Proposal Details			
Proposal Name:	Stevenson Road to Culloden Road Connection Option 1		
Proposal Description:	The Stevenson Road to Culloden Road Connection Option 1 is a single carriageway local distributer road. It connects to the eastern leg of an existing roundabout on Stevenson Road to the south of Inshes and runs east and north east, crossing the A9 dual carriageway on a new overbridge to a junction with Culloden Road where the B9177 currently connects with Culloden Road, forming a 4 arm signalised junction.	Estimated Total Public Sector Funding Requirement:	Capital costs/grant £8 million (2012 prices excluding VAT)
Background Information			
Geographic Context:	The A96 is a strategic trunk road which connects Inverness to Aberdeen, and the A9 is a strategic trunk road between the Central Belt and Northern Scotland. The A96 is single carriageway as it approaches Inverness but becomes a dual carriageway on approach to the Inverness Retail Park roundabout. The A9 on approach to and around Inverness is dual carriageway. Stevenson Road is a distributor road located to the south east of Inverness and to the west of the A9. It connects housing developments in the area to the B8082 Sir Walter Scott Drive. Culloden Road (B9006) is located to the south east of Inverness and to the east of the A9. It provides an important connection between the settlements to the east of the A9 and Inverness. As a result the Culloden Road/B8082 junction at Inshes experiences high levels of traffic, which is subject to delays especially during peak periods. Stevenson Road and Culloden Road are urban in nature, Culloden Road (B9006) has a speed limit of 40 mph until it's junction with the B8082 at Inshes. Stevenson Road has a speed limit of 30 mph.		
Social Context:	The areas which would be affected by the Stevenson Road to Culloden Road connection are Inshes, Cradlehall and Westhill, and to a certain extent Smithton and Culloden as well as the proposed future developments to the East of Inverness. These areas are characterised by a higher proportion of economically active residents (77% as per 2011 census) than the Scottish national average (69% as per 2011 census). Unemployment levels in the area are lower than both the Scottish national average and across the Highland region as a whole. Residents of these areas earn on average more than the national and regional average. The option does not pass through or lie in close proximity to any datazone areas that are ranked in the top 15% of the Scottish Index of Multiple Deprivation (SIMD 2012).		

Economic Context:	In general the area surrounding the proposed link road is residential. There is also a retail park at Inshes which contains a supermarket, DIY store and some fashion stores as well as a garden centre on Culloden road close to where the junction with the new link would be located. Culloden Road and Inshes roundabout are important commuter links between the Smithton and Culloden areas and Inverness, therefore any impact on these links will have an economic impact.
Planning Objectives	
Objective:	Performance against planning objective:
L1: Improve journey time and increase opportunities to travel, particularly by public transport, between Aberdeen and Inverness.	**L1 – Minor Benefit** All routes in the AM peak from the A96 east of Smithton to areas in Inverness (via Longman, Raigmore and Inshes) were shown to have reductions in journey times, with a 8% reduction between the A96 and Millburn Road / Harbour Road junction. In the PM peak journey time reductions were more modest with a reduction of 3% between these two locations. Public transport routes between Aberdeen and Inverness use Raigmore to enter or leave the city, and the improvements in journey times through Raigmore will provide a modest benefit to bus services and may make them slightly more attractive to travellers between the two cities.
L2.1: Improve the effectiveness of the road network hierarchy in addressing the conflict between longer distance and local traffic through rationalisation of local movements' use of Trunk Road junctions	**L2.1 – Minor Benefit** The road network hierarchy is improved through the provision of an additional secondary road for local traffic between Sir Walter Scott Drive and Culloden Road. This option offers an additional crossing of the A9 for local traffic approximately 1km south of the existing Culloden Road (B9006) crossing. It will offer relief for the A9 Inshes Junction and the surrounding road network. Traffic modelling shows that in the AM peak, the link road reduces traffic on Sir Walter Scott Drive by 29% and on the Culloden Road overbridge by 11% as it offers an alternative route over the A9. The PM peak also exhibits a reduction in traffic flows on Sir Walter Scott Drive (22% reduction) at Inshes Roundabout and the Culloden Road overbridge (27% reduction).
L2.2: Reduce conflicts for longer distance and local traffic for planned development areas to the east.	**L2.2 – Moderate Benefit** This option provides a new crossing of the A9 to the South of the existing A9 Inshes Junction, which attracts local traffic away from the existing route via Sir Walter Scott Drive and the Culloden Road overbridge. The option reduces traffic on the Culloden Road overbridge by 11% in the AM peak and 27% in the PM peak, and contributes to reducing the conflict between longer distance traffic accessing the Inshes area via the A9 Inshes junction, and local traffic crossing the A9 from east to west and vice versa. The option also enhances access to the A9 Milton of Leys junction by providing a link to the B9177.
L3: Improve connectivity, particularly by public transport	**L3- Moderate Benefit**

and active travel, between Inverness city centre and the growth area to the east including Inverness Airport	This option will create an additional crossing of the A9 and so provide the opportunity to incorporate active travel and public transport links on the route. The traffic modelling assessment has shown an increase in bus passengers on Culloden Road (at B9177) of approximately 30% in both directions in the AM Peak.
L4: Improve safety for motorised and non-motorised users by reducing the accident rate at Trunk Road junctions	**L4- Minor Benefit** This option will contribute towards reducing the accident rate at the A9 Inshes Junction as it reduces traffic using both the southbound slip roads in the AM peak and in the PM peak. Traffic is also reduced on the local road network linking the northbound and southbound slip roads including the Culloden Road overbridge, and traffic passing through the Inshes junction. The option partially offsets these traffic reductions with an increase in traffic accessing the A9 via the Milton of Leys junction further to the south.
L5.1: Improve the operational performance of the Trunk road network and junctions on the A9 and A96 as they approach Inverness from the Kessock Bridge; south of Inshes and the Smithton Roundabout.	**L5.1- Minor Benefit** The option will contribute towards improving the operational performance of the A9 Inshes Junction as it provides an additional crossing of the A9 for local east-west traffic movements and provides relief to the road network around the junction, particularly Culloden Road (B9006). Journey times for traffic travelling from the A9 Kessock Bridge to Sir Walter Scott Drive via the A9 Inshes Junction are reduced by 18% in the AM peak and 24% in the PM peak. The link road provides access to the B9177 that connects to the A9 Milton of Leys junction for traffic travelling from the west of the A9. This provides an addition route for traffic to join the A9 and also provides a slight improvement in the performance of Inshes junction.
L5.2: Improve the operational performance of the secondary network and junctions where this may improve the operation of the Trunk Road network.	**L5.2- Moderate Benefit** This option will improve the operational performance of the local road network through the reductions in traffic on Culloden Road and Sir Walter Scott Drive, and the reduced traffic levels passing through the local junction at Inshes. The Culloden Road overbridge and the local junction at Inshes provide the link between the northbound and southbound slip roads at the A9 Inshes Junction, and the traffic reductions will contribute to improved operation of the trunk road junction. The link road provides access to the B9177 and the A9 Milton of Leys junction for traffic travelling from the west of the A9. This provides an addition route for traffic to join the A9 and also provides a slight improvement in the performance of Inshes junction. Traffic flows at the Milton of Leys junction are likely to increase, however this junction will still operate within capacity.
Implementability Appraisal	

Technical:	The new single carriageway road, A9 overbridge and signal controlled junction on Culloden Road would be implemented using proven methods and technology. This proposal would require land acquisition.
Operational:	There are no factors which might adversely affect the ability to operate the proposal over its projected life with major additional costs.
Financial:	The implementation of this option would be subject to available funding being confirmed, whether that be from the Scottish Government, Developers or The Highland Council.
Public:	The Stevenson Road proposal is not in the public domain. While it may be acceptable in the wider community, opposition from local residents and landowners is likely. It may increase traffic levels in the vicinity of Inshes Primary School. This option would require compulsory purchase of properties in the Inshes area.

STAG Criteria

Criterion	**Assessment Summary**	**Supporting Information**
Environment: *Note – all STAG ratings for individual assessment areas are expressed without mitigation.* *Overall STAG Rating – Moderate Impact.*	Global and Local Air Quality – Moderate Impact	The option provides a connection between the residential communities of Inshes and Cradlehall and as such there are a number of residential receptors located at either end of the option. Furthermore, there are a small number of dwellings located within close proximity to the route alignment including Inshes House and Helen's Lodge. There are also a number of consented planning applications within this area for additional residential dwellings. During operation, there is the potential for air quality impacts at Inshes House, Helen's Lodge, residents in Cradlehall and those along Stevenson Road. In order to determine whether it is feasible to mitigate against or reduce the level of these impacts, further work will need to be undertaken to incorporate the traffic data into an air quality model. This would help to determine the level of impact at each sensitive receptor and allow a review of potential mitigation options to be considered.
	Cultural Heritage – Major Impact	The option will have a significant impact on the setting of Category A (Tower House), B (Inshes House) and C Listed buildings (Helens Lodge). This option is considered to have a high potential for the presence of unknown archaeological remains, which are likely to be removed during construction. It is unlikely that mitigation will reduce the potential impact on the setting of the Category A, B and C Listed buildings.

	Noise & Vibration – Moderate Impact	The option provides a connection between the residential communities of Inshes and Cradlehall and as such there are a number of residential receptors located at either end of the option. Furthermore, there are a small number of dwellings located within close proximity to the route alignment including Inshes House and Helen's Lodge. There are also a number of consented planning applications within this area for additional residential dwellings. During construction, there is potential for short-term noise and vibration impacts during activities such as piling, earthworks and vehicular movements, and this is likely to be particularly evident at Inshes House and Helen's Lodge. During operation, there is the potential for noise impacts at Inshes House, Helen's Lodge, residents in Cradlehall and those along Stevenson Road. In order to determine whether it is feasible to mitigate against or reduce the level of these impacts, further work will need to be undertaken to incorporate the traffic data into a noise model. This would help to determine the level of impact at each sensitive receptor and allow a review of potential mitigation options to be considered.
	Habitats and Biodiversity – Moderate Impact	The option transects through and results in a loss of woodland listed on Ancient Woodland Inventory. Other habitats within the area are suitable for European Protected Species (e.g. ponds for Great Crested Newts and broadleaved and mature woodland for bats) and impacts on these species could arise through the loss and severance of their habitat. There is also a potential impact on badgers through fragmentation and loss of habitat and through direct mortality on the road. There may also be some potential for the loss of foraging habitat, and disruption to foraging behaviour and flight patterns of qualifying species of the Inner Moray Firth SPA and Ramsar Site and Moray Firth. It is likely that potential impacts could be reduced through mitigation such as adherence to SEPA's Pollution Prevention Guidelines, erection of mammal proof fencing along the boundary of the carriageway, provision of suitable habitat for protected species (e.g. bat boxes, replacement ponds for great crested newts), sympathetic design of lighting and management/replanting of woodland habitat. In light of the proximity of the SPA, potential impacts on foraging areas used by qualifying species may require more specific mitigation.
	Agriculture and Soils – Moderate Impact	Land-take of moderate quality agricultural land and potential for severance may reduce the viability of farm units. It is likely that these potential impacts can be reduced through mitigation such as refined design of the route option to minimise land-take, review of the opportunities to return surrounding land to agriculture and financial compensation for land owners, where land is being lost.

	Landscape & Visual Amenity – Moderate Impact	There are impacts in relation to landscape character (Coastal Lowlands Forest Edge Farming LCT) due to the loss of and severance of mature woodland, field boundaries and woodland alongside the A9, severance of watercourses and the introduction of road infrastructure and a large scale visually intrusive embankment at the crossing of the A9. There are also impacts on the landscape setting of and views, in some cases interrupting long views of across the Moray Firth, from listed buildings including Tower House (A Listed), Inshes House (B listed), and nearby Helen's Lodge (C listed). There are also visual impacts for the urban edge of Inshes and to a lesser extent Cradlehall. It is likely that potential impacts could be reduced through mitigation such as sensitive design of the alignment and associated infrastructure (e.g. grading out of embankment slopes) and landscape planting.
	Water Quality, Drainage and Flood Defence. • Water Quality – Moderate Impact. • Flood Risk – Minor Impact	Construction of this option has the potential to alter existing drainage patterns and there is potential for increased fine sediment supply and chemical pollution. In addition temporary increases in peak runoff and volume have the potential to increase flood risk. During operation, the increase in impermeable area may result in permanent changes to the hydrological regime, increasing flood risk. Any future increase in traffic volumes are likely to result in increased volume of contaminated runoff and risk of accidental spillages as a result of vehicular collision. It is likely that potential impacts could be reduced through mitigation, such as adherence to SEPA's Pollution Prevention Guidelines and construction best practice and the provision of Sustainable Drainage Systems (SUDS).
	Geology and soils – Small Minor Impact	There is limited identified contaminated land within the vicinity of the route option. However, there is still the potential to impact on the groundwater quality through increased fine sediment supply and chemical pollution during construction, and through the exposure/disturbance of previously unidentified contaminated land within the footprint of the route alignment. It is likely that potential impacts could be reduced through mitigation such as adherence to construction best practice and establishment of appropriate health and safety measures for working with contaminated land.

	Social Inclusion & Integration – Moderate Benefit	It is likely that the roads surrounding the route option will experience delays during the construction period, impacting on local communities and their ability to access local facilities and services. During operation, journey times are likely to decrease across the road network and this option improves the connections between Inshes and Cradlehall communities and access to the facilities/employment opportunities that these offer. It is likely that the potential impacts during construction could be reduced through the use of traffic management systems and adequate signage of diversions.
	Planning and Policies* **Due to the stage of the development proposals it is not possible to identify a STAG rating for planning and policies. The key policies where potential conflicts may occur have been identified*	Impacts on the Tower House in the grounds of Inshes House a Category A Listed Building a potential for conflict with Policy 57 of the HWLDP. Impacts natural heritage receptors (including important habitats, protected species and natural environment designated sites, namely the SNAWI protected area and AWI have the potential to impact on policies 57, 58, 60 and 72 of the HWLDP and policy 45 of the INLP.
Safety:	Neutral	The reduction in traffic that the option provides will contribute to a reduction in accident numbers on the road network adjacent to the A9 Inshes Junction. This may, however, be partially offset by the creation of the new link road crossing the A9 corridor from Stevenson Road to Culloden Road, as it is creating additional road space and increasing the number of arms on junctions and flows at existing local junctions. The increase in traffic accessing the A9 junction at Milton of Leys could also contribute to the partial offset of the reduction in accident numbers on Culloden Road and Sir Walter Scott Drive.

Economy:	Major Benefit	This option is likely to improve the performance of Inshes roundabout and reduce journey times within the Inshes area, which would result in an economic benefit. The biggest reductions in journey times are from the A96 to Sir Walter Scott Drive and Old Perth road in the PM, where there is a 27% reduction in journey times. However the benefits are mostly localised around South Inverness and so the economic benefits may be limited. The indicative economic appraisal (based on a TUBA only assessment) shows that the option would provide a relatively high level of economic benefit with a Benefit to Cost Ratio (BCR) of approximately 2.3.
Integration:	Minor Benefit	<u>Transport Integration</u> There are 160 buses a day travelling across the A9 on the Culloden Road overbridge. The reduction in traffic and subsequent reduction in delays at Inshes roundabout and the Culloden Road overbridge will have a positive effect on the journey times and reliability of services using this route. More reliable bus journey times will allow for connections to other routes to be made with more certainty and could encourage multi modal travel. The new link also provides the opportunity for new bus routes serving the south of Inverness and Culloden. <u>Transport & Land Use Integration</u> This option will connect areas that have been identified as future expansion areas (Inshes and Milton of Leys) to Culloden and the A96, and is well integrated with Highland Wide Local Plan and the Inner Morey Firth Proposed Local Development Plan. <u>Policy Integration</u> This option does not conflict with National, Regional or Local Transport policy. The option impacts on the Tower House in the grounds of Inshes House a Category A Listed Building that is a potential for conflict with Policy 57 of the HWLDP. Impacts natural heritage receptors including important habitats, protected species and natural environment designated sites, namely the SNAWI protected area and AWI have the potential to impact on policies 57, 58, 60 and 72 of the HWLDP and policy 45 of the INLP.

Accessibility and Social Inclusion:	Moderate Benefit	It is likely that the roads surrounding the option will experience delays during the construction period, impacting on local communities to access local facilities and services. During operation, journey times are likely to decrease across the road network and this option improves the connections between Inshes and Cradlehall communities and access to the facilities/employment opportunities that these offer. It is likely that the potential impacts during construction could be reduced through the use of traffic management systems and adequate signage of diversions. The potential impacts on the National Cycle Route and Core Path could be reduced through realignment or provision of infrastructure to allow these paths to cross the route option.

Rationale for Selection or Rejection of Proposal:	This option performs well against all the study objectives and against most of the appraisal criteria. Some moderate impacts are noted under the Environment criteria. The proposed link road from Stevenson Road to Culloden Road is recommended for selection for further appraisal.