



Transport Study for Adur Core Strategy/ Local Plan

Report by the Executive Head of Planning, Regeneration and Wellbeing

1.0 Summary

- 1.1 This report seeks approval for the commissioning of a consultant to undertake a transport assessment for the Adur Core Strategy/Local Plan which will also be useful in the preparation of the joint Area Action Plan for Shoreham Harbour. A previous transport study was undertaken last year which remains valid but needs to be up-dated to reflect new modelling information and to take into account the proposed revocation of the South East Plan. The new study will assess the transport impact of a number of options for levels of housing and employment development prior to their consideration for inclusion in the draft Core Strategy/Local Plan. The study will also inform a transport strategy being prepared for the Adur area including Shoreham Harbour which will contain a number of sustainable transport options to help mitigate the impacts of strategic development.
- 1.2 A copy of the study brief prepared for the procurement process is attached at appendix 1.

2.0 Background

- 2.1 A previous transport study undertaken last year by consultants Parsons Brinckerhoff assessed the impact of a number of development scenarios for Shoreham Harbour as well as strategic allocations to meet the overall target figure of 2,100 homes for the rest of the district (as contained in the South East Plan). The results of this study are still valid in many respects but since its results were published, a number of circumstances have changed and a follow-on study is now required for the following reasons:
- With the proposed revocation of the South East Plan, new housing and employment level targets have been produced for the district (consultation on these took place in the Summer of this year) some of which now need to be assessed in terms of transport impacts prior to their potential inclusion and further consultation in the draft Core Strategy/Local Plan. The draft NPPF makes clear that Local Plans should seek to meet objectively assessed development needs and also for this to be justified based on proportionate evidence. Whilst the local housing needs study revealed high levels of housing need and demand up to 2028 in Adur (objectively assessed), the impact of providing for this needs to be assessed and justified in terms of the impact on transport. This transport study will provide this evidence.

- The configuration and quantum of development at Shoreham Harbour has changed substantially (as a result of the recent Capacity and Viability study) compared to what was assumed and tested previously.
- The Department for Transport has issued revised travel growth forecasts which now need to be taken into account.
- Potential funding for transport improvement schemes has been substantially reduced or withdrawn and these need to be factored into the study.
- Significant improvements have been made to the transport model which are likely to affect the forecasts produced. Such improvements include the addition of public transport model information; junction improvements including those to the A259 through CIF funding and forecast up-dating using new software.

3.0 Proposal

- 3.1 The outcome of the proposed transport study is the assessment of the impact of the Core Strategy/Local Plan strategic development options/scenarios on the transport network; information for a transport strategy for Adur and specific mitigation measures (infrastructure and sustainable transport) to address issues and problems.
- 3.2 It is recommended that due to the complex technical nature of the work and particular expertise required, that a consultant is appointed to undertake the transport study. This is not work that can be done in-house and whilst West Sussex County Council can advise, the work is not their responsibility.
- 3.3 There are significant risks to the Core Strategy/Local Plan if this further transport study is not undertaken. A test of soundness for any LDF Core Strategy is the justification for its policies and if these are not backed up by robust evidence, this test is not met and the Plan will be found unsound by an Inspector following its examination. The Inspector will expect each development option to have been tested against a range of impacts including environmental, social and economic (through the sustainability appraisal) and also in terms of infrastructure impact, including transport. Furthermore, the local community will expect that such a transport assessment has been undertaken to inform the options.
- 3.4 The cost for the study is estimated to be between £40,000 and to £50,000 two thirds of which would be paid from the Adur LDF budget and one third from the Shoreham Harbour budget. There is sufficient budget to pay for the work since Members approved a carry forward from last year's budget to pay for studies to complete the Core Strategy/Local Plan. Under the procurement procedures for a contract of this range, at least 3 written quotes are required and Officers will select appropriate consultants if approval to proceed is given.

4.0 Legal

- 4.1 The proposed transport study will contribute to the preparation of the Adur Core Strategy/Local Plan, part of the Local Development Framework, produced in accordance with the Planning and Compulsory Purchase Act 2004 and the Town and Country Planning (Local Development) (England) Regulations 2004.
- 4.2 Section 19(2) of the Planning and Compulsory Purchase Act 2004 Act lists in paragraphs (a)–(j) the matters to which the local planning authority must have regard when preparing a development plan document or any other local development document. Those matters include the regional strategy for the relevant region and the regional strategy for any adjoining region (paras. (b) and (d)). In addition Section 24(1) provides that, outside Greater London "The local development documents must be in general conformity with ... the regional strategy..." The legislation does not preclude the local planning authority from having regard to other matters. Indeed, government guidance on the issue, asks local planning authorities to have regard to the governments intention to abolish regional strategies in any decisions they are currently making.

5.0 Financial implications

- 5.1 The LDF budget includes £116,000 remaining for this financial year 2011/12 for technical studies associated with the progression of the Adur Core Strategy/Local Plan. Whilst a few other studies will be required, the budget is sufficient to pay for two thirds of the transport work. The Shoreham Harbour funds are also sufficient to pay for the remaining one third of the costs

6.0 Recommendation

- 6.1 That the Cabinet Member approve the commissioning of a consultant, through the Council's procurement procedures, in order to undertake a follow-on transport study for the emerging Adur Core Strategy/Local Plan.**

Local Government Act 1972 Background Papers:

Transport study brief (appended)

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Schedule of other matters

1.0 Council Priority

1.1 The emerging Adur Core Strategy will help to:

- Promote a clean, green and sustainable environment by protecting the best of Adur's environmental assets, steering development to sustainable locations and through policies to secure sustainable and quality design;
- Revitalise, regenerate and create lively economies through securing economic and town centre regeneration and community wellbeing;
- Contribute to the implementation of the Community Strategy and other partnership initiatives through providing a clear spatial vision for the future of the district and through spatial policies.

2.0 Specific Action Plans

2.1 (A) Corporate Plan 2009-12 Aim 1: The Core Strategy will assist in providing opportunities for working in partnership with other organisations, as joint working will be necessary in order to deliver proposals within the Core Strategy. The Core Strategy is required to go through several stages of public consultation, which creates opportunities for people to take part in decision-making. Aim 2: The Core Strategy will address issue relating to CO2 emissions and adapting to climate change (for example by addressing issues relating to flooding). It will address the delivery of open spaces, and green links. The Core Strategy will set out key principles for development at Shoreham Harbour. It will also address increasing opportunities for walking and cycling, and reduce reliance on the private car, road improvements and addressing congestion. Aim 4: The Core Strategy will encourage use of 'Secured by Design' and promotion of green links and open spaces.

2.2 (B) Local authorities are required to deliver a Local Development Framework, of which the Core Strategy is a fundamental part.

3.0 Sustainability Issues

3.1 The Government requires that all Development Plan Documents be subject to a formal Sustainability Appraisal. The emerging Core Strategy/Local Plan aims to promote sustainable development.

4.0 Equality Issues

4.1 The Adur Core Strategy/Local Plan aims to ensure that all groups in the District have equal access to the spatial opportunities offered by the emerging development plan.

5.0 Community Safety Issues (Section 17)

5.1 'Secured by Design' will be encouraged by the Core Strategy/Local Plan.

6.0 Human Rights Issues

6.1 No negative issues have been identified at this stage.

7.0 Reputation

7.1 Matter considered and no issues identified.

8.0 Consultations

8.1 The draft Adur Core Strategy/Local Plan will be consulted on in the summer of 2012 which will include spatial options to meet two or three housing level options. Information on transport impact will be included as part of this consultation.

9.0 Risk Assessment

9.1 The Council has a statutory duty to produce the Local Development Framework, and failure to deliver a sound Plan could impact on a number of the Council's priorities.

10.0 Health & Safety Issues

10.1 Matter considered and no issues identified.

11.0 Procurement Strategy

11.1 The appointment of a consultant to undertake the transport study will be in accordance with the Council's procurement procedures.

12.0 Partnership Working

12.1 Partnership working will be an integral part of the delivery of the Adur Core Strategy/Local Plan. A range of proposals will require working between Adur District Council, West Sussex County Council, the private sector, Parish and Town Councils and other groups. Discussions will be held with other local authorities, as referred to in the report.

CONSULTANCY BRIEF

ADUR District Council– Adur Local Plan Shoreham Harbour Growth Point

TRANSPORT STUDY OF STRATEGIC DEVELOPMENT OPTIONS AND SUSTAINABLE TRANSPORT MEASURES

Purpose

This Brief outlines the requirements of a follow-up Transport Study that will inform the preparation of the Adur Local Plan which covers Adur District (excluding the South Downs National Park [SDNP]) and the Shoreham Harbour & Adur Area Transport Strategy (SH&AATS) for the Joint Area Action Plan area (JAAP). Please see figure 1. Shoreham Harbour was designated as a Strategic Development Area by the Regional Spatial Strategy (RSS) (South East Plan) 2008. Further background information about the regeneration project can be found at www.shorehamharbour.com

In particular, the study is required to:

- Inform the consideration of a number of strategic housing and employment development options for the Adur Local Plan
- Inform consideration of the sustainable transport options and assumptions to be incorporated into the SH&AATS to adequately mitigate the impacts of strategic development
- Address the requirements of both West Sussex County Council as Highway Authority and the Highways Agency, both of which aim for a sustainable approach to transport with a common objective of managing travel demand to minimise congestion, delays and adverse environmental / safety impacts.

The County Council's area of concern is the impacts on local roads including the A259 and the two designated Air Quality Management Areas in the district.

The Highways Agency's area of concern is with the impact of proposed development on the A27 Trunk Road. This is running close to or at capacity during certain hours of the day within Adur district. Traffic on the A27 is increasing overall and the Agency would therefore not wish to see the situation deteriorate on the A27 in Adur or in the neighbouring authorities as a result of development. New road measures would only be considered as a last resort after every effort has been made to reduce demand through sustainable initiatives.

This study follows on from a previous study undertaken by Parsons Brinckerhoff (PB) for Adur District Council. However a number of circumstances have changed since the commissioning of that study and provision for these now requires further analysis. The study forms an important tool in making choices between sites; findings must therefore be presented in a way that assists choices to be made.

Context

Adur Local Plan and Shoreham Harbour Regeneration

Adur DC is currently preparing a new Local Plan as part of its Local Development Framework (LDF). This will replace the current adopted Adur District Local Plan 1996. The Local Plan will set out the spatial strategy and vision for the District – outside of the SDNP - and for specific places and the policies to achieve this up to 2028. It will identify the overall amount of new development needed over this period of time and indicate the broad locations for new development including at Shoreham Harbour. The redevelopment and regeneration of the Shoreham Harbour area is integral to the emerging Local Plan and fundamental to delivering its vision and objectives and as such will be identified as a 'broad location' for development with an associated policy.

In 2009, Shoreham Harbour was designated as a Strategic Development Area in the South East Plan and allocated a target of delivering up to 10,000 new homes, subject to local testing. Shoreham was subsequently granted Growth Point status by the Government. Extensive testing has since found that the delivery of this scale of housing and associated employment would not be financially viable and that the local environmental impacts are unlikely to be mitigated in the short to medium term. Furthermore, the Government announced its intention to revoke Regional Spatial Strategies and their associated housing targets in July 2010; therefore the policy imperative of delivering 10,000 homes is removed (subject to the enactment of the Localism Bill).

Following the most recent Capacity & Viability study¹ of redevelopment at Shoreham Harbour, the provision of up to approximately 2000 homes and 3800 new employment opportunities (including 500 new jobs from Shoreham Port Masterplan proposals) is being explored as a more realistic target.

In terms of housing targets for Adur's Local Plan, local authorities now have the ability to determine their own housing requirements in conjunction with the community. Work is now underway to determine a locally generated, District-wide - save for the SDNP area - housing target and it is anticipated that this target will be determined in summer 2012. This study will form part of the evidence base for the determination of this target. As a result, this study is required to assess various housing targets and their impacts. In terms of development, the focus will be on the use of previously developed land within the built-up area in addition to some Greenfield sites on the edge of the urban area; the scale of which will depend on the housing/employment targets selected. The Shoreham Harbour housing target will continue to be ring-fenced separately due to the complex nature of the site and will be agreed at a meeting of Adur District Council and identified in the Local Plan as a broad location and in more detail in the Development Plan Document (Joint Area Action Plan) that will follow.

Employment provision assumptions are made to 2028 based on an Employment Land Study. Details as to the options being explored for the spatial distribution of the residential and commercial development, as well as information as to the types of development, are set out in Appendix 1.

¹ See AECOM 'Shoreham Harbour Capacity & Viability Study' 2011 p35

Appendix 2 sets out all other information to be provided by Adur DC and West Sussex County Council that will support this study.

Previous Transport Study

In 2009/2010 a Transport Study was undertaken which tested the potential strategic allocations. The study also tested a range of potential levels of housing and employment in Shoreham Harbour. Further, the study tested the impact of transport strategy initiatives for the Harbour area, as recommended in the Peter Brett Associates draft Transport Strategy 2008. This study used the SATURN Highway only Transport Model. This was an extremely complex study that resulted in indicative conclusions on the impact of future development on the highway network². These recommendations have merit going forward, however further analysis is required for the following reasons:

- Adur are reviewing the quantum of their Local Plan housing numbers, which may impact on the sites selected (and their consequent land-take/density).
- The configuration and quantum of regeneration/ redevelopment at Shoreham Harbour has changed substantially, specifically including the location of proposed housing and employment allocations within the Harbour area (outcome of recent Capacity & Viability Study) compared to what was assumed and tested previously.
- The South East Plan is likely to be revoked in due course.
- A draft National Planning Policy Framework has been published by the national Government (CLG).
- This Development Plan Document will now be a Local Plan rather than a Core Strategy.
- The Department for Transport has issued revised travel growth forecasts NTEM 6.2 and these have now been made definitive.
- Potential funding for transport improvement schemes has been substantially reduced or withdrawn.
- Significant improvements have been made to the transport model which are likely to affect the forecasts produced.

The improvements made to the transport model include:

- Addition of OmniTRANS public transport model and mode choice response
- Addition of destination choice response using DIADEM
- Separate demand matrices for cars, light goods and heavy goods vehicles
- Improvements to highway buffer network with addition of links north of Brighton & Hove missing from the previous model network to improve assignment of external trips
- Improvements to detailed junction coding on A27 in Lancing to Shoreham Bypass section

² See Parsons Brinkerhoff 'Adur District Core Strategy and Shoreham Harbour Transport Study 2011'

- Updates to wider junction coding to reflect changes in newer version of SATURN
- Updates to forecast year highway network on the A259 to reflect recent (post model base year) junction improvements to ease bus, cyclist and pedestrian movement along the A259, implemented as part of a Community Infrastructure Fund grant award
- Change to Origin Based Assignment methodology within SATURN highway model
- Revision of PCU factors to match WebTAG advice
- Re-validation of base year highway model resulting in validation of both AM and PM peak models to 89% for DMRB GEH and flows criteria
- Forecasting updated using TEMPRO 6.2 software with NTEM 6.2 datasets

Scope

An assessment of the implications of the strategic development scenarios on the transport network in the study area prior to application of transport strategy and specific mitigation measures. All the strategic development scenarios tests will include Shoreham Harbour as 1965 houses and 3924 new employment opportunities.

Recommendations as to appropriate transport strategy elements & mitigations (infrastructure and sustainable transport initiatives) to be included within option testing. These will be determined in liaison with WSCC and Highways Agency including consideration of WSCC's draft Shoreham Infrastructure Plan and draft Shoreham Harbour Transport Strategy.

The detailed requirements for the modelling of the transport mitigations will be agreed when initial results of the development scenario tests without mitigation are presented.

An assessment of the impacts of the strategic development scenarios on the transport network in the study area, when combined with the application of transport strategy and specific mitigation measures. This includes assessment of the effectiveness of the proposed mitigation strategy. The assessment will be based on testing four development scenarios, which are detailed below.

Recommendations from this study will include the effectiveness of transport strategy initiatives to be delivered along with modal shift targets and costs and any additions and alterations to this strategy that are likely to be required.

Methodology

Development Scenarios

The potential strategic development locations outside Shoreham Harbour are:

Location	Type of Development
Land East of Marsh Barn Ward / New Monks Farm – Strategic Allocation	Housing, Employment & mixed uses
Land south of Railway, North of Hasler Estate, Lancing	Housing
Sompting Fringe: Western edge of built up area	Housing
Shoreham town centre	3,000 – 6,000 sqm retail
Shoreham Airport (Strategic Allocation)	B1 & B8 Employment (worst case)
Shoreham Harbour – Western Arm	Housing, Employment & mixed uses
Shoreham Harbour – Aldrington Basin (Brighton & Hove)	Housing, Employment & mixed uses
Shoreham Harbour – South Portslade (Brighton & Hove)	Housing, Employment & mixed uses

It is not yet possible to determine if all sites listed will be allocated in the Adur Local Plan, as this will be dependent on the housing target selected, and in part, the results of this modelling. The strategic development scenarios including numbers of dwellings, jobs and floor-space for commercial uses for potential Local Plan sites are to be supplied by ADC and will form Appendix 1. Assumptions will be made for the purposes of this study, as to the distribution of development at each potential site.

For the Local Plan (excluding Shoreham Harbour) there will be three options for quantum with the same spatial distribution plus one sensitivity test of an alternative spatial distribution for the medium quantum

The three quantum options are as follows:

Option 2: 1785 homes (to include sites as follows):

New Monks Farm/ Mash Barn: 450 dwellings

Sompting: 335 dwellings

Hasler: 225 dwellings

Remainder of residential development to be distributed across study area in proportion to population

Shoreham Airport – Up to 30,000sqm of B1, B2 and B8 uses	1252 jobs
New Monks Farm – Up to 10,000sqm of B1, B2 and B8 uses	419 jobs
Baseline economic growth	1800 jobs
Total Adur jobs (excluding Shoreham Harbour)	3471 jobs

Option 3: 2635 homes (to include sites as follows:)

New Monks Farm/ Mash Barn: 820

Sompting: 616

Hasler: 413

Remainder of residential development to be distributed across study area in proportion to population

Shoreham Airport – Up to 30,000sqm of B1, B2 and B8 uses	1252 jobs
New Monks Farm – Up to 10,000sqm of B1, B2 and B8 uses	419 jobs
Baseline economic growth	1800 jobs
Total Adur jobs (excluding Shoreham Harbour)	3471 jobs

Option 4: 4590 homes (to include sites as follows:)

New Monks Farm/ Mash Barn: 1687

Sompting: 1267

Hasler: 850 dwellings

Remainder of residential development to be distributed across study area in proportion to population

Shoreham Airport – Up to 30,000sqm of B1, B2 and B8 uses	1252 jobs
New Monks Farm – Up to 10,000sqm of B1, B2 and B8 uses	419 jobs
Baseline economic growth	1800 jobs
Total Adur jobs (excluding Shoreham Harbour)	3471 jobs

Sensitivity Test:

Option 3(S): 2635 homes (excluding 1 residential site (Land south of Railway, North of Hasler Estate, Lancing) from spatial distribution.

New Monks Farm/ Mash Barn: 1053

Sompting: 796

Remainder of residential development to be distributed across study area in proportion to population

Shoreham Airport – Up to 30,000sqm of B1, B2 and B8 uses	1252 jobs
New Monks Farm – Up to 10,000sqm of B1, B2 and B8 uses	419 jobs
Baseline economic growth	1800 jobs
Total Adur jobs (excluding Shoreham Harbour)	3471 jobs

The detailed breakdown of numbers of homes and jobs per site will be included at Appendix 1.

For Shoreham Harbour sites, the headline levels of “do something” development have been set out in the ‘Context’ section of this document, with the detailed breakdown at Appendix 1.

In addition, housing on non-strategic sites will also need to be included in the scenarios. Many small sites have been identified by Adur District Council previously, and will be incorporated as background growth, where they are too small to be identified as part of this study. As different levels of development are proposed, the non-strategic totals in some scenarios may differ from the reference assumptions and this will form part of the “do something” impact to be tested. (See Appendix 1 for further information).

The consultants should estimate traffic generation associated with each strategic development location, (which will vary because of their different contexts), and agree these with WSCC, Highways Agency and Adur DC

The consultants should assess the impact of traffic generation associated with each major growth scenario upon the highway network through the requisite ‘runs’ of the SHSM multi-modal transport model.

The forecast year will be 2028, in order to relate to the Adur Local Plan period 2011-2028.

To identify the transport infrastructure and demand management measures needed to address current problems on the highway network in the district and wider area. Junction analysis should specifically include:

- Sussex Pad/A27
- A27/A283 junction
- A27/Grinstead Lane,
- A259/South Street Lancing,
- A283/A259 Shoreham High St

Turning flows only are required for A270/B2167 Kingston Lane i.e. capacity analysis is not required at this location but an understanding of flow changes is required due to the presence of an Air Quality Management Area

Detailed modelling should be undertaken at additional junctions where capacity issues are identified.

This will include an assessment of the implications of development scenarios, consisting of combinations of strategic development locations, on the road and public transport networks (including main road junctions) in Adur District and beyond.

Where the development is deemed to have a significant impact on road and public transport network the study will identify the transport infrastructure and public transport measures needed to mitigate this impact in accordance with DfT [Circular 02/07](#) regarding Planning and the Strategic Road Network. Where impacts cannot be mitigated, through reasons of: cost, environmental impact, land-take requirements etc. this is likely to be considered a ‘showstopper’. **These showstoppers should be clearly indicated in the report, with reasons explained.**

In line with PPS12 guidance, when assessing sites the following should be considered and set out clearly in the report:

- Phasing of development and infrastructure provision
- Infrastructure needs and costs
- Funding sources for infrastructure
- Responsibilities for delivery
- Risks to delivery

General

Much of the work from the previous PB study (Adur Core Strategy and Shoreham Harbour Transport Study 2011) will be relevant to this study and an informal review of this work will help identify this.

The transport model to be used for this study is the Shoreham Harbour Strategic Model comprised of the SATURN highway model and the OMNITrans Public Transport Model with DIADEM destination choice. The Local Model Validation Report and Forecasting report are both supplied alongside this brief. Companies bidding to undertake this work should provide CV's for their proposed project team to demonstrate that the team includes people with adequate experience in the use of the relevant modelling software packages.

The consultant should work in close consultation with the transport modelling consultant for the adjacent Worthing and Adur Strategic Transport Model / Worthing Core Strategy Study, to harmonise the underlying methodologies and assumptions as far as is practicable. Liaison should also take place with Brighton & Hove City Council to ensure correct representation of the Brighton & Hove Core Strategy. The outcome of all such direct communications between consultants should be supplied to the client and Highway Authorities as work progresses. The client additionally reserves the right to request the detailed record of such communications. The consultant must provide all such information in an expeditious manner.

A TEMPRO-based reference scenario has been developed for the modelled future year applying generic assumptions on the level of development from the National Transport Model TEMPRO 6.2 software has been used with NTEM 6.2 datasets.

A Study specific reference case scenario should be developed, which removes the strategic development totals to be tested from the household and employment forecast growth to 2028 from TEMPRO. This will enable the full impacts of the strategic development sites to be tested.

The TEMPRO reference scenario includes changes to the highway network from the base 2008 model to summer 2011 from the CIF project. The Study reference case must include any further committed schemes and developments of sufficient size to be relevant to modelled flows, which are identified in the model study area.

Trip generation methodology will be agreed between the consultant and the ADC, WSCC and HA at study inception, including appropriate assumptions for conventional and low-car development types and the effect of travel plans on trip generation rates.

It is anticipated that the vehicular trip generation rates agreed within the previous highway model study will continue to be largely applicable, but that the multi-modal nature of this study will require complementary person trip rates to be agreed.

The consultant will propose a detailed modelling methodology to be agreed with the client at the study inception meeting. This will include trip distribution methodology for development trips, trip assignment parameters, representation of development zones in the model network and matrix and representation of site access junctions in the model network.

The forecast year will be 2028 which relates to the Core Strategy period 2011-2028

Account will also need to be taken of the amount and location of development in neighbouring districts that are likely to affect transport flows within Adur District itself. In particular, any housing development planned in Worthing Borough, Brighton and Hove City, Horsham District and Mid Sussex District which may have substantial localised impacts on transport movements. Account should also be taken of the Shoreham Port Masterplan, save for where conflicts in proposed development levels exist with the AECOM Shoreham Harbour Capacity and Viability Study recommendations.

It is anticipated that the following model runs will be undertaken for both the AM and PM peak periods:

(Base year already exists)

(Future year – TEMPRO reference case 2028 - already exists)

Future year – Study reference case 2028 – excludes strategic development sites and adds any committed development or transport schemes not already included in TEMPRO reference case

2028 – with development: three quantum options and one sensitivity test for spatial distribution as detailed in the Development Scenarios section of this brief.

2028 – with development plus a transport mitigation strategy to include the following:

- Area-wide smarter choices
- Improvements to local cycle and walking network
- Improvements to bus services to maximise service for existing and new residents and workforce. Quality Bus Partnership improvements to 700 service
- Parking pricing
- Transport infrastructure mitigations to junctions

For the three quantum options and one sensitivity test for spatial distribution as detailed in Development Scenarios section of this brief.

The consultants will need to take into account in their modelling, that the strategic development locations are already substantially included within the 'background' traffic growth in the current version of TEMPRO. However, the need for the further assessment is due to the reference case forecasts not representing the concentration of development in the alternative locations proposed and due to Adur DC reviewing the overall level of housing and employment, which may be higher or lower than the pre-existing reference forecasts. The forecasting methodology will seek to eliminate double-counting of development generated traffic.

Outputs

The reporting, including methodologies, test results and analysis are to be supplied in draft to West Sussex County Council, the Highways Agency and Adur District Council for checking prior to production of the final report. Information should be provided in charts, tables, text and diagrams as appropriate for the material to be communicated.

The key outputs from the study, which the final study report will need to set out in plain English are:

- What the impacts will be
- What mitigation measures may be required, including "smarter choices" initiatives and other "soft measures" alongside engineering infrastructure measures
- How implementation of mitigation measures should be phased with development
- Costs of mitigation strategy and potential sources of funding.

If it is considered that any of the options tested cannot be realistically mitigated this should be explicitly stated

To answer these questions must include drawing on information from previous work to avoid any unnecessary duplication.

Key indicators to be reported for individual junctions and links will include: traffic flows, Average delay per vehicle, Ratio of flow to capacity, Expected changes in demand for other modes. Each indicator should be reported for the without development forecast, the with-development forecast and the with-development plus transport mitigation strategy forecast. Changes should be reported from the Study Reference Case 2028 forecast for both the with-development and the with-development plus transport mitigation strategy forecasts.

Tree diagrams (select link analysis) of development-only traffic flows should be produced for each strategic site, so that the contributions of individual sites to overall changes in network flows at individual locations can be seen. This work only applies to scenarios which include strategic development sites i.e. not to the TEMPRO or study reference case forecasts.

Diagrams should be produced, as far as practicable, to a scale whereby text and numerical annotations can be easily read at standard magnification (100%) whether

on screen or printed– where required as a fold-out at A3 or larger. Where details are lost in denser areas of the network on a diagram of the whole study area, additional larger-scale plans should be provided for the affected areas.

More detailed reporting will be required for the junctions listed at paragraph 3.1 above and those identified as at paragraph 3.2. This will include consideration of individual junction entry arms and turning movements. Individual junctions tests are required as specified at 3.1 Advice should be provided on whether further tests of junctions identified according to paragraph 3.2 on individual junction model software (Arcady/Picady/Linsig) using modelled flows would be of significant benefit.

For all indicators, changes resulting in comparison to the Study Reference Case 2028 forecast should be reported in both absolute and percentage terms. Global model statistics should also be provided for number of travel trips, total travel time, total delay time and fuel consumption.

The reporting will set out clearly the modelling methodologies and assumptions applied within the study work. It will include disclosure of any constraints and limitations arising from the methodology applied and resources available. This will include comparison of the available modelled responses to congestion, with the range of possible “real-life” responses to congestion that may occur and any implications for the assumed level of accuracy of results reported.

All reporting should be in a form that can be understood by a reader who is not a transport professional and is unfamiliar with transport planning technical terminology. Terms that could be considered jargon should be avoided where practical or explained where it is essential to use them.

The study will clearly determine which options are the most suitable for development when considered against alternatives. This must be presented in a tabulated form which directly compares the relative merits of each location based on the impact on the highway network, the ability to mitigate these impacts successfully and for the site to contribute to the success of the transport strategy. **It is essential that a non-transport professional is able to easily understand the way this information is presented and how the conclusions have been reached, in order that decisions can be made based on evidence.**

An Executive Summary Report shall be prepared for non-technical readers, based on the non-technical summary within the main report. This should set out the key findings of the study, including the identified pros and cons of the main options. The content of the Executive Summary Report shall be agreed with the client, after the client has read and commented on the draft Study Report.

Reporting arrangements

The Final Study Report and the Executive Summary Report should each be provided in electronic format - including all appendices, plans and diagrams - to the client and to the WSCC and HA. The consultant should also supply six printed copies, of which five should be bound and one unbound, of the Final Study Report to the client for distribution.

Fees

The fee proposal should allow for attendance at a minimum of two meetings at Adur Civic Centre (or other suitable venue) in Shoreham. These meetings are to take place at study inception and at draft report stage. In addition, a detailed visual presentation either to officers or to Members and officers is likely to be required and a price should be provided. An optional allowance should be made for any further meeting or presentation.

The fee proposal should be broken down to indicate the costs of study inception, development of reference scenarios, cost per test scenario, junction model tests, attendance at meetings and reporting. The cost per test scenario would apply to scenarios in the second stage of the study or any further scenarios subsequently added by the client. A cost per day – 8hr working day assumed - for any other additional work required by the client after commencement of the study should also be stated. This day rate would remain valid for a period of up to 12 months from the date of the Council's acceptance of the fee proposal.

Procurement and Contractual Arrangements

Adur District Council will act as lead client. West Sussex County Council will assist Adur District Council to ensure that the transport study/strategy is robust as an evidence base for the Adur Local Plan.

As lead client Adur District Council will be responsible for all financial and contractual arrangements regarding agreement and payment of consultancy fees.

All tenders for this work must include details of projected staff time to be dedicated to the project on basis of hours for each staff grade and daily/ hourly rates.

Adur District Council, with the assistance of West Sussex County Council, will seek to identify the most economically advantageous bid based on a combination of price and quality criteria, for award of this study.

Please ensure that your bid contains sufficient, clearly presented, information to be scored on the following quality criteria:

- Compliance with project programme – highlighting milestones
- Proposed methodology
- Experience of project team members with transport planning studies and in particular with the relevant modelling software – SATURN, OmniTRANS and DIADEM
- Adequacy of project team resources and efficient allocation of resources within team to deliver best value without compromising quality
- Proposed monitoring and risk control arrangements to ensure adherence to thresholds of programme, quality and cost and reporting of any exception event
- Proposed content and layout of deliverables – study report

Timetable

An outline timetable for the study is set out below.

Consultant to begin work	Early November
Draft results to be submitted to WSCC+ADC+HA	December
Draft Final Report	End December
Final reporting	Mid-January 2012

Working Arrangements

The main contact officers at the Council for the overall management of the project will be: -

Moira Hayes
Principal Planning Officer
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Ken Costello
Principal Planning Officer
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ken.costello@adur-worthing.gov.uk
Tel: 01273 - 263421

Guy Parfect
Senior Planner
West Sussex County Council
County Hall
West Street
Chichester
PO19 1RQ

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Tel 01243 753557

Conditions

The conditions attached to this project are as follows:

The Council may withdraw from using the services of the consultant at any time during the project if it is not satisfied with the standard or quality of work.

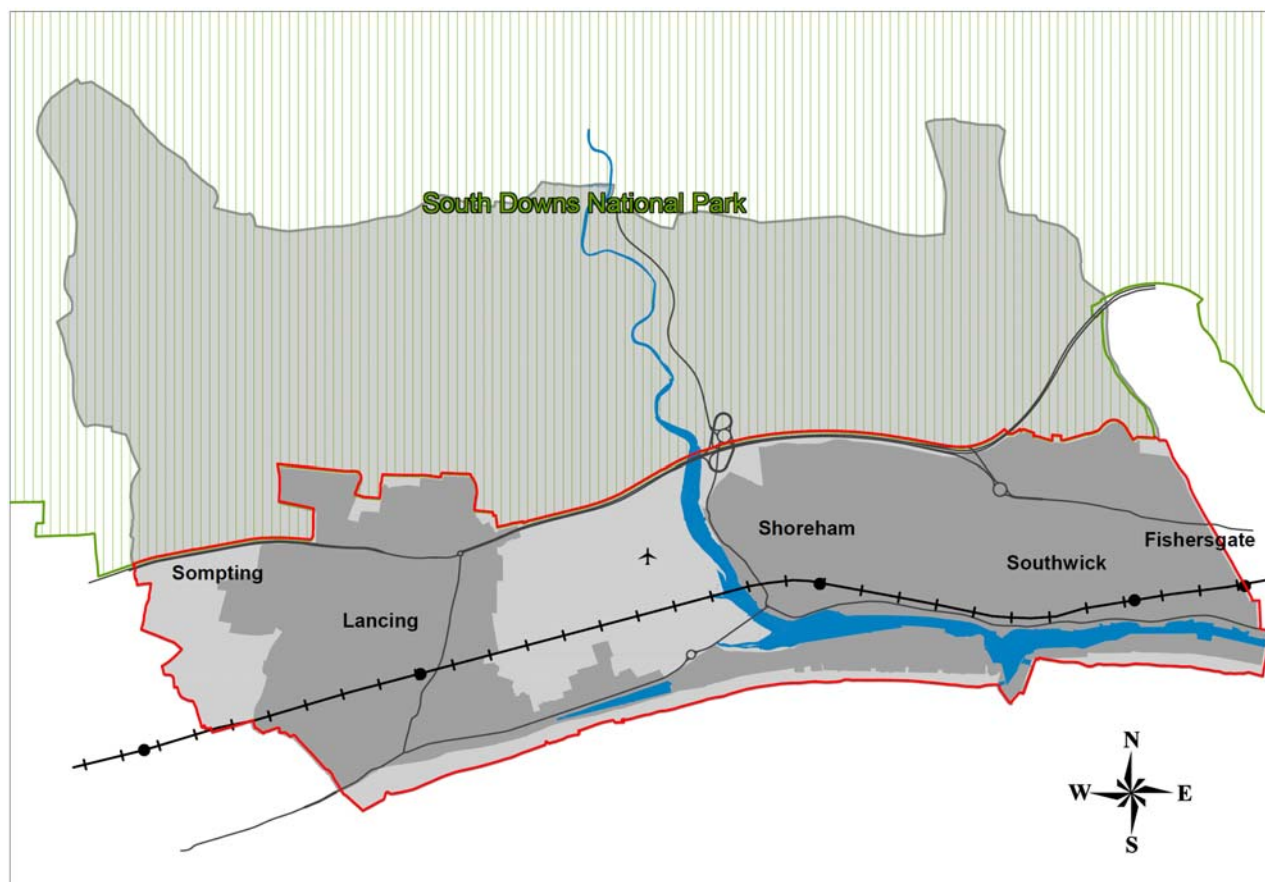
The Council will retain the right to publish the findings of the study and will remain the owner of data/information being produced on its behalf throughout and after the project. Permission will have to be obtained from the Council prior to any reproduction of the report or research data.

The Council reserves the right to request and view the research at any time during its progression.

Any work outside the specification of this Brief which is regarded as “additional” or “further” work must first be agreed (in terms of content and cost) by the Council before it is undertaken.

The contractor may be asked to appear as a professional witness at future public examinations or inquiries relating to the study conclusions. This service would be supplied at the day rate requested at paragraph 7.2 of this brief.

FIGURE 1 – Map of Adur District showing South Downs National Park boundary.
(The vertically striped area lies within the South Downs National Park)



APPENDIX 1

Development Scenarios – including social housing assumptions and densities.

For Shoreham Harbour sites the options for levels of development are tabulated below, within the overall targets stated in the 'Context' section of this document.

Site	Homes*	Jobs*
Western Arm	1530**	1654
Aldrington Basin	181	824
South Portslade	186	1446
Port Masterplan jobs (net additional)		500
Total	1897	3794
Rounded Total	2000	3800

Note:

- *based on Capacity and Viability Study (AECOM 2010) (Scenario1, Quantum Option 1)
- **Excludes the Parcellforce site.

Options (scenarios): Total number of dwellings required	Greenfield dwellings required (ie excluding known commitments, etc)	New Monks Farm (Mash Barn)	Sompting	Hasler
Option 2: 1785 dwellings	999 required*, 1010 total	450* 9ha, 50 dph (44.3%) of development at this level)	335* 13 ha, 26 dph (33.3% of development at this level)	225* 5.6 ha 40 dph (22.3% of development at this level)
Option 3 2635 dwellings	1849	820	616	413
Option 4 4590 dwellings	3804	1687	1267	850
Option 3 sensitivity test 2635 dwellings	1849	1053	796	N/A

- * Note the figures given for each site in Option 1 do not total 999. This is because they are actual figures given by site promoters as to realistic delivery figures at the South East Plan level of development.
- Site figures for options 3 and 4 have been derived by apportioning Greenfield development between the three sites in the same proportion as Option 2
- Site figures for option 3 sensitivity test has been derived by apportioning development between New Monks Farm and Sompting, as option 2 would be if Hasler was excluded.
- Please note that it is assumed that in all cases the total dwellings modelled will equate to the figures in Column 1; that is, site specific numbers (as given) plus background growth.
- We would suggest assuming affordable housing at 30% (current policy) on these strategic sites, as we are not yet in a position to use any alternative figure.
- Density: 50-60 dph.

Employment Sites

The ELR Update 2011 carried out demand forecasting and forecast a baseline growth of 1800 jobs up to 2028.

In addition to the baseline growth, the following key sites (excluding Shoreham Harbour) should be modelled for additional employment development to enable regeneration at each scenario level:

Shoreham Airport – Up to 30,000sqm of B1, B2 and B8 uses	1252 jobs
New Monks Farm – Up to 10,000sqm of B1, B2 and B8 uses	419 jobs
Baseline economic growth	1800 jobs

Total Adur jobs (excluding Shoreham Harbour)	3471 jobs
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SHLAA /sites with an extant planning consent

The Adur District Strategic Housing Land Availability Assessment (SHLAA) (2009) identified sites in Adur (with potential for 6 dwellings or more). These figures have been provisionally updated and take account of site completions and other relevant information, prior to a formal revision of the SHLAA in 2012. Therefore the figures contained in the SHLAA should not be used. Any queries should be referred to Adur District Council. Also included in this growth are sites of 6 units or more with an extant planning consent which are either under construction or have not yet commenced, and an allowance for small sites which cannot be identified in advance.

These sites are distributed throughout the District in all scenarios as follows:

Lancing	53 dwellings
Sompting	87 dwellings
Shoreham-by-Sea	481 dwellings
Southwick	47 dwellings
Assumption regarding small sites of 5 dwellings or less, district wide	118
Total	786 dwellings.

APPENDIX 2

Information to be supplied by Adur District Council and West Sussex County Council for study inception:

Transport infrastructure and demand management measures for each of the sites:

Each site should be modelled with a frequent bus service to nearest town centre and rail station (unless already within easy walking distance of these facilities).

For New Monks Farm and Shoreham Airport, a roundabout has been proposed as a joint access on the A27 to replace the Sussex Pad traffic signals junction. Secondary access to New Monks Farm site should be split via Manor Close, Curvins Way and Mash Barn Lane

Airport – The basic infrastructure proposal would be a roundabout at Sussex Pad to replace the existing traffic signals. With improved infrastructure could mean an improved link to the Saltings A259 roundabout that would be suitable for use by buses. WSCC consider a new rail station at the airport unlikely to go ahead so it should not be modelled.

New Monks Farm - the developers are also proposing minor improvements at the Lancing Manor roundabout and signals at Grinstead Lane / Curvins Way. An improvement at the staggered junction of Grinstead Lane with Mash Barn Lane and Crabtree Lane may also be appropriate. New signals should allow bus detection and priority.

Land North of Hasler Estate – Cycle and emergency vehicles only onto Old Salts Farm Road. Access from Prince Avenue/ West Avenue onto West Way, then onto A259 Brighton Road.

Sompting Fringe – Access via Loose Lane, Test Road and Ullswater Road

Amount of development to come forward from small sites which are not to be modelled separately but have been added as background - see Adur Strategic Housing Land Availability Assessment.

Existing planning consents – Contact Adur Planning Policy Team for most recent update.

For clarification, these strategic sites, small sites and existing consents are included within the overall option levels for testing, and are not additional to them.

POPULATION AND HOUSEHOLD PROJECTIONS

The demographic figures detailed below are 2008-based estimates from ONS and CLG. The figures are based on past trends taking account of births, deaths and migration and do not take account of any future policy changes that have not occurred (such as the targets for new housing at Shoreham Harbour as contained in the South East Plan).

The figures will be taken into account in the progression of the Adur Local Plan but capacity and infrastructure (including transport) constraints may mean that these projections cannot be accommodated in terms of new housing provision.

	2006	2011	2016	2021	2026	
Population	60,542	61,684	63,276	65,398	67,677	
% change	0.0%	1.9%	4.5%	8.0%	11.8%	
Households	26,509	27,396	28,660	30,112	31,589	
Cumulative chan ge		887	2,160	3,603	5,080	

Source for population estimates – ONS 2008-based

Source for household projections – CLG 2008-based

Indicators to be used:

Modelling should report on:

Average delay per vehicle

Flows, changes in flows, absolute and proportional (%)

Volume/Capacity ratios and changes in these ratios

Mode share

PT patronage

Information to be mutually agreed between consultant, Adur District Council and West Sussex County Council at study inception:

For the following points the consultant should provide proposals to be agreed

Assumptions about amount of car and person trip generation from the sites

Assumptions and methodology to determine spatial distribution of remote trip ends for development trips

Representation of development sites and new accesses in the model network

