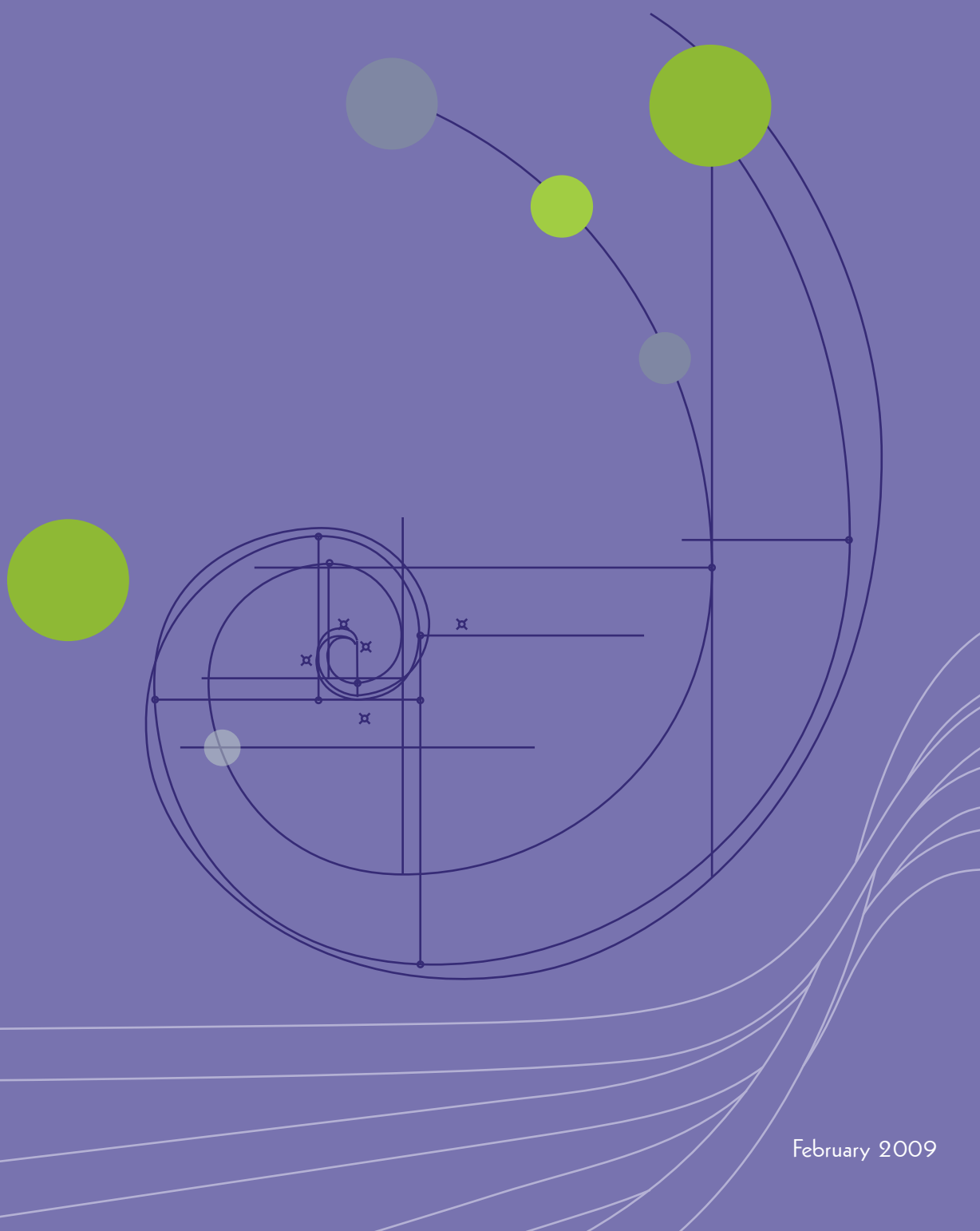


**ABERDEEN
CITY AND
SHIRE**

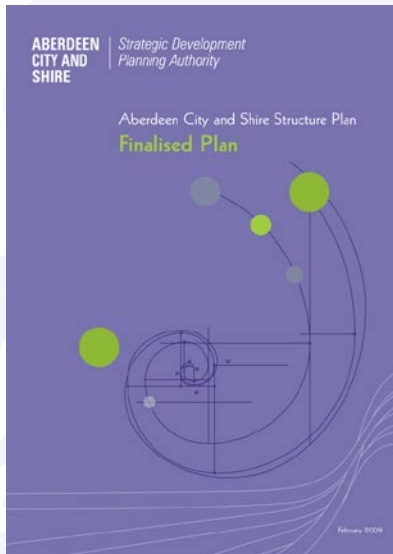
*Strategic Development
Planning Authority*

Finalised Structure Plan Background Paper



February 2009

Aberdeen City and Aberdeenshire (excluding the Cairngorms National Park) Structure Plan



Area covered by the
Aberdeen City and Shire
Structure Plan

The Finalised Structure Plan was submitted to Scottish Ministers on 27 February 2009. The following documents were published in support of the Finalised Plan and are available from the Strategic Development Planning Authority or can be downloaded from its website:

Appropriate Assessment

Publicity and Consultation Statement

Equalities and Human Rights Impact Assessment

Addendum to the Report of Survey

Addendum to the Strategic Environmental Assessment Environmental Report

Background Paper

Aberdeen City and Shire Structure Plan

Background Paper

Background

Aberdeen City and Aberdeenshire Councils formally started the preparation of a new structure plan for the area in February 2007. At the same time a 'Report of Survey' was published containing up-to-date information on the area in terms of its population and households, environment, economy, transport and housing.

Purpose

A draft structure plan was published for consultation in June 2008 and the finalised structure plan was submitted to Scottish Minister on 27 February 2009. However, the period February 2007 – February 2009 (the period between the publication of the Report of Survey and the finalised structure plan, a number of pieces of more up-to-date information have become available. It is necessary to provide an update on issues by way of background to the finalised structure plan. These relate to:

1. Aberdeen Western Peripheral Route (AWPR);
2. Population and Household Forecasts & Projections;
3. Brownfield Urban Capacity (Aberdeen);
4. Housing Need and Demand Assessment (HN&DA) – Phase 1; and
5. Transport Interventions.

These five topics are dealt with in summary in this background paper, with more information in relation to the AWPR and population and household forecasts and projections is available online via links as contained in Appendix 1 and 2. The draft brownfield urban capacity study is available as Appendix 3, housing need and demand assessment – phase 1 in Appendix 4 and transport interventions as Appendix 5.

1 Aberdeen Western Peripheral Route

- 1.1 The Aberdeen Western Peripheral Route (AWPR) is a new road being developed to improve travel in and around Aberdeen and the North-east of Scotland.
- 1.2 Backed by the Scottish Government, the road is being developed by Transport Scotland - the national transport agency - in partnership with Aberdeen City and Aberdeenshire councils.
- 1.3 The AWPR is one of a number of transport projects planned to help improve road safety and accessibility, reduce congestion and grow the local economy - ensuring the North East remains a competitive business location. The Regional Transport Strategy submitted to Scottish Ministers in April 2008 has the AWPR as a key building block for future transport initiatives in the area - facilitating the delivery of complementary transport measures as part of an integrated package.
- 1.4 The AWPR was recognised as important in the current approved structure plan ('North East Scotland Together' - 2001) and included on its 'key diagram'. Since 2001, however, the Scottish Government have accepted in principle the need for the road (in January 2003) and have committed to fund 81% of its cost (and 100% of the cost of the 'fastlink' to Stonehaven).
- 1.5 As a consequence of the objections to the road and compulsory purchase orders, a public local inquiry has been held to consider objections and make recommendations to Scottish Ministers. As Ministers accepted the need in principle for the road, the inquiry focussed on the technical and environmental aspects around the choice of route. The inquiry heard evidence and closing submission from September 2008 to January 2009.
- 1.6 The AWPR project has therefore clearly moved forward significantly since the Report of Survey was prepared in late 2006, with the inquiry due to focus on the detail of the route rather than the principle of a new road.
- 1.7 The AWPR has an estimated delivery date of 2012.

2 Population and Household Forecasts & Projections

2.1 At the time of publication of the Report of Survey in February 2007, the mid-2005 population estimates were the most up-to-date available, along with the 2004-based population projections from the General Register Office for Scotland – GRO(S). The forecasts prepared by the Councils were also 2004-based.

Population estimates

2.2 Since February 2007, mid-2006 population estimates have been published by the GRO(S) along with revised estimates for the period 2003 – 2006 for six Council areas including Aberdeen City and Aberdeenshire.

2.3 These revisions increased the estimated population of Aberdeen City and decreased the estimated population of Aberdeenshire. The net change was an increase of over 1,500 in mid-2005. More details are provided in Table 1 below.

Table 1: Original and revised 2005 population estimates

	Original Estimate	Revised Estimate	Difference
Aberdeen City	202,370	205,910	+3,540
Aberdeenshire	235,440	233,430	-2,010
Total	437,810	439,340	+1,530

Source: Revised mid-year population estimates 2003 – 2006, GRO(S)

2.4 The revisions highlighted above resulted from an error on the part of the GRO(S) in the way in which international migrants were accounted for.

2.5 These changes, however, impact on both the level of population rise in Aberdeenshire and population fall in Aberdeen City. Instead of the second largest fall in population in Scotland between 1995 and 2005 at 8%, the population of Aberdeen fell by 6.4% which was the fourth largest fall. In the case of Aberdeenshire, instead of a 4% increase (the fifth largest in Scotland), the population grew by 3.3% (the seventh largest in Scotland).

2.6 In addition, instead of the continuation of a downward trend in population identified in the estimates before they were revised, the population of the area has been growing since 2003 and the population of Aberdeen City has been growing since 2005.

2.7 The revised 2006 estimates put the population of Aberdeen City at 206,880 and Aberdeenshire at 236,260, totaling 443,140 for the combined area of the two Councils and approximately 440,000 for the area covered by the draft plan. The population growth in the area in the year to mid-2006 was 3,800 people.

2.8 The 2007 population estimates put the population of Aberdeen City at 209,260 and Aberdeenshire at 239,160 (448,420 for the two Councils and approx. 445,000 for the structure plan area), an increase of 5,000 on 2006.

Population projections and forecasts

2.9 2006-based population projections have also been published by the GRO(S) since the Report of Survey, along with 2006-based strategic forecasts by the two Councils.

2.10 These publications provide an important foundation for the draft structure plan and present a different picture of the future than their predecessors.

- 2.11 For the first time, in addition to a 'principal' projection, the GRO(S) has published a 'high migration' projection. The difference between these projections is shown in table 2.

Table 2: Principal and High-Migration Population Projections

	2006	Principal Projection (2030)	High Migration Projection (2030)
Aberdeen City	206,880	187,721	208,432
Aberdeenshire	236,260	280,532	292,462
Total	443,140	468,253	500,896

Source: 2006-based Population Projections, GRO(S)

- 2.12 It can be seen that both projections anticipate an increase in the population of the area, with the high migration projection pointing towards a population of half a million.
- 2.13 Prior to the GRO(S) published population projections, Aberdeen City and Aberdeenshire Councils published a revised set of strategic forecasts. These contained low, probable and high population forecasts from a 2006-base and are summarised in table 3.

Table 3: Low, Probable and High Population Forecasts

	2006	Low Forecast (2030)	Probable Forecast (2030)	High Forecast (2030)
Aberdeen City	206,880	198,273	210,400	219,800
Aberdeenshire	236,260	236,795	247,600	261,600
Total	443,140	435,068	458,000	481,400

Source: 2006-based Aberdeen City and Shire Strategic Forecasts

- 2.14 Both the projections prepared by the GRO(S) and the forecasts prepared by the two Councils point to significant population growth in the area over the period to 2030. This contrasts quite significantly with the data available at the time the Report of Survey was published.
- 2.15 The population target of 480,000 by 2030 set out in the draft structure plan is higher than both the 'Principal Projection' of the GRO(S) and the Probable-case forecast prepared by the two councils. However, the target is within the range established by both publications.

Household projections and forecasts

- 2.16 The GRO(S) published 2006-based household projections in May 2008 consistent with their population projections. These are summarised in table 4 below.

Table 4: Principal and High-Migration Household Projections

	2006	Principal Projection (2031)	High Migration Projection (2031)
Aberdeen City	100,740	105,780	116,170
Aberdeenshire	98,770	131,590	135,430
Total	199,510	237,370	251,600

Source: 2006-based Household Projections, GRO(S)

- 2.17 More than half of the forecast growth is seen as taking place in the period to 2016. This equates to 219,820 households under the principal projection and 224,680 under the high migration projection
- 2.18 Projected average household size over the period 2006 – 2031 is projected to fall from 1.98 to 1.71 (the lowest in Scotland) in Aberdeen City and from 2.37 to 2.10 in Aberdeenshire. This will take average household size below 2 persons per household around 2021. This explains why a 25,000 increase in population (under the government’s principal projection) can give rise to an increase of almost 38,000 households.
- 2.19 In 2007, the GRO(S) estimate that 4% (8,697) of dwellings in Aberdeen City and Shire were either vacant or second homes.
- 2.20 The strategic forecasts prepared by the two councils include household forecasts which are summarized below (table 5).

Table 5: Low, Probable and High Household Forecasts

	2006	Low Forecast (2031)	Probable Forecast (2031)	High Forecast (2031)
Aberdeen City	100,740	+11,950	+16,470	+21,900
Aberdeenshire	98,770	+12,800	+21,680	+27,670
Total	199,510	+24,740	+38,150	=49,570

Source: 2006-based Aberdeen City and Shire Strategic Forecasts

- 2.20 When account is taken of a range of factors including vacant and second homes and demolitions, the ‘housing requirement’ published in the forecasts range from 33,000 to 59,000 over the period.

Future publication dates

- 2.21 Mid-2007 population estimates are due to be published in July 2008, during the consultation period on the draft structure plan. Updated population and household projections are not anticipated from the GRO(S) until early 2010.

Structure Plan Housing Requirement and Allowances

- 2.22 Taking the ‘high forecast’ housing requirement from the strategic forecasts and adjusting for a re-phasing of demolitions in Aberdeen City, the exclusion of the Cairngorms National Park and the time periods covered by the plan gives the housing requirement set out in figure 4 of the finalised structure plan. This is the requirement necessary to achieve the population growth target set out in the plan and is higher than the ‘probable forecast’ requirement.
- 2.23 The Scottish Government has made clear its aspirations for new housebuilding through ‘Firm Foundations’ and subsequently in Scottish Planning Policy and National Planning Framework 2. Their aspirational target is to see new house building in Scotland increase to 35,000 per year (a 40% increase on the recent past). Apportioning this increase to the structure plan area on the basis of households, population and historic build rates gives a figure of approximately 3,000 per year for the structure plan area. This is set out as a structure plan target for 2020, although the plan makes provision for this level of building throughout the 24 year plan period (3,000 x 24 = 72,000). The plan therefore provides a generous supply of housing land in the structure plan area in line with Scottish Planning Policy.

3 Brownfield Urban Capacity (Aberdeen)

3.1 A draft Brownfield Urban Capacity Study has been prepared for Aberdeen City which is attached at Appendix 3. This assessment has been carried out in light of the identification of brownfield sites as meeting an element of the new housing required by the draft structure plan in Aberdeen.

Historic Performance

- 3.2 Over the past 25 years, housing development on brownfield sites has averaged 631 dwellings per year, with a generally upward trend since the late 1980’s. The average over the last five years has been 730 dwellings per year. The number has not fallen below 500 since 1991.
- 3.3 Evidence from the mid-1990’s suggests that high levels of brownfield development can co-exist with high levels of greenfield development.
- 3.4 Since 2002, the percentage of new homes on brownfield sites has averaged over 80%, peaking at 94% in 2004.

Urban Capacity Study Findings

3.5 The draft brownfield urban capacity study has identified sites for between 4,779 and 8,173 dwellings depending on assumptions about density. These are conservative figures because they do not include categories of site which have been included in other similar studies elsewhere.

Draft Structure Plan Allocations

3.6 The draft structure plan makes housing allocations in Aberdeen to brownfield sites in each of the three phases of the plan, as shown in table 6 below.

Table 6: Average Brownfield Housing Allocations in Draft Structure Plan

Time Period	2007 - 2016	2017 - 2023	2024 - 2030	2007 - 2030
Years	10	7	7	24
Brownfield Allocation	4,000	3,000	3,000	10,000
Average	400pa	429pa	429pa	417pa

Source: Draft Aberdeen City and Shire Structure Plan (June 2006)

- 3.7 These figures, ranging from 400pa in the first phase to 429pa in the later phases, are similar to those identified in the current structure plan of 4,500 over 11 years (409pa).
- 3.8 The results of the urban capacity study are more than enough to suggest that an assumption of 400pa is reasonable over the next 5 – 10 years. Beyond that, it can only be regarded as indicative, subject to annual monitoring and the preparation of an updated study to coincide with the preparation of the first strategic development plan.
- 3.9 Although this is a plan for the next 24 years, it will be reviewed at least every five years. Adjustments to the plan at that point can be made if necessary – taking a view on the prospects for future housing on brownfield sites at that time. Monitoring will be carried out annually to assess the assumptions upon which the plan is based via the housing land audit.
- 3.10 Although the draft structure plan recognises the importance of new housing on brownfield sites, it also recognises that greenfield housing is important. The draft plan therefore strikes an appropriate balance between them.

4 Housing Need and Demand Assessment – Phase 1

- 4.1 The Scottish Government published Housing Need and Demand Assessment (HN&DA) guidance in March 2008. Aberdeen City and Aberdeenshire Councils have commenced the preparation of a HN&DA, however this process will take longer than the timescales available to input into the finalised structure plan.
- 4.2 The Centre for Housing Market Analysis has confirmed that the guidance should be implemented in a pragmatic way and that a phased approach to the assessment is appropriate.
- 4.3 This assessment represents the first phase of the process and will be subject to considerable refinement over the coming months as the full assessment is prepared. However, the first phase does give an indication of the likely level of need for affordable housing in the structure plan area over next 10 years using a method developed from the HN&DA guidance.
- 4.4 This analysis is fit for purpose as it does not seek to support a particular policy position in the finalised structure plan, but identifies that there is a need which is required to be assessed further with appropriate policy responses drawn up through local housing strategies and local development plans. The paragraphs below give an overview of the assessment while more detail is provided in Appendix 4.

Results

- 4.5 Early results from phase 1 of the HN&DA reveal a shortage of affordable housing across the structure plan area. The 10 year projections show an overall average annual shortfall of 659 accounting for both meeting the future need of newly forming households, and tackling the backlog of housing need.

Table 7: Average Housing Need and Demand

	<i>Backlog Need Reduction (10%)</i>	<i>Newly Arising & Existing Need</i>	<i>Total Annual Flow of Housing Need</i>	<i>Affordable Supply</i>	<i>End Year Overall Shortfall</i>
Annual Average to 2018	617	3,619	4,236	3,577	659

- 4.6 In order to meet the needs of the communities within the Aberdeen city region the evidence suggests that the level of affordable housing required ranges between 30% for the current level of new house completions to 22% at the a rate of 3000 completions a year. Table 8 summarises the proportion of the affordable housing potentially required in order to meet the future needs of the region.

Table 8: Affordable housing requirement

		Current Rate of build	Structure Plan	
			2014 target	2020 target
Annual Rate of New House Building	2,000	2,200	2,500	3,000
Affordable Housing Need	33.0%	30.0%	26.4%	22.0%

- 4.7 Within the city region the level of affordable housing is highly dependent on house prices and lending rates. Latest available figures suggest that the average earnings to house price ratio for lower quartile house prices and earnings of 4.75 based on data from the Scottish Neighborhood Statistics (SNS). Similarly, results from the HN&DA show that a significant proportion of newly forming households are unable to enter the housing market. More research within the full assessment is required to fully unpack these issues and develop scenarios for different levels of affordability for the structure plan area. For example, although evidence suggests that house prices in the area have stopped rising, access to mortgage finance is considerably more restricted than in the recent past. All of these issues require further examination.
- 4.8 This assessment does not stand in isolation, but fits within a wider context of evidence on housing need in the area. This includes Bramley (2006), Fordham (2006) and the Right to Buy Pressured Area Designation submissions by both councils.
- 4.9 It must be emphasised that this assessment represents phase 1 in the preparation of a full HN&DA by Aberdeen City and Aberdeenshire Councils. This work is being taken forward through the City & Shire Strategic Housing Partnership and the study will progress throughout 2009, informing both local housing strategies and local development plans.

5 Transport Interventions

- 5.1 The main purpose of this section and Appendix 5 is to provide:
- an overview of the integration of transport considerations into the plan preparation process;
 - a rationale for the transport interventions identified in the plan. This includes their fit with other strategies at a national, regional and local level; and
 - a link to the action programme to be prepared during 2009.
- 5.2 The spatial strategy adopted in the finalised structure plan was the result of a process of technical evaluation, engagement and consultation throughout 2006 and 2007. This process included the assessment of eight alternative strategies against the objectives of the Regional Transport Strategy as well as carbon footprinting and evaluation by transport stakeholders. Transport issues were integral to the plan preparation process and more information is provided in the attached appendix. A summary of this process is also outlined and the final strategy explained in more detail.
- 5.3 Thirteen transport interventions (see below) are highlighted in the finalised plan. For each of these, Appendix 5 provides an explanation of why they have been identified, what their status is, what stage they are at and how they will be taken forward. This includes committed projects and other interventions that have emerged through the work of Transport Scotland, Nestrans or individual Councils. The inclusion of these projects in the finalised plan is evidence of their significant strategic importance to the north east and the delivery of the structure plan strategy.
- (1) Crossrail Programme
 - (2) Reduced Intercity Rail Journey Times
 - (3) Proposed Park and Ride Facilities
 - (4) Third Don Crossing (Access from the North)
 - (5) Haudagain Roundabout
 - (6) Aberdeen Western Peripheral Route (AWPR)
 - (7) A90 Balmedie to Tipperty Dualling Project
 - (8) A90 / A96 improvements
 - (9) Airport Masterplan
 - (10) Union Street Pedestrianisation
 - (11) Better Linkages
 - (12) Junction Improvements
 - (13) Bus Improvements
- 5.4 A number of changes have been made to the draft structure plan in relation to transport issues. These include recognition of the publication of the Strategic Transport Projects Review (STPR) as well as the need for transport interventions affecting the trunk road or rail network to need Transport Scotland's permission. Those projects identified in the STPR which would support the strategy of the structure plan have been recognised in the finalised plan.
- 5.5 An action programme will be prepared during 2009 which will outline the actions required to implement the structure plan. This will be prepared in consultation with those key stakeholders who will have a role to play. This will include Transport Scotland, Nestrans and the transportation services of both Aberdeen City and Aberdeenshire Councils.

Appendix 1: Aberdeen Western Peripheral Route Web Links

AWPR website

<http://www.awpr.co.uk>

AWPR Public Local Inquiry Website

<http://www.awpr-pli.org/index.asp>

Appendix 2: Population and Household Forecasts and Projections Web Links

Aberdeen City and Shire Strategic Forecasts (2006 – 2031)

http://www.aberdeenshire.gov.uk/statistics/economic/strategic_forecasts_2007.pdf

GRO(S) Population Estimates (general)

<http://www.gro-scotland.gov.uk/statistics/publications-and-data/population-estimates/index.html>

GRO(S) Mid-2007 Population Estimates

http://www.gro-scotland.gov.uk/files1/stats/population-estimates/07_my-booklet-final-upd21082008.pdf

GRO(S) Population Projections (general)

<http://www.gro-scotland.gov.uk/statistics/publications-and-data/popproj/index.html>

GRO(S) Population Projections Scotland (2006-based)

<http://www.gro-scotland.gov.uk/files1/stats/population-projections-scotland-2006-based-population-projections-by-sex-age-and-administrative-area/population-projections-scotland-2006-based-population-projections-by-sex-age-and-administrative-area.pdf>

GRO(S) Estimates of Household and Dwellings in Scotland (2007)

<http://www.gro-scotland.gov.uk/files1/stats/gros-estimates-of-households-and-dwellings-in-scotland-2007/gros-estimates-of-households-and-dwellings-in-scotland-2007.pdf>

GRO(S) Household Projections for Scotland (2006-based)

<http://www.gro-scotland.gov.uk/statistics/publications-and-data/household-projections-statistics/household-projections-for-scotland-2006-based/index.html>

Scottish Government (2008) – Firm Foundations

<http://www.scotland.gov.uk/Resource/Doc/201716/0053780.pdf>

Appendix 3: Draft Brownfield Urban Capacity Study

Contents

- 1 Introduction
- 2 Trends in Brownfield and Greenfield Development
- 3 Sources of Urban Potential
- 4 Calculating Urban Potential
- 5 Conclusions
- 6 References

Annex 1 – Vacant and Derelict Land

Annex 2 – Non Effective Housing Land

Annex 3 – Industrial and Business Areas

Annex 4 – Institutions

Annex 5 – Redevelopment of Other Uses

Annex 6 – Potential Brownfield Housing Sites

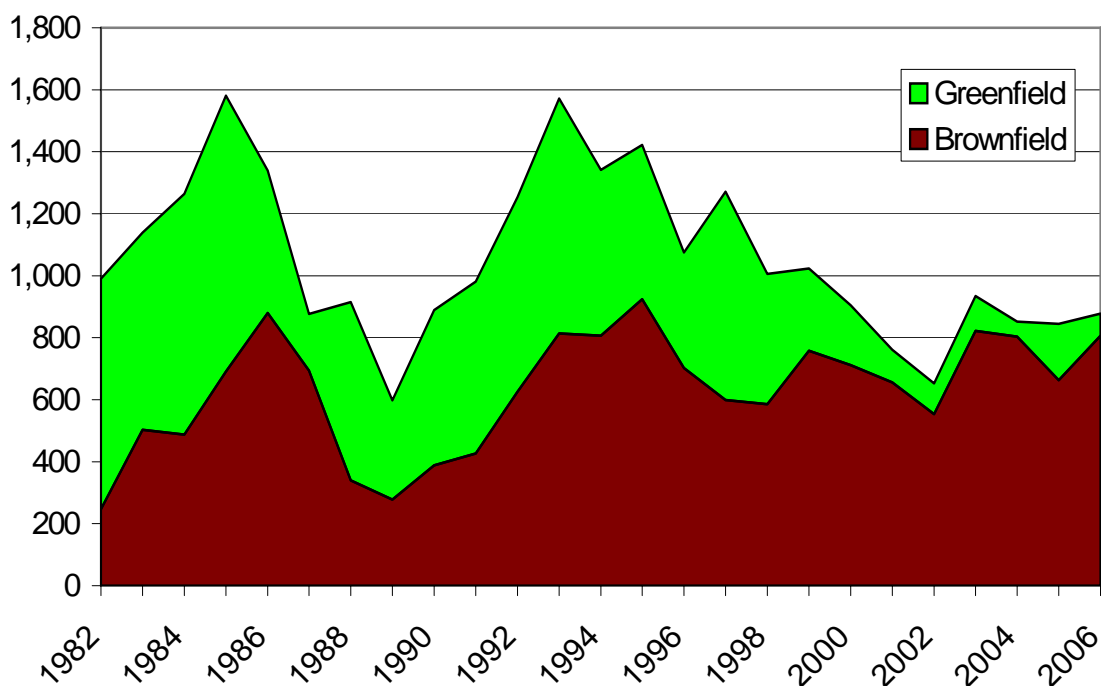
1 Introduction

- 1.1 An important part of the preparation of the new structure plan is an assessment of the potential of the main urban area of Aberdeen to absorb further housing development. This in turn will support the identification of the best strategic development option for Aberdeen and Aberdeenshire. The focus of this study is on previously developed land and the conversion of buildings within the settlement boundaries in Aberdeen. Trends have been examined to see if there have been any changes in the provision of greenfield and brownfield housing. Although this in itself cannot be used to predict future development rates, it does give an indication of Aberdeen's development over the last 25 years.
- 1.2 Sources of potential housing sites or capacity have been taken from the Glasgow and Clyde Valley Urban Capacity Study, which was carried out as part of their structure plan review and "Tapping the Potential" – the main English guidance produced by the DETR in 2000. We do not intend to use all of these sources (which are listed in Table 1) but to pick those that are appropriate to Aberdeen. These are then examined in more detail in the annexes.
- 1.3 Once sites have been identified from the main sources, two methods of calculating their potential housing yield are used. The first is based on past brownfield development densities in Aberdeen, the other based (in the absence of Scottish advice) on the Consultation Paper on PPS3 Housing (Dec 2005 to Feb 2006) – the English equivalent of SPP3 Planning for Housing. These methods provide a range of potential housing yields.

2 Trends in Brownfield and Greenfield Development

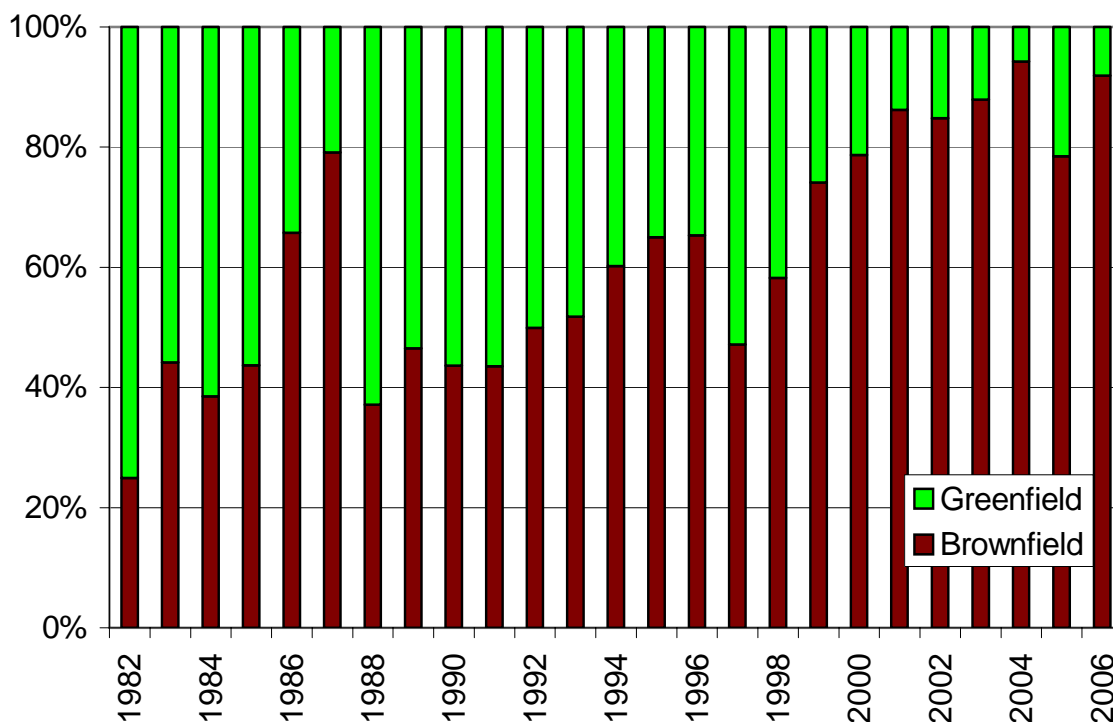
- 2.1 Brownfield and greenfield housing development rates have been examined over the 25 year period from 1982 to 2006. The figures (1 and 2) are completion rates taken from the Housing Development Schedules (DABS). In doing this work a number of assumptions have been made. Developments on playing fields have been counted as greenfield as well as large developments on previously undeveloped land (e.g. the Macaulay developments in Mannofield and Lord Hays Grove by Bridge of Don). Some of these sites are shown as brownfield in DABS. Small infill developments have been counted as brownfield, even if they were in a garden for instance. They are nearly always shown as brownfield in DABS. DABS does not indicate whether small sites (under 5 units) are brownfield or greenfield. It is therefore assumed that small sites in the Former City and Dyce are brownfield and those in Oldmachar, Newhills, Peterculter and Nigg are greenfield.

Figure 1: Brownfield and Greenfield Housing Completions 1982-2006



- 2.2 Apart from dips in 1982 and around 1989 the level of brownfield development has been consistently high. The average over the 25 year period is 631 brownfield dwellings per annum with the overall trend being upwards. The majority of brownfield housing developments have taken place in the Former City area.
- 2.3 In respect of greenfield completions there was a dip between 1987 and 1989, prior to the publication of the 1991 Aberdeen City District Wide Local Plan which allowed the release of greenfield allocations in the 1990's. The most noticeable feature however is the consistent drop in greenfield completions since 1997. This is probably as a result of the 1991 local plan greenfield allocations being developed out. Major house building stopped in Cove in 1998/99, in Bridge of Don in 2000 and at Kingswells in 2003. The small rise in 2005 is due to the release of Charleston Cove. Overall trends are downwards with an average greenfield completion rate of 424 per annum.
- 2.4 Average housebuilding rates are 1,055 per annum over the 25 year period, although this has fallen over the last 10 years as greenfield sites have run out. 60% of these are brownfield and 40% greenfield over the period. However, the proportion of brownfield completions has risen over time, reaching a peak of over 90% in 2004 – see figure 2.

Figure 2: Proportion of Brownfield and Greenfield Development



3 Sources of Urban Housing Potential

3.1 There is an absence of national guidance on urban potential or capacity studies in Scotland, although both PAN38 on Housing Land and draft SPP3 Planning for Housing encourages councils to carry them out. Two main sources of information were therefore used to inform this study - the Glasgow and Clyde Valley Urban Capacity Study, which was carried out as part of their structure plan review and "Tapping the Potential" – the main English guidance produced by the DETR in 2000. The following table shows the main sources of potential urban housing land. Not all of these sources are considered appropriate in an Aberdeen context, and so their suitability or otherwise is briefly discussed here. Those sources that are considered suitable are examined in more detail in the annexes.

Table 1 - Sources of Urban Housing Potential

Source	Glasgow & Clyde Valley	Tapping the Potential	Aberdeen	Notes
Vacant and Derelict Land	Yes	Yes	Yes	Sites identified through the 2007 Scottish Vacant and Derelict Land Survey (SVDL). It is obviously good planning practice to recycle vacant and derelict land and buildings and it is considered that this annual survey is a useful means of identifying potential sites.
Non-effective Housing Supply	Yes	No	Yes	These can be taken from the Housing Land Audit 2007 and comprise the non-effective sites from the Established Housing Land Supply. Housing on these sites is generally acceptable in principle and should therefore be examined in more detail.
Industrial and Business Areas	Yes	Yes	Yes	Due to land supply and low vacancy reasons the peripheral estates at Dyce, Bridge of Don and Altens/Tullos should be discounted. The smaller urban estates and harbour area could be examined in more detail for possible long term housing potential.
Public Sector Demolitions	Yes	No	No	There is currently no such programme in Aberdeen City Council. However, reference should be made to the next category deals with this issue in the Regeneration Areas.
Redevelopment of Existing Areas	No	Yes	No	This could lead to a net loss of units but would lead to a qualitative improvement. The 6 Regeneration Areas in Aberdeen would normally be factored into any study. However in this instance the structure plan housing allowances take these into account so there is no need to study them in any more detail here.
Institutions	Yes	No	Yes	This would include surplus school sites identified in the 3R's Project together with other public sector surplus buildings and sites such as Woolmanhill Hospital.

Car Parks	Yes	Yes	No	There is no review of car parking underway at the time of writing so no way of telling whether any car parks are underused or in the wrong place. This category should therefore be discounted as a potential housing source at this stage.
Green Spaces	Yes	Yes	No	There are no disposal programmes and an open space audit has not yet been carried out. Planning policies in Aberdeen are generally supportive of retaining open space in order to protect amenity and prevent town cramming. This category should therefore be discounted as a potential housing source.
Redevelopment of Other Uses.	Yes	Yes	Yes	These include miscellaneous sites identified in the local plan, through local plan developer bids or by planning and asset management officers. A number of these sites are still in use. Such sites have been included where there has been an interest expressed in their redevelopment and/or relocation.
Subdividing Homes	No	Yes	No	Tapping the Potential suggests using past trends to estimate future potential and discounting over time as fewer larger dwellings remain. Net increases of 122 in 2005 and 61 in 2006 suggest that this is not an insignificant source. However, Aberdeen's data on subdivisions prior to 2005 is unreliable and no longer term picture can be made. Although this study cannot therefore examine this source in detail, it should be recognised that it is likely to continue to provide a significant source of housing over and above that identified in this study.

Flats over Shops	No	Yes	No	A crude rule of thumb suggested in Tapping the Potential is that a third of floorspace is available for conversion and that a third of this is suitable for conversion. Assuming one flat per retail unit, using this calculation produces an unconstrained yield of 230 units in Aberdeen. This is further discounted (by another third) to produce a constrained yield of 76 units. The crudity of this method and the low yield makes its inclusion in this study questionable. It was not used in the Glasgow & Clyde Valley Urban Capacity Study.
Empty Homes	No	Yes	No	There is little the planning system can do to bring into use private sector empty properties. Most of those in the public sector are being dealt with in the regeneration areas. This category should therefore be discounted as a potential housing source.
Intensification e.g. backland and garden development	No	Yes	No	Further development is likely to continue to come forward from this source as unidentified windfalls. However, identifying individual sites could be very time consuming. It could lead to pressure for development which could have an adverse effect on the character of some areas. This category should therefore be discounted as a potential housing source.
Review Existing Allocations	No	Yes	No	Increasing the density of the current local plan allocations is impractical at this stage of the local plan's progress.

- 3.2 This Urban Potential Study will examine the following sources in more detail;
- Vacant and Derelict Land (Annex 1)
 - Non effective Housing Land (Annex 2)
 - Industrial and Business Areas (Annex 3)
 - Institutions (Annex 4)
 - Redevelopment of Other Uses (Annex 5)
- 3.3 The following sources will not be examined in any further detail for the reasons outlined in the table above;
- Public Sector Demolitions
 - Redevelopment of Existing Areas (Regeneration Areas)
 - Car Parks
 - Green Spaces
 - Subdividing Homes
 - Flats over Shops
 - Empty Homes
 - Intensification
 - Review of Existing Allocations

4 Calculating Urban Potential

- 4.1 Once sites have been identified as being suitable for housing, an estimation of their potential yield has to be made. Two methods of calculating the potential yield are used – one based on the density of planning consents in Aberdeen, the other based (in the absence of Scottish advice) on the Consultation Paper on PPS3 Housing (Dec 2005 to Feb 2006) – the English equivalent of SPP3 Planning for Housing.
- 4.2 In order to indicate the potential yield of future brownfield sites, planning permissions granted between 1997 and 2006 for brownfield housing proposals were examined from DABS to obtain information on densities. These figures do not include very small sites of under 5 units.

Figure 3: Number & Density of Brownfield Planning Consents in Aberdeen

	Sites	No Units	Hectares	Units per ha.
1997	16	341	6.15	55.5
1998	26	861	15.42	55.8
1999	16	562	6.83	82.3
2000	17	787	9.44	83.3
2001	10	578	6.31	91.6
2002	12	439	7.83	56.1
2003	25	1,098	18.03	60.9
2004	14	881	18.09	48.7
2005	12	372	8.15	45.6
2006	15	864	23.23	37.2
TOTAL	163	6,783	119.48	56.77

- 4.3 There does not appear to be any discernible trends over the ten year period. Average densities for the year can be influenced by one or two individual sites with either very low or very high densities. One noticeable issue is that larger sites (those over 2ha) tend to be developed at a much lower density than smaller sites. This may provide a more sensitive means of calculating urban potential than simply applying an overall average density to all brownfield sites.

Figure 4: Density of Large and Small Brownfield Sites in Aberdeen 1997- 06

	Sites	No Units	Hectares	Units per ha.
Large Sites	14	2,170	70.1	30.95
Small Sites	149	4,613	49.38	93.42
TOTAL	163	6,783	119.48	56.77

- 4.4 Proposals on larger sites over 2ha tend to be built at a lower density (around 30 per ha) than those for smaller sites (at around 95 per ha). If we apply these densities to the identified sites, then their potential can be estimated.

4.5 A further means of calculating the potential yield of sites is using the Indicative Density Ranges (IDR) in the Consultation Paper on PPS3 Housing. Annex C of the Consultation Paper suggests the following indicative density ranges (dwellings per hectare) for specific types of location:

- City Centre Above 70
- Urban 40-75
- Suburban 35-55
- Rural 30-40

4.6 Although these ranges were not included in the final version of PPS3, they do provide an alternative means of calculating yield for comparative purposes. They can be applied to Aberdeen in the following way:

- City Centre – the area identified as the City Centre in the 2004 Finalised Local Plan proposals maps.
- Urban – the urban part of the 'Former City' parish area.
- Suburban – remaining settlements and urban areas within the former parishes of Old Machar, Dyce, Newhills, Peterculter and Nigg.
- Rural – green belt areas - no sites have been identified here.

4.7 The identified sites can be divided thus and the notional PPS3 densities applied. A maximum figure of 95 dwellings per hectare is applied to city centre sites to give a range of potential for all areas.

5 Conclusions

- 5.1 Over the last 25 years Aberdeen has accommodated high levels of brownfield housing development – between 300 and 900 per annum, and averaging over 600 per annum. Brownfield development rates have generally risen over this period. Perhaps surprisingly there is little evidence of increased densities of individual sites over the last 10 years. Figures fluctuate according to the nature of sites coming forward. Nevertheless more housing units are being accommodated within the urban area as uses change and vacant land is brought back into use.
- 5.2 By applying various density scenarios to known potential housing sites, there would appear to be the potential to accommodate between 4,800 and 8,200 brownfield homes in Aberdeen on currently identifiable sites.

Figure 5: Urban Potential in Aberdeen

Potential Source	Small & Large Site Potential	IDR* Low Potential	IDR* High Potential
Vacant and Derelict Land	2,171	2,164	3,682
Non Effective Housing Land	224	273	511
Industrial and Business Areas	202	270	506
Institutions	565	502	813
Redevelopment of Other Uses	1,704	1,570	2,661
TOTAL	4,866	4,779	8,173

*IDR = Indicative Density Range

- 5.3 These figures are in addition to those identified as effective in the Housing Land Audit. They do not include those sources of potential discounted in section 3. The subdivision of homes and the conversion of smaller commercial buildings in particular are likely to continue to make significant contributions in the form of windfalls. The figures could therefore be regarded as a conservative estimate.
- 5.4 Spread over 10 years there is the potential to identify sites able to accommodate between 480 and 820 brownfield dwellings per annum. NEST's brownfield requirement for 2000-10 averages out at 409 per annum by way of comparison. These figures also stand comparison with the average annual brownfield completion rate of 631 over the last 25 years. This figure however, should be regarded as indicative for the period beyond 10 years. This in turn would require Aberdeen's urban potential to be reviewed to monitor whether the City can continue to provide this level of brownfield development.
- 5.5 All this would suggest that it should be possible for Aberdeen to continue to accommodate significant levels of brownfield housing development. There is no doubt that bringing back into use previously vacant land and buildings is beneficial and sustainable. However, it also needs to be recognised that Aberdeen does not have a legacy of long term industrial decline that many other cities have experienced. As a consequence it does not have large tracts of vacant and derelict land available for development compared to many other local authorities. It therefore needs to be considered whether it is desirable to continue with historical levels of brownfield housing development, in particular the rates of development of the last 10 years. Many of the brownfield housing developments over the last 25 years have been on sites which had a non housing use. Of the 45 potential sites

identified in this study, only around 3 were last in residential use. This has sustainability implications in respect of the mix (or lack of mix) of uses within the urban area.

6 References

- Scottish Vacant and Derelict Land Survey 2007
- Strategic Forecasts for Aberdeen City and Aberdeenshire 2003-2021
- Housing Land Audit 2007
- Housing Development Schedules (DABS) 1985 to 2007
- Aberdeen Industrial Areas Guide 2006-07
- Employment Land Audit 2007
- PAN38 Housing Land (Revised 2003)
- Aberdeen and Aberdeenshire Structure Plan NEST 2002
- Finalised Aberdeen Local Plan 2004
- Tapping the Potential – Assessing Urban Housing Capacity; Towards Better Practice, ODPM, 2000
- Glasgow and the Clyde Valley 2006 Structure Plan Alteration Technical Report TR 5/06 – Urban Capacity Study 2004
- SPP3 Planning for Housing
- Consultation Paper on a new PPS3 Housing (Dec 2005 to Feb 2006)

Annex 1 - Vacant and Derelict Land

This is a significant category and a number of sites are identified in the Scottish Vacant and Derelict Land Survey (SVDLS). The 2007 SVDLS was used as a base. There are 31 sites on the 2007 Survey. Of these 17 were considered unsuitable for residential development and two sites are now under construction. This leaves 14 sites covering a total of 57.54ha.

Small & Large Site Potential

	Sites	Hectares	Urban Potential
Large Sites @ 30 per ha	6	50.70	1,521
Small Sites @ 95 per ha	8	6.84	650
TOTAL	14	57.54	2,171

Indicative Density Range Potential

Location (and notional density)	Sites	Hectares	Low Potential	High Potential
City Centre (70 to 95)	2	0.64	49	61
Urban (40 to 75)	9	24.59	984	1,844
Suburban (35 to 55)	3	32.31	1,131	1,777
TOTAL	14	57.54	2,164	3,682

Annex 2 - Non Effective Housing Land

These sites are taken from the Housing Land Audit 2007 and comprise the non-effective sites from the Established Housing Land Supply. There are 8 such sites on the 2007 Audit of which 2 have been discounted as they have already been covered by the SVDL Survey sites above. One further site at Hopecroft has also been discounted as it is part of the local plan greenfield housing allocations for the period 2000-05. This leaves 5 sites covering a total of 6.79ha.

Small & Large Site Potential

	Sites	Hectares	Urban Potential
Large Sites @ 30 per ha	2	6.49	195
Small Sites @ 95 per ha	3	0.30	29
TOTAL	5	6.79	224

Indicative Density Range Potential

Location (and notional density)	Sites	Hectares	Low Potential	High Potential
City Centre (70 to 95)	1	0.06	4	6
Urban (40 to 75)	4	6.73	269	505
Suburban (35 to 55)	0	0	0	0
TOTAL	5	6.79	273	511

Annex 3 - Industrial and Business Areas

The 2007 Employment Land Audit shows that Aberdeen has a marketable employment land supply of 53ha – up 32.5% as a result of constraints being removed from Moss Side. However the immediately available supply is down 20.6% to 27ha as a result of new developments taking place. Due to low land supply and low vacancy reasons the major peripheral estates at Dyce, Bridge of Don and Altens/Tullos should be discounted as potential housing areas. The smaller urban estates and harbour area could be examined in more detail for their possible long term potential.

- St Machar – this small estate is doing well and there is only one vacant plot. It should therefore be discounted as a potential housing site.
- Kittybrewster – Scottish Water, who own the northern part of this site, indicated in a local plan objection that they wish to see their site developed. Although there are no plans for the Council depot to the south, the site could have some future housing potential.
- Northfield – A large plot in the middle of the site is vacant. However, because a number of other business uses surround this site, it should be discounted for potential housing at this stage.
- Mugiemoos and Donside Paper Mills – These have been considered in the SVDL Survey section.
- Mastrick – Although the occasional unit is vacant, there are no vacant plots and it is acting successfully as Aberdeen's main car sales destination. It should therefore be discounted as a potential housing site.
- Rubislaw/Marathon – This area is operating very successfully with oil related offices and should be discounted for housing
- Harbour – There are a number of small plots vacant. However, the industrial nature of surrounding uses and the harbour's significance as a transport gateway into Aberdeen means it should be discounted for potential housing.
- Wellington Street/Links Place – A relatively new development with only one vacant plot which should be discounted for potential housing.
- Industrial Land between Commerce Street and Footdee – This area appears to be well used. Part is within the Harbour's operational area and there are several gas/chemical storage tanks in the area.

The demand for office and employment land in Aberdeen is currently very high and there are very few vacant plots, even in the smaller, older and more central employment areas. Although the 2004 Employment Forecasts predict a decline post 2011, this decline is very gradual. This would suggest that there is unlikely to be a significant amount of business and industrial land becoming redundant in the foreseeable future. Although there may be further moves towards housing in the harbour area, the current strength of the economy and the Harbours commercial operations means that there is unlikely to be large scale redevelopment in the shorter term. Other than the two paper mills (dealt with elsewhere) it is considered that the only employment area that may be suitable for future housing potential at this stage is at Kittybrewster.

Small & Large Site Potential

	Sites	Hectares	Urban Potential
Large Sites @ 30 per ha	1	6.75	202
Small Sites @ 95 per ha			
TOTAL	1	6.75	202

Indicative Density Range Potential

Location (and notional density)	Sites	Hectares	Low Potential	High Potential
City Centre (70 to 95)				
Urban (40 to 75)	1	6.75	270	506
Suburban (35 to 55)				
TOTAL	1	6.75	270	506

Annex 4 - Institutions

This section includes surplus school sites identified in the 3R's Project together with other public sector surplus buildings and sites such as Woolmanhill Hospital. It excludes school sites which will be replaced on site such as Cults Academy and Airyhall Primary. Sites that have already been considered elsewhere (such as Cornhill Hospital in the SVDL Survey) have also been discounted.

Small & Large Site Potential

	Sites	Hectares	Urban Potential
Large Sites @ 30 per ha	3	7.5	225
Small Sites @ 95 per ha	4	3.58	340
TOTAL	7	11.08	565

Indicative Density Range Potential

Location (and notional density)	Sites	Hectares	Low Potential	High Potential
City Centre (70 to 95)	1	2.53	177	240
Urban (40 to 75)	4	5.14	206	385
Suburban (35 to 55)	2	3.41	119	188
TOTAL	7	11.08	502	813

Annex 5 - Redevelopment of Other Uses

These include miscellaneous sites identified in the local plan, through local plan developer bids or by planning and asset management officers. A number of these sites are still in use e.g. Bucksburn House. Such sites have been included where there has been an interest expressed in redevelopment and/or relocation.

Small & Large Site Potential

	Sites	Hectares	Urban Potential
Large Sites @ 30 per ha	6	33.63	1,009
Small Sites @ 95 per ha	12	7.32	695
TOTAL	18	40.95	1,704

Indicative Density Range Potential

Location (and notional density)	Sites	Hectares	Low Potential	High Potential
City Centre (70 to 95)	5	1.35	95	128
Urban (40 to 75)	7	17.74	710	1,331
Suburban (35 to 55)	6	21.86	765	1,202
TOTAL	18	40.95	1,570	2,661

Annex 6 – Potential Brownfield Housing Sites

Site	Source	Location	Reason/Source	Large
Kittybrewster Depots	In Use	Urban	Business and Industrial Land	✓
Smithfield School	In Use	Urban	Institutions	✓
Balgownie Primary	In Use	Suburban	Institutions	
Marchburn Infant School	In Use	Urban	Institutions	
Mile End Primary	In Use	Urban	Institutions	
Braeside Infant School	In Use	Urban	Institutions	
Denburn and Woolmanhill	In Use	C Centre	Institutions	✓
Bankhead Academy		Suburban	Institutions	✓
Oakbank School	In Use	Urban	Non Effective Housing Land	✓
Woodside Church	Other	Urban	Non Effective Housing Land	
Water Lane Grannary	Other	C Centre	Non Effective Housing Land	
1-7 Crombie Road, Torry		Urban	Non Effective Housing Land	
Froghall Terrace	In Use	Urban	Non Effective Housing Land	✓
Nazareth House		Urban	Redevelopment of Other Uses	
Frederick / East North Street		C Centre	Redevelopment of Other Uses	
VSA Gallowgate		C Centre	Redevelopment of Other Uses	
OP30 East Woodcroft	Other	Suburban	Redevelopment of Other Uses	✓
Stoneywood Terrace	Other	Suburban	Redevelopment of Other Uses	
Cummings Park Crescent	Other	Urban	Redevelopment of Other Uses	
North Castlegate Car Park	Other	C Centre	Redevelopment of Other Uses	
Citadel	Other	C Centre	Redevelopment of Other Uses	
Urquhart Road Works	In Use	Urban	Redevelopment of Other Uses	
The Bush Peterculter	In Use	Suburban	Redevelopment of Other Uses	
Victoria House	Other	C Centre	Redevelopment of Other Uses	
140 Causewayend	Other	Urban	Redevelopment of Other Uses	
St Peter's Nursery, Spital	Other	Urban	Redevelopment of Other Uses	
OP31 Farburn Terrace Dyce		Suburban	Redevelopment of Other Uses	✓
Land at Bucksburn House	Other	Suburban	Redevelopment of Other Uses	✓
BP Dyce (Part)	Other	Suburban	Redevelopment of Other Uses	✓
Broadford Works	In Use	Urban	Redevelopment of Other Uses	✓
Hillhead Halls		Urban	Redevelopment of Other Uses	✓
Balgownie Centre	SVDL	Suburban	SVDL	✓
Tillydrone Primary School	SVDL	Urban	SVDL	✓
Cornhill Hospital	SVDL	Urban	SVDL	✓
Woodend Hospital Annex	SVDL	Urban	SVDL	✓
Mugiemoos Mill	SVDL	Suburban	SVDL	✓
Donside Paper Mill	SVDL	Urban	SVDL	✓
35 Froghall Road		Urban	SVDL	
Dunbar Halls	SVDL	Urban	SVDL	
Cattofield Reservoir	SVDL	Urban	SVDL	
Ex Satrosphere	SVDL	C Centre	SVDL	
Triple Kirks	SVDL	C Centre	SVDL	
Torry Research Lab	SVDL	Urban	SVDL	
Abbey Road Torry	SVDL	Urban	SVDL	
Kennerty Mill	SVDL	Suburban	SVDL	

Appendix 4: Housing Need & Demand Assessment

1. This assessment represents the first phase in the preparation of a Housing Need and Demand Assessment (HN&DA) for Aberdeen City and Aberdeenshire Councils and will be subject to considerable refinement over the coming months as the full assessment is prepared. However, the first phase is designed to give an indication of the likely level of need for affordable housing in the structure plan area over next 10 years using a method developed from the Scottish Government HN&DA guidance (2008).

Backlog need

2. The method required the calculation of backlog need for the structure plan area by combining local authority housing waiting lists and identifying those applicants awarded points for need. The net backlog of housing need for the region was estimated at a total of 6,172 households, with an annualised backlog of 617 needed to rectify the situation over ten years.

Newly arising and emerging need

3. The newly arising and emerging need comprises of an estimate of the proportion of newly formed households (primarily by those aged under 35 years setting up home) that will require provision of affordable housing plus those currently in private accommodation (rented/owners) who can no longer afford the tenure. Table 1 displays the annual ten year projected figures for the structure plan area.

Table 1: Newly Arising Need: Household Formation

Year	Gross household formation	Unable Afford Buy (%)	Newly Arising Need	Existing private owners and renters falling into need	Total Newly Arising plus Emerging Need
2008	4,598	60%	2,746	711	3,457
2009	4,652	60%	2,778	711	3,489
2010	4,706	60%	2,811	711	3,522
2011	4,760	60%	2,843	711	3,554
2012	4,808	60%	2,871	711	3,582
2013	4,855	60%	2,900	711	3,611
2014	4,902	60%	2,928	711	3,639
2015	4,950	60%	2,956	711	3,667
2016	4,997	60%	2,985	711	3,696
2017	5,019	60%	2,998	711	3,709
2018	5,041	60%	3,011	711	3,722
average to 2018	4,869	60%	2,908	711	3,619

4. The gross household formation (GHF) is calculated using Aberdeen City and Shire Strategic Household (Probable) Forecasts and new household formation rates of 2.3 and 2.2 for Aberdeen City and Aberdeenshire respectively. These figures were generated using evidence from recent studies such as Bramley (2006), Survey of English Housing, British Household Panel Survey and the Scottish Household Survey.

- The model calculated the affordability of housing by using the lower quartile house prices from the SASINES register combined with a mortgage multiplier of 3.5. This level of multiplier is taken from guidance and represents a good starting point.

Table 2: Affordability of newly forming households

	Data source	Aberdeen City	Aberdeenshire
Entry level purchase price (2007)	<i>SASINES</i>	£115,000	£124,950
Mortgage Multiplier	<i>Guidance</i>	3.5	3.5
Entry level household income level	-	£ 32,857	£ 35,700
Proportion of households unable to afford to enter market (2007)	<i>CACI paycheck</i>	58.1%	61.4%

- However, the affordability of housing for newly forming households is highly elastic and both sensitivity and scenario analysis is required in the next phase of the HN&DA to fully assess the extent of the proportion of new households who are unable to buy. This is potentially significant given recent changes to the housing market and lending policies of bank and building societies.

Supply of affordable housing

- A stock baseline for local authority and registered social landlord housing was established using Scottish Government's housing stock figures for March 2008. The stock was then projected over time, where possible taking account of both the right to buy (RTB) rates (including the partial suspension of RTB in certain areas of the City and Shire) and planned demolitions and new competitions. Average re-let rates for both types of social housing were then used to project the future flows of annual vacancies. The letting rate in both Local Authorities is based on new lets (excluding transfers) averaged over 3 years. In the case of Aberdeen City the letting rate for 2006/07 was excluded from analysis due to uniquely very high level of voids which would significantly skew the data.

Estimation of future need

- This method enabled the production of an annual supply of affordable housing to be calculated revealing an average annual shortfall of 659 over the next 10 years. The extent of the yearly shortfall increases over time as the supply of affordable housing decreases, as a result of RTB and the expiry of the RTB Pressured Area Status. Additionally, over this period demand rises as the number of the City and Shire's household numbers grow, exacerbating the shortfall of affordable housing.

References

Bramley, G., Karley, N., and Watkins, D (2006) Local Housing Need and Affordability Model – Update (2005 based), Research Report 72, Communities Scotland, Edinburgh

Fordham (2006) Aberdeen City and Aberdeenshire Council Housing Needs Assessment 2006 – Housing Market Area Report

Scottish Government (2008) Housing Need and Demand Guidance –March 2008

Appendix 5: Transport Interventions

1. Introduction

- 1.1 The Finalised Aberdeen City and Shire Structure Plan was submitted to Scottish Ministers on 27 February 2009. It is recognised that the implications for the transportation system in terms of road, rail and bus networks and opportunities for modal shift will potentially be significantly influenced by the proposals contained within it.
- 1.2 The information contained within this Appendix has been compiled with assistance from key stakeholders in Aberdeen City Council, Aberdeenshire Council and Nestrans.

2. Land-Use and Transport Integration in Scotland (LATIS)

- 2.1 This model has recently been launched by Transport Scotland and provides a tool for considering transport and land use planning interactions at the regional level. The material is also relevant for developing Regional Transport Strategies.
- 2.2 A draft, illustrative result for the north-east has been produced using the most recently collected planning inputs from 2007/2008. This is considered as a starting point to demonstrate how LATIS could be used and to illustrate the relationships between land-use and transport planning.
- 2.3 Whilst these initial forecasts are based on the most recent planning data (housing and employment land allocations), they do not take account of the proposals in the structure plan or the objective for population growth and modal shift expressed in the accessibility section. These limitations diminish the usefulness of the outcome as presented, although this was anticipated.
- 2.4 The draft report provides a comparison between the base year (2005) and 2022 assuming the completion of four committed transport interventions (see below). It does not however, include any other substantial projects with a regional impact, such as the Haudagain Roundabout, Third Don Crossing or others shown in Annex1. Interventions in LATIS include:
- A90 Balmedie to Tippetty Dualling;
 - Aberdeen Western Peripheral Route (AWPR);
 - Laurencekirk Rail Station reopening; and
 - Edinburgh to Aberdeen express rail services.
- 2.5 The key issues which LATIS highlights are explained below. The initial forecasts have identified a number of pressure points on the strategic road network by 2022, even with completion of the four projects named in 2.4 above.

Daily traffic flows and road capacity

- 2.6 The model identifies pressure points particularly but not exclusively to the north and north west of Aberdeen. The replacement of the Inveramsay bridge, Haudagain improvements, Third Don Crossing and improvements to

the A947 identified in the finalised plan will all help to alleviate these issues and remove (or reduce the impact of) pressure points on the road network. However, other transport interventions are also likely to be required if the pressure points are to be removed completely. This emphasises the importance of ensuring that the first strategic development plan and the next regional transport strategy are prepared in parallel, building on the close fit that has been achieved between the structure plan and current Regional Transport Strategy.

- 2.7 The junction improvements associated with new development on the A96 will also help alleviate these problems.

Traffic Speed

- 2.8 The model suggests a mixed pattern of changes in average vehicle speeds over time but the average change predicted over the area as a whole is a 3kph increase in speed.
- 2.9 However, the transport interventions identified in the finalised structure plan can be expected to make a significant impact on relieving congestion pinch points at key access points to and from Aberdeen, thus increasing traffic speeds at these key nodes such as the Haudagain and Bridge of Don.

Vehicle km

- 2.10 The model predicts an increase in vehicle km of 24% over the period to 2022 in the structure plan area. However, the strategy of the structure plan (as well as its objectives) are seeking to minimise the need to travel and direct development to areas where public transport is an attractive choice. This will maximise the potential to minimising traffic growth over time.

CO₂

- 2.11 Based on the model inputs an increase in vehicle emissions to 2022 is forecast. However, the carbon footprint of the spatial options for the structure plan were assessed during the technical evaluation and the strategy inherent within the finalised plan draws heavily on those options which minimised the carbon footprint. In particular, it focuses a significantly higher proportion of development into Aberdeen than would have been the case in the model inputs. This will help to minimise the need to travel, reduce travel distances and make sustainable modes more attractive choices.

Car Travel Times

- 2.12 Based on the model inputs, many car journey times are predicted to improve, with shorter travel times across Aberdeen reflecting the benefits of the AWPR. However, journey times to the city centre in 2022 are predicted by the model to be either marginally shorter or indeed longer.
- 2.13 However, the "locking in the benefits" proposals developed by Nestrans and the two councils are not factored into the model, including the key projects of the improvements to the Haudagain roundabout and the third Don Crossing mentioned in the structure plan. The data does suggest, however,

that improvements at the Bridge of Dee ought to be prioritised in the structure plan.

Summary

- 2.14 The structure plan assumes that the four committed projects will be delivered within the anticipated timescales and will significantly improve access to and from the settlements around Aberdeen. However, the entire package of measures outlined in the structure plan is necessary to deliver comprehensive improvements and therefore interventions identified in the Regional Transport Strategy (RTS) and Local Transport Strategy (LTS) of each Council also feature heavily in the finalised plan.
- 2.15 This initial demonstration of LATIS has illustrated how effective the model could be and its potential benefit for future plans. However, this must be subject to more detailed discussions with Transport Scotland, Nestrans and the respective Services of Aberdeen City and Aberdeenshire Council.

3. Determination of the Spatial Strategy

- 3.1 Transport stakeholders were involved in the preparation of the draft plan since early 2007. In particular, opportunities were given to be involved in:
- Issue Report;
 - Options engagement;
 - Options evaluation;
 - Development of the draft plan; and
 - Consultation on the draft plan
- 3.2 Throughout 2006 and 2007 a considerable amount of technical evaluation, engagement and consultation was undertaken to assess the most appropriate spatial strategy for the north-east. Eight possible options were considered in detail after being distilled from a wider range of potential distributions of development.

The eight options were:

- (1) Most of the development in Aberdeen City significant development in Edge of City Settlements.
- (2) Most of the development in Aberdeen City, significant development in the existing transport corridor.
- (3) Most of the development in Aberdeen City, significant development in a new transport corridor.
- (4) Most of the development in Aberdeen City, significant development in growth poles across Aberdeenshire.
- (5) Most of the growth in Aberdeen City and significant growth in new settlements.
- (6) Most of the development in the existing transport corridor, significant development in Aberdeen City.
- (7) Most of the development in the existing transport corridor, significant development in growth poles across Aberdeenshire.
- (8) Most of the development in the existing transport corridor, significant development in a new transport corridor.

- 3.3 A meeting of transport stakeholders was held in March 2007 to consider the advantages and disadvantages of the eight options. A clear preference was expressed for development in Aberdeen, with this being supported either by development of the edge of city communities or along the road/rail corridor.
- 3.4 The technical assessment covered a wide range of issues (21 in total) ranging from nature conservation and landscape through pipelines and gas networks to emergency services and carbon footprint.
- 3.5 The options evaluation included a high-level STAG type appraisal by transport stakeholders. This considered the eight options against the twelve operational objectives of the RTS and provided a 'rating' on a seven point scale between +3 (major positive impact) and -3 (major negative impact).
- 3.6 The results of this exercise are summarised below: Options 2 and 6 performed best when assessed against the objectives of the Regional Transport Strategy (RTS). Even though significant investment would be required, it would be within a single corridor and would help deliver the Crossrail project. These options performed particularly well against the environmental and economic competitiveness themes of the RTS. However, the cost of those options which included a new transport corridor to Peterhead was seen as a significant drawback, as was the consequences of an inability to deliver the infrastructure. Options which identified significant development in 'growth poles' performed worst when measured against the RTS due to the inability to deliver strategic road or rail infrastructure to cater for the development. Option 4 was therefore ranked as the option least compatible with the RTS, followed by Option 7.

	Options Named							
	1	2	3	4	5	6	7	8
<i>Rank against Regional Transport Strategy Objectives</i>	6	1	4	8	5	2	7	3

- 3.7 Therefore, the concentration of development in Aberdeen City and within the Huntly to Laurencekirk corridor was seen as well placed to help meet environmental and economic competitiveness themes and to facilitate delivery of the Crossrail project.
- 3.8 When the carbon footprinting of the options was analysed, it was clear that transportation was a key determinant. The availability, attractiveness and use made of sustainable modes of transport were the key variables, with options reducing the need to travel and having access or potential access to good public transport performing the best.
- 3.9 The inclusion of a significant level of development in a 'new transport corridor' between Aberdeen and Peterhead was considered as a component in two of the original eight options. Development on the scale initially envisaged was not carried into the draft plan as technical analysis had shown that challenges existed around delivery due to the cost of transport infrastructure and its timing. As a consequence, whilst the allocations in this corridor are substantial, they are phased to take account of committed schemes and allow for further consideration of the Energetica project as it progresses.

- 3.10 The eventual spatial strategy selected for the structure plan is essentially a hybrid of these two options. It was recognised from an early stage that such a combination may emerge instead of a single option. The emphasis is on strategic growth areas that will accommodate 75-80% of proposed development (residential and employment) in Aberdeen City and along the A90 and A96 corridors within Aberdeenshire up to 2030.
- 3.11 Aside from the proposals for the majority of development to take place along these strategic growth areas, the distribution of housing and employment in these locations is widely regarded as the most sustainable solution. The plan aims to provide more mixed use and integrated development than previously and to masterplan large-scale growth. The opportunities afforded by this approach are many, but a key consequence will be a reduced need to travel to access services and facilities. This clearly has a positive impact on accessibility, modal shift and emissions.

4. Interventions in the Finalised Structure Plan

- 4.1 As previously indicated, a number of transport interventions appear in the structure plan. These range in significance from nationally important schemes such as the AWPR, to those with a more regional benefit. Each of these has been subject to significant levels of consultation and scrutiny
- 4.2 Each of these must be examined in greater detail. Thirteen projects appear in Annex 7 and for each of these an explanation is provided for why they have been identified, what their status is, what stage they are at and how they will be taken forward.
- 4.3 Each project is deemed to be of significant strategic importance to the realisation of the vision of the plan and delivery of the spatial strategy.

5. Conclusion

- 5.1 This paper has been produced to give additional information on the range of transport interventions that appear within the Finalised Aberdeen City and Shire Structure Plan.
- 5.2 It has set out how modelling has and may continue to be utilised to forecast the complex interaction between land use planning and transportation issues.
- 5.3 A key component of the structure plan is the spatial strategy, which has been subject to substantial consultation with transportation and other stakeholders. The process for arriving at the final strategy was outlined along with links to sustainability and other plan objectives.
- 5.4 Finally, Annex 7 outlines the transport interventions that appear in the structure plan and which are deemed crucial, not only to the success of the spatial strategy, but also to achieve economic and environmental improvements for the entire north east.

6. Structure Plan Transport Priorities

1. Crossrail Programme	
Description of intervention	<p>To improve commuter rail services into Aberdeen and Dyce from stations in Aberdeenshire, with a view to growing rail's mode share for travel to work journeys and widen access to the rail network through opening additional stations. Improvements are being delivered on an incremental basis and include:</p> <ul style="list-style-type: none"> • increased peak time services; • inter-peak services to ensure more regular and frequent service to / from Stonehaven on the Inverness line; • later evening services and more regular Sunday services; • new stations at Kintore and Aberdeen South and consideration for potential locations for a 'destination' station for Aberdeen North; • increased capacity on busy trains; • more through trains from Inverurie and beyond direct to central belt and better integration of trains where a change is required in Aberdeen; and • further car parking capacity at stations and consideration of whether there are advantages of car parking demand management at stations.
National / Regional / Local	Regional
In STPR / NPF2 / RTS / LTS?	<p>NPF2 – p.38, RTS – p.63. Rail Action Plan – currently being developed. Recent STPR announcement indicates a series of improvements on the Aberdeen – Inverness rail line and delivery of key components of CrossRail (including Kintore Station), although still uncertainty over the detail of these improvements.</p>
Why mentioned in the plan (justification and benefits – which page / section)?	Specifically mentioned in the Structure Plan proposals on p.20. Aims to reduce % of journeys made by car (p.18) and relevant to economic growth (p.9).
Link to plan aims etc. and significance to spatial strategy	Links to sustainable development and climate change and making the most efficient use of the transport network. Key component of the Huntly to Laurencekirk SGA corridor.
Status of project / intervention	Improvements being delivered on an incremental basis. Additional services to / from Inverurie delivered through the December 2008 timetable change and similar timetable changes of Glasgow services in 2010 may provide further opportunities. Study commissioned to undertake more detailed engineering and signalling study to assess feasibility of a new station at Kintore.
Stage at December 2008 (i.e. STAG or other investigations)	Crossrail STAG2 report finalised. Rail Action Plan currently being developed. Laurencekirk Station due to open May '09.
Likely funding source(s)	Nestrans, Network Rail, Transport Scotland and Local Authorities.
How will project / intervention be progressed?	Individual elements of this overall project will be progressed on an incremental basis.

2.1 Reduced Intercity Journey Times	
• To Inverness	
Description of intervention	Improvements to the road and rail corridors between Aberdeen and Inverness to remove bottlenecks and improve journey times.
National / Regional / Local	National
In STPR / NPF2 / RTS / LTS?	NPF2 – p.36, RTS – p.57, 62 & 65 Rail Action Plan – currently being developed. Scottish Government's High Level Output Specification for Rail. STPR – the recent announcement has indicated commitment to improve both the road and rail corridor however the detail of these improvements is still uncertain apart from the Inveramsay Bridge replacement.
Why mentioned in the plan (justification and benefits – which page / section)?	The A96 is identified as a Strategic Growth Area in the Structure Plan. Improved rail services will provide an alternative to the private car for those travelling in either direction.
Link to plan aims etc. and significance to spatial strategy	Links to grow and diversify the regional economy, sustainable development and climate change and making the most efficient use of the transport network. Positive impact on the strategy due to consequential changes to timetables allowing greater rail capacity.
Status of project / intervention	A study has been carried out to look at where the opportunities for improvement are along the A96. A STAG has been completed for the Haudagain junction on the A96 and is currently with the Minister. STPR specifically commits to improving the Inveramsay Bridge.
Stage at December 2008 (i.e. STAG or other investigations)	STPR has indicated a commitment from the Government to bring forward improvements on both the road and rail corridor to Inverness.
Likely funding source(s)	Transport Scotland, Network Rail, (Nestrans).
How will project / intervention be progressed?	The Scottish Government's High Level Output Specification for Rail indicates that improvements to the railway line between Aberdeen and Inverness will be delivered around 2014 which will enable services to be improved.

2.2 Reduced Intercity Journey Times • To Edinburgh and Glasgow	
Description of intervention	Rail: Faster and better rail and road links to improve connectivity and reduce perceptions of remoteness to the central belt. Work with the rail industry, Transport Scotland and others to promote and support measures to cut journey times, including addressing pinch points in Angus and Fife and at Edinburgh and Glasgow stations.
National / Regional / Local	National
In STPR / NPF2 / RTS / LTS?	STPR – p.18, NPF2 – p.36, RTS – p.56-57, A Rail Action Plan is currently being developed. STPR - indicates commitment to re-work passenger rail timetable to provide one express train per hour to both Edinburgh and Glasgow and to reduce the journey time of each and provide separate stopping services. Electrification of the rail network and enhancements around Montrose will also improve journey times and reliability. STPR also announced consideration of a Dundee Northern Relief Road (or upgrading of the Kingsway) and a replacement crossing of the Forth in its list of strategic projects which will bring improvements to road journey times to Edinburgh / Glasgow from the North East.
Why mentioned in the plan (justification and benefits – which page / section)?	The importance of improving transport infrastructure to Aberdeen and further south is mentioned on p.8, this is key to improving the economic competitiveness of the region.
Link to plan aims etc. and significance to spatial strategy	Links to grow and diversify the regional economy, sustainable development and climate change and making the most efficient use of the transport network. Positive impact on the strategy due to consequential changes to timetables allowing greater rail capacity and making rail a more attractive option.
Status of project / intervention	New timetables commenced in December 2008 on the East Coast Mainline will bring some journey time improvements to Edinburgh. Similar timetable changes of Glasgow services in 2010 may provide further opportunities.
Stage at December 2008 (i.e. STAG or other investigations)	Announcement in STPR indicates commitment from Scottish Government to improvements on this corridor however there is still uncertainty over the details of these projects.
Likely funding source(s)	Transport Scotland, Network Rail, (Nestrans).
How will project / intervention be progressed?	Transport Scotland and Network Rail will bring forward proposals

3.1 Proposed Park and Ride Facilities	
• A96 (Dyce)	
Description of intervention	Introduction of a 1000 space Park and Ride site adjacent to the A96 at Dyce Drive.
National / Regional / Local	National / Regional
In STPR / NPF2 / RTS / LTS?	STPR – p.78, RTS – p.51, 69 & 84, LTS – p.39 & 80 Park and Ride is a key element of the Bus Action Plan. Identified in STPR as a priority.
Why mentioned in the plan (justification and benefits – which page / section)?	Included in the Structure Plan proposals on p.20. 'Economic Growth' (p.9) and 'Accessibility' (p.18) also mentions transport improvements in general terms.
Link to plan aims etc. and significance to spatial strategy	Links to sustainable development and climate change and making the most efficient use of the transport network. Important for improving choice for those who still need to commute to Aberdeen, or wish to access the City for leisure, recreation etc.
Status of project / intervention	The Council remains committed to working with partners at Nestrans and Aberdeenshire Council on the development of Park and Ride sites at this and other locations identified as part of the Modern Transport System.
Stage at December 2008 (i.e. STAG or other investigations)	Preliminary design is ongoing with a view to submitting a planning application early in 2009 to replace a previously approved site.
Likely funding source(s)	Some money available through existing TwinTrack fund. Transport Scotland funding now in STPR. Could require additional funding from Aberdeen City Council and potential developer contributions.
How will project / intervention be progressed?	If planning approval is given then project can continue to detailed design stage.

3.2 Proposed Park and Ride Facilities	
• A90 (South) Portlethen	
Description of intervention	Development of a Park and Ride site on the A90 south of Aberdeen at Schoolhill, near Portlethen. Will form part of a ring of Park and Ride sites enabling easy access to the City.
National / Regional / Local	National / Regional
In STPR / NPF2 / RTS / LTS?	STPR – p.78, RTS – p.69, LTS p.32 The approach to park and ride development has been informed by a strategic review completed in December 2006 and the outcome of the Access from the South study, completed in March 2008. Park and Ride is also a key element of the Bus Action Plan. Identified in STPR as a priority.
Why mentioned in the plan (justification and benefits – which page / section)?	Included in the Structure Plan proposals on p.20. 'Economic Growth' (p.9) and 'Accessibility' (p.18) also mentions transport improvements in general terms.
Link to plan aims etc. and significance to spatial strategy	Links to sustainable development and climate change and making the most efficient use of the transport network. Important for improving choice for those who still need to commute to Aberdeen, or wish to access the City for leisure, recreation etc.
Status of project / intervention	A preferred site has been identified through the Access from the South study. Feasibility and design underway.
Stage at December 2008 (i.e. STAG or other investigations)	Work commissioned to carry out Traffic Assessment and to prepare design with a view to submitting a planning application in 2009.
Likely funding source(s)	Transport Scotland, Nestrans, developers, Aberdeen City Council
How will project / intervention be progressed?	Modelling and costing to be developed.

4. Third Don Crossing	
Description of intervention	A package of integrated transport measures including a Third Road Crossing of the River Don that will improve access to Aberdeen City from the north. This would include taking advantage of capacity improvements to secure long term sustainable transport benefits. The third river crossing is also part of the optimum solution to resolve congestion at the A96(T)/A90(T) Haudagain Roundabout junction.
National / Regional / Local	Regional / Local
In STPR / NPF2 / RTS / LTS?	RTS – p.66, LTS – p.93-94
Why mentioned in the plan (justification and benefits – which page / section)?	Included on p.7, 19 & 20 as part of the overall infrastructure provision, specifically supporting measures to deal with congestion in and to the north of the City, links to the delivery of the Energetica initiative for the Aberdeen to Peterhead SGA
Link to plan aims etc. and significance to spatial strategy	Links to providing a strong framework for investment decisions that grow and diversify the economy, sustainable development and climate change and making the most efficient use of the transport network. Important for improving access to / from the north and the A90 SGA to Peterhead in conjunction with Haudagain Roundabout proposal.
Status of project / intervention	Included in the Administrations Policy Statement of ACC 'Vibrant, Dynamic and Forward Looking'.
Stage at December 2008 (i.e. STAG or other investigations)	Access from the North Study is ongoing and should be completed in spring 2009.
Likely funding source(s)	Aberdeen City Council and Development Contributions.
How will project / intervention be progressed?	The completion of the study will lead to a planning application being submitted towards the end of 2009.
Other supporting information	Haudagain STAG report, Third Don Crossing STAG report

5. Haudagain Roundabout	
Description of intervention	At grade improvement to the Haudagain roundabout. (requires the Third Don Crossing and AWPR to be in place as part of the solution)
National / Regional / Local	National / Regional / Local
In STPR / NPF2 / RTS / LTS?	RTS – p.66 & 84, LTS – p.38
Why mentioned in the plan (justification and benefits – which page / section)?	Specifically mentioned on p.7 and as a proposal on p.20 as a supporting measure to deal with congestion in and to the north of the City, links to the delivery of the Energetica initiative for the Aberdeen to Peterhead SGA
Link to plan aims etc. and significance to spatial strategy	Links to providing a strong framework for investment decisions that grow and diversify the economy, sustainable development and climate change and making the most efficient use of the transport network. Important for improving congestion at the A96 / A90 junction in conjunction with the Third Don Crossing.
Status of project / intervention	Commitment from Scottish Government to solve the congestion problem at the Haudagain. Supported by Aberdeen City Council/NESTRANS/Aberdeenshire Council. Awaiting SG consideration of optimum solution and outcome of AWPR PLI.
Stage at December 2008 (i.e. STAG or other investigations)	STAG process completed and presented to the Scottish Government in July 2008. Awaiting a response following AWPR PLI report.
Likely funding source(s)	Scottish Government funding.
How will project / intervention be progressed?	Requires approval from Scottish Government to move onto detailed design stage and subsequent legal/planning/land acquisition processes to achieve full delivery.
Other supporting information	Haudagain STAG report

6. Aberdeen Western Peripheral Route (AWPR)	
Description of intervention	The AWPR is a new road being developed to improve travel in and around Aberdeen and the North East. It will connect the existing trunk roads to the north, south and west of the city as well as linking to important A-class local roads. To the south end, the route consists of two spurs linking to the A90, one near Stonehaven and one at the junction of the A956. By taking through traffic away from the city and unsuitable rural roads, it will reduce the time cost of travel, which will help to sustain economic growth in the region.
National / Regional / Local	National
In STPR / NPF2 / RTS / LTS?	In STPR – p.32 and NPF2 – p.30 & 36. Identified as part of the Modern Transport System (MTS) and included within the RTS as a committed scheme and part of the reference case (see p.51).
Why mentioned in the plan (justification and benefits – which page / section)?	A committed scheme, mentioned on p.7 & 8 and identified as a proposal on p.20. A fundamental component of the future transport network of the north-east and critical to economic growth and providing additional transport benefits.
Link to plan aims etc. and significance to spatial strategy	Links to providing a strong framework for investment decisions that grow and diversify the economy, sustainable development and climate change and making the most efficient use of the transport network. Critical to the effective movement of traffic around the City and improving access to the North coast Regeneration Priority Areas as well as the A96 and A90 (north) SGAs. 'Locking in the benefits' will also help to increase capacity on local roads in conjunction with other transport interventions.
Status of project / intervention	Public Inquiry concluded.
Stage at December 2008 (i.e. STAG or other investigations)	The Public Inquiry is now concluded and Reporters' recommendation awaited.
Likely funding source(s)	Transport Scotland in partnership with Aberdeenshire Council and Aberdeen City Council.
How will project / intervention be progressed?	Construction is expected to start in 2010 and completion anticipated in 2012.

7. A90 Balmedie to Tipperty Dualling Project	
Description of intervention	Construction of 8 kilometres of new dual carriageway between Balmedie and Tipperty, on the A90 north of Aberdeen. It will be constructed mainly off-line of the existing road and will have grade-separated junctions. These improvements will provide continuous dual carriageway between Aberdeen and Ellon, which will remove the bottleneck caused by the existing single carriageway along this section.
National / Regional / Local	National
In STPR / NPF2 / RTS / LTS?	Identified as part of the Modern Transport System (MTS) and included within the RTS as a committed scheme and part of the reference case (see p.51).
Why mentioned in the plan (justification and benefits – which page / section)?	Specifically mentioned on p.7 & 8 and as a proposal on p.20. The A90 is identified as a Strategic Growth Area and also forms part of the Energetica corridor. It is required to facilitate growth in the Peterhead corridor as well as improving access from and to the North coast Regeneration Priority Areas.
Link to plan aims etc. and significance to spatial strategy	Links to providing a strong framework for investment decisions that grow and diversify the economy, sustainable development and climate change and making the most efficient use of the transport network. Will significantly improve the accessibility of the A90 (north) SGA.
Status of project / intervention	Orders published and PLI reporters appointed.
Stage at December 2008 (i.e. STAG or other investigations)	Draft Orders for the dualling published Oct 07 and Public Exhibition held Nov 07 in Balmedie. Compulsory Purchase Orders for route published 10 June 08.
Likely funding source(s)	Transport Scotland
How will project / intervention be progressed?	Aim to complete preparation (incl. Local Public Inquiry) by early 2009. Subject to successful outcome of the statutory process, it is estimated work will start in 2010 and take around 2 years to complete.

8. A90 / A96 improvements	
Description of intervention	Further measures between Aberdeen – Peterhead / Fraserburgh and Aberdeen – Inverness resulting in capacity, environment and safety improvements that may include dual carriageway, climbing lanes, slow vehicle overtaking laybys, realignments and junction improvements (see 12.1).
National / Regional / Local	National / Regional
In STPR / NPF2 / RTS / LTS?	STPR – p.64, RTS – p.84, LTS – p.48
Why mentioned in the plan (justification and benefits – which page / section)?	To improve accessibility and reduce journey times for communities on these routes and adjacent rural areas, with added benefit of reducing accidents – linked to junction improvements. Mentioned on p.4 & 7 and included as a proposal on p.20.
Link to plan aims etc. and significance to spatial strategy	Links to providing a strong framework for investment decisions and making the most efficient use of the transport network. Would improve accessibility of many settlements and reduce journey times.
Status of project / intervention	Some feasibility work has been completed but projects are largely aspirational at present within Aberdeenshire. Interventions to be determined.
Stage at December 2008 (i.e. STAG or other investigations)	Included in STPR in general, some feasibility work undertaken, but detail to be determined.
Likely funding source(s)	Transport Scotland (Nestrans).
How will project / intervention be progressed?	Through continued discussions with Transport Scotland, Nestrans and Aberdeenshire Council on appropriate interventions.

9. Airport Masterplan	
Description of intervention	National project in the NPF2 with improvements to the airport terminal building and other infrastructure, completion of the runway extension and development of new routes. The 'airport surface access strategy' will have a role to play in achieving this.
National / Regional / Local	National / Regional
In STPR / NPF2 / RTS / LTS?	NPF2 – p.70, RTS – p.61.
Why mentioned in the plan (justification and benefits – which page / section)?	Mentioned on p.4 & 9 and included as a proposal on p.20 in recognition that delivery of the masterplan will improve the region as a destination for visitors and business travel, linked to wider economic growth.
Link to plan aims etc. and significance to spatial strategy	Links to providing a strong framework for investment decisions that grow and diversify the economy and making the most efficient use of the transport network.
Status of project / intervention	Masterplan has now been approved by British Airports Authority (BAA) as an intention for long-term development.
Stage at December 2008 (i.e. STAG or other investigations)	Brief for tender process in development.
Likely funding source(s)	BAA
How will project / intervention be progressed?	Through individual planning applications and development by the airport authority.

10. Union Street Pedestrianisation	
Description of intervention	Full pedestrianisation of Union Street between Market Street and Union Terrace. This includes a programme of associated infrastructure measures required to accommodate the diverted traffic.
National / Regional / Local	Regional / Local
In STPR / NPF2 / RTS / LTS?	RTS – p.51, LTS – p.93
Why mentioned in the plan (justification and benefits – which page / section)?	Included on p.20 - referenced as part of City Centre Masterplan. The road infrastructure programme to support this initiative is not specifically mentioned but p.9 'Economic Growth' and p.18 'Accessibility' does mention transport improvements in general terms.
Link to plan aims etc. and significance to spatial strategy	Links to providing a strong framework for investment decisions that grow and diversify the economy and helping to create sustainable mixed communities.
Status of project / intervention	Included in the Administrations Policy Statement 'Vibrant, Dynamic and Forward Looking'. Pedestrianisation of Union Street is supported but only once suitable east-west road capacity has been identified and provided. Programme of necessary road infrastructure improvements is well underway with almost 50% of the programme completed to date.
Stage at December 2008 (i.e. STAG or other investigations)	A number of associated infrastructure measures are in place or are being designed / implemented.
Likely funding source(s)	Primarily Aberdeen City Council funding. Some elements are supported by NESTRANS funding.
How will project / intervention be progressed?	Requires Council approval to initiate the necessary legislation for the pedestrianisation itself and this will be progressed subject to the progress of delivering suitable road capacity and bus reliability.
Other supporting information	Aberdeen City Council – Council report on Central Aberdeen Transport Infrastructure – October 2004; bulletins on progress of the overall programme routinely submitted to the Council's Policy and Strategy Committee

11.1 Better Linkages • A947	
Description of intervention	Route action improvements to benefit road safety and reduce journey times. Provision of a park and ride facility on the A947.
National / Regional / Local	Regional / Local
In STPR / NPF2 / RTS / LTS?	RTS Sub Strategy 2 "The Internal Connections Strategy", IC2 Road Improvements. Park and ride – RTS p.51, LTS p.32
Why mentioned in the plan (justification and benefits – which page / section)?	Linkages shown on the key diagram and on p.8 and as a proposal on p.20 in recognition that this will help to improve the economy and competitiveness of regeneration and local growth areas and make them more attractive places to live and visit.
Link to plan aims etc. and significance to spatial strategy	Links to sustainable development and climate change, creating sustainable mixed communities and making the most efficient use of the transport network. Would improve accessibility of local growth and diversification and regeneration priority areas in northern Aberdeenshire.
Status of project / intervention	Continuing programme of improvement works on route and a preferred site for the park and ride has been identified.
Stage at December 2008 (i.e. STAG or other investigations)	Previous route action study documents exist.
Likely funding source(s)	Nestrans Capital Programme. Aberdeenshire Council Capital Programme.
How will project / intervention be progressed?	Minor road improvement projects. Possibly one more major project to build a crawler lane at Andrewsford south of Fyvie.
Other supporting information	Accident records. Traffic data. A revised layout for the park and ride is to be prepared following the AWPR order publication.

11.2 Better Linkages • A952	
Description of intervention	Route action improvements to benefit road safety and reduce journey times.
National / Regional / Local	Regional / Local
In STPR / NPF2 / RTS / LTS?	RTS Sub Strategy 2 "The Internal Connections Strategy", IC2 Road Improvements. Not specifically named but should be considered in connection with the A90 as the most direct route from Ellon to Fraserburgh.
Why mentioned in the plan (justification and benefits – which page / section)?	Shown on the key diagram and on p.8 and as a proposal on p.20 as recognition that this will help to improve the economy and competitiveness of regeneration and local growth areas and make them more attractive places to live and visit.
Link to plan aims etc. and significance to spatial strategy	Links to sustainable development and climate change, creating sustainable mixed communities and making the most efficient use of the transport network. Would improve accessibility of local growth and diversification and regeneration priority areas in northern Aberdeenshire.
Status of project / intervention	Continuing programme of improvement works.
Likely funding source(s)	Nestrans Capital Programme. Aberdeenshire Council Capital Programme.
How will project / intervention be progressed?	Minor road improvement projects.
Other supporting information	Accident records. Traffic data.

12.1 Junction Improvements	
• A96 (Aberdeen to Inverurie SGA)	
Description of intervention	Upgrading of trunk road junctions to accommodate increased traffic volumes resulting from expansion of settlements within the A96 corridor.
National / Regional / Local	National/Regional
In STPR / NPF2 / RTS / LTS?	Part of STPR 'Road Safety Improvements' p.64, RTS Sub Strategy 1 "The External Connections Strategy", EC2 Strategic Roads. LTS External Links, 8.4 Roads Links
Why mentioned in the plan (justification and benefits – which page / section)?	Mentioned on p.7 and To increase the capacity of existing junctions to accommodate new development proposed in the plan. Also required to improve safety at key locations.
Link to plan aims etc. and significance to spatial strategy	Links to providing a strong framework for investment decisions and making the most efficient use of the transport network. Would improve accessibility of key settlements and reduce journey times.
Status of project / intervention	Strategic modelling work is taking place to identify improvement options and to inform the emerging new Local Development Plan. Initial results expected in Feb '09.
Likely funding source(s)	Scottish Government. Developer contributions. Nestrans Capital Programme. Aberdeenshire Council Capital Programme.
How will project / intervention be progressed?	Guidance from local development plan and STAG assessment. Then development of a master plan for upgrading tied into new development.

12.2 Junction Improvements	
• A90 (Drumlithie to Laurencekirk SGA)	
Description of intervention	Upgrading of trunk road junctions to accommodate increased traffic volumes resulting from expansion of settlements and address specific safety concerns with the current "at grade" junctions.
National / Regional / Local	National / Regional
In STPR / NPF2 / RTS / LTS?	STPR road safety section, RTS Sub Strategy 1 "The External Connections Strategy", EC2 Strategic Roads. LTS External Links, 8.4 Roads Links
Why mentioned in the plan (justification and benefits – which page / section)?	Mentioned on p.7 with aim to increase the capacity of existing junctions to accommodate new development proposed in the plan. Also required to improve safety at key locations.
Link to plan aims etc. and significance to spatial strategy	Links to providing a strong framework for investment decisions and making the most efficient use of the transport network. Would improve accessibility of key settlements and reduce journey times.
Status of project / intervention	No junction improvements schemes designed at present. Existing Laurencekirk south junction is subject to a 50mph limit at present to address safety concerns.
Likely funding source(s)	Scottish Government Developer contributions Nestrans Capital Programme Aberdeenshire Council
How will project / intervention be progressed?	Guidance from local development plan and STAG assessment. Identification of funding package, design and construction.

13.1 Bus Improvements • Aberdeen City	
Description of intervention	<p>There are a number of Bus improvement proposals that emerge from the LTS 'Quality Partnership for Public Transport' and the RTS 'NESTRANS Bus Action Plan'.</p> <p>There are also a number of Bus improvements associated with the various infrastructure proposals contained in the LTS and RTS.</p> <p>There are also park and ride initiatives and associated bus priority corridors currently being progressed.</p>
National / Regional / Local	Regional / Local
In STPR / NPF2 / RTS / LTS?	RTS – p.67 -69, 79, 84 & 91, LTS – p.78 – 82 STPR – summary leaflet – Project 8 - support for the delivery of the Dyce/Charleston and Bridge of Don park and ride sites, Project 10 – Integrated Ticketing
Why mentioned in the plan (justification and benefits – which page / section)?	Bus/public transport reference included in p.5, 6, 7, 8, 18, 24 all supporting sustainable travel and accessibility
Link to plan aims etc. and significance to spatial strategy	Links to sustainable development and climate change, creating sustainable mixed communities and making the most efficient use of the transport network. Would improve choice from many settlements within the plan area, encourage modal shift and reduce congestion.
Status of project / intervention	A commitment to Bus improvements is Included in Aberdeen City Administrations Policy Statement 'Vibrant, Dynamic and Forward Looking'. A number of bus/public transport initiatives are all at various stages of development and delivery.
Stage at December 2008 (i.e. STAG or other investigations)	<p>Some of the major schemes mentioned elsewhere contain significant public transport measures. These include, but are not restricted to:</p> <p>Access from the North Access from the South Union Street Pedestrianisation</p> <p>Others such as expansion of real time information, bus infrastructure improvements and the delivery of a Punctuality Improvement Partnership all continue to be developed and delivered.</p>
Likely funding source(s)	Funding from Aberdeen City Council and NESTRANS but also from the bus companies as part of 'The Quality Partnership for Public Transport'. Potentially also SG via the STPR
How will project / intervention be progressed?	Proposals will be progressed both individually through the partnership and also as part of the various infrastructure schemes that are ongoing.
Other supporting information	Access From The South Study; Aberdeen City Council Policy and Strategy Committee reports re A96 Park and Ride, Punctuality Improvement Partnership, RTS – Bus Action Plan (currently at draft stage)

13.2 Bus Improvements • Aberdeenshire	
Description of intervention	Development of further inter urban park and ride and transport interchange facilities and key locations across Aberdeenshire including Inverurie and Banchory. Also further expansion and improvement of bus services including Demand Responsive Transport (DRT).
National / Regional / Local	Regional / Local
In STPR / NPF2 / RTS / LTS?	RTS Sub Strategy 2 "The Internal Connections Strategy" IC3 Bus Improvements and IC4 Demand Responsive Transport LTS Public Transport 5.1, 5.2, 5.4, 5.5, 5.6, & 5.9
Why mentioned in the plan (justification and benefits – which page / section)?	Within the spatial strategy section on p.6, 7 & 8 and 'accessibility' on p.18.
Link to plan aims etc. and significance to spatial strategy	Links to sustainable development and climate change, creating sustainable mixed communities and making the most efficient use of the transport network. Would improve choice from many settlements within the plan area, encourage modal shift and reduce congestion.
Status of project / intervention	Banchory and Inverurie interchanges are ongoing projects for which feasibility work has been completed. DRT services exist as A2B Dial-a-bus. 12 services in operation in Aberdeenshire and further development possible.
Likely funding source(s)	Nestrans Capital Programme Aberdeenshire Capital Programme Scottish Government Integrated Transport Fund Developer Contributions
How will project / intervention be progressed?	Continuation of project work at Inverurie and Banchory. Further interchanges may be developed and part of new development master planning. Bus services will be improved and developed in response to current and future needs.

If you wish to object to this plan you must do so by 24 April 2009 in writing to the Scottish Ministers at the address below :

Sandra Carey
The Scottish Government
Directorate for the Built Environment
Area 2-H
Victoria Quay
Edinburgh
EH6 6QQ

Email: aberdeencityandshire@scotland.gsi.gov.uk

Forms are available from the Strategic Development Planning Authority (address below) or can be downloaded from its website.

If you need help reading this document (for example if you need it in a different format or in another language), please phone us on 01224 628210.

ভাষা/ইন্টারপ্রেটিং এবং অন্যান্য ফরমেটের
যোগাযোগ সাহায্যের জন্য দয়া করে
: 01224 628210
নম্বরে যোগাযোগ করবেন।

如果需要語言/傳譯及其他形式的傳訊支援服務，
請聯絡: 01224 628210。

Если требуется помощь при выборе
языка /переводчика или других
способов общения ,звоните по
телефону :01224 628210

للحصول على مساعدة بخصوص اللغة/ الترجمة
و وسائل الاتصال الأخرى، الرجاء الاتصال
بالرقم التالي: 01224 628210

Lai saņemtu palīdzību sakarā ar
valodu/tulkošanu un citiem iespējamām
komunikāciju atbalsta formātiem, lūdzu
zvanīt 01224 628210

Jei jus turite sunkumu su kalba/ vertimu
ar kitomis bendravimo formomis,
skambinkite 01224 628210

Jeśli potrzebujesz pomocy **językowej /
tłumacza** lub innej pomocy w
porozumiewaniu się, proszę zadzwonić
pod numer: 01224 628210

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