

Proposal Details			
Name and address of authority or organisation promoting the proposal: (Also provide name of any subsidiary organisations also involved in promoting the proposal)		TACTRAN, Bordeaux House, 31 Kinnoull Street, Perth, PH1 5EN	
Proposal Name:	Package 1	Name of Planner:	
Proposal Description:	Derived from Options New B1, New B4, New B5 and B6 with sensitivity test New B7 and includes: hourly Glasgow-Perth; addition of a two-hourly extension to Arbroath in 2011; hourly Glasgow-Arbroath in Dec 2016; and hourly Glasgow-Aberdeen post 2017 (all stops).	Estimated Total Public Sector Funding Requirement:	<i>Capital costs/grant: £50m+</i>
			<i>Annual revenue support: £tbc. If required this will be limited as this package uses resources available within the First ScotRail franchise.</i>
			<i>Present Value of Cost to Govt.</i>
Funding Sought From: (if applicable)		Amount of Application:	<i>Sum: £50m+</i>
Background Information			
Geographic Context:	<p>The TACTRAN region covers the Angus Council, Dundee City Council, Perth and Kinross and Stirling Council authority areas, located to the north, east and west of Scotland's Central Belt. It is a unique geographical region including the three cities of Stirling, Perth and Dundee and an extensive rural hinterland of inter-connected towns, villages and rural areas, many of which are located within the Loch Lomond and Trossachs National Park and Cairngorms National Park. In general moving from north west to south east in the TACTRAN area moves from rural to more urban areas and the population density increases. The scope and influence of this study extends to Aberdeen in the north and Glasgow to the south, embracing the outskirts of the Grampians and the Central Belt area. 10% of the population in the TACTRAN area live in small towns with populations between three and ten thousand with 25% of the population living in rural settlements where the population is less than three thousand people. The majority of the population reside in the main urban settlements of Dundee, Perth, Stirling and Arbroath which range in size from between 20,000 and approximately 145,000 inhabitants.</p>		

<p>Social Context:</p>	<p>The demographic profile of the TACTRAN region is not dissimilar to Scotland as a whole, with around 19% of the population under the age of 16, 20% of the population over the pensionable age and the remainder of 61% between these two ranges. Angus, Dundee City and Perth &amp; Kinross all have higher percentages of their population over the pensionable age than the Scottish average, but this is reduced across the region as a whole by the lower than average percentage observed in the Stirling Council area. The average number of persons per household is broadly consistent across the TACTRAN region and aligns with the Scottish average: the average number of people per household is highest in Stirling at 2.36 and lowest in Dundee City at 2.13.</p> <p>The percentage of residents in Dundee City who live in a household with no available car (46%) is much higher than the national average of 34% and compares to percentages of 24%, 24% and 25% in Stirling, Perth &amp; Kinross and Angus respectively. Whilst the average across the region for people with no access to a car is 31%, car ownership in the TACTRAN area is higher than that observed in the rest of Scotland. The preferred mode for travel to work is dominated by the car, which is used for an average of 66% of journeys, above the Scottish average of 64%. The use of rail and bus is low within the Council areas of Angus, Perth and Kinross and Stirling ranging between 6% and 10% of journeys in those areas, corresponding to the availability and frequency of Public Transport.</p> <p>More than 17% of the population in Angus, Perth &amp; Kinross and Stirling travel over 10 kilometres to work, compared to only 4% who travel this distance and reside in Dundee City. Work journeys account for 22% of all trips that are made. Whilst 78% of resident's travel to work trips are within local authority areas; Dundee City has the highest proportion of internal trips (88%) followed by Perth and Kinross (82%), Angus (69%) and Stirling (68%). Currently 69% of journeys to work in the region are made by car with a relatively high mode share of 10% bus trips. Walking accounts for a high proportion of trips (17%), with rail and cycling accounting for 2% of trips each. Within Dundee the public transport mode share is high (19%) but within Angus, Perth and Stirling the public transport mode share is much lower (9%). Public transport provision and related services within the urban and rural areas are regarded as good and poor respectively, albeit within the wider rural hinterland this is exacerbated by the dispersed nature of surrounding settlements.</p> <p>A greater percentage of residents than the Scottish average are considered to be in 'good' health across the TACTRAN area. This is true for the individual authorities apart from Dundee City which sees a lower than average percentage of 'good' health and a higher than average percentage with 'not good' health, rather than 'fairly good' health. It is also the case in Dundee City that there is a greater percentage occurrence of a limiting long term illness than the Scottish average.</p>
<p>Economic Context:</p>	<p>The distinct urban and rural areas across the TACTRAN region serve various functions. Dundee is a vibrant economic centre with a growing employment and residential market. As well as its function as a tourism destination, Stirling City also plays a key service role for the wider Stirlingshire area, providing a wide range of employment and other services for the surrounding communities as well as for visitors and passing trade. The wider Stirling authority area covers a deep rural hinterland, many areas of which are captured within the Loch Lomond and Trossachs National Park where tourism is a key industry. These patterns can be demonstrated by looking at industries which employ the greatest percentage of people in each of the Council areas compared to the Scottish average. In Angus it the extraction industries such as Agriculture, hunting and forestry, mining and quarrying and manufacturing employ a greater percentage than the Scottish average while Dundee City conforms much more to the Scottish average but is more heavily biased towards health, social work and manufacturing.</p> <p>Throughout the TACTRAN region, employment in the construction industry is higher than in other parts of the country, and the impact of the large Universities in Dundee and Stirling is reflected in the percentage of people who work in the education sector. The industries with the highest percentages in Perth &amp; Kinross are agriculture, hunting and forestry and hotels and restaurants, reflecting a higher dependency on tourism. Retail employment in this area is also high. Stirling shows a high percentage of the population employed in the hotel and restaurant sector as well as a high financial and educational bias.</p> <p>The percentage of the population within the TACTRAN area who are unemployed varies considerably between the constituent Council areas and is potentially compounded by the urban and rural characteristics of these areas. The Perth &amp; Kinross and Stirling Council areas both have fewer than 3% unemployment compared with the national average of 4%, while Dundee City had over 5% of its population unemployed at the time of the last Census. The percentage of the economically active population who are undertaking full time study in the TACTRAN area is higher than the Scottish average and this is due to the impact of the large universities at Stirling and Dundee.</p> <p>Unemployment figures show that there are significant areas of high unemployment in the east of the TACTRAN region, primarily in Angus but also in the rural areas north of Kirriemuir and Brechin and around Criannlarich and Killin.</p>

Planning Objectives	
Objective:	Performance against planning objective:
<b>EC1.</b> Ensure that rail provides and supports economic growth by connecting key business & employment sectors where possible	Major positive – Ultimately connects all stations with hourly service along the whole TERS corridor. In the short and medium term, the Perth to Arbroath section of the corridor only receives a two hourly service.
<b>EC2.</b> Improve the efficiency, reliability and integration of rail services in the Tay Estuary study area specifically where this will benefit key business and employment sectors	Major positive - likely to improve integration with other services within and outwith the corridor to Edinburgh/Inverness from Perth/Dundee for example.
<b>ACC1.</b> Increase accessibility to key service destinations in the TACTRAN area (e.g. employment, health and education sites) and to/from key external destinations by rail without compromising wider inter-regional rail connectivity	Major positive - will increase accessibility across the corridor for access to key centres and services in key centres (Stirling/Perth/Dundee) and further afield to the Central Belt
<b>ENV1.</b> Contribute to national greenhouse gas emission reductions through rail based interventions where possible	Moderate positive - likely to increase rail mode share at intermediate station locations therefore contributing to CO <sub>2</sub> emission targets
<b>ENV2.</b> Contribute to the management of air quality in the TACTRAN area, particularly the AQMA's across the Dundee City Council area and Perth	Moderate positive - improved rail connectivity and expected mode shift to rail into Perth and Dundee
<b>SEC1.</b> Maintain or improve real and perceived levels of safety and personal security on the rail network	Minor positive - increased usage of stations with currently low service may slightly improve perceived safety
<b>INT1.</b> Ensure that rail is fully integrated with relevant land-use and planning projects	Moderate positive - connects to all relevant growth areas across the corridor
<b>INT2.</b> Ensure the rail network is integrated with the wider public transport network	Moderate positive - improved service across the network will improve integration with other rail services and onward bus connections
Rationale for Selection or Rejection of Proposal:	This option has a strong performance against the planning objectives but the timing and implementability constraints are high. Compared to other options with the possibility of benefits across much of the corridor by 2010/2011 this option looks less attractive, but should be retained at this stage to determine the scale of benefits which may be delivered in 2017+ and whether these offset/ better the benefits gained in the short/ medium term from other option(s).

<b>Implementability Appraisal</b>	
Technical:	There is a minor pathing conflict with freight services in the Stirling area but this is felt to be resolvable. The major pathing conflict is with Highland Main Line proposals between Perth and Glasgow every other hour. Delivery of an hourly service between Glasgow and Arbroath is therefore not possible to implement prior to the national timetable recast. Major infrastructure works are required at Usan in order to provide a through service to Aberdeen, stopping at intermediate stations.
Operational:	Network Rail may be required to staff the Greenloaning signal box to accommodate the additional services on the Glasgow – Perth corridor. Units and crew: the Glasgow – Perth service from Dec 2010 can be potentially be operated with rolling stock and train crew resources currently available. To extend the service to Arbroath on a two hourly basis will require a further 2-3 units and associated train crew. These can potentially be made available through a redeployment of the existing First ScotRail fleet scheduled for Dec 2011. An hourly service to Arbroath will require 4 additional units and associated traincrew. These would not realistically be available until Dec 2016 at the earliest. Finally 5-6 units (above the existing base) would be required to deliver an “all stations” hourly Glasgow – Aberdeen service. Minor infrastructure works (<£0.5m) required at Arbroath in the short term to allow services to efficiently turn back. Major infrastructure works required at Usan of approximately £50m+ to enable a full hourly service to Aberdeen.
Financial:	Capital funding would be required from central government to carry out infrastructure works at Usan. This forms part of long term STPR Project 23 which will not realistically be delivered until sometime after 2017. Signalling works at Arbroath would require funding at £<0.5m – Possible TACTRAN but other funding sources may be available.  It is likely that in the short and medium term some form of operating subsidy would be required although this would be limited due to the fact this option makes use of resources currently available in the First ScotRail franchise. .
Public:	Not currently public but no perceived public objections and acceptability anticipated to be high given enhanced connectivity and wider travel options.

Government's Objectives for Transport		
Objective	Assessment Summary	Supporting Information
Environment:	<p>Air Quality = Moderate positive            Noise and Vibration = Minor negative            Water Quality, Drainage and Flood Defence = Neutral            Geology = minor negative            Biodiversity = minor negative            Landscape = minor negative            Visual Amenity = Neutral            Agriculture and Soils = minor negative            Cultural Heritage = Neutral</p>	<p>New infrastructure at Usan required for improvements post 2017 may have environmental impacts.</p> <p><b>Air Quality</b> – could expect modal shift to train from private car and therefore improvements to air quality at a strategic and local level  <b>Noise and Vibration</b> - may be minor impacts to properties within vicinity of route, given increased services/ frequencies  <b>Water Quality, Drainage and Flood Defence</b> - no change  <b>Biodiversity</b> - minor impacts from construction works (mitigated through method statements), albeit degree of severance from existing rail lines  <b>Landscape</b> - minor short term impacts from construction works  <b>Visual Amenity</b> - no change  <b>Agriculture and Soils</b> – minor impacts from construction works (mitigated through method statements)  <b>Cultural Heritage</b> - no change</p>
Safety:	<p>Accidents = Neutral            Security = Minor positive</p>	<p><b>Accidents</b> – no additional safety benefits expected at this stage  <b>Security</b> – benefits to perceived security if intermediate stations are better used</p>
Economy:	<p>Transport Economic Efficiency = Moderate positive            Economic Activity and Location Impacts = Major positive</p>	<p>Improved frequency and connectivity for access to jobs and services in key centres (Stirling, Perth, Dundee) and central belt.</p> <p><b>TEE</b> - It is estimated that benefits will be accrued from increased connectivity and journey reliability benefits to and from central belt and across the TACTRAN region  <b>EALI</b> - Increased economic activity from improved connectivity between business/ employment sectors as well as increased commercial activity and tourism</p>
Integration:	<p>Transport Integration = Minor positive            Land-use Transport Integration = Moderate positive            Policy integration = Major positive</p>	<p>Overall, will enhance integration with longer distance rail services from intermediate stations.</p> <p><b>Transport Integration</b> = enhanced rail connectivity and reliability has potential for better integration with long distance bus and onward rail services  <b>Land-use Transport Integration</b> = option should have a positive effect on the business/ employment across the region  <b>Policy Integration</b> = Proposals fit well with the TACTRAN Regional Transport Strategy.</p>
Accessibility & Social Inclusion:	<p>Community Accessibility = Moderate positive            Comparative Accessibility = Moderate positive</p>	<p>Overall, Increased accessibility of intermediate stations to key centres (Stirling, Perth, and Dundee).</p> <p><b>Community Accessibility</b> – the option enhances the attractiveness of rail to the public and will have benefits for those with restricted or no access to the private car  <b>Comparative Accessibility</b> - the option enhances the attractiveness of rail to the public and will have benefits for those with restricted or no access to the private car</p>

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Name and address of authority or organisation promoting the proposal: (Also provide name of any subsidiary organisations also involved in promoting the proposal)		TACTRAN, Bordeaux House, 31 Kinnoull Street, Perth, PH1 5EN	
Proposal Name:	Package 2	Name of Planner:	
Proposal Description:	Derived from Options Pac A2 and Pac A4 and includes: hourly Glasgow-Perth; addition of an hourly Perth-Arbroath in 2011; and addition of an hourly Perth-Aberdeen in 2017+ (all stops).	Estimated Total Public Sector Funding Requirement:	<i>Capital costs/grant: £50m+</i>
			<i>Annual revenue support: £ tbc. If required this will be limited as this package uses resources available within the First ScotRail franchise.</i>
			<i>Present Value of Cost to Govt.</i>
Funding Sought From: (if applicable)		Amount of Application:	<i>Sum: £50m+</i>
<b>Background Information</b>			
Geographic Context:	<p>The TACTRAN region covers the Angus Council, Dundee City Council, Perth and Kinross and Stirling Council authority areas, located to the north, east and west of Scotland's Central Belt. It is a unique geographical region including the three cities of Stirling, Perth and Dundee and an extensive rural hinterland of inter-connected towns, villages and rural areas, many of which are located within the Loch Lomond and Trossachs National Park and Cairngorms National Park. In general moving from north west to south east in the TACTRAN area moves from rural to more urban areas and the population density increases. The scope and influence of this study extends to Aberdeen in the north and Glasgow to the south, embracing the outskirts of the Grampians and the Central Belt area. 10% of the population in the TACTRAN area live in small towns with populations between three and ten thousand with 25% of the population living in rural settlements where the population is less than three thousand people. The majority of the population reside in the main urban settlements of Dundee, Perth, Stirling and Arbroath which range in size from between 20,000 and approximately 145,000 inhabitants.</p>		

<p>Social Context:</p>	<p>The demographic profile of the TACTRAN region is not dissimilar to Scotland as a whole, with around 19% of the population under the age of 16, 20% of the population over the pensionable age and the remainder of 61% between these two ranges. Angus, Dundee City and Perth &amp; Kinross all have higher percentages of their population over the pensionable age than the Scottish average, but this is reduced across the region as a whole by the lower than average percentage observed in the Stirling Council area. The average number of persons per household is broadly consistent across the TACTRAN region and aligns with the Scottish average: the average number of people per household is highest in Stirling at 2.36 and lowest in Dundee City at 2.13.</p> <p>The percentage of residents in Dundee City who live in a household with no available car (46%) is much higher than the national average of 34% and compares to percentages of 24%, 24% and 25% in Stirling, Perth &amp; Kinross and Angus respectively. Whilst the average across the region for people with no access to a car is 31%, car ownership in the TACTRAN area is higher than that observed in the rest of Scotland. The preferred mode for travel to work is dominated by the car, which is used for an average of 66% of journeys, above the Scottish average of 64%. The use of rail and bus is low within the Council areas of Angus, Perth and Kinross and Stirling ranging between 6% and 10% of journeys in those areas, corresponding to the availability and frequency of Public Transport.</p> <p>More than 17% of the population in Angus, Perth &amp; Kinross and Stirling travel over 10 kilometres to work, compared to only 4% who travel this distance and reside in Dundee City. Work journeys account for 22% of all trips that are made. Whilst 78% of resident's travel to work trips are within local authority areas; Dundee City has the highest proportion of internal trips (88%) followed by Perth and Kinross (82%), Angus (69%) and Stirling (68%). Currently 69% of journeys to work in the region are made by car with a relatively high mode share of 10% bus trips. Walking accounts for a high proportion of trips (17%), with rail and cycling accounting for 2% of trips each. Within Dundee the public transport mode share is high (19%) but within Angus, Perth and Stirling the public transport mode share is much lower (9%). Public transport provision and related services within the urban and rural areas are regarded as good and poor respectively, albeit within the wider rural hinterland this is exacerbated by the dispersed nature of surrounding settlements.</p> <p>A greater percentage of residents than the Scottish average are considered to be in 'good' health across the TACTRAN area. This is true for the individual authorities apart from Dundee City which sees a lower than average percentage of 'good' health and a higher than average percentage with 'not good' health, rather than 'fairly good' health. It is also the case in Dundee City that there is a greater percentage occurrence of a limiting long term illness than the Scottish average.</p>
<p>Economic Context:</p>	<p>The distinct urban and rural areas across the TACTRAN region serve various functions. Dundee is a vibrant economic centre with a growing employment and residential market. As well as its function as a tourism destination, Stirling City also plays a key service role for the wider Stirlingshire area, providing a wide range of employment and other services for the surrounding communities as well as for visitors and passing trade. The wider Stirling authority area covers a deep rural hinterland, many areas of which are captured within the Loch Lomond and Trossachs National Park where tourism is a key industry. These patterns can be demonstrated by looking at industries which employ the greatest percentage of people in each of the Council areas compared to the Scottish average. In Angus it the extraction industries such as Agriculture, hunting and forestry, mining and quarrying and manufacturing employ a greater percentage than the Scottish average while Dundee City conforms much more to the Scottish average but is more heavily biased towards health, social work and manufacturing.</p> <p>Throughout the TACTRAN region, employment in the construction industry is higher than in other parts of the country, and the impact of the large Universities in Dundee and Stirling is reflected in the percentage of people who work in the education sector. The industries with the highest percentages in Perth &amp; Kinross are agriculture, hunting and forestry and hotels and restaurants, reflecting a higher dependency on tourism. Retail employment in this area is also high. Stirling shows a high percentage of the population employed in the hotel and restaurant sector as well as a high financial and educational bias.</p> <p>The percentage of the population within the TACTRAN area who are unemployed varies considerably between the constituent Council areas and is potentially compounded by the urban and rural characteristics of these areas. The Perth &amp; Kinross and Stirling Council areas both have fewer than 3% unemployment compared with the national average of 4%, while Dundee City had over 5% of its population unemployed at the time of the last Census. The percentage of the economically active population who are undertaking full time study in the TACTRAN area is higher than the Scottish average and this is due to the impact of the large universities at Stirling and Dundee. Unemployment figures show that there are significant areas of high unemployment in the east of the TACTRAN region, primarily in Angus but also in the rural areas north of Kirriemuir and Brechin and around Criannlarich and Killin.</p>

<b>Planning Objectives</b>	
Objective:	Performance against planning objective:
<b>EC1.</b> Ensure that rail provides and supports economic growth by connecting key business & employment sectors where possible	Major positive – provides hourly connection across the corridor to Arbroath by 2011 connecting to growth areas around Dundee/Stirling.
<b>EC2.</b> Improve the efficiency, reliability and integration of rail services in the Tay Estuary study area specifically where this will benefit key business and employment sectors	Moderate positive – improved integration with services to Edinburgh, Inverness and Aberdeen (useful pre-2017)
<b>ACC1.</b> Increase accessibility to key service destinations in the TACTRAN area (e.g. employment, health and education sites) and to/from key external destinations by rail without compromising wider inter-regional rail connectivity	Moderate positive – increased accessibility to major centres from intermediate stations across the corridor and further afield to Aberdeen from 2017
<b>ENV1.</b> Contribute to national greenhouse gas emission reductions through rail based interventions where possible	Minor positive – increased service to intermediate stations expected to cause some modal shift to major centres
<b>ENV2.</b> Contribute to the management of air quality in the TACTRAN area, particularly the AQMA's across the Dundee City Council area and Perth	Minor positive - improved connectivity to Dundee and Perth will encourage PT travel from intermediate stations, contributing to reduced emissions across the AQMA's.
<b>SEC1.</b> Maintain or improve real and perceived levels of safety and personal security on the rail network	Neutral – possible slightly improved perception of safety if intermediate stations are better served/more used but otherwise little change
<b>INT1.</b> Ensure that rail is fully integrated with relevant land-use and planning projects	Minor positive - Good connections to Stirling/Dundee growth areas by 2011 from intermediate stations for employment, but relies on a service change at Perth
<b>INT2.</b> Ensure the rail network is integrated with the wider public transport network	Minor positive – improved integration with wider rail services from intermediate stations from Glasgow-Arbroath by 2011
<b>Rationale for Selection or Rejection of Proposal</b>	This option has been selected for further appraisal on the basis that it provides enhanced connectivity between the Central Belt and the TACTRAN region and, in particular, the key business and employment sectors, providing an overall strong positive contribution to the planning objectives. This option also represents value for money in the short/ medium term, given the relatively low capital cost for this period, and allows some connectivity and accessibility benefits to be accrued in the short term. The full benefits of the option however, cannot be realised until 2017+ at a significant capital cost (£50m+) but the option should be retained at this stage to determine the scale of benefits which may be delivered in 2017+.

<b>Implementability Appraisal</b>	
Technical:	There is a minor pathing conflict with freight services in the Stirling area but this is felt to be resolvable. No other pathing conflicts have been identified and the service would only be extended Aberdeen once major infrastructure works were delivered at Usan.
Operational:	<p>Network Rail may be required to staff the Greenloaning signal box to accommodate the additional services on the Glasgow – Perth corridor.</p> <p>Units and crew: the Glasgow – Perth service from Dec 2010 can be potentially be operated with rolling stock and train crew resources currently available. An hourly service from Perth to Arbroath will require 2-3 additional units and associated traincrew. These can potentially be made available through a redeployment of the existing First ScotRail fleet scheduled for Dec 2011. Finally 4-5 units (above the existing base) would be required to deliver an Perth – Aberdeen service. This element of the service would not be possible until major infrastructure works required at Usan of approximately £50m+ were completed.</p> <p>Minor infrastructure works (&lt;£0.5m) required at Arbroath in the short term to allow services to efficiently turn back.</p>
Financial:	<p>Signalling works at Arbroath would require funding at £&lt;0.5m – Possible TACTRAN but other funding sources may be available. Capital funding would be required from Central Government to carry out infrastructure works at Usan. This forms part of long term STPR Project 23 which will not realistically be delivered until sometime after 2017.</p> <p>It is likely that in the short and medium term some form of operating subsidy would be required although this would be limited due to the fact this option makes use of resources currently available in the First ScotRail franchise. .</p>
Public:	Not currently public but no perceived public objections and acceptability anticipated to be high given enhanced connectivity and wider travel options.

Government's Objectives for Transport		
Objective	Assessment Summary	Supporting Information
Environment:	<p>Air Quality = Moderate positive            Noise and Vibration = Minor negative            Water Quality, Drainage and Flood Defence = Neutral            Geology = minor negative            Biodiversity = minor negative            Landscape = minor negative            Visual Amenity = Neutral            Agriculture and Soils = minor negative            Cultural Heritage = Neutral</p>	<p>New infrastructure at Usan required for improvements post 2017 may have environmental impacts.</p> <p><b>Air Quality</b> – could expect modal shift to train from private car and therefore improvements to air quality at a strategic and local level  <b>Noise and Vibration</b> - may be minor impacts to properties within vicinity of route, given increased services/ frequencies  <b>Water Quality, Drainage and Flood Defence</b> - no change  <b>Biodiversity</b> - minor impacts from construction works (mitigated through method statements), albeit degree of severance from existing rail lines  <b>Landscape</b> - minor short term impacts from construction works  <b>Visual Amenity</b> - no change  <b>Agriculture and Soils</b> – minor impacts from construction works (mitigated through method statements)  <b>Cultural Heritage</b> - no change</p>
Safety:	<p>Accidents = Neutral            Security = Neutral</p>	<p><b>Accidents</b> – no additional safety benefits expected at this stage  <b>Security</b> – no additional security benefits expected at this stage</p>
Economy:	<p>Transport Economic Efficiency = Moderate positive            Economic Activity and Location Impacts = Major positive</p>	<p>Improved journey times and frequency across the corridor as a whole</p> <p><b>TEE</b> - It is estimated that benefits will be accrued from increased connectivity and journey reliability benefits to and from central belt  <b>EALI</b> - Increased economic activity from improved connectivity between business/ employment sectors as well as increased commercial activity and tourism</p>
Integration:	<p>Transport Integration = Moderate positive            Land-use Transport Integration = Moderate positive            Policy integration = Moderate positive</p>	<p>Overall,</p> <p><b>Transport Integration</b> = enhanced rail connectivity and reliability has potential for better integration with long distance bus and onward rail services  <b>Land-use Transport Integration</b> = option should have a positive effect on the business/ employment sectors across the region  <b>Policy Integration</b> = Proposals fit well with the TACTRAN Regional Transport Strategy.</p>
Accessibility & Social Inclusion:	<p>Community Accessibility = Minor positive            Comparative Accessibility = Minor positive</p>	<p><b>Community Accessibility</b> – the option enhances the attractiveness of rail to the public and will have benefits for those with restricted or no access to the private car  <b>Comparative Accessibility</b> - the option enhances the attractiveness of rail to the public and will have benefits for those with restricted or no access to the private car</p>



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Name and address of authority or organisation promoting the proposal: (Also provide name of any subsidiary organisations also involved in promoting the proposal)		TACTRAN, Bordeaux House, 31 Kinnoull Street, Perth, PH1 5EN	
Proposal Name:	Package 3	Name of Planner:	
Proposal Description:	Derived from Options Pac A2 and Pac A9 and includes: hourly Glasgow-Perth; addition of an hourly Perth-Arbroath in 2011; and then hourly Perth-Aberdeen (with reduction in express paths). Aberdeen – Glasgow/ Edinburgh express would run as a combined unit, splitting at Perth. The path freed up would be used by a new stopping service.	Estimated Total Public Sector Funding Requirement:	<i>Capital costs/grant: &lt;£0.5</i>
			<i>Annual revenue support: £ tbc. If required this will be limited as this package uses resources available within the First ScotRail franchise</i>
			<i>Present Value of Cost to Govt.</i>
Funding Sought From: (if applicable)		Amount of Application:	<i>Sum</i>
<b>Background Information</b>			
Geographic Context:	The TACTRAN region covers the Angus Council, Dundee City Council, Perth and Kinross and Stirling Council authority areas, located to the north, east and west of Scotland's Central Belt. It is a unique geographical region including the three cities of Stirling, Perth and Dundee and an extensive rural hinterland of inter-connected towns, villages and rural areas, many of which are located within the Loch Lomond and Trossachs National Park and Cairngorms National Park. In general moving from north west to south east in the TACTRAN area moves from rural to more urban areas and the population density increases. The scope and influence of this study extends to Aberdeen in the north and Glasgow to the south, embracing the outskirts of the Grampians and the Central Belt area. 10% of the population in the TACTRAN area live in small towns with populations between three and ten thousand with 25% of the population living in rural settlements where the population is less than three thousand people. The majority of the population reside in the main urban settlements of Dundee, Perth, Stirling and Arbroath which range in size from between 20,000 and approximately 145,000 inhabitants.		

<p>Social Context:</p>	<p>The demographic profile of the TACTRAN region is not dissimilar to Scotland as a whole, with around 19% of the population under the age of 16, 20% of the population over the pensionable age and the remainder of 61% between these two ranges. Angus, Dundee City and Perth &amp; Kinross all have higher percentages of their population over the pensionable age than the Scottish average, but this is reduced across the region as a whole by the lower than average percentage observed in the Stirling Council area. The average number of persons per household is broadly consistent across the TACTRAN region and aligns with the Scottish average: the average number of people per household is highest in Stirling at 2.36 and lowest in Dundee City at 2.13.</p> <p>The percentage of residents in Dundee City who live in a household with no available car (46%) is much higher than the national average of 34% and compares to percentages of 24%, 24% and 25% in Stirling, Perth &amp; Kinross and Angus respectively. Whilst the average across the region for people with no access to a car is 31%, car ownership in the TACTRAN area is higher than that observed in the rest of Scotland. The preferred mode for travel to work is dominated by the car, which is used for an average of 66% of journeys, above the Scottish average of 64%. The use of rail and bus is low within the Council areas of Angus, Perth and Kinross and Stirling ranging between 6% and 10% of journeys in those areas, corresponding to the availability and frequency of Public Transport.</p> <p>More than 17% of the population in Angus, Perth &amp; Kinross and Stirling travel over 10 kilometres to work, compared to only 4% who travel this distance and reside in Dundee City. Work journeys account for 22% of all trips that are made. Whilst 78% of resident's travel to work trips are within local authority areas; Dundee City has the highest proportion of internal trips (88%) followed by Perth and Kinross (82%), Angus (69%) and Stirling (68%). Currently 69% of journeys to work in the region are made by car with a relatively high mode share of 10% bus trips. Walking accounts for a high proportion of trips (17%), with rail and cycling accounting for 2% of trips each. Within Dundee the public transport mode share is high (19%) but within Angus, Perth and Stirling the public transport mode share is much lower (9%). Public transport provision and related services within the urban and rural areas are regarded as good and poor respectively, albeit within the wider rural hinterland this is exacerbated by the dispersed nature of surrounding settlements.</p> <p>A greater percentage of residents than the Scottish average are considered to be in 'good' health across the TACTRAN area. This is true for the individual authorities apart from Dundee City which sees a lower than average percentage of 'good' health and a higher than average percentage with 'not good' health, rather than 'fairly good' health. It is also the case in Dundee City that there is a greater percentage occurrence of a limiting long term illness than the Scottish average.</p>
<p>Economic Context:</p>	<p>The distinct urban and rural areas across the TACTRAN region serve various functions. Dundee is a vibrant economic centre with a growing employment and residential market. As well as its function as a tourism destination, Stirling City also plays a key service role for the wider Stirlingshire area, providing a wide range of employment and other services for the surrounding communities as well as for visitors and passing trade. The wider Stirling authority area covers a deep rural hinterland, many areas of which are captured within the Loch Lomond and Trossachs National Park where tourism is a key industry. These patterns can be demonstrated by looking at industries which employ the greatest percentage of people in each of the Council areas compared to the Scottish average. In Angus it the extraction industries such as Agriculture, hunting and forestry, mining and quarrying and manufacturing employ a greater percentage than the Scottish average while Dundee City conforms much more to the Scottish average but is more heavily biased towards health, social work and manufacturing.</p> <p>Throughout the TACTRAN region, employment in the construction industry is higher than in other parts of the country, and the impact of the large Universities in Dundee and Stirling is reflected in the percentage of people who work in the education sector. The industries with the highest percentages in Perth &amp; Kinross are agriculture, hunting and forestry and hotels and restaurants, reflecting a higher dependency on tourism. Retail employment in this area is also high. Stirling shows a high percentage of the population employed in the hotel and restaurant sector as well as a high financial and educational bias.</p> <p>The percentage of the population within the TACTRAN area who are unemployed varies considerably between the constituent Council areas and is potentially compounded by the urban and rural characteristics of these areas. The Perth &amp; Kinross and Stirling Council areas both have fewer than 3% unemployment compared with the national average of 4%, while Dundee City had over 5% of its population unemployed at the time of the last Census. The percentage of the economically active population who are undertaking full time study in the TACTRAN area is higher than the Scottish average and this is due to the impact of the large universities at Stirling and Dundee.</p> <p>Unemployment figures show that there are significant areas of high unemployment in the east of the TACTRAN region, primarily in Angus but also in the rural areas north of Kirriemuir and Brechin and around Criannlarich and Killin.</p>

Planning Objectives	
Objective:	Performance against planning objective:
<b>EC1.</b> Ensure that rail provides and supports economic growth by connecting key business & employment sectors where possible	Moderate positive – provides hourly connection across the corridor Glasgow-Aberdeen connecting major centres with intermediate stations for employment/job markets.
<b>EC2.</b> Improve the efficiency, reliability and integration of rail services in the Tay Estuary study area specifically where this will benefit key business and employment sectors	Moderate negative – performance risk of joining Glasgow/Edinburgh-Aberdeen services at Perth if one portion is late into Perth.
<b>ACC1.</b> Increase accessibility to key service destinations in the TACTRAN area (e.g. employment, health and education sites) and to/from key external destinations by rail without compromising wider inter-regional rail connectivity	Major positive – increased accessibility to major centres from intermediate stations across the corridor for key services.
<b>ENV1.</b> Contribute to national greenhouse gas emission reductions through rail based interventions where possible	Minor positive – increased service to intermediate stations expected to cause some modal shift to major centres.
<b>ENV2.</b> Contribute to the management of air quality in the TACTRAN area, particularly the AQMA's across the Dundee City Council area and Perth	Minor positive - improved connectivity to Dundee and Perth will encourage PT travel from intermediate stations, contributing to reduced emissions across the AQMA's
<b>SEC1.</b> Maintain or improve real and perceived levels of safety and personal security on the rail network	Neutral – possible slightly improved perception of safety if intermediate stations are better served/more used but otherwise little change.
<b>INT1.</b> Ensure that rail is fully integrated with relevant land-use and planning projects	Moderate positive - Good connections to Stirling and Dundee growth areas by 2011 from intermediate stations for employment.
<b>INT2.</b> Ensure the rail network is integrated with the wider public transport network	Neutral – improved integration with wider rail services from intermediate stations from Glasgow-Perth by 2011, Perth-Aberdeen from Dec 2016. Possible negative effects on integration due to the performance risk of joining/splitting at Perth
Rationale for Selection or Rejection of Proposal:	This option can deliver the desired connectivity across the TACTRAN region for a low cost but at the risk of reduced performance for Glasgow/Edinburgh-Aberdeen express services. Performance analysis would be useful to assess if this option is viable.

Implementability Appraisal	
Technical:	There is a minor pathing conflict with freight services in the Stirling area but this is felt to be resolvable. No other pathing conflicts have been identified and the service would only be extended Aberdeen once sufficient rolling stock became available.
Operational:	<p>Network Rail may be required to staff the Greenloaning signal box to accommodate the additional services on the Glasgow – Perth corridor.</p> <p>Units and crew: the Glasgow – Perth service from Dec 2010 can be potentially be operated with rolling stock and train crew resources currently available. An hourly service from Perth to Arbroath will require 2-3 additional units and associated traincrew. These can potentially be made available through a redeployment of the existing First ScotRail fleet scheduled for Dec 2011. Finally 4-5 units (above the existing base) would be required to deliver an Perth – Aberdeen service. These would not realistically be available until Dec 2016 at the earliest.</p> <p>Minor infrastructure works (&lt;£0.5m) required at Arbroath in the short term to allow services to efficiently turn back. No other infrastructure works required.</p> <p>Joining Glasgow/Edinburgh – Aberdeen trains at Perth represents a performance risk for trains travelling north to Aberdeen.</p>
Financial:	<p>Signalling works at Arbroath would require funding at £&lt;0.5m – Possible TACTRAN but other funding sources may be available.</p> <p>It is likely that in the short and medium term some form of operating subsidy would be required although this would be limited due to the fact this option makes use of resources currently available in the First ScotRail franchise. .</p>
Public:	Proposal is not public but may attract negative comment for the possible performance disbenefits of splitting/joining presently single trains and a perceived reduction in express services between Aberdeen and Dundee (presently two per hour provided by the separate Aberdeen – Edinburgh and Aberdeen – Glasgow services)

Government's Objectives for Transport		
Objective	Assessment Summary	Supporting Information
Environment:	Air Quality = Moderate positive Noise and Vibration = Minor negative Water Quality, Drainage and Flood Defence = Neutral Geology = Neutral Biodiversity = Neutral Landscape = Neutral Visual Amenity = Neutral Agriculture and Soils = Neutral Cultural Heritage = Neutral	Environmental impacts are unlikely with this option given that enhancement is by way of additional service on existing infrastructure  <b>Air Quality</b> – could expect modal shift to train from private car and therefore improvements to air quality at a strategic and local level <b>Noise and Vibration</b> - may be minor impacts to properties within vicinity of route, given increased services/ frequencies <b>Water Quality, Drainage and Flood Defence</b> - no change <b>Biodiversity</b> - no change <b>Landscape</b> - no change <b>Visual Amenity</b> - no change <b>Agriculture and Soils</b> – no change <b>Cultural Heritage</b> - no change
Safety:	Accidents = Neutral Security = Minor positive	<b>Accidents</b> – no additional safety benefits expected at this stage <b>Security</b> – benefits to perceived security if intermediate stations are better used
Economy:	Transport Economic Efficiency = Neutral/Minor negative Economic Activity and Location Impacts = Neutral/Minor negative	Improved frequency and connectivity for access to jobs and services in key centres (Stirling, Perth, Dundee) and central belt.  <b>TEE</b> - It is estimated that benefits will be accrued from increased connectivity and to and from central belt and across the TACTRAN region but offset by possible reliability issues with Glasgow/Edin-Aberdeen <b>EALI</b> - Increased economic activity from improved connectivity between business/ employment sectors but offset by possible reliability issues with Glasgow/Edin-Aberdeen
Integration:	Transport Integration = Neutral Land-use Transport Integration = Moderate positive Policy integration = Minor positive	Overall, will enhance integration with longer distance rail services from intermediate stations.  <b>Transport Integration</b> = enhanced rail connectivity and reliability has potential for better integration with long distance bus and onward rail services but possible negative effect on Edin/Glasgow-Aberdeen performance may cancel this out <b>Land-use Transport Integration</b> = option should have a positive effect on the business/ employment across the region <b>Policy Integration</b> = Proposals fit well with the TACTRAN Regional Transport Strategy but possibly impact on express services
Accessibility & Social Inclusion:	Community Accessibility = Moderate positive Comparative Accessibility = Moderate positive	Overall, Increased accessibility of intermediate stations to key centres (Stirling, Perth, and Dundee).  <b>Community Accessibility</b> – the option enhances the attractiveness of rail to the public and will have benefits for those with restricted or no access to the private car <b>Comparative Accessibility</b> - the option enhances the attractiveness of rail to the public and will have benefits for those with restricted or no access to the private car

Proposal Details			
Name and address of authority or organisation promoting the proposal: (Also provide name of any subsidiary organisations also involved in promoting the proposal)		TACTRAN, Bordeaux House, 31 Kinnoull Street, Perth, PH1 5EN	
Proposal Name:	Package 4	Name of Planner:	
Proposal Description:	Derived from hybrid of Packages 1 and 2 (New B1, Pac A2, New B4 and New B6) and includes: hourly Glasgow-Perth; addition of hourly Perth-Arbroath; hourly Glasgow-Arbroath in Dec 2016; and hourly Glasgow-Aberdeen post 2017 (all stations).	Estimated Total Public Sector Funding Requirement:	<i>Capital costs/grant: £50m+</i>
			<i>Annual revenue support: £ tbc. If required this will be limited as this package uses resources available within the First ScotRail franchise.</i>
			<i>Present Value of Cost to Govt.</i>
Funding Sought From: (if applicable)		Amount of Application:	<i>Sum: £50m+</i>
Background Information			
Geographic Context:	<p>The TACTRAN region covers the Angus Council, Dundee City Council, Perth and Kinross and Stirling Council authority areas, located to the north, east and west of Scotland's Central Belt. It is a unique geographical region including the three cities of Stirling, Perth and Dundee and an extensive rural hinterland of inter-connected towns, villages and rural areas, many of which are located within the Loch Lomond and Trossachs National Park and Cairngorms National Park. In general moving from north west to south east in the TACTRAN area moves from rural to more urban areas and the population density increases. The scope and influence of this study extends to Aberdeen in the north and Glasgow to the south, embracing the outskirts of the Grampians and the Central Belt area. 10% of the population in the TACTRAN area live in small towns with populations between three and ten thousand with 25% of the population living in rural settlements where the population is less than three thousand people. The majority of the population reside in the main urban settlements of Dundee, Perth, Stirling and Arbroath which range in size from between 20,000 and approximately 145,000 inhabitants.</p>		

<p>Social Context:</p>	<p>The demographic profile of the TACTRAN region is not dissimilar to Scotland as a whole, with around 19% of the population under the age of 16, 20% of the population over the pensionable age and the remainder of 61% between these two ranges. Angus, Dundee City and Perth &amp; Kinross all have higher percentages of their population over the pensionable age than the Scottish average, but this is reduced across the region as a whole by the lower than average percentage observed in the Stirling Council area. The average number of persons per household is broadly consistent across the TACTRAN region and aligns with the Scottish average: the average number of people per household is highest in Stirling at 2.36 and lowest in Dundee City at 2.13.</p> <p>The percentage of residents in Dundee City who live in a household with no available car (46%) is much higher than the national average of 34% and compares to percentages of 24%, 24% and 25% in Stirling, Perth &amp; Kinross and Angus respectively. Whilst the average across the region for people with no access to a car is 31%, car ownership in the TACTRAN area is higher than that observed in the rest of Scotland. The preferred mode for travel to work is dominated by the car, which is used for an average of 66% of journeys, above the Scottish average of 64%. The use of rail and bus is low within the Council areas of Angus, Perth and Kinross and Stirling ranging between 6% and 10% of journeys in those areas, corresponding to the availability and frequency of Public Transport.</p> <p>More than 17% of the population in Angus, Perth &amp; Kinross and Stirling travel over 10 kilometres to work, compared to only 4% who travel this distance and reside in Dundee City. Work journeys account for 22% of all trips that are made. Whilst 78% of resident's travel to work trips are within local authority areas; Dundee City has the highest proportion of internal trips (88%) followed by Perth and Kinross (82%), Angus (69%) and Stirling (68%). Currently 69% of journeys to work in the region are made by car with a relatively high mode share of 10% bus trips. Walking accounts for a high proportion of trips (17%), with rail and cycling accounting for 2% of trips each. Within Dundee the public transport mode share is high (19%) but within Angus, Perth and Stirling the public transport mode share is much lower (9%). Public transport provision and related services within the urban and rural areas are regarded as good and poor respectively, albeit within the wider rural hinterland this is exacerbated by the dispersed nature of surrounding settlements.</p> <p>A greater percentage of residents than the Scottish average are considered to be in 'good' health across the TACTRAN area. This is true for the individual authorities apart from Dundee City which sees a lower than average percentage of 'good' health and a higher than average percentage with 'not good' health, rather than 'fairly good' health. It is also the case in Dundee City that there is a greater percentage occurrence of a limiting long term illness than the Scottish average.</p>
<p>Economic Context:</p>	<p>The distinct urban and rural areas across the TACTRAN region serve various functions. Dundee is a vibrant economic centre with a growing employment and residential market. As well as its function as a tourism destination, Stirling City also plays a key service role for the wider Stirlingshire area, providing a wide range of employment and other services for the surrounding communities as well as for visitors and passing trade. The wider Stirling authority area covers a deep rural hinterland, many areas of which are captured within the Loch Lomond and Trossachs National Park where tourism is a key industry. These patterns can be demonstrated by looking at industries which employ the greatest percentage of people in each of the Council areas compared to the Scottish average. In Angus it the extraction industries such as Agriculture, hunting and forestry, mining and quarrying and manufacturing employ a greater percentage than the Scottish average while Dundee City conforms much more to the Scottish average but is more heavily biased towards health, social work and manufacturing.</p> <p>Throughout the TACTRAN region, employment in the construction industry is higher than in other parts of the country, and the impact of the large Universities in Dundee and Stirling is reflected in the percentage of people who work in the education sector. The industries with the highest percentages in Perth &amp; Kinross are agriculture, hunting and forestry and hotels and restaurants, reflecting a higher dependency on tourism. Retail employment in this area is also high. Stirling shows a high percentage of the population employed in the hotel and restaurant sector as well as a high financial and educational bias.</p> <p>The percentage of the population within the TACTRAN area who are unemployed varies considerably between the constituent Council areas and is potentially compounded by the urban and rural characteristics of these areas. The Perth &amp; Kinross and Stirling Council areas both have fewer than 3% unemployment compared with the national average of 4%, while Dundee City had over 5% of its population unemployed at the time of the last Census. The percentage of the economically active population who are undertaking full time study in the TACTRAN area is higher than the Scottish average and this is due to the impact of the large universities at Stirling and Dundee.</p> <p>Unemployment figures show that there are significant areas of high unemployment in the east of the TACTRAN region, primarily in Angus but also in the rural areas north of Kirriemuir and Brechin and around Criannlarich and Killin.</p>

Planning Objectives	
Objective:	Performance against planning objective:
<b>EC1.</b> Ensure that rail provides and supports economic growth by connecting key business & employment sectors where possible	Major positive – provides hourly connection across the corridor Glasgow-Perth in the shorter term, incrementally increasing connectivity to major centres with intermediate stations for employment/job markets in the longer term
<b>EC2.</b> Improve the efficiency, reliability and integration of rail services in the Tay Estuary study area specifically where this will benefit key business and employment sectors	Major positive - likely to improve integration with other services within and outwith the corridor to Edinburgh/Inverness from Perth/Dundee for example.
<b>ACC1.</b> Increase accessibility to key service destinations in the TACTRAN area (e.g. employment, health and education sites) and to/from key external destinations by rail without compromising wider inter-regional rail connectivity	Major positive – increased accessibility to major centres from intermediate stations across the corridor for key services.
<b>ENV1.</b> Contribute to national greenhouse gas emission reductions through rail based interventions where possible	Minor positive in short term and moderate positive in longer term, due to increased service to intermediate stations expected to cause some modal shift to major centres.
<b>ENV2.</b> Contribute to the management of air quality in the TACTRAN area, particularly the AQMA's across the Dundee City Council area and Perth	Moderate positive - improved connectivity to Dundee and Perth will encourage PT travel from intermediate stations, contributing to reduced emissions across the AQMA's.
<b>SEC1.</b> Maintain or improve real and perceived levels of safety and personal security on the rail network	Neutral – possible slightly improved perception of safety if intermediate stations are better served/more used but otherwise little change.
<b>INT1.</b> Ensure that rail is fully integrated with relevant land-use and planning projects	Moderate positive - Good connections to Stirling and Dundee growth areas by 2011 from intermediate stations for employment.
<b>INT2.</b> Ensure the rail network is integrated with the wider public transport network	Minor positive – improved integration with wider rail services from intermediate stations from Glasgow-Perth by 2010, Glasgow-Arbroath in 2016 and Glasgow Aberdeen in 2017+. Possible negative effects on integration due to the performance risk of joining/splitting at Perth until 2016.
Rationale for Selection or Rejection of Proposal:	This option has been selected for further appraisal on the basis that it provides enhanced connectivity between the Central Belt and the TACTRAN region and, in particular, the key business and employment sectors, providing an overall strong positive contribution to the planning objectives. This option also represents value for money in the short/ medium term, given the relatively low capital cost for this period, and allows some connectivity and accessibility benefits to be accrued in the short term. The full benefits of the option however, cannot be realised until December 2016 at the earliest. These would be further enhanced in 2017+ but at a significant capital cost (£50m+). The option should be retained at this stage to determine the scale of benefits which may be delivered in 2017+.

<b>Implementability Appraisal</b>	
Technical:	<p>There is a minor pathing conflict with freight services in the Stirling area but this is felt to be resolvable. The major pathing conflict is with Highland Main Line proposals between Perth and Glasgow every other hour when a Glasgow – Inverness service runs.</p> <p>Delivery of an hourly service between Glasgow and Arbroath is therefore not possible to implement prior to the national timetable recast. Major infrastructure works are then required at Usan in order to provide a through service to Aberdeen, stopping at intermediate stations.</p>
Operational:	<p>Network Rail may be required to staff the Greenloaning signal box to accommodate the additional services on the Glasgow – Perth corridor.</p> <p>Units and crew: the Glasgow – Perth service from Dec 2010 can be potentially be operated with rolling stock and train crew resources currently available. An hourly service from Perth to Arbroath will require 2-3 additional units and associated traincrew. These can potentially be made available through a redeployment of the existing First ScotRail fleet scheduled for Dec 2011. An hourly service from Glasgow to Arbroath will require 4 additional units and associated traincrew. These would not realistically be available until Dec 2016 at the earliest. Finally 5-6 units (above the existing base) would be required to deliver an “all stations” hourly Glasgow – Aberdeen service. Minor infrastructure works (&lt;£0.5m) required at Arbroath in the short term to allow services to efficiently turn back. Major infrastructure works required at Usan of approximately £50m+ to enable a full hourly service to Aberdeen.</p>
Financial:	<p>Capital funding would be required from central government to carry out infrastructure works at Usan. This forms part of long term STPR Project 23 which will not realistically be delivered until sometime after 2017. Signalling works at Arbroath would require funding at £&lt;0.5m – Possible TACTRAN but other funding sources may be available.</p> <p>It is likely that in the short and medium term some form of operating subsidy would be required although this would be limited due to the fact this option makes use of resources currently available in the First ScotRail franchise. .</p>
Public:	<p>Not currently public but no perceived public objections and acceptability anticipated to be high given enhanced connectivity and wider travel options.</p>

Government's Objectives for Transport		
Objective	Assessment Summary	Supporting Information
Environment:	Air Quality = Moderate positive Noise and Vibration = Minor negative Water Quality, Drainage and Flood Defence = Neutral Geology = minor negative Biodiversity = minor negative Landscape = minor negative Visual Amenity = Neutral Agriculture and Soils = minor negative Cultural Heritage = Neutral	New infrastructure at Usan required for improvements post 2017 may have environmental impacts.  <b>Air Quality</b> – could expect modal shift to train from private car and therefore improvements to air quality at a strategic and local level <b>Noise and Vibration</b> - may be minor impacts to properties within vicinity of route, given increased services/ frequencies <b>Water Quality, Drainage and Flood Defence</b> - no change <b>Biodiversity</b> - minor impacts from construction works (mitigated through method statements), albeit degree of severance from existing rail lines <b>Landscape</b> - minor short term impacts from construction works <b>Visual Amenity</b> - no change <b>Agriculture and Soils</b> – minor impacts from construction works (mitigated through method statements) <b>Cultural Heritage</b> - no change
Safety:	Accidents = Neutral Security = Minor positive	<b>Accidents</b> – no additional safety benefits expected at this stage <b>Security</b> – benefits to perceived security if intermediate stations are better used
Economy:	Transport Economic Efficiency = Neutral/Minor negative Economic Activity and Location Impacts = Neutral/Minor negative	Improved frequency and connectivity for access to jobs and services in key centres (Stirling, Perth, Dundee) and central belt.  <b>TEE</b> - It is estimated that benefits will be accrued from increased connectivity and to and from central belt and across the TACTRAN region but offset by possible reliability issues with Glasgow/Edin-Aberdeen <b>EALI</b> - Increased economic activity from improved connectivity between business/ employment sectors but offset by possible reliability issues with Glasgow/Edin-Aberdeen
Integration:	Transport Integration = Neutral Land-use Transport Integration = Moderate positive Policy integration = Minor positive	Overall, will enhance integration with longer distance rail services from intermediate stations.  <b>Transport Integration</b> = enhanced rail connectivity and reliability has potential for better integration with long distance bus and onward rail services but possible negative effect on Edin/Glasgow-Aberdeen performance may cancel this out <b>Land-use Transport Integration</b> = option should have a positive effect on the business/ employment across the region <b>Policy Integration</b> = Proposals fit well with the TACTRAN Regional Transport Strategy but possibly impact on express services
Accessibility & Social Inclusion:	Community Accessibility = Moderate positive Comparative Accessibility = Moderate positive	Overall, Increased accessibility of intermediate stations to key centres (Stirling, Perth, and Dundee).  <b>Community Accessibility</b> – the option enhances the attractiveness of rail to the public and will have benefits for those with restricted or no access to the private car <b>Comparative Accessibility</b> - the option enhances the attractiveness of rail to the public and will have benefits for those with restricted or no access to the private car

