Detailed Appraisal	**D16 – Upgrade A96 to Dual Carriageway between Inverness and Nairn**
Estimated total Public Sector Funding Requirement:	***Capital Costs/grant*** £250m - £500m ***Annual Revenue Support Present*** - ***Value of Cost to Gvt*** £100m - £250m ***BCR/PVB*** 1.25 - 1.75 / £100m - £250m

Summary Impact on STAG Criteria

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Environment							
Safety							
Economy							
Integration							
Accessibility and Social Inclusion							

(Judgement based on available information against a 7pt. scale.)

Intervention Description:

This intervention supports the objectives to reduce the accident rate and severity rate on this route and improve connectivity between Inverness and communities to the east. It would include a new dual carriageway on the A96 corridor between Inverness and Nairn, giving improved access to Inverness Airport and the future growth areas in the A96 corridor.

A new link connecting the A96 and the A9 (south of Inverness) would provide relief for Raigmore Interchange.

Summary: Rationale for Selection

Upgrading the A96 to dual carriageway between Nairn and Inverness is expected to reduce accident rates (around 40 per cent) by providing a higher standard of road. It would also reduce journey times along this section of the corridor, improving connectivity between Inverness and communities to the east (including the planned developments in this corridor at Tornagrain), and helping to increase the labour catchment area for Inverness. Improvements would also be felt on longer distance road journeys between Aberdeen and Inverness.

The link between the A9 and A96 would further reduce congestion by allowing traffic between the A9 and A96 to avoid local traffic congestion at Raigmore Interchange. These benefits are reflected in the economic analysis, which suggests that the intervention offers good value for money.

The environmental impacts this intervention has on the surrounding natural and historical features have been identified at the strategic level as part of the Strategic Environmental Assessment and Appropriate Assessment. Appropriate mitigation and avoidance measures have been identified and will be further refined should this intervention be taken forward.

Table D16.1.1 STPR Objectives

STPR Objectives	
STPR Objective 1: To improve connectivity, particularly by public transport between Inverness City Centre and the growth area to the east including Inverness Airport.	**1: Strongly Positive –** The A96 to the east of Inverness is currently single carriageway and although no existing strategic capacity problem has been identified, considerable growth is planned to the east of Inverness. Provision of a dual carriageway along this stretch and a dual carriageway link to the A9 at Inshes would provide additional capacity for growth to the east of Inverness.
STPR Objective 2: To improve journey time and increase opportunities to travel, particularly by public transport, between Aberdeen and Inverness.	**2: Positive –** Dual carriageway provision between Inverness Retail and Business Park and Nairn would improve journey time connections between the two cities as it would allow greater opportunities for overtaking slower moving vehicles on this section of the A96. City to city bus services would also benefit from road improvements on the route. Provision of the new section of dual carriageway to the A9 at Inshes would reduce traffic volume and congestion at Raigmore Interchange, improving journey times for trips to the A9 (south) and through Raigmore Interchange. This intervention is likely to produce journey time savings of around 5-10 minutes.
STPR Objective 3: Reduce the accident rate and severity rate to current national average.	**3: Strongly Positive –** The accident and fatal accident rates on the route are currently double the national average. Dualling of the A96 between Inverness and Nairn is likely to improve accident rates by around 40 per cent and severity rates by around 10 per cent on this stretch of the road.

Table D16.1.2 STAG Criteria

STAG Criteria		
Criteria:	**Assessment Summary:**	**Supporting Information:**
Environment:	**Minor/Major Negative Impact**	Dualling the A96 between Inverness and Nairn would potentially have negative impacts to cultural heritage as there are nine Scheduled Monuments situated very close to the road. There are also several A Listed buildings within 500m of the road. Mitigation measures through the design process would be required to address particular issues. Moderate negative impacts are forecast due to a potential increase in noise levels; however this could be addressed through mitigation measures. There is the potential for impacts on biodiversity as 1 Special Area of Conservation, 2 Special Protection Areas, 1 Ramsar and 2 SSSIs are located close to the A96, however it is not possible to assess the full extent or degree of impacts at this stage of the decision making process. Further adverse impacts on landscape and geology / agriculture and soils are possible due to the additional road infrastructure. The Kildrummie Kames geological SSSI is adjacent to the north side of the road to the north of Nairn and could be affected depending on which side of the road the new carriageway is constructed. This would be considered further through the design process.
Safety:	**Major Benefit**	The existing accident rate on the A96 between Aberdeen and Inverness (32.3 P.I.A./100MVKm) is significantly greater than the national rate for this road type (15.5 P.I.A./100MVKm). Rural dual carriageways generally experience around 40 per cent fewer accidents than typical rural single carriageways. This indicates that this intervention could result in significant accident reductions. As regards severity, the fatal accident rate on this route (1.45 fatal accidents/100MVKm) is also significantly greater than the national average (0.76 fatal accidents/100MVKm). There could be a reduction in accident severity on these sections if they were dualled due to the higher standard of road and greater overtaking opportunities.
Economy:	**Moderate Benefit**	**Transport Economic Efficiency (TEE):** The provision of a dual carriageway between Inverness Business and Retail Park and Nairn and between the Inverness Business and Retail Park and the A9 at Inshes are likely to result in journey time savings for trips between Inverness, the A9 and the A96, especially during peak hours. This will include bus services and freight movements. Journey time reliability would improve providing a minor benefit. The average journey time on this section of the A96, is forecast to reduce by between 5 and 10 minutes in 2022 with this intervention in place. These benefits provide significant economic benefits and are reflected in a benefit to cost ratio of 1.25 – 1.75, which indicates that the intervention provides a good value for money. **Wider Economic Benefits (WEBs):** Significant improvements to journey time, reliability and quality would have a positive impact on the efficiency and productivity of businesses using the route to travel between destinations in Inverness, Nairn and Aberdeen. Benefits will accrue from a lower cost of travel for freight and business users and improved access to customers and suppliers. This intervention is also expected to have a significant impact in terms of improving the labour catchment area for employers based in Inverness, so assisting in the development of the local economy and improving the attractiveness of the area for inward investors. **Economic Activity and Location Impacts (EALIs):** The impacts of upgrading the route are potentially significant for all sectors and settlements served by the A96. The dual carriageway intervention would assist in the progression of the development areas to the east of Inverness and improve access to areas to the south and the airport. Sectors that are expected to benefit significantly include manufacturing, construction, retail and distribution industries which rely on the route for movement of goods as well as sectors such as life sciences for which the intervention will improve access to international travel links and assist in the recruitment of highly skilled professionals.

Integration:	**Minor Benefit/Minor Negative Impact**	**Transport Integration:** This intervention would not have a significant effect on Transport Integration. **Transport and Land-Use Integration:** This intervention would have a minor negative impact on the policy of reducing the need to travel. However, the development of the area to the east of Inverness is seen as important for growth of the local and regional economy and this intervention would help to facilitate this development. **Policy Integration:** This intervention is not likely to affect disability, health, rural affairs or social inclusion but is likely to have a minor negative impact on road traffic reduction aspirations.
Accessibility and Social Inclusion:	**Minor Benefit**	**Community Accessibility:** This intervention is not likely to have any effect on community accessibility. **Comparative Accessibility:** This intervention would improve accessibility to Inverness Airport, areas to the south of Inverness and to the potential development areas to the east of Inverness.

Table D16.1.3 Key Strategic Outcomes

Key Strategic Outcomes (KSO's)		
Objective:	**Assessment Summary:**	**Supporting Information:**
Improve Journey Times and Connections:	**Major Benefit**	Increased capacity on this section of the route could result in journey time savings of around 5-10 minutes and improved journey time reliability. The link between the A96 and the A9 could improve connections between areas to the south of Inverness and areas to the east of Inverness including the potential development areas and also reduce congestion and delay at Raigmore Interchange.
Reduce Emissions:	**Neutral**	Reduced congestion at Raigmore Interchange would reduce stop-start traffic, with a potential reduction in road based vehicle emissions. However, this is likely to be offset by an overall increase in traffic speeds, and therefore overall CO_2e emissions are expected to remain broadly unchanged.
Improve Quality, Accessibility and Affordability:	**Minor Benefit**	This intervention would improve the quality of journeys for private and public transport users with more reliable journey times, especially during the peak hours. This intervention would not provide any additional public transport services or reduce the cost of travel by public transport.

Table D16.1.4 Scottish Government's Strategic Objectives

Scottish Government's Strategic Objectives		
Objective:	**Assessment Summary:**	**Supporting Information:**
Safer and Stronger:	**Moderate Benefit**	The provision of a dual carriageway between Inverness Retail and Business Park and Nairn could result in a reduction in the accident rate of around 40 per cent and the severity rate of around 10 per cent for this stretch of road. This intervention would not improve the quality, accessibility and affordability of public transport.
Smarter:	**Minor Benefit**	This intervention would offer improvements in accessibility to education facilities in Aberdeen and Inverness such as the University of Aberdeen, the Robert Gordon University and the University of the Highlands and Islands in Inverness.
Wealthier and Fairer:	**Major Benefit**	Improved journey times and journey time reliability would result in a more efficient movement of people and goods on this section of the route, providing higher levels of productivity for people and vehicles travelling on the A96. The improved link will also enhance the intervention for development of the area to the east of Inverness.
Greener:	**Neutral**	The dualling of the A96 would help to relieve congestion, which may reduce bus journey times on the local road network, potentially encouraging greater use of public transport. However, this is considered to be an indirect effect as the intervention as currently proposed does not directly improve the competitiveness of public transport against the private car. Emissions would reduce due to reduced congestion at Raigmore Interchange but would increase with increased speeds on the dual carriageway.
Healthier:	**Neutral**	The dual carriageway is likely to improve the quality of journeys for private and public transport users with more reliable journey times and therefore may encourage a small modal shift from car to public transport. There is not likely to be any direct improvement in access to health services.

Table D16.1.5 Implementability Appraisal

Implementability Appraisal	
Technical:	This intervention would not involve any untried techniques during its implementation. However, as the design stages progress, localised issues may arise which require increased technical capabilities to overcome.
Operational:	The upgraded A96 dual carriageway will continue to be the responsibility of Transport Scotland after construction. It is anticipated that the A96 - A9 Eastern Link Road would also come under the responsibility of Transport Scotland as a Trunk Road. It is not anticipated that there will be any significant issues with the operation of this route.
Public:	This is an important intervention to the economy of Inverness and the surrounding area, with significant public interest at both local and regional levels.