4a Fraserburgh and Peterhead to Aberdeen Strategic Transport Study: Pre-Appraisal Report

o Purpose of Report

The purpose of this report is to update members on progress regarding the ongoing strategic transport study on the corridor between Fraserburgh and Peterhead to Aberdeen.

o Background

As members will recall, Nestrans' Regional Transport Strategy contains a commitment to undertake a study into the issues and problems relating to strategic transport movements north from Aberdeen to Ellon, Peterhead and Fraserburgh. This is intended to include examining the potential for rail or other mass transport options and issues relating to connectivity and the limitations of the existing roads.

As reported to the Board in April 2015, a consortium of consultants led by SIAS Transport Planners in association with Peter Brett Associates and Energised Environments (formerly Natural Capital) have been commissioned to undertake the work and a Steering Group has been established consisting of representatives of Nestrans, Transport Scotland, Aberdeenshire Council and Aberdeen City Council.

o Progress

Members will recall that at the last meeting of the Board, a report summarised the Baseline Stage of the study and indicated that the consultants would now move onto the Pre-Appraisal stage.

o Pre-Appraisal Report

The consultants have now produced a Pre-Appraisal Report, which develops the issues identified at Baseline stage and articulates these into three broad themes, relating to Journey times; Road Safety and Choice.

An Executive Summary of the Pre-Appraisal Report is attached as **Appendix 1** for members' information.

The report considers the implications of issues under these topics and develops a range of possible options for delivering improvements, to be developed in later phases of reporting.

The key options have been sifted down and agglomerated to a range of seven key options. These are attached as a table at the end of the Executive Summary.

o Options

In consultation with the client group, the consultants have identified seven options for assessment, which will be compared to a "Reference Case" scenario, which includes all the committed transport schemes (Aberdeen Western Peripheral Route, Balmedie-Tipperty dualling, Third Don Crossing, etc.). The seven options consist of three road-based scenarios (phased dualling; a series of overtaking and junction improvements; a range of safety measures), two bus-based options (bus service improvements; bus and Park & Ride opportunities supported by priority measures) and two potential rail schemes (phased reinstatement of former rail line via Dyce; construction of new rail line via Bridge of Don).

Assessment will consider the pros and cons of each of these options, including high-level cost estimates incorporating on-going revenue costs and savings to enable a comparison against the identified objectives for the project.

The seven options are expanded in the Executive Summary.

o Next Steps

The study is following the Scottish Transport Appraisal Guidance (STAG) and the next stage is to consider detailed appraisal of the Options, assessing how they perform against the identified objectives.

A number of public engagement meetings are being planned, with the intention of holding four events – in Bridge of Don, Ellon, Peterhead and Fraserburgh. Details will be provided to members in advance, once venues and dates have been secured.

o Recommendation

It is recommended that the Board:

a) Note the contents of this report and the Pre-Appraisal Report

RD/28 September 2015

APPENDIX 1

Fraserburgh and Peterhead to Aberdeen Strategic Transport Study Pre-Appraisal Report

EXECUTIVE SUMMARY

Introduction

Nestrans (The North East Scotland Transport Partnership) Regional Transport Strategy (RTS) Refresh was approved by Scottish Ministers in 2014. The RTS vision is for "A transport system for the north east of Scotland which enables a more economically competitive, sustainable and socially inclusive society".

There was strong support during consultation on the RTS Refresh to examine the costs and benefits of re-opening the Formartine & Buchan railway line. In response to this, the RTS Refresh contains a commitment to carry out an all modes study of the corridor from Fraserburgh and Peterhead to Aberdeen. The all modes study, subsequently commissioned and titled the Fraserburgh & Peterhead to Aberdeen Strategic Transport Study, is being led by the Client Group of Nestrans, Aberdeen City Council, Aberdeenshire Council, and Transport Scotland and being undertaken by the collaborative consultant team of SIAS, Peter Brett Associates, and Energised Environments, with the purpose to identify and examine the options for improving strategic transport connections between Fraserburgh, Peterhead and Aberdeen including incorporating the Energetica Corridor.

The study follows the Scottish Transport Appraisal Guidance (STAG) and covers the Pre-Appraisal and Part 1 Appraisal stages of STAG, as follows. This Report details the Pre-Appraisal stage, including the analysis of problems and opportunities, objective setting, option generation, sifting, development, and subsequent outcomes and recommendations.

Problems and Opportunities

To inform the identification of problems, opportunities, issues, and constraints for the study a wide ranging engagement programme was undertaken (a full account of which is provided in Appendix A of the report), ensuring that the knowledge, ideas, experiences, and aspirations of stakeholders are understood and taken cognisance of. Additionally, the analysis of a wealth of background data has provided the context for the study from a policy perspective, and an economic, social, and transport context, with consideration of all modes of transport, and is presented in the Baseline Report (*Fraserburgh & Peterhead to Aberdeen Strategic Transport Study - Baseline Report, SIAS, Peter Brett Associates, and Energised Environments, SIAS Ref. 77075, June 2015)*. The background data analysis supports the identification of problems, underpinning, and evidencing the real, perceived, and sometimes anecdotal problems identified through the programme of engagement. It is important to note that while a full appreciation of the current problems on the transport network is fundamental to the study, understanding potential future transport problems and, importantly, the potential opportunities, has been a key focus throughout.

Both the engagement and baseline work provided an appreciation of the economic and social context of the study area allowing for a clearer understanding of why and for whom transport improvements are needed. The work highlighted the dominance of the primary industries in the area with a heavy reliance on the movement of goods, and the over-riding sentiment and belief amongst stakeholders that current transport links do not fully support these industries and that the growth aspirations of the Energetica project and local businesses are being constrained by the current transport network.

There is a clear north-south divide in the study area, with a lower economic rate, educational attainment, and recent lower growth in the northern sections when compared to the regional

figures, highlighting the inequalities gap between the study area and the wider affluent Aberdeenshire region.

The population projections for the region alongside the aspirations of Aberdeenshire's Local Development plan in the area, as well as Aberdeen City's allocations in their Plan for north Aberdeen, will impact further on the transport network. The future ability to efficiently move people and goods is paramount in order to anchor local businesses and employment opportunities in the area - enabling wider access to regional health and social facilities, and reducing the inequalities gap.

Consolidation of the findings from the engagement programme and the background data analysis enabled summarising of the identified problems and opportunities into structured categories, reflecting the various elements of the transport network, the different travel modes and the nature of the problems. A full list of the problems, opportunities, issues, and constraints identified is provided in the main body of the Pre-Appraisal Report, however, through the categorising of the transport network problems, three clear themes emerged:

- Slow, unreliable and unpredictable journey times on strategic road links, namely the A90(T) and A952;
- Road safety risk on the A90(T) and A952; and
- Lack of choice.

The summarising and categorisation of the problems, and in many cases, associated opportunities, led to an understanding of the *impact* of the problems. During the process it became clear that the impacts were both economic and social in nature. In turn, it has become evident that improvements to transport provision could have a profound effect on the economic ambitions of the area and the social and economic disadvantages experienced by the far north east of the country.

The three key problem themes are discussed below, with reference to the key supporting evidence and the impacts from the economic and social perspective. A more in-depth discussion on these can be found in the main body of the Report.

Problem Theme 1:
Slow, unreliable, and unpredictable journey times on strategic road routes
From both data analysis, and the abundance of comments received during the engagement process, it became clear that slow, unreliable, and unpredictable journey times are a key problem in the study area.

Tom-Tom journey time data from 2012, highlights the slow speeds on the road routes between Aberdeen and Fraserburgh, on the A90(T) and A952, and Aberdeen and Peterhead, on the A90(T). On the A90(T) north of Aberdeen, while the sign-posted speed limited is often 60mph, and the distance weighted 'average' speed limit is never below 56mph, average traffic speeds never exceed 50pmh between 07:00 – 19:00 in either direction. Similar speeds are observed on the A90(T) and A952(T) route between Aberdeen and Fraserburgh, again, well below the signposted speed limits.

The lower speeds, in part, will be due to the level of freight traffic on the routes (up to 12% of average daily traffic on the A90(T) between the Toll of Birness and Peterhead, and around 7% of average daily traffic on the A952) for which the speed limit on single carriageway routes is 40mph, however, the single carriageway nature of the route with a lack of overtaking opportunity means platooning is common-place and many vehicles are obligated to travel well below the signposted limit. It is important to recognise that the proportion of traffic on the route attributable to goods vehicles can vary during the day. Analysis of the available data, with suitable vehicle disaggregation, from the Scottish Roads Traffic Database from March and September 2014, shows on the A90(T) that the proportion of heavy goods vehicles can reach as high as 16% of all northbound traffic at Blackdog between 09:00 – 11:00.

In addition, the proportion of goods vehicles (both light and heavy goods vehicles) is over 14% of all traffic southbound at St. Fergus between 08:00 – 15:00, and over 15% of all traffic southbound at Balmedie between 11:00 – 17:00. (Note that due to the classification of goods vehicles at a number of these sites, it has not been possible to split out heavy and lights goods vehicles). Furthermore, data relating to the A90(T)/A982 roundabout to the south of Peterhead shows 17% of all traffic heading southbound 09:00 – 10:00 is attributable to heavy goods vehicles.

Due to be completed in late 2017, the Aberdeen Western Peripheral Route (AWPR), incorporating the Balmedie to Tipperty dualling, will improve journey times for the southern section of the route between Aberdeen and Ellon, but no further major road improvements north of Ellon are programmed.

Aberdeenshire Council's Local Development Plan allocates over 9,000 houses and over 100ha of employment/mixed use land in the study area by 2030, focused on a strategic growth corridor around the A90(T). Aberdeen City Council's Local Development Plan has allocations for over 12,500 houses and 85ha of employment land in north Aberdeen, the build-out of which will further impact on the road network encompassing the approach route from the study area.

Outputs from the Aberdeen Sub-Area Model (ASAM) for 2010, 2023 and 2033, which includes allowance for the two Plan allocations and takes cognisance of the full range of committed transport infrastructure improvements in the region, shows predicted increases in traffic on the A90(T) north of Aberdeen, by 2033 of:

- Around 50%, both northbound and southbound between Ellon and Peterhead;
- Around 50%, both northbound and southbound, on the A952 south of Mintlaw, and around 40% north of Mintlaw;
- Over 90%, both northbound and southbound at Blackdog.

Corresponding analysis of journey times from ASAM shows while overall journey times between Fraserburgh, Peterhead, and Aberdeen are predicted to decrease, this is all due to a reduction in journey time south of Ellon, and journey times north of Ellon, on both the A90(T) and A952 are predicted to increase (by up to 33% between Ellon and the Toll of Birness between 2010 and 2033).

Analysis of the current flow on the A90(T) between Ellon and the Toll of Birness, undertaken in accordance with the *Design Manual for Road and Bridges* (*DMRB*) guidance, indicates the flow on the road is in excess of that recommended for a single carriageway. A situation that will become worse as traffic levels increase.

With the lack of alternative parallel strategic roads placing a heavy reliance on the A90(T) and A952 as key access routes between Aberdeen, Peterhead, and Fraserburgh, engagement highlighted further issues surrounding journey time reliability and predictability which can have a profound impact on business and commercial operations. While no day-to-day journey time variability analysis has been possible from the available data to support this, a range of comments made during engagement from various industries and the public highlights the impact. Of particular focus was the impact of journey time unpredictability on operations and the financial cost to business of a requirement to build additional time into both staff and goods movements. A key requirement during the more detailed appraisal stage of this study would be obtaining more comprehensive data relating to day-to-day journey time variability, and fully understanding the economic and social impacts of journey time unreliability and unpredictability.

Economically, compared to the Scottish average, the study area has a higher concentration of employment in the primary industries, driven by the oil & gas, fishing, and farming sectors. These industries are relatively transport intensive, requiring goods to be moved from one place

to another and the port of Peterhead is both a key freight attractor (as part of the oil & gas industry supply chain) and freight generator (as part of the fishing industry). Similarly, Fraserburgh Harbour is a key generator of freight due to the fishing industry.

Engagement highlighted the impact of slow, unreliable and unpredictable journey times on businesses in general, but with specific comments made in relation to the movement of goods in the key oil & gas and fishing industries. For the fishing industry, where stock can depreciate in value quickly (up to 50% depreciation a day), the movement of product is particularly time critical with delays impacting heavily on businesses in this highly competitive market. For the oil & gas supply and subsea industries, where vessels only have limited time at berth in the harbours, 'slack' must be built into freight movements, leading to inefficiencies and higher costs. The potential to collect data relating to the volume and value of goods being transported should be a key consideration during the more detailed appraisal stage of this study and would allow for a more in-depth understanding of the economic impacts.

Engagement with Peterhead Port Authority and Fraserburgh Harbour Commissioners highlighted a belief that the strategic road routes between Fraserburgh, Peterhead, and Aberdeen do not support the efficient movement of goods. Both harbours have redevelopment plans including a £47million investment at Peterhead to develop a fully integrated fishing hub with a 50% increase in market floor space and deepening of the inner harbours, potentially attracting processing operations currently located in Aberdeen, and in turn putting additional burden on the road network for product distribution. In addition, the introduction of new EU Landing Obligations will likely increase the volume of fish requiring transportation from both harbours.

A reduction in journey time between the harbours and Aberdeen, with improved journey time reliability and predictability has the potential to increase inward investment and use of the ports, supporting these development plans. Fraserburgh is recognised as the most fisheries dependant community in Scotland, with around 40% of those employed in the town working directly or indirectly in the industry. Similarly, with many local people employed in both Fraserburgh and Peterhead, providing the transport links to support the large industries within the towns and retaining the employment opportunities, is key to each town's vitality and supports the regeneration priority for Peterhead, Fraserburgh and the costal region between them, as identified in the Strategic Development Plan. If these employment opportunities were to be reduced or lost, the geographical location of the towns and the economic draw of Aberdeen would likely lead to an increased need for commuting longer distances, or may ultimately lead to out-migration from the towns.

The unpredictability of journey times on the strategic road network, while being noted by a number of key industries, is of specific importance to the bus industry, where obligations to meet Traffic Commissioner statutory targets, surrounding punctuality, and reliability, is paramount. The main bus operators in the area both cited the need to provide slack time in timetables to allow for the element of unpredictability and enable the targets to be met, leading to occasions where buses are required to wait at stops for long periods to ensure timetables are adhered to. This is particularly unattractive to passengers and detracts from the use of this more sustainable means of travel.

Figures reflecting commuting between Fraserburgh, Peterhead and Aberdeen, have dipped slightly between 2001 and 2011 but are still around 13% from Fraserburgh and 15% from Peterhead, however, issues surrounding labour supply and attracting employees has been a key problem noted during engagement, with a feeling that opportunities in the study area are 'on the wrong side of Aberdeen' requiring too long a commute time from many parts of Aberdeenshire, and further afield.

Indeed attracting employees for existing business and also attracting new business investment in the area, by ensuring transport network reliability and efficiency that can draw on a wider skills base is a key opportunity identified for the study, and is of particular relevance for the Energetica Corridor.

Socially, the impact of slow, unreliable and unpredictable journey times was identified by 95% of respondents to the study's Public Survey as impacting on their everyday activities with nearly 90% of respondents saying they started journeys earlier or later to avoid delay, nearly 60% citing road delay in making them late for work or education purposes and nearly 20% citing feelings of isolation.

Increased accessibility to the region's main retail and health facilities in Aberdeen and also increased job opportunities, in higher paid vocations, is a key opportunity for the study. While it is accepted that the unemployment rate in the study area is lower than the Scottish average, it should be acknowledged that the unemployment rate in both Fraserburgh and Peterhead is notably higher than the regional average and there is an opportunity to reduce this gap.

Problem Theme 2:
Road safety risk on the A90(T) and A952

Accident data from 2009 – 2013, as presented in the Baseline Report, highlights the entire A90(T) route between Aberdeen and Fraserburgh as having a higher than expected proportion of serious accidents than would be expected on a road of similar nature. In addition, three locations were identified as having a higher than expected proportion of fatal accidents; to the south of Fraserburgh; to the south of Peterhead; and between Blackdog and the Bridge of Don. Additionally, the southern section of the A952 between Mintlaw and the Toll of Birness was also highlighted with a higher than expected proportion of fatal accidents.

The accident data also illustrated increases in pedestrian and cyclist accidents in the study area between 2009 and 2013 with accident rates above the regional average and Nestrans targets, potentially reducing the attractiveness of active travel modes as a mode of transport.

Discussion with both Police Scotland and Scotland Fire and Rescue suggests that accidents in the area are caused by a number of factors including; driver frustration at lack of over-taking opportunity, young and inexperienced drivers; and older drivers who rely on the car for travel due to the rural nature of their residence with a lack of public transport alternatives that suit their needs. The Public Survey, and other avenues of engagement, highlighted perceptions that accidents are caused by; the mix of both strategic and local traffic; slow moving agricultural and heavy goods vehicles; and the number of farm and side road access points onto the A90(T) with a lack of dedicated right hand turn lanes, which all cause delay to traffic leading to driver frustration and dangerous overtaking manoeuvres. Poor road markings, and poor visibility were also noted as leading to accidents. In particular, difficulties at the Toll of Birness, for southbound traffic turning right from the A952 onto the A90(T) southbound carriageway, were noted.

This second key theme was also identified during the Scottish Transport Projects Review which considered "Online Trunk Road improvements on the A90(T) north of Aberdeen" as one of 136 interventions examined during Initial Appraisal. The justification for the intervention was on safety grounds (and the fatal accident rate between Aberdeen and Fraserburgh being significantly higher than the national rate was noted). The intervention was retained in the final Summary of Draft Interventions, as part of Intervention 5 "Route Management on other Road Corridors", which covers "a series of initiatives to implement road-based improvements with a combination of network optimisation through route management and targeted investment in relatively local interventions". It should be noted that Transport Scotland is currently examining the A90(T) route north of Aberdeen to prepare a Road Accident Reduction Plan (RARP), but with safety measures to be implemented relating only to signage, road markings, and other minor improvement measures.

A large number of those consulted as part of this study's engagement programme highlighted accidents as a key problem. Of those who responded to the Public Survey, 35% noted the level of accidents and road safety as a significant problem, with the Toll of Birness junction (A90(T)/A952 junction) as a key location for accident concern and a perceived accident black-spot. In addition, engagement also highlighted road safety as a key concern for oil and gas companies who place a significant emphasis on Health & Safety.

Economically, the delay accidents cause, and the lack of parallel routes means any incident can lead to significant journey time implications with impacts as noted in Problem Theme 1.

Accidents themselves also come at an economic and social cost, including: loss of output due to injury; ambulance costs, and costs of hospital treatment; the human cost of casualties including the grief and suffering to the casualty, relatives, and friends; intrinsic loss of enjoyment of life in the case of fatalities; damage to vehicle and property; and police and insurance administration cost. Transport Scotland figures put the cost of a fatal road accident on the trunk road network at £2.07m. Reducing road accidents has the potential to reduce this cost and social impact to society.

Problem Theme 3:
Lack of choice

The third identified key problem, of lack of choice reflects the identification of limited travel options in the study area. It is important to distinguish between mobility and accessibility in this regard. While accessibility is the ability to *reach* opportunities, mobility focuses on the collective modes of transport in order to facilitate the efficient movement of people and goods. Car ownership levels in Fraserburgh and Peterhead, which can provide an important measure of overall affluence in an area and can be an indicator of likely public transport demand, are similar to the Scottish average but lower than the average across the region. Given the distance of both towns from Aberdeen, where many regional facilities are located, this is an important consideration when understanding the limited modal choice issues faced by local residents, where a lack of mobility can increase feelings of peripherality and isolation.

With the only access to the railway network being at the stations of Dyce or Aberdeen at the south of the study area, public transport travel choice for those without a car (and those *with* access to a car), is limited to bus services. *Buchan Link* bus services operate between Fraserburgh, Peterhead, Ellon, and Aberdeen, with a travel time of 90mins between Fraserburgh and Aberdeen, and 75min between Peterhead and Aberdeen, equating to average travel speeds of around or less than 30mph. These journey times, which cannot compete with equivalent car journey times of just over an hour from Fraserburgh, and just under an hour from Peterhead, mean those reliant on public transport have significantly reduced accessibility to key regional services and job opportunities.

All bus services on the *Buchan Link* routes, and most other services which 'hub' in Aberdeen, are radial in nature, routeing into the centre of Aberdeen, with a deficit of orbital services. Public transport access to locations outwith the city centre, to the many business parks on the periphery of the city, including Dyce, and to the main Aberdeen Royal Infirmary hospital and other healthcare facilities, all require interchange with the inherent additional travel time.

While some 'express' services do operate on the routes, journey time savings are in the region of 5 to 15minutes and are limited (only one express service a day from Peterhead and six from Fraserburgh). A key issue amongst those out of employment and looking for work, as well as those wishing to access educational facilities, is access to bus services. This is especially the case in rural areas, and particularly for young people. It should also be noted that with an ageing population, there is an ever increasing reliance on public transport to access local and regional facilities.

The Aberdeen City Centre Masterplan, the plans for which were approved unanimously by City Councillors in June 2015, contains a Public Realm Strategy which includes schemes to remove car traffic from a number of city centre routes, including Guild Street and Union Street. Access by private vehicle, and the way people consider movements to, from and within the city centre will require a step-change, with an increased reliance on public transport. While there is clearly an opportunity to improve the mobility of those without a private car, the outcomes of this strategic transport study provide an opportunity to support the implementation of the Masterplan and improve and increase public transport connections and attract and encourage those who do not currently use public transport. The recent *Barriers to Bus Use* study undertaken by the Aberdeen and Grampian Chamber of Commerce, notes quicker journey times, more express services and more direct routes as key influencing factors that would encourage non-bus users to use the bus in the future.

The social benefits that occur through increased mobility are clear, in providing improved accessibility for all, which helps to reduce inequality and feelings of peripherality. Economically, the key opportunity of increased mobility is the widening skills base for employment, helping to attract workers to those industries where recruitment is challenging, and enabling business investment where the catchment to a skilled work force is widened, supporting the Energetica Corridor in its aims as well as the growth aspiration of existing businesses.

Improved public transport choices with good integration between transports modes encourages people out of their cars and has the benefit of freeing up road space enabling a more efficient road network. There are further opportunities in the tourism industry, where increased mobility has the opportunity to provide tourists with a greater range of travel choices, reducing perceptions of peripherality surrounding the area and encouraging increased visitor numbers, with the economic benefits to the area that brings.

Issues and Constraints

A number of key issues were identified during the engagement and baseline data gathering process. The most prominent of these is the uncertainty of the impact of the Aberdeen Western Peripheral Route in opening up the area to investment and development, and subsequently the pace of build out of the Local Development Plans and the impact this may have on the future transport network. The current uncertainty in the oil & gas industry and its impact on the economy, as well as the potential negative impacts that improved transport connections may have on the viability of Peterhead and Fraserburgh retail businesses if Aberdeen were made more accessible were also noted.

Constraints identified during the engagement and baseline data gathering process mainly related to physical environmental constraints including; built heritage; sensitive water courses; designated conservation areas; and sites of biodiversity and cultural heritage. Further constraints which may limit the type of options considered included the need to contribute to the Climate Change Scotland Act which may constrain certain road based options. Capacity and contractual issues surrounding the development of any rail based option and limitations of the use of the railway network for freight due to the size and time critical nature of goods requiring movement were also noted. For any potential bus improvements, the key constraint identified was the need to be able to ultimately operate services on a commercial basis.

Objectives

Transport Planning Objectives for the study have been developed to reflect the problems and opportunities identified as well as the relevant wider economic, transport and land use planning policy directives, strategies, and plans. A full explanation of how these transport planning objectives for the study support the wider study context and established policy is provided in the main body and appendices of this Report. The following table clearly shows how the Transport Planning Objectives relate to the identified problems.

Problem Theme	Objective
1 Reduce journey times between North-East communities and the Aberdeen conurbation	1 Address slow, unreliable and unpredictable journey times 2 Increase journey time reliability and predictability between North-East communities and the Aberdeen conurbation
2 Road safety risk on the A90(T) and A952	3 Reduce accidents on the A90(T) and A952
3 Lack of choice	4 Increase strategic travel choice between North-East communities and the Aberdeen conurbation 5 Increase direct public transport connectivity between North-East communities and the main trip attractors within the Aberdeen conurbation 6 Increase mode share for non-car based modes between North-East communities and the Aberdeen conurbation

Option Development, Generation and Sifting

In total, 128 individual options were developed through the engagement process, and through Study Team and Client Group discussions. During engagement, the general desire of businesses was for road improvements, which were felt could significantly benefit business operations and the economic competitiveness of the area. Business engagement further suggested there were inherent issues with the utilisation of any potential rail implementation due to the time critical nature of operations, the size of goods handled, the potential lack of economic density in the area and the overall required culture change. It was, however, noted that a rail line would benefit communities, potentially opening up job opportunities to a larger, more diverse workforce, particularly the young.

The results of the Public Survey showed a general desire for the establishment of a rail line in the area, followed closely by road improvements, with, as previously discussed, road safety highlighted as a key issue. Aligning with the desire for road improvements the 'Why Stop at Ellon?' campaign has gained public support and is aimed at the dualling of the A90(T) from Ellon to Peterhead.

The 128 options were divided into three categories:

- **Category A**: Within the remit of the study (70 options)
- **Category B**: Complementary measures – options that in themselves were not considered to meet the aims of the study, but would support other options in achieving the study aims (43 options)
- **Category C**: Outwith the remit of the study (15 options)

In order to work with a more manageable number of options, the Category A options were then combined where the options were similar and fell within what could be considered a single option for appraisal. After the consolidation, 23 options remained in Category A. A high level appraisal exercise was undertaken, first within the Study Team and then with the Client Group, to sift the remaining Category A options, and produce a final option list for appraisal at STAG Part 1.

The seven options on the recommended list for Part 1 appraisal are described as follows. Further details of the 23 'pre-sifting' Category A options, as well as the Category B and C options, can be found in the main body of the Report. It should be noted that it is assumed that an appropriate selection of the Category B 'complementary measures' would be implemented alongside the seven options listed, and would specifically include packages of high quality active travel measures to integrate with other modes of transport.

No.	Option	
1	Road	Phased road dualling north of Ellon, with junction improvements, including consideration of: • A90(T) Ellon to Toll of Birness • A90(T) Toll of Birness to Peterhead • A952 and A90(T) Toll of Birness to Fraserburgh
2	Road	Overtaking lanes and junction improvements, including consideration of: • A90(T) from Ellon to Peterhead • A952 and A90(T) Toll of Birness to Fraserburgh
3	Road	Safety improvements on: • A90(T) from Ellon to Peterhead • A952 and A90(T) Toll of Birness to Fraserburgh
4	Bus	Bus service improvements including consideration of: • New direct bus linkages between the study area and key employment, health, and social facilities in the Aberdeen conurbation • Increased express services between the study area and key employment, health, and social facilities in the Aberdeen conurbation
5	Bus	Bus service improvements (as Option 4) accompanied by priority infrastructure and Park & Ride improvements considering: • New sections of dedicated bus lanes • Extending operating hours for bus priority lanes • Development of a Park & Ride Strategy for the study corridor
6	Rail	Phased reinstatement on existing railway alignments, via Dyce, including examining options for light rail or tram from: • Dyce to Ellon • Ellon to Maud/Peterhead • Maud to Fraserburgh
7	Rail	Phased implementation of a new railway alignment, via the Bridge of Don, including examining options for light rail or tram from: • Aberdeen to Ellon • Ellon to Peterhead • Ellon to Fraserburgh