# Appendix 9.1

## NMU Amenity Value

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# 1 NMU Amenity Value

## 1.1 Introduction

1.1.1 The assessment of the potential impacts of the Proposed Scheme on pedestrians, cyclists, and equestrians (non-motorised users (NMU)) was undertaken with reference to Design Manual for Roads and Bridges (DMRB) Volume 11, Section 3, Part 8 (Highways Agency et. al. 1993).

1.1.2 Under this guidance the key impacts that have been assessed include the following:

- Journey length and accessibility – changes in journey length may be a result of realigning routes, diversions or even closures
- Amenity value – amenity is defined here as 'the relative pleasantness of the journey' in accordance with DMRB
- Ease of access to the outdoors

1.1.3 In order to determine 'the relative pleasantness' a number of factors have been considered which could affect the amenity value of a route. This appendix contains the data used to assess the permanent (operational phase year 1) significance of impact on NMU amenity in **Chapter 9.**

## 1.2 Methodology

1.2.1 Although changes in amenity are subjective, for the purpose of this assessment it is considered that where NMUs would experience a change in traffic (increased flows), noise, visual impact and/ or air quality, there would be an impact on amenity, either beneficial or adverse.

1.2.2 Where existing NMU routes are accessed from existing at-grade crossing points (CPs), it is considered that there would be an improvement in NMU safety where replacement access is provided via dual carriageway underpasses.

1.2.3 Therefore, potential changes in amenity were considered where:

- Existing CPs for paths are affected by the Proposed Scheme
- Noise and air quality would potentially increase or decrease
- The Proposed Scheme would be visible from existing paths/ community land

1.2.4 The table below provides criteria for the significance of impact for changes to amenity value.

*Table 1: Significance of Impact on NMU Amenity*

| Significance | Characteristics |
|---|---|
| Substantial | Where there is a substantial change in the existing view and/ or air quality and/ or a major change in noise levels and/ or substantial change in traffic flows resulting in change in safety |
| Moderate | Where there is moderate or noticeable change in the existing view and/ or air quality and/ or a moderate change in noise levels and/ or moderate change in traffic flows resulting in change in safety |
| Slight | Where there is slight or barely perceptible change in the existing view and/ or air quality and/or a slight change in noise levels and/ or slight change in traffic flows resulting in change in safety |
| Negligible/ No change | Very little or no discernible change from baseline conditions equating to a no-change situation |

## 1.3 Potential Impacts - Assessment Data

1.3.1 The four categories used to determine an overall change in amenity value are safety, visual, air quality and noise impacts. Therefore, the amenity value assessment in **Chapter 9** was undertaken based on data provided in relation to:

- Predicted traffic flows
- Predicted noise levels at receptors representative of NMU routes
- Predicted air quality at receptors representative of NMU routes
- Predicted impacts on views from receptors representative of NMU routes

1.3.2 This data is set out below.

### Safety

1.3.3 Changes in safety can be considered where there may be a change in traffic flow affecting NMU users. **Table 2** and **Table 3** below show the predicted traffic flows along the Balsporran/ Drumochter local access road. The below data is relevant to NMU1 only, where this route is altered as a result of the Proposed Scheme.

*Table 2: Predicted traffic flows – eastbound Balsporran/ Drumochter local access road*

| Eastbound | Total Flow | % HVG |
|---|---|---|
| AADT | 40 | 4% |
| AM Peak | 6 | 0% |
| PM Peak | 6 | 0% |

*Table 3: Predicted traffic flows – westbound Balsporran/ Drumochter local access road*

| Westbound | Total Flow | % HVG |
|---|---|---|
| AADT | 23 | 4% |
| AM Peak | 3 | 0% |
| PM Peak | 4 | 0% |

### Visual

1.3.4 **Chapter 14** considers views from receptors with potential to be impacted by the Proposed Scheme. Representative outdoor and built receptors have been considered, some of which correspond to the NMU routes identified in **Chapter 9**.

1.3.5 **Table 1** below shows the visual receptor assessment table, indicating representative viewpoints from the variety of NMU routes. Receptors not relevant to NMU routes have been removed; and the full table of receptors and potential impacts is contained within **Chapter 14**. Please refer to **Drawing 14.4** (contained in **Volume 3**) for the receptor locations.

*Table 1: Visual receptor assessment table*

| Viewpoint receptor | Sensitivity of receptor | Operation year 1 | | | | Operation years 15-25 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Elements of Proposed Scheme visible | Description of embedded & additional mitigation measures | Magnitude of visual change | Overall significance of effect | Elements of Proposed Scheme visible | Description of mitigation embedded & additional measures | Magnitude of visual change | Overall significance of effect |
| 1. NCN7 at Dalnaspidal<br>ch.000<br>NN 64311 73557<br>(Outdoor receptor)<br>Ref. Drawing 14.5, photo viewpoint 1 in Volume 3<br><br>Relevant to NMU1 | Medium | SuDS basin 001 will be visible to the south-west of this receptor.<br>Earthworks associated with NCN7 realigned to the west of the School House, carriageway and Dalnaspidal northbound access will be visible. | Earthworks to the Proposed Scheme will be designed to be as natural as possible with variable gradients.<br>SuDS basin bunds and embankments will be feathered into the adjacent topography.<br>Appropriate native, predominantly broad leaf, planting to be proposed in and around the SuDS basin and embankments. | High | **Substantial/ Moderate** | The proposed A9 carriageway and NMU/ access road will be visible from the receptor.<br>The tree belt, screens and earthworks will be visible.<br>Bunds to SuDS basin 001 and 003 will remain partially visible; where existing non-native coniferous trees are removed, they will be replaced by mixed native upland tree species.<br>The western sides of the basins may be slightly visible due to close proximity to the HML railway, meaning these structures may remain unplanted by trees. | Established scrub/ shrub and broad leaf tree planting will have replaced any of the tree belt and woodland lost during construction phase.<br>New planting will reduce the extent of the A9 that might be visible from the receptor. | Medium/ Low | **Moderate/ Slight (not significant)** |

| Viewpoint receptor | Sensitivity of receptor | Operation year 1 | | | | Operation years 15-25 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Elements of Proposed Scheme visible | Description of embedded & additional mitigation measures | Magnitude of visual change | Overall significance of effect | Elements of Proposed Scheme visible | Description of mitigation embedded & additional measures | Magnitude of visual change | Overall significance of effect |
| 2. Level Crossing at Dalnaspidal ch. 350<br>NN 64519 73159<br>Ref. Drawing 14.6, photo viewpoint 2 in Volume 3<br>(Built & Outdoor receptor)<br><br>Relevant to NMU2, 3 and 4 | Medium | The associated earthworks and bridge abutment of the northbound underbridge access will be visible, approximately 30m to the northeast.<br>Earthworks for SuDS basins 003 and 004 will be visible to the southeast and northwest of this receptor.<br>The (western) façade of the reconstructed General Wade bridge will be visible.<br>The SuDS basin fills the majority of this space and could look like a highly-engineered structure.<br>Earthworks and surfacing of the realigned NCN7 to the west of the School House will also be visible. | Earth embankments designed to imitate adjacent natural land form, including variable gradients, avoidance of uniform embankments, and use of natural rock to form 'outcrops' around bridge abutment and water course outflow, enhancing the views immediately on installation<br>Stone cladding to the western façade of the existing underbridge that may have been salvaged from the now demolished General Wade Bridge (viewpoint 4, NN 64655 73527), recycled for inclusion within the elevation/ façade of the new underbridge superstructure, supplemented by additional stone as necessary, subject to agreement with Transport Scotland (TRBO)<br>A mosaic of wet and acid grassland, heather, moss and wetland planting mimic natural groundcover.<br>Woodland/ tree belts replace those removed by construction of the SuDS basins.<br>Effective and extensive screening provided by mixed native conifer and broadleaf shrub and tree planting. | High | **Substantial/ Moderate** | Earthworks and the tree belt screen views from the Old School House.<br>Stone from the General Wade bridge reused within the façade of new underbridge superstructure – subject to agreement with Transport Scotland will resonate with the appearance of the existing structure<br>The watercourse cascade and rocky embankments will appear to be more natural features.<br>By this time the proposed planting associated with all road embankments, underbridge and SuDS basins will be partially established and the features will merge with the local landscape context. | Views of the General Wade bridge and water course cascade features will be replaced by earth embankments and bunds that screen views of the A9, and a new watercourse and road access underbridge abutment with a stone façade – subject to agreement with Transport Scotland that creates an impression of visual continuity, assisting in reducing the impact as additional mitigation.<br>New mix tree planting will in part visually replace or compensate for the conifer tree belt lost during construction phase, as well as providing additional beneficial screening. | Medium | **Moderate** |

| Viewpoint receptor | Sensitivity of receptor | Operation year 1 | | | | Operation years 15-25 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Elements of Proposed Scheme visible | Description of embedded & additional mitigation measures | Magnitude of visual change | Overall significance of effect | Elements of Proposed Scheme visible | Description of mitigation embedded & additional measures | Magnitude of visual change | Overall significance of effect |
| 3. Station Cottages<br>ch. 550<br>NN 64671 73421<br>Ref. Drawing 14.7, photo viewpoint 3 in Volume 3<br>(Built receptor)<br><br>Relevant to NMU1 | High | Superstructure structure of underbridge access works (ch. 500-600) will be visible to the south from this receptor at an acute angle from the Station Cottages south and east elevation/ entrance.<br>The southbound underbridge access will cause loss of the shelter belt north of the Proposed Scheme which is partially visible from this location.<br>Earthworks to SuDS basin 004 will be visible around 40m southeast.<br>A new footpath to Type A lay-by 77 will be partially visible to the north.<br>Views to the Proposed Scheme are short distance and so adverse effects are anticipated. | Earthworks will be designed to be as natural as possible with variable gradients.<br>SuDS basin bunds and embankments will be feathered into the adjacent topography.<br>The underbridge access is designed to conceal structural concrete from direct view from the receptor, and it is proposed that natural stone (both dressed and random-rubble) is used to as a façade to visible structural concrete - subject to agreement with Transport Scotland (TRBO). Signs are kept to a minimum.<br>Appropriate native, predominantly broadleaf, planting to be proposed in and around the SuDS basin and embankments to compensate for loss of existing coniferous woodland and shelter belts during construction phase. | High | **Substantial** | The new NCN7/ access road will be visible from the receptor (it directly serves the Cottages).<br>Due to sightline clearance, the entrance to the underbridge access will remain visible.<br>The tree belt, screens and earthworks will be visible to the south.<br>Lower scrub-covered bund to SuDS basin 004 will remain partially visible; new tree planting along the western side of the basin will be limited due to close proximity to the HML railway. | Established scrub/ shrub and broad leaf tree planting will replace any of the tree belt and woodland lost during construction phase.<br>New planting in place at operation year 1 will reduce the extent of the A9 and any proposed signage that might be visible from the receptor. | Medium/ Low | **Moderate/ Slight** |

| Viewpoint receptor | Sensitivity of receptor | Operation year 1 | | | | Operation years 15-25 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Elements of Proposed Scheme visible | Description of embedded & additional mitigation measures | Magnitude of visual change | Overall significance of effect | Elements of Proposed Scheme visible | Description of mitigation embedded & additional measures | Magnitude of visual change | Overall significance of effect |
| 4. General Wade's Military Bridge<br>ch. 500<br>NN 64655 73527<br>Ref. Drawing 14.8, photo viewpoint 4 in Volume 3<br>(Outdoor receptor)<br><br>Relevant to NMU5 | Medium | Receptors include potential NCN7 core path cyclists and walkers from this viewpoint.<br>Although the Proposed Scheme carriageway and earthworks traverse the view from north to south and the receptor is approximately 280m from the Proposed Scheme, the viewpoint is in an elevated position and therefore 'removed' from it; the focus of visibility is towards long-distance panoramas to the southwest.<br>The Proposed Scheme carriageway, access track south of it, Dalnaspidal underbridge access and SuDS basins 000, 001, 003 and part of 004 might be partially visible. | Most of the earthwork will be inconspicuous from this receptor.<br>A mosaic of acid grassland, heather, gorse moss and wetland planting mimic natural groundcover.<br>There is existing shelterbelt planting on the east side of the carriageway that will continue to screen the works from the east, together with areas of wet and dry scrub planting that will transition the proposed planting into the existing flora. | High | **Substantial/ Moderate** | Species-appropriate planting integrate the earthwork groundcover of the Proposed Scheme into the existing topography and vegetation both in terms of colour and texture.<br>By this time the proposed planting associated with all road embankments and SuDS basins will be established and the features will merge with the local landscape context. | Established scrub/ shrub and broad leaf tree planting will replace any of the tree belt and woodland lost during construction phase.<br>New planting will reduce the extent of the A9 that might be visible from the receptor.<br>Where removed due to construction, existing non-native conifers that will have been replaced with native mixed species will now be semi-mature, softening the utilitarian appearance of plantation woodland to the east. | Low | **Slight** |
| 6. Track to Loch Garry<br>ch. 200 approx.<br>NN 64237 72733<br>Ref. Drawing 14.1, photo viewpoint 6 in Volume 3<br>(Outdoor receptor)<br><br>Relevant to NMU2,3 and 4 | High | Although the A9 earthworks will traverse the view from north to south from this location, the receptor is just less than 1km from the Proposed Scheme which, with areas of intervening existing woodland, will result in limited effects on visibility of the Proposed Scheme. | Most of the A9 earthworks will be inconspicuous from this receptor.<br>A mosaic of wet and acid grassland, heather, moss and wetland planting mimic natural groundcover.<br>Woodland/ tree belts replace those removed by construction of the SuDS basins. | Medium/ Low | **Moderate/ Slight (not significant** | Species-appropriate planting integrate the earthwork groundcover of the Proposed Scheme into the existing topography and vegetation both in terms of colour and texture.<br>By this time the proposed planting associated with all road embankments and SuDS basins will be established and the features will merge with the local landscape context. | Established scrub/ shrub and broad leaf tree planting will replace any of the tree belt and woodland lost during construction phase.<br>New planting will reduce the extent of the A9 that might be visible from the receptor. | Low | **Slight** |

| Viewpoint receptor | Sensitivity of receptor | Operation year 1 | | | | Operation years 15-25 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Elements of Proposed Scheme visible | Description of embedded & additional mitigation measures | Magnitude of visual change | Overall significance of effect | Elements of Proposed Scheme visible | Description of mitigation embedded & additional measures | Magnitude of visual change | Overall significance of effect |
| 8. General Wade's Military Road<br>ch. 1,550<br>NN 64020 74347<br>Ref. Drawing 14.12, photo viewpoint 8 in Volume 3<br>(Outdoor receptor)<br><br>Relevant to NMU5 | Medium | Views of the Proposed Scheme from this eastern receptor (from ch. 500 to ch. 2700) are short-distance.<br>The Proposed Scheme carriageway and earthworks will traverse the view from GWMR; however, views of the Proposed Scheme are screened by landform or filtered by existing shelter belts from ch. 500 to ch. 2500. | Visual screening provided by mixed native conifer and broadleaf shrub and tree planting.<br>There is existing shelterbelt planting on the east side of the carriageway that will continue to screen the works from the east;<br>Where removed by construction of the embankments and SuDS basins shall be replaced by compensatory planting of native mixed species trees as a part of the Landscape and Ecology Mitigation proposals. | High | **Substantial/ Moderate** | Earthworks, together with the tree belt, screen views and integrate the Proposed Scheme into the existing topography and vegetation.<br>By this time the proposed planting associated with all road embankments, underbridge and SuDS basins will be established and the features will merge with the local landscape context. | Where removed due to construction, existing non-native conifers that will have been replaced with native mixed species will now be semi-mature, softening the utilitarian appearance of plantation woodland to the east.<br>Woodland/ tree belts also replace those removed by construction of the SuDS basins.<br>Effective and extensive screening provided by mixed native conifer and broadleaf shrub and tree planting. | Medium/ Low | **Moderate/ Slight (not significant)** |
| 9. Track along Allt Coire Dhomhain<br>ch. 2900 approx.<br>NN 62091 75171<br>Ref. Drawing 14.13, photo viewpoint 9 in Volume 3<br>(Outdoor receptor)<br><br>Relevant to NMU6 | Medium | This receptor has mid to long-distance views to the Proposed Scheme.<br>A9 carriageway and embankment earthworks between ch 2,500 and ch. 3200 will be visible to the west of the northbound carriageway.<br>There will be cutting visible on the eastern side of the southbound carriageway resulting from the construction of the pedestrian underpass at ch. 3000.<br>This constitutes a small portion of the view. | Earthworks will not be conspicuous from this receptor.<br>A mosaic of wet and acid grassland, heather moss and wetland planting mimicking natural groundcover will blend the embankments and cuttings into the adjacent terrain, although the new groundcover will appear greener and texturally different for some years. | Low | **Moderate/ Slight (not significant)** | From this location, there are clear views of the Proposed Scheme although distance and topography help to obscure views.<br>By this time the proposed planting associated with all road embankments and SuDS basins will be established and the features will merge with the local landscape context. | Established native mixed species tree planting will replace non-native coniferous shelter belt lost through construction. | Low | **Slight** |

| Viewpoint receptor | Sensitivity of receptor | Operation year 1 | | | | Operation years 15-25 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Elements of Proposed Scheme visible | Description of embedded & additional mitigation measures | Magnitude of visual change | Overall significance of effect | Elements of Proposed Scheme visible | Description of mitigation embedded & additional measures | Magnitude of visual change | Overall significance of effect |
| 10. Highland Mainline railway<br>ch. 2,900<br>NN 63262 75142<br>Ref. Drawing 14.14, photo viewpoint 10 (north) and Drawing 14.15, photo viewpoint 10 in Volume 3 (south)<br>(Outdoor receptor)<br><br>Relevant to NMU1 | Medium | The railway follows the Proposed Scheme for the whole of the study area, and therefore cutting and embankment earthworks and most SuDS basins will be visible from this receptor.<br>The views of the Proposed Scheme lie within approximately 300m of the railway. The view of the A9 from the train is continuous but fleeting. | There will be limited screening from woodland and shrub.<br>The non-uniform embankments of the Proposed Scheme would be as natural as possible and integrate with the highly sensitive landscape | High | **Substantial/ Moderate** | There will be partial views of the Proposed Scheme.<br>Naturally graded earthwork will mitigate views from the railway, integrating the Proposed Scheme with the surrounding landform. | The landscape here is very open and any planting would look to mimic the existing situation with low level planting; by Year 15. native mixed species, scrub and grasses will be established, blending with the adjacent planting patterns | Medium/ Low | **Moderate/ Slight (not significant)** |

| Viewpoint receptor | Sensitivity of receptor | Operation year 1 | | | | Operation years 15-25 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Elements of Proposed Scheme visible | Description of embedded & additional mitigation measures | Magnitude of visual change | Overall significance of effect | Elements of Proposed Scheme visible | Description of mitigation embedded & additional measures | Magnitude of visual change | Overall significance of effect |
| 14. Balsporran Cottages<br>ch. 6,800<br>NN 62712 79181<br>Ref. Drawing 14.20, photo viewpoint 14 (North) and Drawing 14.21, photo viewpoint 14 (South) in Volume 3<br>(Built & Outdoor receptor)<br><br>Relevant to NMU8 | High | This receptor is approximately 80m from the Proposed Scheme.<br>Construction of a car park at ch. 6,800 and SuDS basin 069 would be highly visible from here, as will the access road for Balsporran Cottages from the underbridge north of Drumochter Lodge (which will double as a section of NCN7) and a relatively minor cutting on the east side of the southbound carriageway opposite. | The SuDS basin bunds and embankments will be feathered into the adjacent topography.<br>The reinstated car parking facilities at this location will be designed to minimise visual change while offering an improved visitor experience.<br>The new NCN7/ local access will be designed to integrate with the adjacent topography and signs are kept to an optimal minimum.<br>Appropriate native, predominantly broad leaf, planting to be proposed in and around the SuDS basin and embankments and to improve river side habitat while screening the car park.<br>To the northeast of the carriageway here is some shelterbelt planting that will continue to screen the works from the east; | High | **Substantial** | The new NMU/ access road will be visible from the receptor (it directly serves the cottages).<br>Due to sightline clearance, the entrance to the underbridge access will remain visible.<br>The tree belt, screens and earthworks will be visible to the south.<br>Lower scrub-covered bund to SuDS basin 004 will remain partially visible; new tree planting along the western side of the basin will be limited due to close proximity to the HML railway. | Established scrub/ shrub and broad leaf tree planting will replace tree belt and woodland lost during construction phase.<br>New planting will reduce the extent of the A9 and any proposed signage that might be visible from the receptor.<br>Where removed due to construction, existing non-native conifers that will have been replaced with native mixed species will now be semi-mature, softening the utilitarian appearance of plantation woodland to the east. | Medium/ Low | **Moderate/ Slight (not significant)** |

| Viewpoint receptor | Sensitivity of receptor | Operation year 1 | | | | Operation years 15-25 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Elements of Proposed Scheme visible | Description of embedded & additional mitigation measures | Magnitude of visual change | Overall significance of effect | Elements of Proposed Scheme visible | Description of mitigation embedded & additional measures | Magnitude of visual change | Overall significance of effect |
| 18. NCN7 North of Drumochter Lodge<br>ch. 6,900<br>NN 63059 79985<br>Ref. Drawing 14.26, photo viewpoint 18 (North) and Drawing 14.27, photo viewpoint 18 (South) in Volume 3<br>(Outdoor receptor)<br><br>Relevant to NMU1 | High | Views from this location are mid-distance.<br>Earthworks and construction of the carriageway to the Drumochter underbridge access will be highly visible and there will be loss of existing coniferous woodland and shelter belt to both the southern and north carriageway (east and west of the A9). | Earthworks will be graded to form natural slopes, feathering into the surrounding landscape as far as possible while avoiding deep peat.<br>Loss of woodland will be minimised, but the substantial areas of the woodland to the west of the carriageway will be removed. New native and wet woodland and dry earth will be planted in adjacent areas to partially compensate for the loss<br>A mosaic of wet and acid grassland, heather to facilitate natural regeneration of wetland planting mimicking natural groundcover which will integrate the embankments and cuttings. | High | **Substantial** | Bunds and embankments of the underbridge construction; the new carriageway; tree planting screening the A9 from Drumochter Lodge will remain highly visible, as will the access road and underbridge structure to the south but by this time the proposed planting associated with all road embankments and SuDS basins will be established and the features will merge with the local landscape context. | Established scrub/ shrub and broad leaf tree planting will have replaced any of the tree belt and woodland lost during construction phase.<br>New planting will reduce the extent of the A9 that might be visible from the receptor.<br>Where removed due to construction, existing non-native conifers that will have been replaced with native mixed species will now be semi-mature, softening the utilitarian appearance of plantation woodland; edge habitat will have become 'feathered' to create the appearance of naturally occurring/ self-seeded regenerating Caledonian habitat woodland. | Medium | **Moderate** |

### Air Quality

1.3.6 **Chapter 16** considers the potential impacts of the Proposed Scheme on Air Quality. NMU routes are not specifically detailed within that chapter but the following assessment has been undertaken to inform the potential change in air quality relative to the NMU routes identified within **Chapter 9.**

1.3.7 The NMU routes within 200m of Project 7 extents are relevant with respect to the 1-hour mean objective for $NO_2$ (200 µg $m^{-3}$). Defra's Local Air Quality Management (TG16) guidance states that exceedances of the 1-hour mean objective are not likely if annual mean $NO_2$ concentrations are below 60 µg $m^{-3}$.

1.3.8 Maximum monitored $NO_2$ concentration for background sites is 8.5 µg $m^{-3}$ and for roadside sites is 33.9 µg $m^{-3}$. These sites represent a range of relevant exposure for the NMU routes and are both well below 60 µg $m^{-3}$. Therefore, the change in amenity value is expected to be negligible for all NMU routes for Project 7 in terms of air quality.

1.3.9 For the construction phase of the scheme, the NMU routes are considered low sensitivity receptors as public exposure to dust emissions that contribute to elevated local PM10 concentrations is expected to be transient.

1.3.10 Overall the construction phase, in terms of air quality, is assessed as presenting a medium level of risk of impacts, following IAQM (2014) '*Guidance on the assessment of dust from demolition and construction*'. However, under appropriate construction stage best practice dust control measures as mitigation, the risk of impacts will be insignificant, and are not likely to affect the amenity value of the NMU routes.

### Noise

1.3.11 **Chapter 17** considers the potential noise and vibration impacts of the Proposed Scheme. This assessment has considered sensitive receptors including residential and outdoor receptors.

1.3.12 **Table 2** on the page below shows the potential magnitude of change for NMU receptors. Please refer to **Drawings 17.1** and **17.2** (**Volume 3**) for noise receptor locations. Further detailed information can be found in **Appendix 17.1** and **17.4** contained within **Volume 2.**

*Table 2: Road traffic noise levels for NMU receptors ($L_{A10,18h}$ dB Free-Field)*

| NMU ref. | X | Y | Do-minimum 2026 | Do-something 2026 | Short term change | Short term magnitude of change | Do-minimum 2026 | Do-something 2041 | Long term change | Long term magnitude of change |
|---|---|---|---|---|---|---|---|---|---|---|
| NMU1_1 | 265279.83 | 772773.40 | 65.1 | 64.3 | -0.8 | Negligible Benefit | 64.4 | 64.6 | -0.5 | Negligible Benefit |
| NMU1_2 | 264427.05 | 773375.69 | 56.7 | 53.5 | -3.2 | Moderate Benefit | 53.7 | 53.7 | -3.0 | Minor Benefit |
| NMU1_3 | 263732.59 | 774130.21 | 53.3 | 51.7 | -1.6 | Minor Benefit | 50.2 | 52.0 | -1.3 | Negligible Benefit |
| NMU1_4 | 263405.80 | 774939.28 | 53.4 | 51.7 | -1.7 | Minor Benefit | 50.3 | 52.0 | -1.4 | Negligible Benefit |
| NMU1_5 | 263194.37 | 775555.40 | 60.2 | 57.2 | -3.0 | Moderate Benefit | 57.1 | 57.5 | -2.7 | Negligible Benefit |
| NMU1_6 | 262566.64 | 777477.25 | 60.1 | 58.0 | -2.1 | Minor Benefit | 57.0 | 58.3 | -1.8 | Negligible Benefit |
| NMU1_7 | 263056.42 | 780016.02 | 60.2 | 58.9 | -1.3 | Minor Benefit | 57.1 | 59.2 | -1.0 | Negligible Benefit |
| NMU1_8 | 263286.47 | 780641.45 | 63.3 | 60.5 | -2.8 | Minor Benefit | 60.2 | 60.8 | -2.5 | Negligible Benefit |
| NMU234_1 | 264536.72 | 773192.93 | 55.6 | 53.0 | -2.6 | Minor Benefit | 53.3 | 53.2 | -2.4 | Negligible Benefit |
| NMU234_2 | 264499.72 | 772991.51 | 52.1 | 50.4 | -1.7 | Minor Benefit | 50.1 | 50.7 | -1.4 | Negligible Benefit |
| NMU5_1 | 264525.16 | 773594.60 | 52.8 | 54.5 | 1.7 | Minor Adverse | 50.0 | 54.8 | 2.0 | Negligible Adverse |
| NMU5_2 | 2638.42.29 | 774589.01 | 49.4 | 50.0 | 0.6 | Negligible Adverse | 46.4 | 50.3 | 0.9 | Negligible Adverse |
| NMU5_3 | 263358.60 | 775340.56 | 64.9 | 64.3 | -0.6 | Negligible Benefit | 61.8 | 64.5 | -0.4 | Negligible Benefit |
| NMU6_1 | 263236.45 | 775278.46 | 56.1 | 53.1 | -3.0 | Moderate Benefit | 53.0 | 53.4 | -2.7 | Negligible Benefit |
| NMU6_2 | 262954.37 | 775344.76 | 52.5 | 51.0 | -1.5 | Minor Benefit | 49.4 | 51.3 | -1.2 | Negligible Benefit |
| NMU7 | 262478.20 | 778192.24 | 60.1 | 56.7 | -3.4 | Moderate Benefit | 57.4 | 59.1 | -1.0 | Negligible Benefit |
| NMU8_1 | 262807.28 | 779173.81 | 62.5 | 61.9 | -0.6 | Negligible Benefit | 59.8 | 62.2 | -0.3 | Negligible Benefit |
| NMU8_2 | 262353.20 | 779167.67 | 49.2 | 48.3 | -0.9 | Negligible Benefit | 46.2 | 48.6 | -0.6 | Negligible Benefit |