

## **32 Vehicle Travellers**

This chapter assesses the impact on vehicle travellers in terms of view from the road and driver stress. The expected views for travellers during a journey along the Southern Leg are described and compared with those gained from the existing A90(T).

The majority of views from the road would be enclosed by mitigation planting and short sections of deep cuttings through Cleanhill and Milltimber, but elsewhere a range of attractive, rural views across rolling farmland will provide a pleasant journey for drivers in contrast to the enclosed urban views currently experienced along the A90 through Aberdeen.

Driver stress is caused by frustration, fear of a potential accident and uncertainty of the route which is being followed. Current levels of driver stress for the existing road network during peak hours are generally Moderate or Low, except on the northbound A956 Charleston to Altens where stress is assessed as High. Driver stress over the majority of the network in the vicinity of the Southern leg would remain the same with the proposed scheme in place, with overall Low driver stress predicted for vehicle travellers on the Southern Leg.

### **32.1 Introduction**

- 32.1.1 This chapter presents an assessment of the impact on vehicle travellers in terms of view from the road and driver stress for the Southern Leg of the proposed scheme.
- 32.1.2 View from the road is defined as the extent to which vehicle travellers are exposed to different types of scenery through which the proposed scheme passes. The existence of a new road might enable more people to view the landscape than previously. In areas of high quality scenic landscape, the road may allow travellers to appreciate the area and their location in relation to distinctive landscape features, by allowing appropriate views. Views out from a new road or section of a road may potentially help to alleviate driver stress, although views are not considered in driver stress assessment. Conversely, where views from a road are restricted by the new construction, this may cause frustration or contribute to driver boredom.
- 32.1.3 Driver stress is defined, for the purpose of the assessment, as the mental and physiological effects experienced by a driver using a road network. Factors influencing the level of driver stress include the road layout and geometry, surface riding characteristics, junction frequency and the speed and flow per lane. In general, drivers will choose the route that they believe to give the shortest reliable journey time, taking account of expected variability and coping with associated stress.
- 32.1.4 The three main components of driver stress are frustration, fear of a potential accident and uncertainty of the route which is being followed. These components are discussed in the following paragraphs.
- 32.1.5 Frustration is caused by a driver being unable to drive at a speed at which they wish, in relation to the conditions of the road. The level of frustration increases as the travelling speed falls in relation to expectations and may be caused by high flow levels, intersections, road works, or difficulties in overtaking slower moving traffic.
- 32.1.6 The main factors leading to fear are the presence of other vehicles, inadequate sight distances and the likelihood of pedestrians stepping on to the road. Other factors include complex junctions and roundabouts, and poorly maintained road surfaces. Fear is highest when speeds, flows and the proportion of heavy vehicles are all high.
- 32.1.7 Route uncertainty is caused primarily by signage that is inadequate for the individual's purposes. Good design and layout and/or signs should help eliminate this cause of stress for drivers. Poor lighting may also cause uncertainty as turnings and junctions may not be seen in advance.

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## 32.2 Approach and Methods

### View from the Road

32.2.1 Views from the road have been assessed in accordance with the DMRB (Volume 11, Section 3, Part 9, 1993).

32.2.2 The assessment takes into account the types of scenery or landscape character, the extent to which travellers would be able to view the scene, the quality of the landscape and features of particular interest or the prominence of the view.

32.2.3 The extent to which travellers will be able to perceive the landscape through which they are passing will vary with the relative level of the road and its surrounding topography and vegetation. The categories used in assessing this are:

- No view – road in very deep cutting or contained by earth bunds, environmental barriers or adjacent structures;
- Restricted view – road in frequent cuttings, or with deep cuttings across slopes, with frequent environmental barriers or adjacent structures blocking the view;
- Intermittent view – road generally at grade but with shallow cuttings, environmental barriers or structures at intervals; and
- Open view – road generally at grade or on embankment with views extending over the wider landscape or only restricted by existing landscape features.

### Driver Stress

32.2.4 The available research evidence does not permit the use of finely graded assessments of driver stress. Thus, driver stress has been assessed in accordance with DMRB Volume 11, Section 3, Part 9 Vehicle Travellers, June 1993 using the three point scale:

- High;
- Moderate; and
- Low.

32.2.5 This is based on estimating the average peak hourly flow per lane in 'flow units' and the average journey speed of the route. Flow units are calculated whereby a car or light van is equal to one unit and a commercial vehicle over 1.5 tonnes unladen or public service vehicle is equal to three flow units. Traffic speed is based on average journey speed.

32.2.6 The assessment has been carried out for the existing traffic conditions, using 2005 traffic flows, and for the design year (2027). Tables 32.1 and 32.2 present the guidance provided by DMRB on the appropriate category of stress levels for varying flow, speed and standard of road for dual carriageway and single carriageway roads respectively. The categories only apply to those sections of road where traffic flows and speeds are known for over 1km of the route.

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**Table 32.1 – Driver Stress Levels on Dual Carriageway Roads**

Average Peak Hourly Flow per Lane <sup>1</sup> (flow units/hour)	Average Journey speed km/hr		
	Under 60	60 – 80	Over 80
Under 1200	High <sup>2</sup>	Moderate	Low
1200 – 1600	High	Moderate	Moderate
Over 1600	High	High	High

**Table 32.2 – Driver Stress Levels on Single Carriageway Roads**

Average Peak Hourly Flow per Lane <sup>1</sup> (flow units/hour)	Average Journey speed km/hr		
	Under 50	50 – 70	Over 70
Under 600	High <sup>2</sup>	Moderate	Low
600 – 800	High	Moderate	Moderate
Over 800	High	High	High

<sup>1</sup> A car or light van equals one flow unit. A commercial vehicle over 1.5 tonnes unladen weight or a public service vehicle equals 3 flow units.

<sup>2</sup> 'Moderate' in urban areas.

32.2.7 The guidance states that for new or improved routes, designed in accordance with the Scottish Executive's current standards, the appropriate stress category will normally be 'Moderate' or 'Low'. In the assessment of stress on existing roads, the level of stress is based primarily on traffic flows and speeds.

32.2.8 Traffic forecasting data and existing speeds and flow rates, used as the basis for the numerical analysis of driver stress were provided by MVA.

32.2.9 In accordance with the guidance in DMRB, the assessment of driver stress is made for the highest traffic flow in the first 15 years after opening. This will be the Design Year (2027).

### **32.3 Baseline Conditions**

#### **View from the Road**

32.3.1 As the proposed Southern Leg is an entirely new construction, a detailed comparison of the baseline view from the road with the view from the proposed road has not been possible. However, a description of the views from the existing A90(T) (the primary route through Aberdeen at the moment), and an overview of the existing road network which serves the area along the proposed scheme is provided below. As there is no logical comparative starting point on the A90, the description covers the journey from the start of the proposed Southern Leg at Charleston to the end of the proposed Northern Leg at Blackdog. A summary description of the landscape visible across the length of the proposed scheme can be found in Chapter 26 (Landscape).

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##### **Existing A90(T)**

- 32.3.2 Beyond the rock cuttings at Charleston Junction, the northbound carriageway obtains views north across the surrounding farmland, with occasional hedgerows and stands of trees near to the road filtering the view.
- 32.3.3 On the outskirts of Aberdeen, established garden hedges adjacent to the road restrict views from the Leggart area on the approach to the River Dee crossing and from the southbound carriageway, views are generally restricted by the topography and existing trees around Charleston, with more open views being gained across farmland towards the industrial estate at Altens. Adjacent to Kincorth Hill, views are generally open and extend across grassland edged with mature trees, to the housing beyond.
- 32.3.4 As the road crosses the Bridge of Dee, both carriageways have attractive views along the river valley. There are open views along the exit roads of the Garthdee Roundabout, with the A90 continuing up South Anderson Drive. On the approach to the roundabout with Broomhill Road, views west are limited by commercial buildings and high density housing and east by raised planting beds and housing.
- 32.3.5 Between the Broomhill Road and Seafield Road/Cromwell Road roundabouts, the views are more open, with wider footpaths and avenues of mature and semi-mature trees beside the road, contained by the adjacent housing. As the road continues towards the roundabout on Queen's Road, views open eastwards and extend across the adjacent sports facilities. Views to the west are restricted by the development around Robert Gordon University.
- 32.3.6 From the Hill of Rubislaw, views are restricted by larger houses on both sides of the road, but become more open on the approach to the King's Gate roundabout. Continuing along North Anderson Drive, views open as the surrounding housing is set back farther from the road, with occasional stands of mature trees on the western side of the road. A public amenity space near the Lang Stracht/Westburn Road junction allows open views to the east from the southbound carriageway.
- 32.3.7 Between the Lang Stracht/Westburn Road junction and the Rosehill Drive roundabout the housing in Mastrick and Cummings Park areas are separated from the road by community spaces, grass verges, planting beds and small stands of trees, enabling more open views, despite their limited range. Tower blocks and other high density blocks of flats on the eastern side of the road dominate views from the southbound carriageway, although there are occasional limited views out between the buildings. Beyond the Forresterhill/Provost Fraser Drive roundabout, the northbound carriageway obtains views along the carriageway towards the woodland and farmland on the Hill of Danestone.
- 32.3.8 The housing in the Middlefield and Hilton areas creates an edge to the road corridor as the road descends to the A96 roundabout. The roundabout area is enclosed by housing areas, particularly on the western side of the road where the housing is elevated above the carriageway. Elevated planting beds restrict views west and the lack of trees along this stretch of road emphasise the urban quality of the landscape.
- 32.3.9 Approaching the River Don crossing from Mugiemoor Road, views into the river valley are restricted by mature trees along the river. Both carriageways have views along the river as the road crosses the Don, although the sewage works next to the river are detrimental to the potentially attractive views to the west.
- 32.3.10 As the road runs up the Hill of Danestone, views west are contained by dense mature woodland, while walls and trees around the housing behind the supermarket obstruct views to the east. Reaching the top of hill and the roundabout with Whitestripes Avenue, views open up to the west and north across rolling farmland. Housing in the Danestone area limits views to the south of the road, although a wide grass verge reduces any sense of enclosure for drivers.

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- 32.3.11 Housing on the northern side of the road contains views between The Parkway and the Scotstown Road roundabout and there are views south after Whitestripes Avenue roundabout, limited by woodland around a community sports ground and screened by development at Westfield Park.
- 32.3.12 Between the Scotstown Road and Ellon Road roundabouts, views to both sides of the road are contained by the industrial buildings north of Bridge of Don and there are occasional glimpses between the buildings, car parks and public open spaces around the estate. From the Scotstown Road roundabout, views extend along the A90 to the North Sea.
- 32.3.13 From the eastern edge of the Denmore Industrial Estate, mature trees along the roadside partially contain views west, with occasional glimpses through into the industrial estate. Scrub woodland and hedgerows along the eastern edge of the road allow only intermittent views to the sea.
- 32.3.14 Beyond the Mill of Mundurno roundabout, views from the road become more open, with views to the west across rolling farmland, interrupted occasionally by small stands of trees and hedgerows and views east extending to the North Sea.

#### **Other roads**

- 32.3.15 While the A90(T) provides the major transport link between the north and south of Aberdeen, there are numerous roads serving the areas to the west of the city. Near the River Dee, the B9077 and A93 link Aberdeen with Banchory and run along the south and north banks of the River Dee respectively. The B979, which leaves the B9077 near Kirkton of Maryculter, runs south towards Stonehaven and is currently used as an informal bypass of South Anderson Drive and the roundabouts at Bridge of Dee. A network of minor local routes provides access throughout the wooded and open farmland to the south of the Dee and through the communities to the north of the river. The B979, Baillieswells Road and Kirk Brae Mews are the most significant roads running north through the area, with the majority of roads running across the rolling farmland north of the Dee Valley settlement only providing access to properties.
- 32.3.16 To the south of Kingswells, the A944 runs west from Aberdeen towards Dunecht, with a busy junction at the southern edge of the Kingswells settlement. The minor road that runs north around Kingswells and towards the A96(T) has a high volume of daytime traffic. A number of other minor roads provide access throughout the surrounding rural area.

#### **Driver Stress**

- 32.3.17 The current level of driver stress has been assessed for sections of the existing road network where traffic flows would change following construction of the scheme. In the assessment of driver stress, the highest peak level of traffic has been analysed whether it came under the am or pm peak.
- 32.3.18 The results, which are shown in Table 32.3, show that existing stress levels during peak hours are generally Moderate or Low along the existing road network with High stress on the northbound A956 between Charleston and Altens. Moreover, there are additional sections of the existing roads that fall outwith the limits of approved methodology, as junction spacing is less than one kilometre and free flowing conditions do not exist on these sections. The relevant sections include the existing A90 trunk road between Bridge of Dee and Summerhill, the A956 between Altens and Bridge of Don, the A93 and the A944 east of Kingswells. These sections of road are particularly congested during peak periods and would tend to exhibit conditions likely to result in High driver stress.

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**Table 32.3 – Driver Stress Levels on Existing Road Network in 2005**

Link Description	Direction	Road Class <sup>1</sup>	Average Peak Hourly Flow per Lane <sup>2</sup> (Flow Units/Hour)	Average Vehicle Speed (km/h)	Driver Stress
A956 Charlestown to Altens	N/B	DC	1022	56	High
	S/B		978	63	Moderate
A90 (T) Charleston to Bridge of Dee	N/B	DC	1114	94	Low
	S/B		1133	94	Low
B9077 South Deeside Road (east of B979)	E/B	SC	208	52	Moderate
	W/B		181	53	Moderate
B9077 South Deeside Road (west of B979)	E/B	SC	105	55	Moderate
	W/B		109	55	Moderate
B979 between B9077 and A93	N/B	SC	271	65	Moderate
	S/B		271	65	Moderate
B979 between A93 and A944	N/B	SC	235	71	Low
	S/B		235	71	Low
Baillieswells Road (Bielside to Kingswells Road)	N/B	SC	182	53	Moderate
	S/B		134	55	Moderate
A944 Aberdeen to Westhill Road (east of Kingsford Industrial Estate)	E/B	DC	864	93	Low
	W/B		862	93	Low
A944 Aberdeen to Westhill Road (west of Kingsford Industrial Estate)	E/B	DC	864	93	Low
	W/B		854	65	Moderate
B979 between A944 and A96	N/B	SC	113	55	Moderate
	S/B		184	53	Moderate

<sup>1</sup> Road Class: DC = Dual Carriageway, and SC = Single Carriageway.

<sup>2</sup> Derived Flow Units/Hour: A car or light vehicles equal one flow unit. A commercial vehicle or HGV over 1.5 tonnes' weight or a public service vehicle equals 3 flow units.

## 32.4 Potential Impacts

### View from the Road

32.4.1 Potential impacts are presented as views from the proposed scheme in Winter Year of Opening and are determined by the extent to which travellers will be able to perceive the landscape through which they are passing. They are essentially similar to the residual impacts, which are presented as views from proposed scheme in Summer 15 Years of Opening, before mitigation planting has become established. These views are addressed in section 32.6 and detailed in Table 32.6. Graphic representations are shown in Figures 32.1 a-h for views from the AWPR in winter in the year of opening and Figures 32.3 a-h for views from the AWPR in the summer after 15 years. Additionally, views from the A90(T) are shown in Figures 32.2 (existing view) and 32.4 (winter year of opening/summer after 15 years).

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#### Driver Stress

- 32.4.2 Potential impacts of the proposed scheme on driver stress are essentially similar to the residual impacts, which have been assessed by comparing stress levels on the road network for the Do Minimum option in 2027, with the stress levels on the road network with the proposed scheme in 2027 as addressed in section 32.6 and summarised in Table 32.8

## 32.5 Mitigation

#### View from the Road

- 32.5.1 Measures to mitigate potentially adverse impacts on the landscape will be incorporated into the scheme design. The main elements of the proposals are summarised below, and details are provided in Chapter 26 (Landscape).
- 32.5.2 Mitigation measures designed to minimise adverse impacts on the view from the road and the potential for driver stress include the following:
- where possible, the established trees, woodland and drystone walls adjacent to the road will be protected to maintain the character of the landscape affected by proposals;
  - planting schemes using coniferous, broadleaved, mixed and scrub woodland, as well as occasional groups of feathered and lines of heavy standard trees are proposed to create a diverse range of species along the route;
  - planting on the slopes of deep cuttings and screening bunds will help to soften the sense of enclosure created by the earthworks;
  - new drystone walls will be built to mark realigned field boundaries in areas where they form an important part of the landscape character;
  - the visual impact of noise barriers will be reduced by the use of mitigation planting where possible and earth bunds to reduce the height of the fencing element. Drystone walls are also proposed where possible to integrate the barrier with surrounding landscape elements;
  - most of the verges will be seeded by species rich grassland and rock cuts will be soiled and seeded in niches with native grasses to enhance visual amenity from the carriageway;
  - attenuation ponds required as part of the road drainage system and ecological ponds required to offset the habitat loss for local wildlife will be designed to look as natural as possible, with riparian and wetland planting around them to create new habitats and visual interest; and
  - the earthworks required for the road will be graded out to tie smoothly into the surrounding landscape, and where possible, the land adjacent to the road will be regraded to allow for its return to agricultural use.

#### Future potential design of Focal Points/Gateways

- 32.5.3 A number of locations along the proposed Southern Leg route have been identified as having the potential for development as focal points and/or gateways along the route. They present an opportunity to enhance the experience of vehicle travellers and mark the transition from one area to another. The landscape and bridge design proposals have been developed in greater detail in these areas along the Southern Leg.
- Charleston Junction (gateway to Altens/Charleston area, start of AWPR);
  - Cleanhill Junction (focal marking junction between Southern Leg and Fastlink);
  - Dee Bridge (river crossing marked by landmark bowstring arch bridge structure);
  - A93 Milltimber Junction (gateway to Milltimber); and
  - South Kingswells Junction (focal point marking junction of A944 and AWPR).

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##### Driver Stress

- 32.5.4 The proposed scheme will generally be designed to appropriate roads design standards including DMRB, therefore appropriate mitigation measures have already been incorporated into the specimen design.
- 32.5.5 Relief of frustration has been achieved via the design of the proposed scheme, so that under normal conditions the flow of traffic will be acceptable to most drivers and is anticipated to produce little frustration.
- 32.5.6 Relief of fear has been achieved through the design of sight distances that comply with the current standards giving a clear view of the carriageway ahead. The absence of pedestrians on the Southern Leg will also remove most of the fear of accidents. Additionally, the provision of adequate lighting at the junctions of the proposed scheme will reduce fear in vehicle travellers. Current design standards do not require road lighting for the full length of the Southern Leg.
- 32.5.7 Driver stress in terms of route uncertainty can be alleviated by the provision of signs designed to avoid any uncertainty concerning the route and of a standard that will satisfy most drivers.

**Table 32.4 – Summary of Measures Employed to Address Potential Impacts on Vehicle Travellers**

Type of Measure	Description
Prevent	None provided.
Reduce	Grading out of embankments and landscaping proposals to assimilate the proposed scheme into the rural landscape and enhance the sense of travelling through the landscape. Planting of mixed woodland to screen views of negative landscape elements. Planting and seeding to provide roadside interest. Flow of traffic along proposed road will be acceptable to drivers such that little frustration is envisaged. Sight distances along the proposed road will give a clear view of the carriageway ahead and adequate lighting will be provided at the scheme's junctions, removing most of the fear of accidents. Road signage will be of an appropriate standard to remove any uncertainty concerning the routes.
Remedy/Offset	None provided.
Enhance	None provided.

## 32.6 Residual Impacts

### View from the Road

- 32.6.1 Views from the proposed Southern Leg are described in Table 32.6 at the end of this section, with descriptions of the views in the winter year of opening (with all earthworks and planting in place but without the benefits of established planting) and then in the summer fifteen years after opening, when proposed planting will have become established.
- 32.6.2 Table 32.7 describes the impacts the proposed scheme would have upon views from the existing A90 south of Aberdeen with descriptions of the current views compared to any changes in the winter year of scheme opening and during the summer 15 years after opening. Graphic representations of views from the road are shown in Figures 32.1 a-h for views from the AWPR in winter in the year of opening and Figures 32.3 a-h for views from the AWPR in the summer after 15 years. Additionally views from the A90(T) are shown in Figures 32.2 (existing view) and 32.4 (winter year of opening/summer after 15 years).



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32.6.3 In the winter year of opening, 32.5% of the Southern Leg would have open views and 17.5% intermittent views. The open views would generally extend over areas of rolling, open farmland with scattered built receptors adjacent to the road. The majority of long range views would extend over rural areas, although there would also be distant views towards the populated areas of Aberdeen, Westhill and Milltimber. Intermittent views are obtained where the proposed scheme is located in shallow cuttings or between fragmented areas of existing vegetation. The more extensive earthworks required as the cuts across higher ground would result in restricted views for 24.8% of the proposed scheme and 25.2% with no view. Establishment of extensive mixed and scrub woodland mitigation planting, to screen properties and to compensate for habitats lost to the road, will reduce the open and restricted views to 9.7% and 18.1% respectively, while intermittent views will increase to 33.3% and no views to 38.9%.

32.6.4 The views from the Southern Leg would offer a significant change to those currently available from the A90(T). Sections of the proposed scheme would offer attractive open views across the rolling countryside around Aberdeen, which will become more enclosed as proposed mitigation planting matures. This would provide a more pleasant journey for drivers than the generally enclosed urban journey and congested traffic that travellers currently experience as they drive through Aberdeen.

#### **Driver Stress**

32.6.5 The impact of the proposed scheme on driver stress has been assessed by comparing stress levels on the road network for the Do Minimum option in 2027 with the stress levels on the road network with the scheme in place in 2027. The results are shown in Table 32.8. Driver stress for the vehicle travellers on the proposed Southern Leg in 2027 has been assessed in accordance with the DMRB in order to determine stress levels on this route in the first 15 years after opening, with the highest peak level of traffic analysed in the driver stress assessment.

32.6.6 The main sections of road network where driver stress levels are predicted to decrease due to the proposed scheme are as follows:

- The A90(T) Charleston to Bridge of Dee would change from Moderate to Low;
- The B9077 South Deeside Road eastbound (east of B979) eastbound would change from High to Moderate; and
- The B979 between A944 and A96 southbound would change from High to Moderate.

32.6.7 The main sections of road network where driver stress levels are predicted to increase as a result of the proposed scheme are as follows:

- The A944 Aberdeen to Westhill Road eastbound (west of Kingsford Industrial Estate) would change from Low to Moderate; and
- The A944 Aberdeen to Westhill Road westbound (west of Kingsford Industrial Estate) would change from Moderate to High.

32.6.8 Traffic levels are also anticipated to decrease on the A956 between Altens and Bridge of Don, and on the A90 between Bridge of Dee and Summerhill which would reduce driver stress on these roads.

32.6.9 On the remaining sections of the road network not mentioned above, driver stress due to the proposed scheme would remain unchanged from the 'Do Minimum',

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32.6.10 Table 32.5, shows that stress levels along the Southern Leg in design year 2027 will vary with:

- Low driver stress between Charleston and Cleanhill Junctions and from Cleanhill Junction to Milltimber Junction northbound;
- Moderate stress southbound between Cleanhill and Milltimber Junctions, and A944 and Milltimber Junctions; and
- High stress between the Milltimber and A944 junctions northbound as well as between the A944 and North Kingswells Junctions.

**Table 32.5 – Driver Stress Levels for the Southern Leg 2027**

Link Description	Direction	Proposed Scheme			
		Road Class <sup>1</sup>	Average Peak Hourly Flow per Lane <sup>2</sup> (Flow units/Hour)	Average Vehicle Speed (km/h)	Driver Stress
AWPR – Charleston Junction to Cleanhill Junction	E/B	DC	740	102	Low
	W/B		747	101	Low
AWPR – Cleanhill Junction to Milltimber Junction	N/B	DC	1184	100	Low
	S/B		1231	100	Moderate
AWPR – Milltimber Junction to A944 Junction	N/B	DC	1663	93	High
	S/B		1448	100	Moderate
AWPR – A944 Junction to North Kingswells Junction	N/B	DC	1873	90	High
	S/B		1657	95	High

<sup>1</sup> Road Class: DC = Dual Carriageway, and SC = Single Carriageway

<sup>2</sup> Derived Flow Units/Hour: A car or light vehicles equal one flow unit. A commercial vehicle or HGV over 1.5 tonnes' weight or a public service vehicle equals 3 flow units.

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**Table 32.6 – View from the Road, Southern Leg**

Chainages	Landscape/Settlement Character Area(s)	View from Northbound Carriageway (NBC), Southbound (SBC), Eastbound (EBC) or Westbound (WBC)	View from Proposed Road, Winter Year of Opening	View from Proposed Road, Summer 15 Years of Opening
207270-207100	Loirston open farmland	WBC	<b>Intermittent view:</b> View would be partially contained by cutting and new scrub woodland, with glimpses of rolling farmland to the south.	<b>Intermittent view:</b> View will be partially contained by cutting and established scrub woodland, with glimpses of rolling farmland to the south.
207270-206960	Loirston open farmland	EBC	<b>Open view:</b> Views to the north towards Kincorth Hill across undulating farmland and Loirston Loch. New clump of standard trees at junction with Old Stonehaven Road	<b>Intermittent view:</b> Views to the north towards Kincorth Hill across undulating farmland and Loirston Loch visible beyond established clump of standard trees at junction with Old Stonehaven Road.
207100-206800	Loirston open farmland	WBC	<b>Open view:</b> Road would be on embankment with views across rolling farmland and a local access road leading to Craighill Road. New row of standard trees on embankment. New drystone wall at top of embankment between Craighill Road junction and A90 slip road.	<b>Intermittent view:</b> Established Standard trees adjacent to the road up to Craighill Road with views across rolling farmland and a local access road leading to Craighill Road seen between trees.
206960-206830	Loirston open farmland	EBC	<b>Open view:</b> The road would be on an embankment with a new drystone wall at the top. The embankment would be graded out across the former A956 road approach to the Charleston junction, with short range views to the existing scrub woodland that screens nearby dwellings at Charleston. Views would be obtained along the carriageway towards Loirston Loch and Cove Bay. New mixed woodland planting adjacent to the road.	<b>Restricted view:</b> Established mixed woodland planting adjacent to the road will contain the majority of views to the north. Views along the carriageway towards Loirston Loch and Cove Bay.
206830-206550	Loirston open farmland	EBC	<b>Intermittent view:</b> Views to the north along the A90(T) and slip roads would be partially restricted by the bridge parapet. New mixed woodland planting at the top of the northbound slip road. Views to the east along the carriageway towards Cove Bay and the North Sea.	<b>Intermittent view:</b> Views to the north along the A90(T) and slip roads will be partially restricted by the bridge parapet. Established mixed woodland planting at the top of the northbound slip road. Views to the east along the carriageway towards Cove Bay and the North Sea.

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Chainages	Landscape/Settlement Character Area(s)	View from Northbound Carriageway (NBC), Southbound (SBC), Eastbound (EBC) or Westbound (WBC)	View from Proposed Road, Winter Year of Opening	View from Proposed Road, Summer 15 Years of Opening
206800-206570	Loirston open farmland	WBC	<b>Intermittent view:</b> Views to the south along the A90(T) and slip roads would be partially restricted by the bridge parapet. New standard tree planting at the top of the slip roads. Mixed woodland planting at the top of the western slip road from the A90(T). New drystone wall at the top of the cutting above the slip road from the A90(T).	<b>Intermittent view:</b> Established standard tree planting at the top of the slip roads and mixed woodland planting at the top of the western slip road. Views south along the A 90(T) will cause further restrictions to views south along the road.
206550-206100	Loirston open farmland & Duff's Hill wooded farmland	EBC	<b>Restricted view:</b> The road would be cutting into Blue Hill above the A90, which would limit views across the rolling farmland to the north. New scrub and broadleaved woodland to offset habitat loss above the cutting. Views to the east along the carriageway towards the North Sea partially blocked by Hatton Accommodation overbridge.	<b>Restricted view:</b> The road will be cutting into Blue Hill above the A90, which will limit views across the rolling farmland to the north. Established scrub and broadleaved woodland to offset habitat loss above the cutting. Views to the east along the carriageway towards the North Sea partially blocked by Hatton Accommodation overbridge..
206570-206100	Loirston open farmland & Duff's Hill wooded farmland	WBC	<b>Intermittent view:</b> Shallow cutting would contain some of the views across the rolling farmland as the road climbs the hill to the west of the A90. New mixed woodland plantation adjacent to local access road embankment.	<b>Intermittent view:</b> Shallow cutting will contain some of the views across the rolling farmland as the road climbs the hill to the west of the A90. Established mixed woodland plantation adjacent to a local access road embankment will further disrupt views.
206100-205200	Duff's Hill wooded farmland	WBC	<b>Restricted view:</b> Limited views out from the road into an established coniferous woodland plantation. New mixed woodland planting adjacent to the road.	<b>No view:</b> Established mixed woodland planting will reinforce the screening provided by the woodland plantation to contain views out from the road.
206100-205300	Duff's Hill wooded farmland	EBC	<b>Restricted view:</b> Limited views out from the road into an established coniferous woodland plantation. New mixed woodland planting adjacent to the road.	<b>No view:</b> Established mixed woodland planting will reinforce the screening provided by the woodland plantation to contain views out from the road.
205300-204600	Hare Moss open farmland	EBC	<b>Open view:</b> Road would be on embankment with views to the north across open farmland. Some views limited in distance by established woodland. Minor disruption to views due to the Causey Mounth road overbridge and new drystone wall at the top of the embankment. New scrub and feathered woodland blocks adjacent to overbridge and AWPR.	<b>Intermittent view:</b> Views to the north across open farmland between blocks of established scrub adjacent to overbridge and AWPR. Some views limited in distance by established woodland. Minor disruption to views due to the Causey Mounth road overbridge.

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204600-203300	Hare Moss open farmland	EBC	<b>Open view:</b> Road would be on embankment with clear views to the north across the open farmland of Hare Moss as it rises to the north towards Cran Hill. Some views limited in distance by established woodland to the south of The Crossroads. Minor disruption to views due to the Causey Mounth road overbridge.	<b>Open view:</b> Road will be on embankment with clear views to the north across the open farmland of Hare Moss as it rises to the north towards Cran Hill. Some views limited in distance by established woodland to the south of The Crossroads. Minor disruption to views due to the Causey Mounth road overbridge.
205200-203300	Hare Moss open farmland	WBC	<b>Open view:</b> Road would be on embankment with clear views across the open farmland of Hare Moss as it rises gently to the south. Minor disruption to views due to the Causey Mounth road overbridge and new drystone wall sections. New mixed, feathered and scrub woodland planting adjacent to road at new overbridge and to provide screening at Newhall House.	<b>Intermittent view:</b> Road would be on embankment with views of open farmland between established mixed woodland sections.
203300-203140	Hare Moss open farmland	WBC	<b>Restricted view:</b> The graded out embankments and structure of the new overbridge near Bishopton Farm would obstruct views out across the surrounding farmland.	<b>Restricted view:</b> The graded out embankments and structure of the new overbridge near Bishopton Farm will obstruct views out across the surrounding farmland.
203300-203160	Hare Moss open farmland	EBC	<b>Restricted view:</b> The graded out embankments and structure of the new overbridge near Bishopton Farm would obstruct views out across the surrounding farmland.	<b>Restricted view:</b> The graded out embankments and structure of the new overbridge near Bishopton Farm will obstruct views out across the surrounding farmland.
203160-202890	Hare Moss open farmland	EBC	<b>Open view:</b> Views to the north towards Cults and Bielside across the gently rolling farmland to the north of Bishopton Farm. New drystone wall adjacent to AWPR.	<b>Open view:</b> Views to the north towards Cults and Bielside across the gently rolling farmland to the north of Bishopton Farm.
203140-202890	Hare Moss open farmland	WBC	<b>Intermittent view:</b> Views to the south would be limited by established mature trees around Bishopton Farm and the larger agricultural buildings. New broadleaf woodland planting adjacent to the road. New drystone wall adjacent to AWPR.	<b>Restricted view:</b> Established broadleaf woodland planting will reinforce the screening provided by the farm.
202890-202570	Hare Moss open farmland	WBC	<b>Open view:</b> Views over new drystone wall and shallow cutting across the surrounding farmland that rises to the south towards Clochandighter Wood.	<b>Open view:</b> Views over new drystone wall and shallow cutting across the surrounding farmland that rises to the south towards Clochandighter Wood.

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202890-202570	Hare Moss open farmland	EBC	<b>Intermittent view:</b> Road would be in shallow cutting, with the available views limited in range by the existing woodland around Heatherknowe. New mixed woodland planting above cutting adjacent to road. Noise barrier at top of cutting at Heatherknowe. New drystone wall above cutting.	<b>Intermittent view:</b> Established mixed woodland planting will restrict view west of Heatherknowe,
202570-201400	Hare Moss open farmland & Merchant's Croft open farmland	WBC	<b>Restricted view:</b> Road would be in cutting as it runs through the hillside to the north of Clochandighter Wood, which would limit views out across the rolling farmland. New scrub and mixed woodland planting across the slopes of the cutting.	<b>No view:</b> Established scrub and mixed woodland planting across the slopes of the cutting will contain views to the south.
202570-201300	Hare Moss open farmland & Merchant's Croft open farmland	EBC	<b>Intermittent view:</b> Road would be in cutting of varying depth as it runs through the hillside to the north of Clochandighter Wood, which would limit some of the views out across the rolling farmland. Clumps of new mixed, scrub and coniferous woodland planting across the slopes of the cutting.	<b>Intermittent view:</b> Road will be in cutting of varying depth as it runs through the hillside to the north of Clochandighter Wood, which will limit some of the views out across the rolling farmland. Clumps of established mixed, scrub and coniferous woodland planting across the slopes of the cutting will increase the screening of views.
201400-200700	Merchant's Croft open farmland & Blaikiewell Open Farmland	WBC	<b>Open view:</b> Views to the south from low embankment across farmland that rises to the south towards Barn Hill and Wedderhill. Some of the field boundaries are marked by lines of trees which would break up the views slightly New clumps of scrub woodland.	<b>Intermittent view:</b> Views through established scrub woodland clumps to the south from low embankment across farmland that rises to the south towards Barn Hill and Wedderhill. Some of the field boundaries are marked by lines of trees which will break up the views slightly.
201300-201130	Merchant's Croft open farmland	EBC	<b>Open view:</b> Road would be on a slight embankment as it cross the gently rolling farmland, with short range views to the north limited by the existing woodland to the east of Whitestone.	<b>Open view:</b> Road would be on a slight embankment as it cross the gently rolling farmland, with short range views to the north limited by the existing woodland to the east of Whitestone.
201130-200650	Merchant's Croft open farmland& Blaikiewell Open Farmland	EBC	<b>Restricted view:</b> Views to the north across adjacent farmland to existing woodland around Whitestone and Kemeheide would be partially obscured by a false cutting, noise barrier and new scrub woodland planting along the cutting and by the mature hedge trees planted along the access road for the houses.	<b>Restricted view:</b> Views to the north across adjacent farmland further obscured by mature scrub woodland, and by the mature hedge trees planted along the access road for the houses.

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200700-200500	Blaikiewell Open Farmland	WBC	<b>Intermittent view:</b> Views out would be partially disrupted by shallow cutting and the embankments and structure of the overbridge for the local access road past Burnhead. The available views would be limited in range by the established woodland around the Burnhead settlement. New scrub and mixed woodland planting adjacent to the road.	<b>Restricted view:</b> Established scrub and mixed woodland planting adjacent to the road will increase the level of screening caused by the cutting and the overbridge.
200650-200000	Blaikiewell Open Farmland	EBC	<b>Open view:</b> Road would be at grade and on a low embankment as it crosses the rolling farmland to the north of the small settlement at Burnhead. The distance of the available views would be limited by Cleanhill Wood. New standard tree planting adjacent to the road and riparian planting along Blaikiewell Burn.	<b>Intermittent view:</b> Filtered views north through matured standard trees. Middle distance views beyond burn obscured by riparian planting.
200500-200000	Blaikiewell Open Farmland	WBC	<b>Open view:</b> Views across relatively flat farmland towards the ridgeline running east from Stranog Hill, with treatment and attenuation ponds adjacent to the road. Existing woodland around Burnhead would limit some of the views. New scrub and mixed woodland planting adjacent to the Cleanhill Roundabout.	<b>Intermittent view:</b> Established scrub and mixed woodland planting near the Cleanhill Roundabout will disrupt views to the south.
100000-100300	Blaikiewell Open Farmland & Craingingles hill	NBC	<b>Open view:</b> Road would be on embankment with views to the west across the rolling farmland and existing scrub woodland to the north of Blaikiewell Farm House. New scrub woodland planting adjacent to the road. New standard trees adjacent to burn.	<b>Intermittent view:</b> Existing scrub woodland will be reinforced by established scrub woodland planting adjacent to the road to contain the views to the west. Standard trees matured to provide filtered views west at burn.
100000-100150	Blaikiewell Open Farmland & Craingingles hill	SBC	<b>Open view:</b> Road would be on embankment as it approaches the Cleanhill Junction roundabout, with views across undulating farmland. Views would be limited in range by the existing trees of Cleanhill Wood. Views along the carriageway towards the ridgeline east of Stranog Hill and west to the southern edge of Cleanhill Wood. New standard trees adjacent to the road to the east.	<b>Intermittent view:</b> Views east over field filtered by matured standard trees. Views along the carriageway towards the ridgeline east of Stranog Hill.

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100150-100950	Craigingles hill	SBC	<b>No view:</b> The road would move into deep cutting which would contain the majority of views out, with the existing woodland of Cleanhill Wood enclosing all other views. New mixed and scrub woodland planting across the slopes of the cutting.	<b>No view:</b> The established mixed and scrub woodland adjacent to the road will help to soften the sense of enclosure from the cutting, but will ensure there are no views out from the carriageway.
100300-100970	Craigingles hill	NBC	<b>Restricted view:</b> The existing mature woodland of Cleanhill Wood would reinforce the screening caused by the road moving into cutting as it enters the Kingcausie estate. New mixed woodland planting adjacent to the road and across the slopes of the cutting to replace woodland lost due to construction.	<b>No view:</b> Established mixed woodland planting across the slopes of the cutting will strengthen the screening from the earthworks and the existing woodland, containing views out to the west.
100950-101160	Craigingles hill	SBC	<b>Open view:</b> The road would be on embankment with short range views to the east towards a clearing in Cleanhill Wood, with views limited by the existing woodland. New scrub woodland planting adjacent to the road.	<b>Restricted view:</b> The majority of views to the east will be contained by the established scrub woodland adjacent to the road.
100970-101450	Craigingles hill & Auchlunies open farmland	NBC	<b>Intermittent view:</b> Views to the west interrupted by noise barrier adjacent to the road. New mixed woodland and standard tree planting to screen the road and barrier from properties at Eastland. View along the carriageway into the Dee Valley towards Milltimber.	<b>Restricted view:</b> Established mixed woodland and standard trees would restrict views out to the west. Views along the carriageway into the Dee Valley towards Milltimber.
101160-101500	Craigingles hill & Auchlunies open farmland	SBC	<b>No view:</b> The existing woodland of Cleanhill Wood will contain views out to the east as the road crosses the Kingcausie estate.	<b>No view:</b> The existing woodland of Cleanhill Wood will contain views out to the east as the road crosses the Kingcausie estate
101450-101900	Auchlunies open farmland	NBC	<b>Restricted view:</b> Road would move onto embankment as it runs down the hill towards the new River Dee crossing. The views to the west would be limited by the established woodland planting at the north western edge of the Kingcausie estate. New standard tree planting on embankments. Views along the carriageway into the Dee Valley towards Milltimber.	<b>No view:</b> Views along the carriageway into the Dee Valley towards Milltimber with matured standard trees on the embankment.



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101500-101900	Auchlunies open farmland	SBC	<b>Open view:</b> Views to the east across the open lawns in front of Kingcausie House along the north-facing slopes of the Dee Valley. New mixed and broadleaf woodland planting adjacent to the road.	<b>Intermittent view:</b> Established mixed and broadleaf woodland planting adjacent to the carriageway will allow glimpses east into open lawns.
101900-102870	Dee Valley	NBC	<b>Restricted view:</b> Parapets on the River Dee bridge restrict views along the valley to the west. Noise barriers north of the bridge further restrict views. New mixed, broadleaf and scrub woodland planting on embankment west of the barrier.	<b>Restricted view:</b> Parapets on the River Dee bridge restrict views along the valley to the west. Noise barriers north of the bridge and established mixed, broadleaf and scrub woodland planting further restrict views to the west.
101900-102850	Dee Valley	SBC	<b>Open view:</b> The road would move onto embankment as it crosses the River Dee floodplain, with views to the east across open farmland and along the river. Treatment and attenuation ponds adjacent to the road as it leaves Milltimber. New mixed, broadleaf, riparian and scrub woodland planting on embankment. Parapets on the River Dee bridge limit views along the valley to the east with land rising to the south clearly visible beyond.	<b>Intermittent view:</b> The road will move onto embankment as it crosses the River Dee floodplain, with views to the east between mature mixed, broadleaf, riparian and scrub woodland planting as it leaves Milltimber. Parapets on the River Dee bridge limit views along the valley to the east with land rising to the south clearly visible beyond.
102850-105300	Milltimber urban area, Craigton wooded farmland & Beans Hill	SBC	<b>No view:</b> Road would be in deep cutting as it cuts through the lower slopes of Beans Hill and approaches the settlement at Milltimber, which would contain views out to the east. Once the road passes the Milltimber Junction, there would be narrow views along the carriageway across the Dee Valley. Noise barriers at top of cuttings south of Milltimber junction and new mixed woodland planting across the slopes of much of the cutting.	<b>No view:</b> Views out from the road will be contained by deep cutting and noise barriers above, but established mixed woodland planting across the slopes will help to soften the edge and reduce the sense of enclosure. Narrow views along the carriageway across the Dee Valley. Noise barriers at top of cuttings south of Milltimber junction and established mixed woodland planting across the slopes of much of the cutting.
102870-105500	Milltimber urban area, Craigton wooded farmland & Beans Hill	NBC	<b>No view:</b> Views out from the road would be contained by deep cutting as the carriageway moves through the settlement at Milltimber and climbs up the lower slopes of Beans Hill. New mixed and scrub woodland planting across the slopes of much of the cutting. Drystone wall noise barrier adjacent to link road at top of cutting. Noise barriers at top of cutting at Contlaw Overbridge.	<b>No view:</b> Views out from the road will be contained by deep cutting, but established mixed and scrub woodland planting across the slopes will help to soften the edge and reduce the sense of enclosure. Drystone wall noise barrier adjacent to link road at top of cutting. Noise barriers at top of cutting at Contlaw Overbridge.

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105300-106000	Beans Hill	SBC	<b>Intermittent view:</b> Views out from the road across rolling farmland would be disrupted by a series of shallow cuttings. Scrub woodland planting next to the road.	<b>Intermittent view:</b> Views out from the road across rolling farmland will be disrupted by a series of shallow cuttings and matured scrub woodland planting.
105500-106000	Beans Hill	NBC	<b>Intermittent view:</b> The depth of the cutting would decrease as the road crosses the lower northern slopes of Beans Hill, allowing occasional views to the west across rolling farmland.	<b>Intermittent view:</b> The depth of the cutting will decrease as the road crosses the lower northern slopes of Beans Hill, allowing occasional views to the west across rolling farmland.
106000-106550	Broomfold wooded farmland	NBC	<b>No view:</b> Road would be on embankment to cross the low valley between Beans Hill and Gairnhill. Views to the west blocked by noise barrier at the top of the embankment adjacent to road. New mixed and riparian woodland planting west of the barrier.	<b>No view:</b> Road would be on embankment to cross the low valley between Beans Hill and Gairnhill. Views to the west blocked by noise barrier at the top of the embankment adjacent to road. Established mixed and riparian woodland planting would further block views west of the barrier.
106000-106240	Broomfold wooded farmland	SBC	<b>No view:</b> Views out from embankment would be contained by the existing woodland of Gairnhill Wood. New mixed woodland planting adjacent to the road.	<b>No view:</b> The established mixed woodland planting across the embankment will strengthen the screening from Gairnhill Wood.
106240-106500	Broomfold wooded farmland	SBC	<b>Open view:</b> The road would be on embankment with views across rough farmland and the gardens of Broomwood, which would be limited in range by Gairnhill Wood to the east. New mixed woodland planting along the embankment.	<b>Restricted view:</b> The majority of views to the east will be obstructed by the established mixed woodland planting along the embankments.
106500-107000	Broomfold wooded farmland	SBC	<b>No view:</b> Views to the east would be contained by cutting and by the existing woodland plantation of Gairnhill Wood as the road runs towards the Silverburn Road overbridge. New mixed and broadleaf woodland planting adjacent to the road. New wall at the top of cutting.	<b>No view:</b> The established mixed and broadleaf woodland planting adjacent to the road will strengthen the screening of views provided by Gairnhill Wood and cutting.
106550-107440	Broomfold wooded farmland	NBC	<b>Open view:</b> Views to the west across rolling farmland around Gairn Farm as the road climbs to the north across the western slopes of Gairnhill. New mixed woodland planting adjacent to the road to help screen the nearby farm. New drystone wall adjacent to road.	<b>Intermittent view:</b> Views to the west will be partially disrupted by established mixed woodland planting adjacent to the road.
107000-107300	Broomfold wooded farmland	SBC	<b>Open view:</b> The road would move from embankment into shallow cutting, with views over new drystone walls across rolling farmland towards Kingshill and Gairnhill Woods.	<b>Open view:</b> The road will move from embankment into shallow cutting, with views across rolling farmland towards Kingshill and Gairnhill Woods.

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107300-107630	Broomfold wooded farmland & Fifeshill	SBC	<b>Restricted view:</b> Views to the east would be blocked by noise barrier running along the top of the embankment adjacent to the road. New mixed woodland planting across the embankment east of the fencing.	<b>Restricted view:</b> Views to the east would be blocked by noise barrier running along the top of the embankment adjacent to the road. Established mixed woodland planting adjacent to the road would further restrict the majority of views to the east.
107440-108300	Fifeshill & Auchlea hill	NBC	<b>Restricted view:</b> Views to the west as the road crosses the ridge between Fifeshill and Auchlea hill would be partially obstructed by cutting, noise barrier fencing adjacent to the road at Moss-side of Auchlea and new drystone wall above the cutting	<b>Restricted view:</b> Views to the west as the road crosses the ridge between Fifeshill and Auchlea hill will be partially obstructed by cutting and new drystone wall above the cutting,
107630-108300	Fifeshill & Auchlea hill	SBC	<b>Restricted view:</b> The majority of views to the east would be contained by cutting as the road runs through the western side of Kingshill Wood. Noise barriers above the cutting further restrict views in places.	<b>Restricted view:</b> The majority of views to the east will be contained by cutting as the road runs through the western side of Kingshill Wood. Noise barriers above the cutting further restrict views in places.
108300-108800	Fifeshill & Clinerty/West Brimmond open farmland	NBC	<b>Open view:</b> Road would be on embankment as it crosses the new A944 junction, with views to the west along the road and valley towards Westhill, with treatment and attenuation ponds adjacent to the road. Clusters of standard tree planting around the A944 South Kingswells Junction roundabout. Riparian woodland planting around ponds.	<b>Open view:</b> Established tree planting around the A944 South Kingswells Junction roundabout will provide minor disruption to views towards Westhill.
108300-108750	Fifeshill & Clinerty/West Brimmond open farmland	SBC	<b>Open view:</b> The road would be on embankment with views to the east along the A944, looking across the rolling farmland to the north of Kingshill Wood. New mixed woodland planting adjacent to road. Standard tree planting around the A944 South Kingswells Junction roundabout.	<b>Open view:</b> Established mixed woodland will provide containment of views near East Kingsford Cottage. Matured tree planting around the A944 South Kingswells Junction roundabout will provide minor disruption to views to the east towards Kingshill Wood.
108750-109080	Clinerty/West Brimmond open farmland & Kingswells wooded farmland	SBC	<b>Intermittent view:</b> Views would be partially disrupted by cutting as the road cuts through a ridgeline to the north of the A944, with glimpses across rolling farmland to the west of Kingswells House. New mixed woodland planting adjacent to the road. New drystone wall above cutting.	<b>Restricted view:</b> Screening from the cutting will be strengthened by the established mixed woodland planting adjacent to the road.

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108800-109400	Clinerty/West Brimmond open farmland & Kingswells wooded farmland	NBC	<b>Intermittent view:</b> The road would be in shallow cutting and slight embankment as it crosses a ridgeline. Views to the west towards Westhill would be disrupted by shallow cuttings and a noise barrier at West Hatton. New mixed woodland planting adjacent to road on cutting continuing west of the barrier fencing.	<b>Restricted view:</b> Disrupted views west by noise barriers and shallow cuttings will be further restricted by established mixed woodland planting.
109080-109240	Kingswells wooded farmland	SBC	<b>Open view:</b> Views to the east over a new drystone wall and across rolling farmland would be limited in range by existing woodland to the south of Denhead of Cloghill.	<b>Open view:</b> Views to the east over a new drystone wall and across rolling farmland will be limited in range by existing woodland to the south of Denhead of Cloghill.
109240-109400	Kingswells wooded farmland	SBC	<b>Intermittent view:</b> The farm buildings for Denhead of Cloghill and an existing woodland plantation would disrupt views to the east towards Kingswells. New mixed woodland planting adjacent to the road.	<b>Restricted view:</b> The established mixed woodland planting adjacent to the road will contain the majority of views to the east.
109400-109900	Clinerty/West Brimmond open farmland & Kingswells wooded farmland	NBC	<b>No view:</b> Road would be in deep cutting as it crosses Cloghill which would contain views out from the road. New mixed woodland planting on the slopes of the cutting as it runs north.	<b>No view:</b> The screening provided by the cutting will be reinforced by established mixed woodland planting, which will help to soften the sense of enclosure.
109400-109800	Clinerty/West Brimmond open farmland & Kingswells wooded farmland	SBC	<b>Restricted view:</b> The majority of views would be contained by deep cutting as the road crosses Cloghill. New mixed woodland planting across the slopes of the cutting.	<b>No view:</b> Established mixed woodland planting will strengthen the screening from the cutting, and will help to soften the sense of enclosure caused by the earthworks.
109800-110380	Kingswells wooded farmland	SBC	<b>No view:</b> A false cutting adjacent to the road to screen views from Kingswells and adjacent properties would contain views out to the east. Views further restricted by section of noise barrier adjacent to road above false cutting New mixed woodland planting across the bund.	<b>No view:</b> Established mixed woodland planting across the screening bund will strengthen the screening of views, and will help to soften the visual impact of the noise barrier fencing.
109900-110400	Kingswells wooded farmland	NBC	<b>Intermittent view:</b> The road would be on embankment as it crosses the hillside above Fairley Home Farm, with views across rolling farmland towards the southern side of Brimmond Hill. Sections of noise barrier block views to the west at Woodside of Cloghill. New mixed and scrub woodland planting adjacent to the road and to the west of the noise barrier fencing.	<b>Intermittent view:</b> The established mixed and scrub woodland on the embankment will disrupt some of the views to the west and will soften the visual impact of the noise barrier fencing.

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Chainages	Landscape/Settlement Character Area(s)	View from Northbound Carriageway (NBC), Southbound (SBC), Eastbound (EBC) or Westbound (WBC)	View from Proposed Road, Winter Year of Opening	View from Proposed Road, Summer 15 Years of Opening
110380-111100	Kingswells wooded farmland	SBC	<b>Restricted view:</b> The majority of views to the east would be contained by cutting, with occasional views to the east across the Kingswells settlement. New mixed woodland planting along part of the cutting and between existing woodland stands to screen nearby properties.	<b>No view:</b> Established mixed woodland planting adjacent to the road will strengthen the screening from the cutting to contain views out to the east.
110400-111100	Kingswells wooded farmland	NBC	<b>No view:</b> Road would be in deep cutting through the hillside above Derbeth Farm, which would contain views out to the west. Clusters of new mixed and scrub woodland planting at the top of the embankment.	<b>No view:</b> Road will be in deep cutting through the hillside above Derbeth Farm, which will contain views out to the west. Clusters of established mixed and scrub woodland planting at the top of the embankment.
111100-111200	Kingswells wooded farmland	NBC	<b>Open view:</b> Views out to the west towards Brimmond Hill as the road moves from shallow cutting to embankment to approach North Kingswells Junction (see Northern Leg assessment). Scrub woodland planting along top of embankment	<b>Intermittent view:</b> Views through matured scrub woodland out to the west towards Brimmond Hill as the road moves from shallow cutting to embankment to approach North Kingswells Junction (see Northern Leg assessment).
111100-111200	Kingswells wooded farmland	SBC	<b>Open view:</b> The road would be in shallow cutting with views over new drystone wall across sloping farmland towards the settlement of Kingswells.	<b>Open view:</b> The road will be in shallow cutting with views over new drystone wall across sloping farmland towards the settlement of Kingswells.
Overall % of the route with:				
Open View			12020m 32.5%	3570m 9.7%
Intermittent View			6460m 17.5%	12290m 33.3%
Restricted View			9170m 24.8%	6680m 18.1%
No View			9290m 25.2%	14400m 38.9%

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**Table 32.7 – View from the Road, A90 South of Aberdeen**

Division	Landscape/ Settlement Character Area(s)	View from Northbound Carriageway (NBC) or Southbound Carriageway (SBC)	View from Existing Road in Summer	View from Existing Road, Winter Year of Opening	View from Existing Road, Summer 15 Years of Opening
Roadside of Findon to Southern Tie-In	Hare Moss open farmland & Kincardine Cliffs coast	NBC	<b>Open view:</b> Views across rolling farmland towards Duff's Hill woodland, with some minor disruption by existing embankments and roadside vegetation.	<b>Open view:</b> Views across rolling farmland towards Duff's Hill woodland, with some minor disruption by existing embankments and roadside vegetation and new access track in field west of A90 mainline.	<b>Open view:</b> Views across rolling farmland towards Duff's Hill woodland, with some minor disruption by existing embankments and roadside vegetation.
Roadside of Findon to Southern Tie-In	Hare Moss open farmland & Kincardine Cliffs coast	SBC	<b>Intermittent view:</b> Views towards the North Sea broken up by tree and hedgerow planting around the Cairnrobin Recycling Centre.	<b>Intermittent view:</b> Views towards the North Sea broken up by tree and hedgerow planting around the Cairnrobin Recycling Centre.	<b>Intermittent view:</b> Views towards the North Sea broken up by tree and hedgerow planting around the Cairnrobin Recycling Centre.
Southern Tie-In to Bothiebrig Access	Hare Moss open farmland, Kincardine Cliffs coast & Loirston open farmland	NBC	<b>Intermittent view:</b> Views across rolling farmland towards Duff's Hill woodland would begin to be disrupted by the rising farmland as the road heads north past Blue Hill.	<b>Intermittent view:</b> The majority of views to the west would be open, but would be disrupted by the rising landform as the road runs north. New access track to Bothiebrig would be visible to the north-west.	<b>Intermittent view:</b> The majority of views to the west will be open, but will be disrupted by the rising landform as the road runs north.
Southern Tie-In to Mains of Charleston	Hare Moss open farmland, Kincardine Cliffs coast & Loirston open farmland	SBC	<b>Intermittent view:</b> The undulating farmland and existing vegetation adjacent to the road cause disruption to many of the views to the east, with views across the surrounding farmland towards the North Sea.	<b>Intermittent view:</b> The new cuttings for the road would remove some of the existing vegetation adjacent to the road. View over new ponds cut into the field immediately south of Mains of Charleston at Tie-In. New scrub and Riparian planting around the pond. Undulating farmland would disrupt views to the east.	<b>Intermittent view</b> Established scrub and riparian woodland will restrict views to the ponds and further disrupt views to the east. Undulating farmland would disrupt views to the east beyond ponds.
Bothiebrig Access to Mains of Charleston	Loirston open farmland	NBC	<b>Restricted view:</b> The rising landform to the west as the road approaches the cutting for the existing Charleston Junction obstructs the majority of views out from the road.	<b>Restricted view:</b> The cuttings for the new junction would move the rising hillside back from the road, but the northbound slip road would restrict the majority of views out, with limited views along the slip road.	<b>Restricted view:</b> The cuttings for the new junction will move the rising hillside back from the road, but the northbound slip road will restrict the majority of views out, with limited views along the slip road.

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Division	Landscape/ Settlement Character Area(s)	View from Northbound Carriageway (NBC) or Southbound Carriageway (SBC)	View from Existing Road in Summer	View from Existing Road, Winter Year of Opening	View from Existing Road, Summer 15 Years of Opening
Mains of Charleston to Existing Charleston Overbridge	Loirston open farmland	NBC	<b>Restricted view:</b> Short range views up the existing slip road as it curves round to the A956. Stands of mixed scrub woodland on landlocked areas break up views. Areas of bare rock are visible from previous rock cutting.	<b>No view:</b> The embankments for the slip roads and structure of the new overbridge would contain views out from the carriageway. Clusters of new scrub woodland planting across the slip road embankments.	<b>No view:</b> The embankments for the slip roads and structure of the new overbridge will contain views out from the carriageway. Clusters of established scrub woodland planting across the slip road embankments.
Mains of Charleston to Cove Road	Loirston open farmland	SBC	<b>Restricted view:</b> The cuttings into the adjacent farmland for the existing slip road obstruct the majority of views to the east.	<b>Intermittent view:</b> The new embankments for the southbound slip roads would cut into the adjacent farmland, allowing clearer views to the east towards the North Sea	<b>Intermittent view:</b> The new embankments for the southbound slip roads will cut into the adjacent farmland, allowing clearer views to the east towards the North Sea.
Cove Road to Lochview Croft	Loirston open farmland	SBC	<b>No view:</b> Views from the road are contained by the rock cutting and slip roads for the existing Charleston Junction.	<b>No view:</b> The embankments for the slip roads and structure of the new overbridge would contain views out from the carriageway. Clusters of new standard tree planting on the slip road embankments.	<b>No view:</b> The embankments for the slip roads and structure of the new overbridge will contain views out from the carriageway. Clusters of standard tree planting on the slip road embankments.
Existing Charleston Overbridge to Road to Maryculter	Loirston open farmland	NBC	<b>No view:</b> Views to the west are contained by the rock cutting for the existing Charleston Junction.	<b>Restricted view:</b> The embankments for the new slip road would move the road cutting back from the edge of the carriageway, easing the enclosure from the rock cutting and allowing limited views across the slip road. New scrub woodland planting prior to Road to Maryculter.	<b>Restricted view:</b> The embankments for the new slip road will move the road cutting back from the edge of the carriageway, easing the enclosure from the rock cutting and allowing limited views across the slip road. Established scrub woodland planting will further restrict view west immediately prior to Road to Maryculter.
Lochview Croft to Northern Tie-In	Loirston open farmland & Kincorth Hill	SBC	<b>Restricted view:</b> The existing cutting for the road as it passes Charleston and the existing vegetation around the dwellings obstruct the majority of the views to the east, with glimpses across the rolling farmland at the northern end of the settlement.	<b>Restricted view:</b> The new cutting and slip roads for the junction would help to ease the sense of enclosure from the junction, but the surrounding landform would continue to contain the majority of views to the east. New mixed woodland planting at northern Tie-In to screen Bloo Hoose; Noise barrier at Newtonsyde adjacent to slip road will further restrict views.	<b>Restricted view:</b> The new cutting and slip roads for the junction will help to ease the sense of enclosure from the junction, but the surrounding landform will continue to contain the majority of views to the east. Established mixed woodland planting at northern Tie-In and standard tree planting adjacent to road.

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Division	Landscape/ Settlement Character Area(s)	View from Northbound Carriageway (NBC) or Southbound Carriageway (SBC)	View from Existing Road in Summer	View from Existing Road, Winter Year of Opening	View from Existing Road, Summer 15 Years of Opening
Road to Maryculter to Northern Tie-In	Loirston open farmland & Den of Leggart open farmland	NBC	<b>Open view:</b> Views across rolling farmland_towards Aberdeen and the River Dee valley.	<b>Open view:</b> Views across rolling farmland_towards Aberdeen and the River Dee valley.	<b>Open view:</b> Views across rolling farmland_towards Aberdeen and the River Dee valley
Northern Tie-In to Drumforskie Cottage	Loirston open farmland & Den of Leggart open farmland	NBC	<b>Open view:</b> Views across rolling farmland_towards Aberdeen and the River Dee valley.	<b>Open view:</b> Views across rolling farmland_towards Aberdeen and the River Dee valley.	<b>Open view:</b> Views across rolling farmland_towards Aberdeen and the River Dee valley.
Northern Tie-In to Drumforskie Cottage	Loirston open farmland & Kincorth Hill	SBC	<b>Open view:</b> Views towards the southern end of Loirston Country Park across undulating farmland.	<b>Open view:</b> Views towards the southern end of Loirston Country Park across undulating farmland.	<b>Open view:</b> Views towards the southern end of Loirston Country Park across undulating farmland.



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**Table 32.8 – Comparison of Driver Stress Levels, Do Minimum 2027 and Proposed Scheme 2027**

Link Description	Direction	Do Minimum				Proposed Scheme			
		Road Class <sup>1</sup>	Average Peak Hourly Flow per Lane <sup>2</sup> (Flow Units/ Hour)	Average Vehicle Speed (km/h)	Driver Stress	Road Class <sup>1</sup>	Average Peak Hourly Flow per Lane <sup>2</sup> (Flow Units/ Hour)	Average Vehicle Speed (km/h)	Driver Stress
A956 Charleston to Altens	N/B	DC	1400	65	Moderate	DC	1375	66	Moderate
	S/B		1465	62	Moderate		1403	66	Moderate
A90 (T) Charleston to Bridge of Dee	N/B	DC	1305	94	Moderate	DC	1138	94	Low
	S/B		1310	94	Moderate		1143	94	Low
B9077 South Deeside Road (east of B979)	E/B	SC	312	49	High	SC	250	51	Moderate
	W/B		242	51	Moderate		195	53	Moderate
B9077 South Deeside Road (west of B979)	E/B	SC	153	54	Moderate	SC	48	57	Moderate
	W/B		160	54	Moderate		133	55	Moderate
B979 between B9077 and A93.	N/B	SC	314	65	Moderate	SC	199	65	Moderate
	S/B		359	65	Moderate		230	65	Moderate
Baillieswells Road (Bieldside to Kingswells Road)	N/B	SC	275	50	Moderate	SC	90	56	Moderate
	S/B		118	55	Moderate		47	57	Moderate
A944 Aberdeen to Westhill Road (east of Kingsford Industrial Estate)	E/B	DC	942	93	Low	DC	805	93	Low
	W/B		994	90	Low		836	93	Low
A944 Aberdeen to Westhill Road (west of Kingsford Industrial Estate)	E/B	DC	968	92	Low	DC	937	65	Moderate
	W/B		899	65	Moderate		1620	89	High
B979 between A944 and A96	N/B	SC	173	53	Moderate	SC	118	55	Moderate
	S/B		494	39	High		292	50	Moderate
B979 between A93 and A944	N/B	SC	281	69	Moderate	SC	293	68	Moderate
	S/B		550	59	Moderate		419	64	Moderate
AWPR – Charleston Junction to Cleanhill Junction	E/B	DC	-	-	-	DC	740	102	Low
	W/B		-	-	-		747	101	Low
AWPR – Cleanhill Junction to Milltimber Junction	N/B	DC	-	-	-	DC	1184	100	Low
	S/B		-	-	-		1231	100	Moderate

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Link Description	Direction	Do Minimum				Proposed Scheme			
		Road Class <sup>1</sup>	Average Peak Hourly Flow per Lane <sup>2</sup> (Flow Units/Hour)	Average Vehicle Speed (km/h)	Driver Stress	Road Class <sup>1</sup>	Average Peak Hourly Flow per Lane <sup>2</sup> (Flow Units/Hour)	Average Vehicle Speed (km/h)	Driver Stress
AWPR – Milltimber Junction to A944 Junction	N/B	DC	-	-	-	DC	1663	93	High
	S/B		-	-	-		1448	100	Moderate
AWPR – A944 Junction to North Kingswells Junction	N/B	DC	-	-	-	DC	1873	90	High
	S/B		-	-	-		1657	95	High

<sup>1</sup> Road Class: DC = Dual Carriageway, and SC = Single Carriageway.

<sup>2</sup> Derived Flow Units/Hour: A car or light vehicles equal one flow unit. A commercial vehicle or HGV over 1.5 tonnes' weight or a public service vehicle equals 3 flow units.

A 60/40 split has been assumed for the division of the average peak hourly flow per lane.