Section 8.2.

Table 8.10 – Whitehill & Bordon Area Traffic Management Strategy

Area	Item raised	Proposal	Why selected	Cost
West of A325	Use of Firgrove Road, Hogmoor Road and Station Road as an alternative route to the A325	Environmental improvements on Firgrove Road and Station Road improve the visual environment and to make it easier for pedestrians to cross the roads – could include shared space, raised junction tables	Opportunity to incorporate wider enhancements to the area along with improving opportunities to cross the road and helping to reduce the speed of traffic	£75k
		Reduction of speed limit on northern end of Hogmoor Road from 40mph to 30mph	To reduce the use of alternative routes to the west of Whitehill & Bordon and reduce speed of traffic	£10k
		Potential reconfiguration of Oakhanger Road / Hogmoor Road / Bolley Road junction and Budds Lane / Station Road junction to slow traffic speeds.	To reduce the use of alternative routes to the west of Whitehill & Bordon and reduce speed of traffic.	£30k
East of A325	Speed and volume of traffic on Liphook Road between A325 and Walldown Road	Environmental improvements along Liphook Road to emphasise the start of a residential area	Opportunity to incorporate wider enhancements to the area along with improving opportunities to cross the road and helping to reduce the speed of traffic	£75k
		Provision of enhanced village gateway on approach Whitehill & Bordon	Village gateways have been shown to indicate to drivers that they are entering a village and therefore a different environment	£40k

Table 8.10 (continued) – Whitehill & Bordon Area Traffic Management Strategy

Area	Item raised	Proposal	Why selected	Cost
East of A325	Speed and volume of traffic on Liphook Road between Walldown Road and B3004	Reduction of speed limit from 60mph to 40mph between junction with Walldown Road and east of junction with Hollywater Road and potential provision of Vehicle Activated Sign	To reduce traffic speeds along Liphook Road, improve safety and discourage use of the route	£20k
		Reduction of speed limit from east of Hollywater Road to B3004 from 60mph to 50mph	To reduce speed of traffic and improve safety	£10k
	Speed and volume of traffic on Walldown Road.	Reduction of speed limit from 60mph to 40mph	To reduce speed of traffic and improve safety	£10k
	Speed and volume of traffic on Whitehill Road.	Provision of speed reduction features such as enhanced village gateways and Vehicle Activated Signs	Village gateways have been shown to indicate to drivers that they are entering a village and therefore a different environment and Vehicle Activated Signs should reduce speed of traffic and improve safety	£30k
	Speed of traffic on Hollywater Road	Reduction in speed limit from 60mph to 50mph on northern part of route. Also provide advisory on-carriageway cycle symbols	To reduce traffic and improve safety for all users	£15k
Whitehill & Bordon Town Centre	Use of Conde Way, Forest Road and Chalet Hill as an alternative route to the A325	Environmental improvements to improve the visual environment and to make it easier for pedestrians to cross the roads – could include shared space, raised junction tables	To reduce traffic speeds and discourage use of the route	£75k
TOTAL COST				£390k

8.10.2 The Whitehill & Bordon Traffic Management Strategy aims to discourage traffic from using alternative routes around the east and west of the existing town. This is reflected through proposals for environmental improvement schemes on the main starting and ending points of such routes on Liphook Road, Firgrove Road, Conde Way, Station Road and the Lindford Road.

8.11 SUMMARY OF TRAFFIC MANAGEMENT STRATEGY COSTS

8.11.1 Table 8.11 below provides a summary of the cost of the Traffic Management Strategy proposed for each corridor or area. The proposed Traffic Management Strategy for each route aims to reduce the impact of traffic generated by the Eco-town by either discouraging the use of inappropriate routes, or improving the pedestrian environment, reducing traffic speeds and improving safety on parts of the strategic road network.

Table 8.11 - Summary of Traffic Management Strategy Costs

Corridor	Cost
A325 Corridor	£340,000
B3004 to Alton Corridor	£155,000
B3004 to Liphook Corridor	£318,000
B3002 to Hindhead Corridor	£447,000
Bentley and Blacknest Corridor	£385,000
Blackmoor and Oakhanger Area	£240,000
Blackmoor to Selborne Area	£350,000
Greatham Corridor	£151,000
Whitehill & Bordon Area	£390,000
TOTAL COST	£2,776,000

8.11.2 These are estimates based on best practice and previous experience of the implementation of these types of measures therefore they are representative of outline design and are for information only. Not all works are directly related to the Eco-town, as some recommendations address existing problems and therefore are not necessarily due to be funded by the Eco-town development.

8.12 DELIVERY STRATEGY

8.12.1 In addition to providing cost estimates for the Traffic Management Strategy it is also important to consider how the proposals will be delivered in relation to the development of the Eco-town. The following paragraphs discuss the five stages of delivery, starting with initial assessments and ending with identification of funding.

STAGE 1 – INITIAL ASSESSMENT (AMEY TRANSPORT ASSESSMENT)

8.12.2 The Amey Transport Assessment provided an initial estimate of the impact of the Eco-town in relation to increases in traffic in villages surrounding Whitehill & Bordon. This assessment had been used to identify corridors and areas where traffic management measures could be implemented to reduce the impact of the Eco-town by reducing traffic speeds, improving safety, improving the pedestrian environment or discouraging the use of inappropriate routes. The proposed strategy for each corridor or area is identified in Section 8 of this report.

STAGE 2 – ECO-TOWN BUILD-OUT AND MONITORING

8.12.3 As the Eco-town is constructed the traffic volumes in local villages will be monitored to assess the actual impacts of the Eco-town.

STAGE 3 – TRIGGERS FOR IMPLEMENTATION

8.12.4 Through the monitoring in Stage 3, trigger points will be identified where traffic flow monitoring demonstrates a detrimental impact to the highway network or village / rural environment and amenity.

STAGE 4 – DEVELOPMENT OF MEASURES

8.12.5 In consultation with the Parish Council, local residents and local organisations traffic management measures will be implemented that mitigate any detrimental impacts of the Eco-town.

STAGE 5 – IDENTIFICATION OF FUNDING

8.12.6 As previously stated, some of the traffic management measures identified will be implemented as part of the Highway Authority's on-going Traffic Management Programme before and during construction of the Eco-town. Funding will also be obtained through the Community Infrastructure Levy secured from other developments that take place in the adjoining settlements. Opportunistic government funding will also be investigated when it becomes available. Consequently, the actual cost of the traffic management measures likely to be required as a result of the Eco-town will be considerably less than that identified in Table 8.11.

9 Summary & Conclusions Traffic Management Strategy

9.1 SUMMARY

9.1.1 WSP has been commissioned by Hampshire County Council (HCC) to complete a Traffic Management Strategy for villages and key local routes surrounding the proposed Whitehill & Bordon Eco-town.

9.1.2 The aim of this study is to develop a Traffic Management Strategy that will provide practical and deliverable strategies for the implementation of physical and softer measures designed to reduce the traffic impact of the Eco-town proposals on local villages and communities, and to discourage the use of inappropriate traffic routes.

9.1.3 The methodology for developing a Traffic Management Strategy is based upon the need to gain an in depth understanding of local transport issues and traffic behaviour along routes and villages surrounding the proposed Eco-town, then reconcile these against potential Traffic Management measures which will help resolve such issues.

9.1.4 Through analysis of this data, a number of key routes, corridors and areas have been identified linking Whitehill & Bordon to the surrounding area. As part of this data analysis, it became clear that certain routes or areas shared the same characteristics or concerns (e.g. traffic using unsuitable routes) and as such a corridor approach allows these to be considered in unison.

9.1.5 Following on from assessment of background data, consultation meetings were arranged with Town and Parish Councils surrounding Whitehill & Bordon to gather further knowledge of local traffic issues and views on existing Traffic Management. Then, following on from completion of draft strategies for each corridor, a second phase of consultation meetings was conducted to discuss the draft traffic management measures proposed and promote alternative schemes where required.

9.1.6 Final Traffic Management Strategies were then developed and illustrate how proposed options intend to address the concerns raised by the relevant groups. In addition to details of proposed measures, an estimate of costs for each option proposed has been provided.

9.2 CONCLUSIONS

9.2.1 The Traffic Management Strategies that have been proposed in the report are based upon the evidence, background data collated through the completion of this study. The study has investigated and consulted on current traffic issues along corridors and in villages which may be affected by the Eco-town, and as such may require some aspect of mitigation from the development.

9.2.2 The study has reviewed the existing situation along these corridors which has formed the basis of the assessment of where mitigation may be needed, as part of development of the Eco-town. It should be noted that the Strategy contained within this document represents a long-term Strategy that will be implemented in combination with the development of the Whitehill & Bordon Eco-town. Therefore, in the short-term, local Town and Parish Councils should continue to work with HCC to develop strategies to mitigate existing Traffic Management concerns and issues. In addition, where local concerns fall outside of the scope of this strategy and outside of the scope of the Eco-town transport strategy, it will be the responsibility of HCC to develop schemes to ameliorate such concerns.

9.2.3 The strategies have identified the need to ensure that traffic remains on the most suitable routes, which is primarily the strategic route network (A and B roads), and the Strategy on these routes is to mitigate the potential impact of the development through looking at current concerns such as speed and severance issues through villages.

9.2.4 On routes that are currently, and will in the future be deemed as unsuitable then the proposed Strategy intends to deter traffic from using these routes, through more direct measures such as speed reducing features and more permanent measures such as one-way streets and road closures.

9.2.5 In all of the above the Strategy has tried to retain the rural nature of the area that the study covers but trying to enhance the villages that are affected with measures that will not only help to mitigate the impact but also to improve their area such as in environmental improvements, safety improvements and by addressing severance issues. Where measures are proposed, these will be developed in consultation with local stakeholders and an on-going monitoring scheme (tied into the development of the Eco-town) will be agreed to assess their relative success. Where schemes are found to be unsuitable or unsuccessful in achieving their objectives, HCC will review measures as appropriate.

9.2.6 The Strategy has identified the need for further studies following the completion of this report, such as area wide freight and traffic signing reviews which will need to be completed by the Highway Authority as the proposal for the Eco-town are developed.

Appendices, Figures & Tables

Appendix A – Phase 1 Consultation Minutes and Correspondence

Appendix B – Phase 2 Consultation Minutes and Correspondence

Appendix C – Phase 3 Consultation Comments and Responses

Appendix D – Matrix of Traffic Management Options for each Corridor