

15 Cultural Heritage

This chapter assesses the potential impacts of the proposed scheme on cultural heritage assets comprising archaeological remains, historic buildings and the historic landscape.

The study area extended to 200m in all directions from the footprint of the proposed scheme. Baseline conditions were established through a desk-based survey, walkover surveys and targeted geophysical survey. Designated assets beyond the study area but located within 1km of the proposed scheme and within its Zone of Theoretical Visibility were included in the baseline. In total, 190 cultural heritage assets were considered as part of the baseline, comprising 65 archaeological remains, 109 historic buildings, and 16 historic landscape types.

Before mitigation, significant potential impacts during construction were identified on five archaeological remains of prehistoric or post-medieval date, comprising Old Faskally Cairn (Asset 331), Old Faskally Possible Structures 1 (Asset 769), Aldclune Possible Structures and Enclosures (Asset 771), Clunebeg Possible Structures and Enclosures (Asset 772) and Dalreoch Possible Structures and Enclosures (Asset 773). Mitigation proposed for Old Faskally Cairn (Asset 331) comprises a Level 3 landscape survey record, followed by archaeological excavation. Mitigation proposed for Assets 769, 771, 772 and 773 comprises a programme of archaeological trial trenching that will inform a programme of strip, map and sample to be undertaken in advance of construction. On completion of the assessment, analysis, publication and dissemination of the results associated with the mitigation works, the residual significance of effect on these assets has been assessed to be Neutral.

Before mitigation, a potential impact of Large significance during construction has been identified on Shierglas Farmhouse (Asset 365). Mitigation proposed includes the implementation of measures to safeguard the structural integrity of the farmhouse during construction; the undertaking of a dilapidation survey, vibration monitoring and measures to reduce the impact of construction works when combined with quarry blasting. After mitigation, the residual significance of effect has been assessed to be Neutral.

Potential impacts on Killiecrankie Battlefield (HLT23) during construction comprise the removal of Balchroic Field Boundaries and Pits (Asset 770), that could be related to archaeological remains associated with the battle, and the potential removal of artefacts and possible unknown archaeological remains associated with the battle, evidence of which has been recorded by metal detecting surveys in 2003 and 2015. To inform the mitigation of potential impacts on buried archaeological remains associated with the battle, a programme of metal detecting and a landscape survey will initially be undertaken. The results of these surveys will be used to inform the design of a programme of archaeological trial trenching, which will then be used to inform mitigation.

Potential significant impacts on Killiecrankie Battlefield (HLT 23) during operation have been identified, relating to the increased prominence of the proposed scheme within the battlefield landscape. This would reinforce the severance already caused by the existing A9 through the widening of the road corridor and the construction of lay-bys, SuDS features and earthworks. It is not considered that mitigation proposed, such as the grading out of earthworks to improve integration with the existing landform, will be able to reduce this overall severance effect, and the residual significance of effect has been assessed to be Moderate. In order to offset the impacts on the Killiecrankie Battlefield, opportunities such as the provision of increased interpretation, and/or additional research to increase the ability to understand and appreciate the battlefield will be explored with interested parties including Historic Environment Scotland (HES), the National Trust for Scotland and the Perth & Kinross Heritage Trust. This approach would be in line with HES' Managing Change in the Historic Environment: Historic Battlefields (HES, 2016).

In addition to impacts on known archaeological remains, the potential for the presence of unknown archaeological remains was assessed for the study area. Archaeological recording in advance of or during construction may be required to mitigate the impact on unknown archaeological remains disturbed by the construction of the proposed scheme.

15.1 Introduction

15.1.1 This chapter presents the DMRB Stage 3 cultural heritage assessment for the proposed scheme. The chapter considers the impacts of the proposed scheme on cultural heritage under the three sub-topics of archaeological remains, historic buildings and the historic landscape. Additional information to support this chapter is presented in the following appendices:

- Appendix A15.1 (Cultural Heritage Baseline Information);

- Appendix A15.2 (Shierglas Farmhouse Structural Overview);
- Appendix A15.3 (Geophysical Survey Results); and
- Appendix A15.4 (Cultural Heritage Impact, Mitigation and Residual Impact Tables).

15.2 Approach and Methods

15.2.1 The assessment was undertaken based on the guidance provided in DMRB Volume 11, Section 3, Part 2 (HA208/07) (Highways Agency et al., 2007; hereafter referred to as HA208/07). Both designated and undesignated cultural heritage assets have been included in this assessment, and Detailed Assessments (as defined by HA208/07) have been undertaken for all three sub-topics.

Study Area

15.2.2 Based on the guidance provided by HA208/07 (Annex 5, paragraph 5.4.1) the study area for archaeological remains was defined as an area extending 200m in all directions from the footprint of the proposed scheme. For the purpose of this assessment, this study area has also been used for historic buildings and the historic landscape.

15.2.3 Informed by the Zone of Theoretical Visibility (ZTV), designated cultural heritage assets up to 1km from the proposed scheme have been included as part of the baseline due to the potential for impacts on their setting. The ZTV establishes potential visibility of the A9 dualling from up to 5km; further details of this are provided in Chapter 13 (Landscape).

Baseline Conditions

15.2.4 Baseline conditions were established through:

- a desk-based survey and walkover survey. Details of these surveys, including sources consulted, are provided in Appendix A15.1 (Cultural Heritage Baseline Information);
- a structural survey of Shierglas Farmhouse undertaken in June 2016. Details of this are provided in Appendix A15.2 (Shierglas Farmhouse Structural Overview); and
- a geophysical survey of targeted areas with the highest potential for the presence of unknown archaeological remains (totalling approximately 11ha) undertaken between 14 and 17 November 2016 (AOC, 2016). Further details are provided in Appendix A15.3 (Geophysical Survey Results).

Consultation

15.2.5 On 11 August 2016, HES was provided with a list of Scheduled Monuments, Category A Listed Buildings, Gardens and Designed Landscapes and Historic Battlefields located outside the 200m study area but which were proposed to be included in the assessment due to the potential for impacts on their settings. HES responded (30 August 2016) stating that they were content with the list of cultural heritage assets but requested that consideration also be given to viewpoints within the Killiecrankie Battlefield and both the Blair Castle and Bruar Gardens and Designed Landscapes. Chapter 14 (Visual) has assessed impacts from specific visual receptor locations within these assets, including within Killiecrankie Battlefield (House of Urrard, Orchilmore and Urrard Steading Cottages); and within Blair Castle GDL (Garrybank Cottage and Bothy, Blair Castle and Old Blair. Viewpoints and mitigation proposals regarding specific visual receptors within Killiecrankie Battlefield and both the Blair Castle and Bruar Gardens and Designed Landscapes were discussed during consultation with the Environmental Steering Group (ESG) in September 2016, which also informed this assessment.

15.2.6 A list of Category B and Category C Listed Buildings and Conservation Areas outside the 200m study area, the settings of which could be affected, was provided to PKC in a letter on 11 August 2016. The assets to be considered outside the 200m study were subsequently confirmed with PKC.

15.2.1 Potential impacts on cultural heritage, particularly the Killiecrankie Battlefield, were also discussed at a meeting with a working group formed by residents within Killiecrankie and Fincastle Community

Council area. This enabled the design team to present the proposals and for the community to raise queries/concerns.

- 15.2.2 Further information on the consultation process is provided in Chapter 7 (Consultation and Scoping) and supporting Appendix A7.2 (Summary of Consultation).

Impact Assessment

Value

- 15.2.3 For all three sub-topics; archaeological remains, historic buildings and the historic landscape, an assessment of the value of each cultural heritage asset was undertaken on a six-point scale of very high, high, medium, low, negligible and unknown, based on professional judgement and guided by the criteria provided in HA208/07 as presented in Table 15.1.

Table 15.1: Criteria to assess the value of archaeological remains, historic buildings and historic landscape types

Value	Criteria
Archaeological Remains	
Very High	World Heritage Sites (including nominated sites). Assets of acknowledged international importance. Assets that can contribute significantly to acknowledged international research objectives.
High	Scheduled Monuments (including proposed sites). Undesignated assets of schedulable quality and importance. Assets that can contribute significantly to acknowledged national research objectives.
Medium	Designated or undesignated assets that contribute to regional research objectives.
Low	Designated and undesignated assets of local importance. Assets compromised by poor preservation and/or poor survival of contextual associations. Assets of limited value, but with potential to contribute to local research objectives.
Negligible	Assets with very little or no surviving archaeological interest.
Unknown	The importance of the site has not been ascertained.
Historic Buildings	
Very High	Structures inscribed as of universal importance as World Heritage Sites. Other buildings of recognised international importance.
High	Scheduled Monuments with standing remains. Category A Listed Buildings. Other listed buildings that can be shown to have exceptional qualities in their fabric or historical associations not adequately reflected in the category. Conservation Areas containing very important buildings. Undesignated structures of clear national importance.
Medium	Category B Listed Buildings. Historic (unlisted) buildings that can be shown to have exceptional qualities in their fabric or historical associations. Conservation Areas containing buildings which contribute significantly to their historic character. Historic Townscape or built-up areas with important historic integrity in their buildings, or built settings (e.g. including street furniture and other structures).
Low	Category C Listed Buildings. Historic (unlisted) buildings of modest quality in their fabric or historical association. Historic Townscape or built-up areas of limited historic integrity in their buildings, or built settings (e.g. including street furniture and other structures).
Negligible	Buildings of no architectural or historical note; buildings of an intrusive character.
Unknown	Buildings with some hidden (i.e. inaccessible) potential for historic significance.
Historic Landscape	
Very High	World Heritage Sites inscribed for their historic landscape qualities. Historic landscapes of international value, whether designated or not. Extremely well preserved historic landscapes with exceptional coherence, time-depth, or other critical factors.

Value	Criteria
High	Designated historic landscapes of outstanding interest. Undesignated landscapes of outstanding interest. Undesignated landscapes of high quality and importance, and of demonstrable national value. Well preserved historic landscapes, exhibiting considerable coherence, time-depth or other critical factors.
Medium	Designated special historic landscapes. Undesignated historic landscapes that would justify special historic landscape designation, landscapes of regional value. Averagely well-preserved historic landscapes with reasonable coherence, time-depth or other critical factors.
Low	Robust undesignated historic landscapes. Historic landscapes with importance to local interest groups. Historic landscapes whose value is limited by poor preservation and/or poor survival of contextual associations.
Negligible	Landscapes with little or no significant historical interest.

Impact Magnitude

- 15.2.4 Magnitude of impact is the degree of change that would be experienced by a cultural heritage asset and (where relevant) its setting resulting from the construction or operation of the proposed scheme, as compared with a 'do-nothing' scenario. Magnitude of impact is assessed without reference to the value of the cultural heritage asset, and may include physical impacts on the asset, or impacts on its setting or amenity value (see also Chapter 17 (Noise and Vibration)).
- 15.2.5 Assessment of magnitude of impact was based on professional judgement informed by the methodology and criteria provided by HA208/07 for archaeological remains, historic buildings and the historic landscape presented in Table 15.2.

Table 15.2: Magnitude of impact on cultural heritage assets

Magnitude	Criteria
Major	Change to most or all key archaeological materials, such that the resource is totally altered. Change to key historic building elements, such that the resource is totally altered. Change to most or all key historic landscape elements, parcels or components; extreme visual effects; gross change of noise or change to sound quality; fundamental changes to use or access; resulting in total change to historic landscape character unit. Comprehensive changes to setting.
Moderate	Changes to many key archaeological materials, such that the resource is clearly modified. Change to many key historic building elements, such that the resource is significantly modified. Changes to some key historic landscape elements, parcels or components, visual change to many key aspects of the historic landscape, noticeable differences in noise or sound quality, considerable changes to use or access; resulting in moderate changes to historic landscape character. Considerable changes to setting that affect the character of the asset.
Minor	Changes to key archaeological materials, such that the asset is slightly altered. Change to key historic building elements, such that the asset is slightly different. Changes to few key historic landscape elements, parcels or components, slight visual changes to few key aspects of historic landscape, limited changes to noise levels or sound quality, slight changes to use or access; resulting in limited changes to historic landscape character. Slight changes to setting.
Negligible	Very minor changes to archaeological materials or setting. Slight changes to historic buildings elements or setting that hardly affect it. Very minor changes to key historic landscape elements, parcels or components, virtually unchanged visual effects, very slight changes in noise levels or sound quality, very slight changes to use or access; resulting in a very small change to historic landscape character.
No Change	No change to elements, parcels or components; no visual or audible changes; no changes arising from amenity or community factors.

Impact Significance

- 15.2.6 For all three sub-topics, the significance of impact with and without mitigation was determined as a combination of the value of the asset and the magnitude of impact. In

accordance with the guidance provided by HA208/07, significance of effect was assessed on a five-point scale of Very Large, Large, Moderate, Slight or Neutral using professional judgement informed by the matrix illustrated in Table 15.3. Five levels of significance of impact are defined which apply equally to adverse and beneficial impacts.

Table 15.3: Matrix for determination of impact significance

Magnitude of Impact \ Value	No Change	Negligible	Minor	Moderate	Major
Very High	Neutral	Slight	Moderate/Large	Large/Very Large	Very Large
High	Neutral	Slight	Moderate/Slight	Moderate/Large	Large/Very Large
Medium	Neutral	Neutral/Slight	Slight	Moderate	Moderate/Large
Low	Neutral	Neutral/Slight	Neutral/Slight	Slight	Slight/ Moderate
Negligible	Neutral	Neutral	Neutral/Slight	Neutral/Slight	Slight

15.2.7 For the purpose of this assessment, impacts of Moderate or greater significance are considered to be potentially significant in the context of the EIA Regulations and are highlighted in bold in Table 15.3 above.

Impacts on Setting

15.2.8 Setting is defined by ‘Managing Change in the Historic Environment: Setting’ as “*the way the surroundings of a historic asset or place contribute to how it is understood, appreciated and experienced*” (HES, 2016a, page 6). Based on the guidance provided by the document, a three-stage process was undertaken to assess the effect of the proposed scheme on the setting of cultural heritage assets:

- Stage 1: cultural heritage assets where the setting may be affected by the proposed scheme were identified. As noted in Section 15.2 (Approach and Methods), those designated cultural heritage assets located outside the 200m study area but within the 1km ZTV to be included in the assessment due to potential effects on setting were agreed with HES and PKC.
- Stage 2: modern Ordnance Survey mapping, on-line aerial photography and walkover survey were used to define the setting of cultural heritage assets by establishing if and how their surroundings contribute to the ways in which the cultural heritage asset is understood, appreciated and experienced. Where relevant further information on the setting of assets is presented in Annex A of Appendix A15.1 (Cultural Heritage Baseline Information).
- Stage 3: the way in which the proposed scheme would affect the ability to understand, appreciate, or experience a cultural heritage asset was then assessed. This was primarily informed by site inspections supported by the viewpoint visualisations provided in Figures 14.6-14.19. This is presented in Appendix A15.4 (Cultural Heritage Impact, Mitigation and Residual Impact Tables).

Impacts on Historic Battlefields

15.2.9 Historic Battlefields are defined by ‘Managing Change in the Historic Environment: Historic Battlefields’ as those which hold “*a significant place in our national consciousness and have strong resonance in Scottish culture*” (HES, 2016b, page 4). Based on the guidance provided by the document, a three-stage process was undertaken to assess potential impacts on Killiecrankie Battlefield (HLT 23):

- Stage 1: the baseline of the battlefield was identified. This was achieved through a review of existing information on the battlefield, a walkover survey, a metal detecting survey and geophysical survey (further baseline information is provided in Appendix A15.1: Cultural Heritage Baseline Information; results of the geophysical survey are provided in Appendix A15.3: Geophysical Survey Results; and the results of the metal detecting survey are presented on the Transport Scotland website (accessed September 2017).

- Stage 2: different types of impact were then assessed; direct impacts, such as the removal or damage, to the special qualities (i.e. the physical remains and archaeological evidence, both known and expected) of the battlefield; contextual changes to key landscape characteristics (the areas in which the main events of the battle are considered to have taken place) such as interruption of key views or alterations to the character of the landscape; and overall (this term is used in place of ‘cumulative’ to avoid confusion with the term ‘cumulative effects’ common to EIA), that is, adding to existing negative effects from other development that has been built or is planned, within the battlefield.
- Stage 3: mitigation was developed that sought to avoid impacts altogether, and where this was not possible to reduce impacts through design. Examples include:
 - the grading out of earthworks in order to improve integration with the existing landform and a more natural appearance between Troopers Burn and Allt Giraig and at Aldclune Junction, Chapter 13 (Landscape); and
 - the moving of SuDS features to reduce impacts on areas of high archaeological potential identified during metal detecting surveys.

Limitations to Assessment

- 15.2.10 During the walkover survey two cultural heritage assets (Old Faskally Farm, Church (Asset 337) and Blair Castle (Asset 556)) were not visited due to land access restrictions. However, data from desk-based review was available to inform the assessment of these assets.
- 15.2.11 No intrusive archaeological investigation has been undertaken, which is considered appropriate for the purposes of DMRB Stage 3 assessment.

15.3 Baseline Conditions

- 15.3.1 This section provides a characterisation of the cultural heritage assets forming the baseline conditions. More detailed information of cultural heritage assets considered as part of the baseline is presented in Appendix A15.1 (Cultural Heritage Baseline Information).

Summary

- 15.3.2 From sources identified in Appendix A15.1 (Cultural Heritage Baseline Information), a total of 150 cultural heritage assets were identified within the study area. A further 40 cultural heritage assets located outside the study area were included in the baseline due to the potential for effects on their settings (see paragraph 15.2.3). The total number of cultural heritage assets assessed as part of the baseline is therefore 190. Of these, 65 are archaeological remains, 109 are historic buildings and there are 16 historic landscape types. A summary of the total number of cultural heritage assets and their value is provided within Table 15.4. Further information on each cultural heritage asset is provided in Annex A of Appendix A15.1 (Cultural Heritage Baseline Information). The location of all cultural heritage assets within the study area is shown on Figure 15.1 (Archaeological Remains and Historic Buildings) and 15.2 (Historic Landscape Types).

Table 15.4: Total Numbers of Cultural Heritage Assets Within the Study Area

Value Sub-topic	Negligible	Low	Medium	High	Total number of Assets
Archaeological Remains	18	32	6	9 (8 Scheduled Monuments)	65
Historic Buildings	9	43 (20 Category C Listed)	54 (48 Category B Listed Buildings and one Conservation area)	3 (all Category A Listed)	109
Historic Landscapes	6	6	1	3	16

Value Sub-topic	Negligible	Low	Medium	High	Total number of Assets
TOTAL number of Assets	33	81	61	15	190

- 15.3.3 To provide consistency with previous DMRB assessment, asset numbering has been retained from an earlier, larger data gathering exercise as part of the DMRB Stage 2 report (Transport Scotland, 2015) and new assets added following the walkover and geophysical surveys undertaken during the DMRB Stage 3 assessment. Therefore, the cultural heritage asset numbers do not start at one or run sequentially.

Archaeological Remains

- 15.3.4 A total of 65 archaeological remains have been included in the cultural heritage baseline. These remains include prehistoric ritual and funerary monuments dating from the Neolithic to the Bronze Age (4,100BC – 800BC), settlement sites of later prehistoric date (1,000BC – AD500), while the medieval period (AD400 – AD1500) is represented by religious and defensive sites. Given their rarity, the majority of archaeological remains dating to these periods are designated and have therefore been assessed to be of high or medium value. However, the majority of the archaeological remains within the baseline are post-medieval or modern in date (AD1500 – present) and are characterised by the remains of post-medieval agricultural settlements, such as the sites of post-medieval townships and individual farmsteads, and the remains of associated structures such as limekilns. Archaeological remains associated with the Battle of Killiecrankie and 18th century military roads are also present.
- 15.3.5 Prehistoric ritual monuments comprise three standing stones, including Claverhouse’s Stone Standing Stone 200m south of House of Urrard (Asset 767, Figure 15.1a) which is located close to Killiecrankie; and two separate standing stones which are both called Clach na h’Iobairt; one is located 300m east of Pitagowan (Asset 446, Figure 15.1e) immediately to the south of the House of Bruar, and the other at Bridge of Tilt, Blair Atholl (Asset 533, Figure 15.1c). Thought to be Late Neolithic or Early Bronze Age in date, the exact function of this monument type is not known and interpretations vary from their being territorial markers to having had ritual associations. Funerary monuments include the burial cairn at Sithean (Asset 507, Figure 15.1b), located immediately to the north-west of Killiecrankie Battlefield, that is thought to date to the Bronze Age. These four cultural heritage assets are Scheduled Monuments and given their designation and rarity have been assessed to be of high value.
- 15.3.6 Two further cairns comprising Old Faskally Cairn (Asset 331, Figure 15.1a, Photograph 15.1), identified during the walkover survey as a possible long cairn of Neolithic or Bronze Age date, and Old Faskally Cairn 2 (Asset 575, Figure 15.1a) are also included in the baseline. Based on their interpretation as cairns with the potential for funerary remains to survive which could contribute to the understanding of burial practices in the prehistoric period, these assets have been assessed to be of medium value.

Photograph 15.1: Old Faskally Cairn (Asset 331) showing the possible forecourt



- 15.3.7 Later prehistoric archaeological remains within the study area are characterised by settlement rather than ritual and burial monuments. A series of hut circles and enclosures, many of which survive above ground, have been recorded at 'Old Faskally Farm, hut circles, enclosure and field system 900m south-east of' (Asset 323, Figure 15.1a) while the upstanding remains of a monumental roundhouse (or dun) is located at 'Creag Odhar Dun, on summit of' (Asset 532, Figure 15.1c). Both assets are Scheduled Monuments, and taking into account their contributions to research themes regarding settlement types and their variety, land division and use and prehistoric society structures, and how these changed over time through their physical and material remains (ScARF, 2012b), these assets have been assessed to be of high value.
- 15.3.8 Two monumental roundhouses at Aldclune (Asset 362, Figure 15.1b) were excavated in advance of the construction of the A9 in the 1980s. Excavations revealed that the two roundhouses were not contemporary; the earlier was constructed between the 2nd and 1st centuries BC, and the second between the 2nd and 3rd centuries AD (Hingley et al, 1997). Given that the majority of Asset 362 has been excavated and removed, but taking into account that there could be some surviving archaeological remains associated with it, this asset has been assessed to be of low value.
- 15.3.9 Old Faskally Church (Asset 337, Figure 15.1a) comprises the upstanding ruins of a church which while being of predominantly post-medieval construction, is likely to have medieval origins, while the mound at Tom an Tigh Mhoir Motte, W of Struan Church (Asset 595, Figure 15.1e, Photograph 15.2) is the upstanding remains of a motte. Built by the Normans, mottes are an earthen mound often surmounted with a wooden or stone keep. Both of these assets are Scheduled Monuments, and in consideration of their designation and rarity have been assessed to be of high value.

Photograph 15.2: Tigh an Tom Mhoir Motte (Asset 595)



- 15.3.10 Evidence of the Jacobite risings of the 18th century is characterised in the baseline by the archaeological remains potentially associated with the Battle of Killiecrankie, comprising the conjectured locations of redoubts at Roan Ruairidh (Asset 344, Figure 15.1a) and Croftcarnoch, (Asset 346, Figure 15.1a), and a number of pits identified by geophysical survey which may be related to the battle (Asset 770; Figure 15.1a). While poorly preserved, due to its association with the battle, Asset 344 has been assessed to be of low value. Asset 346 is better preserved and due to this and its association with the battle has been assessed to be of medium value. Due to its possible (but by no means certain) association with the battle, Asset 770 has been assessed to be of high value. Military roads, such as the Dunkeld to Inverness Military Road (Asset 456, Figure 15.1) were constructed in the wake of the Jacobite risings, principally for the purpose of moving troops quickly across the Highlands. Asset 456 is generally well preserved and has the potential to contribute to research themes analysing the internal ordering of the state and providing insight into Scottish and British identities (ScARF, 2012d) accordingly it has been assessed to be of medium value.
- 15.3.11 Tomb Clavers/Soldiers Grave (Asset 348, Figure 15.1a) is a small rectangular mound that was believed be the site of the graves of the officers of both sides who fell during the Battle of Killiecrankie. Archaeological evidence (Pollard and Oliver 2003) now indicates that it is a cenotaph, an 'empty tomb' or monument erected in honour of a person or group of people whose remains are elsewhere. In consideration of its historical associations with the Battle of Killiecrankie this asset has been assessed to be of medium value.
- 15.3.12 The majority of archaeological remains are individual post-medieval farmsteads, townships and associated structures that survive as poorly preserved above ground remains such as Runmore Farmstead (Asset 363, Figure 15.1b), Luragbeath Farmstead (Asset 375, Figure 15.1c) and Clunes Lodge Township (Asset 468, Figure 15.1f) or the sites of similar buildings and small settlements that no longer survive above ground such as Aldclune, possible structures and enclosures (Asset 771, Figure 15.1b) and Dalreoch, possible structures and enclosures (Asset 773; Figure 15.1g). Other common archaeological remains of this period associated with agricultural improvement include the sites of limekilns such as those at Lagnabuaig (Asset 345, Figure 15.1a) and Clunebeg (Asset 367, Figure 15.1b). In consideration of their ubiquity within this part of Scotland and their limited potential to increase our knowledge of this period, archaeological remains of this type have been assessed to be of low and negligible value.
- 15.3.13 Other archaeological remains from the post-medieval and modern periods forming the baseline include Glen Garry Bloomery (Site of) (a simple iron-smelting furnace used to produce blooms of iron from bog iron ore) (Asset 496, Figure 15.1h), the site of the Second World War Prisoner of War Camp at Calvine (Asset 442, Figure 15.1e, Photograph 15.3), two culverts at Clunes Lodge/Clunes (Asset 463 and 464, Figure 15.1f) and quarry scoops. These cultural heritage assets have a limited time depth and limited potential to increase our knowledge through physical and material remains, therefore these types of cultural heritage assets have been assessed to be of low and negligible value.
- 15.3.14 Areas of potential for unknown archaeological remains are shown on Figure 15.3.

Photograph 15.3: Prisoner of War Camp No. 66 (Asset 442)



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Historic Buildings

- 15.3.15 The built heritage baseline is characterised by historic buildings of post-medieval and early modern date. These historic buildings are associated with the development of large estates, Improvement Era (late 17th and 19th century changes to the organisation of agricultural activity), agricultural development including farmhouses, steadings and associated agricultural buildings, settlements including estate villages and small roadside settlements; and small-scale industry and transport.
- 15.3.16 Of those historic buildings related to estates, the most notable is Blair Castle (Asset 556, Figure 15.1c), a Category A Listed Building located to the north-west of Blair Atholl. While the earliest part of the castle incorporates elements believed to date to the 13th century, the building seen today is primarily the result of 18th and 19th century enlargement. Associated with Blair Castle are a number of buildings and structures typical of large estates, including the Front Lodge (Asset 541, Figure 15.1c) and Walled Garden (Asset 560, Figure 15.1c) which are also Category A Listed Buildings. As historic buildings associated with the development of a large estate, and in cognisance of the quality of their architecture and designation, these cultural heritage assets have been assessed to be of high value.
- 15.3.17 The 19th century saw a rise in the popularity of the use of estates for field sports and the development of shooting lodges including Clunes Lodge (Asset 465, Figure 15.1f) and Dalnacardoch Lodge (Asset 568, Figure 15.1h), both of which are Category B Listed Buildings. As good examples of lodges associated with the development of 19th century sporting estates and their designation, these cultural heritage assets have been assessed to be of medium value. Once part of the Blair Atholl Estate, Dalnamein Lodge (Asset 479, Figure 15.1h) is accompanied by a number of outbuildings including a stable, kennels and a stalker's lodge. In recognition of its connection with the development of the Blair Atholl Estate, Asset 479 has been assessed to be of low value.
- 15.3.18 Shierglas Farmhouse (Asset 365, Figure 15.1b) is the only example of a pre-Improvement Era farmhouse within the baseline. Built in 1728 as the seat of the Stewarts of Strathgarry, it is now in a very poor state of repair. Despite its poor condition, it retains Category B Listed Building status as an upstanding example of early 18th century vernacular architecture and as such has been assessed to be of medium value.
- 15.3.19 The Improvement Era, which saw a drastic change in the way agricultural activity was organised in Scotland between the late 17th and 19th centuries, is characterised by historic buildings such as Urrard House (Asset 341, Photograph 15.4, Figure 15.1a), a Category B Listed Building, Urrard Steading (Asset 342, Figure 15.1a), walled garden (Asset 343, Figure 15.1a) and cottage (Asset 578, Figure 15.1a). This is a well-preserved example of an Improvement Era farmstead complex, with Urrard

House itself being built on or close to the site of an earlier house associated with the Battle of Killiecrankie (Asset 344, Figure 15.1a). Taking the designation of Urrard House itself and the good state of preservation and legibility of the group within the landscape, the value of all four assets has been assessed to be medium.

Photograph 15.4: Urrard House (Asset 341) south-eastern principal elevation



- 15.3.20 Other Improvement Era historic buildings within the baseline include individual farmsteads such as those at Glackmore (Asset 371, Figure 15.1c), Tomban (Asset 415, Figure 15.1d) and Dalreoch (Asset 572, Figure 15.1g), and cottages such as Old Faskally Cottage (Asset 330, Figure 15.1a). Cottages built for estate workers such as those at Garryside (Assets 380, 381 and 383 to 395), Figure 15.1c) are also typical. While many of these historic buildings are designated and have been assessed to be of medium value, others are good examples of common vernacular architecture of the Improvement Era and have been assessed to be of low value.
- 15.3.21 Another building related to the period of agricultural improvement is the early 19th century Essangal Limekiln (Asset 369, Figure 15.1b) north of the River Garry, near the existing Aldclune Junction. This asset is designated as a Category B Listed Building and has been assessed to be of medium value.
- 15.3.22 Settlements within the baseline can be characterised as small roadside settlements with the earliest buildings facing the road. Killiecrankie Village (Asset 576, Figure 15.1a) consists of a small group of late 18th and early 19th century cottages close to the junction between the former military road and a minor road heading south to Garry Bridge. Aldclune Settlement (Asset 579, Figure 15.1a) is also situated north of the former military road. Calvine (Asset 585, Figure 15.1e) is another roadside settlement, this time adjacent to the B487 north-west of Pitagowan. The older buildings at all three settlements are interspersed with more modern buildings, although their original rural roadside character can still be discerned. Taking this legibility into account, the value of all three cultural heritage assets has been assessed to be low.
- 15.3.23 The expansion of the railways in the 1860s saw the construction of the Killiecrankie Viaduct and Tunnel Mouth (Asset 321, Category B Listed Building, Figure 15.1a), Killiecrankie Railway Tunnel (Asset 324, Figure 15.1a) and Tilt Railway Viaduct (Asset 398, Category B Listed Building, Figure 15.1c). The tunnel mouth of Killiecrankie Railway tunnel and Tilt Railway Viaduct are designed in a castellated style to complement the setting of Blair Castle. In consideration of their designations, and their architectural and historic interest as evidence of the development of the regional railway network Assets 321 and 398 have been assessed to be of medium value. While undesignated, Killiecrankie Railway Tunnel (Asset 324) has also been assessed to be of medium value due to its clear relationship with the viaduct and tunnel mouth.

- 15.3.24 With origins much older than the railway, the road network within the study area began with the construction of the Military Roads in the early and mid-17th century. There are a number of surviving remains associated with the Military Roads including the 18th century Drochaid Dail an Fhrasich Bridge (Asset 489, Figure 15.1h) which carried the Military Road across the River Garry at Dalnacardoch.
- 15.3.25 The historic importance of the route of the A9 as the principal route to Inverness is reflected in the presence of bridges dating from the 18th to 20th centuries, and the presence of the existing A9 itself. Examples include Chrombaidh Bridge (Asset 461, Figure 15.1f) an undesignated asset of low value associated with the original A9; the Old Bridge over Allt Andeir (Asset 484, Figure 15.1g), a Category C Listed Building of low value, that carries Wade's Military Road over the Allt Andeir; and Dalnamein New Bridge (Asset 481, Figure 15.1g), a Category B Listed Building, is a 20th century road bridge which was designed and built by Maxwell Ayrton (architect) and Sir Owen Williams (engineer). Taking its designation into account and its association with Ayrton and Williams known for their bridge building in Scotland, this asset has been assessed to be of medium value.

Historic Landscapes

Killiecrankie Battlefield

- 15.3.26 Killiecrankie Battlefield (HLT 23, Figure 15.2a) is the site of the opening battle of the first Jacobite rising in Scotland fought on 27 July 1689. Apart from the presence of the existing A9, which bisects the battlefield, and the Highland Main Line Railway that runs along the north shore of the River Garry, the topography of the battlefield is well preserved and legible. A summary of the special qualities and key landscape characteristics of the battlefield is provided below. These are shown on Figure 15.4.

Killiecrankie Battlefield - Special Qualities

- 15.3.27 The following special qualities associated with the battlefield have been identified through desk-based survey, analysis of the Battlefield Inventory record for Killiecrankie and a programme of metal detecting and archaeological geophysical surveys. The locations of the special qualities are shown on Figure 15.4.

Archaeological remains associated with the battle recorded during 2003 and 2015 metal detecting surveys

- 15.3.28 Metal detecting surveys were undertaken to the north and south of the existing A9, between ch1500 and ch3300. A number of finds associated with the battle were recovered including a total of 105 lead munitions retrieved during the 2003 and 2015 surveys, and six copper alloy buttons, two buckles, four horseshoe and horseshoe fragments, several fragments of copper alloy bangle, a copper alloy pendant, a copper alloy harness boss and part of the support for a sword belt retrieved during the 2015 survey.
- 15.3.29 The highest density of these finds was in the central area to the north of the existing A9, between ch2300 - ch2500, with further concentrations to the north of the A9 at ch3100. The concentration of finds within these areas largely confirms the documentary evidence that the main body of fighting associated with the battle took place at these locations.
- 15.3.30 It is important to note that the whole area of the battlefield was used by troops for training, both before and after the battle, and later munitions, buttons and other insignia have been mixed in with finds from the battle itself (HES, 2015).

Potential archaeological remains associated with the battle identified during 2016 geophysical surveys

- 15.3.31 Archaeological geophysical surveys were undertaken within the battlefield to inform this assessment (Appendix A15.3). Potential archaeological remains close to Balchroic Cottage, that could be pits and field boundaries, were identified (Asset 770, Figure 15.1a). The area within which these potential pits are located was close to the main body of fighting associated with the battle, and metal detecting surveys have recovered a number of buttons, a buckle and some impacted lead shot. It is important

to note that without having evaluated these potential pits, it is assumed that they are archaeological in origin, however, they could also be related to geological processes.

Urrard House and steading, and potential archaeological remains associated with Roan Ruairidh House Redoubt

15.3.32 The current Urrard House and steading post-dates the battle, with Urrard House partially located on the site of Roan Ruairidh House Redoubt (Asset 344, Figure 15.1a) that was utilised as a redoubt by Government forces during the battle. Based on the excavations undertaken by Oliver and Pollard (2003) the remains of Roan Ruairidh House Redoubt were located underlying and to the west of Urrard House. The redoubt is therefore more than likely to be located here rather than to the north of Urrard House's walled garden (Asset 343) as shown on the HER. It is from Roan Ruairidh House Redoubt where the shot that felled Dundee is traditionally said to have been fired. At the time of the battle Roan Ruairidh House had an enclosed garden that was briefly considered for use for Government defence.

15.3.33 It is within this area that the main body of fighting took place, this has been attested by the results of metal detecting surveys that have recovered a large number of artefacts associated with the battle.

Potential archaeological remains associated with Croftcarnoch Redoubt

15.3.34 The site of Croftcarnoch Redoubt (Asset 346, Figure 15.1a) is located to the north of the existing A9, on the lower slopes of Craig Eallaich. The redoubt, thought to have been used by Jacobite snipers prior to the commencement of the battle, comprises the remains of a sunken trackway, two possible buildings, including a long house, and a circular depression which may be a corn drying kiln. Metal detecting finds from 2003 comprising a pistol ball and a broken trigger guard from a musket indicate that small-scale hand-to-hand fighting associated with Government action against the Jacobite snipers possibly took place here.

Tomb Clavers

15.3.35 Tomb Clavers (Asset 348), a cenotaph that post-dates the battle, comprises a memorial plaque set within a piece of ground left undisturbed by quarrying that was enhanced with a stone wall and rubble infill to create its current form. Limited excavations along with geophysical and metal detecting surveys in 2003 did not encounter any burials. Tomb Clavers is now associated with the battlefield in the popular imagination as the burial place of the Officers of both sides who fell in the battle and is the site of a yearly commemoration to remember the dead of both the Jacobite and Government armies who fell in the conflict.

Killiecrankie Battlefield - Key Landscape Characteristics

15.3.36 The key landscape characteristics of the battlefield through which the route of the existing A9 passes includes the northern extent of the Pass of Killiecrankie and the southern slopes of Creag Eallaich, including the terraces to the south of Mains of Orchil that protected the famous Highland Charge of the Jacobite right wing towards the Government forces. The locations of the key landscape characteristics are shown on Figure 15.4.

The southern slopes of Creag Eallaich

15.3.37 This area is defined as the land encompassed between the lines of the Jacobite and Government forces; and was the location of the Jacobite advance from Blair Atholl via Glen Tilt and Glen Fender and Allt Clun to take position approximately on the 200m contour between Mains of Orchil and Orchilmore (from the Gaelic: 'Oirchill' meaning 'ambush' and Mór meaning 'great': translated as 'Great Ambush'). The taking of the higher ground by the Jacobites before the battle commenced was a key element of the battle and its eventual outcome.

The Pass of Killiecrankie

- 15.3.38 The base of the Pass of Killiecrankie is the route along which the Government troops advanced northwards prior to learning the news that the Jacobites were on the higher slopes, and were subsequently forced to move upslope through difficult terrain to face them. The Trooper's Den, where the first shot of the battle was fired is located at the northern end of the Pass. After the battle, Government troops attempted to retreat back down the Pass.

North-East of Roan Ruairidh

- 15.3.39 North-east of Roan Ruairidh is an area of steep ground bounded by the Allt Girnaig. Documentary sources note that this was the location of the Jacobite left wing charge. While its steepness would have added momentum to the Jacobite charge, the lack of terraces would have made the Jacobites more susceptible to Government fire, limiting its effectiveness. This, and the presence of field walls (no longer extant), stalled the MacDonald advance and enabled the Government forces to hold their right flank until later in the battle, in turn provoking John Graham's (1st Viscount Dundee, leader of the Jacobite army) cavalry charge, which ultimately led to his death.

The terraces to the south of Mains of Orchil and level ground to the south of the A9

- 15.3.40 The presence of the terraces screened the Jacobite forces, partially shielding their right wing from the Government troop's musket fire as they charged. This increased the effectiveness of the charge and contributed greatly to the breaking of the Government left wing.
- 15.3.41 General Hugh Mackay, leader of the Government forces, chose this location for his left wing, anchored on the slight rise now occupied by Balchroic Cottage, which marked the western extent of the Government line. The level ground was identified by Mackay as being suitable to receive the Jacobite charge. Faced by the charge, the Government forces left wing collapsed and enabled the Jacobites to roll up the centre of the Government line, resulting in a rout and retreat back down the slopes.

The position of the Government baggage train within Claverhouse Stone field

- 15.3.42 The Government baggage train was located within the Claverhouse Stone field, on the terraces above the River Garry. This site also occupied the majority of the surviving Jacobites after the initial Highland Charge. The Jacobite forces looted the baggage train in the closing stages of the battle, during their pursuit of the Government forces who retreated down the Pass through Killiecrankie village.

The River Garry and Soldier's Leap

- 15.3.43 The Government troops also retreated towards the River Garry, and the Soldier's Leap is the scene where a Government soldier was said to leap 18ft across the river while fleeing the Jacobites.
- 15.3.44 Further information on the special qualities and key landscape characteristics of the battlefield is provided in Appendix A15.1 (Cultural Heritage Baseline Information). Photographs 15.5 and 15.6 below show two of the key views of the battlefield. In consideration of its historic importance, legibility, potential for buried archaeological remains, and inclusion on the Inventory of Historic Battlefields, HLT 23 has been assessed to be of high value.

Photograph 15.5: View of the southern slope of Craig Eallaich (centre of photograph) that gave momentum to the Jacobite charge and the slight terraces that shielded it from Government musket fire.

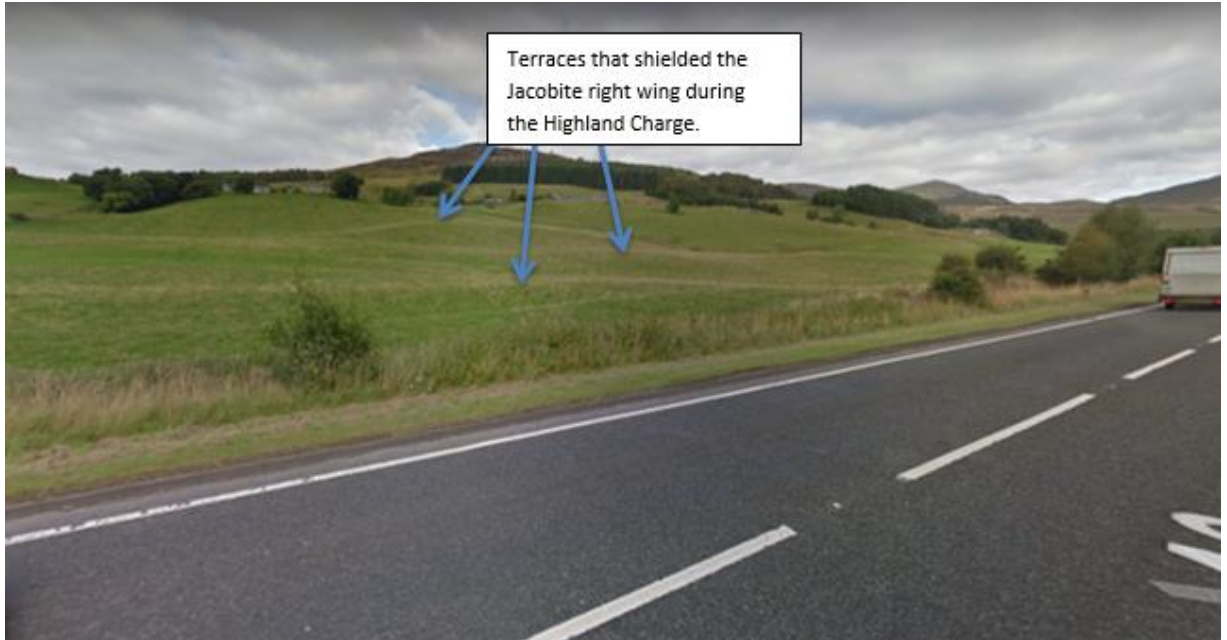


Image from Google Street View captured Sep 2016 ©2017 Google

Photograph 15.6: View from the southern slopes Craig Eallaich towards Urrard Steading (centre of photograph) (Asset 342) the approximate location of the centre of the Government line.



Blair Castle Garden and Designed Landscape

- 15.3.45 Blair Castle Garden and Designed Landscape (HLT 21, Figures 15.2a and 15.2b) shares many of the characteristics of other 18th – 19th century designed landscapes associated with large estate houses including parkland, woodland, an 18th century wilderness, formal gardens and a recently restored walled garden.
- 15.3.46 Notable views from Blair Castle Garden and Designed Landscape (HLT 21) include those southwards towards Tulach Park and Tulach Hill (Photograph 15.7) where 18th century planting defines the southern park boundary. The existing A9 passes through Tulach Park, severing the southern section from the River Garry, and the main focus of the designed landscape at Blair Castle to the north

(Photograph 15.8). As a good example of a mid-18th century formal landscape, and in recognition of its inclusion on the Inventory of Gardens and Designed Landscapes, Blair Castle Garden and Designed Landscape has been assessed to be of high value.

Photograph 15.7: View from the north of Blair Castle south towards the boundary between Tulach Park and Tulach Hill.



Photograph 15.8: View north from Tulach Park of Blair Castle, the northern parkland and woodland on the south facing hills.



Falls of Bruar Garden and Designed Landscape

- 15.3.47 In contrast, the Falls of Bruar Garden and Designed Landscape (HLT 22, Figure 15.2b) is a dramatic late 18th century designed landscape incorporating natural features that reflects the aesthetic ideals of the 'picturesque' and the 'sublime', see also Chapter 13 (Landscape). Many of the features associated with The Falls of Bruar Garden and Designed Landscape (HLT 22, Photograph 15.9) are said to be the result of the *Petition of Bruar Water to the Noble Duke of Athole* written by Robert Burns in 1787 after a short Highland tour. In consideration of its historic interest, completeness and inclusion on the Inventory of Gardens and Designed Landscapes, The Falls of Bruar Garden and Designed Landscape has been assessed to be of high value.

Photograph 15.9: View south from Lower Falls of Bruar Footbridge towards the existing A9.



Non-designated Historic Landscapes

- 15.3.48 The historic landscape types Garden and Designed Landscapes – Retaining Core Elements (HLT 8, Figure 15.2) and Garden and Designed Landscapes – Missing Core Elements HLT (HLT 18, Figure 15.2c) illustrate the development of designed landscapes associated with lesser country houses, which share many of the characteristic elements of the larger designed landscapes albeit on a smaller scale. While HLT 8 retains core elements depicted on the 1st edition Ordnance Survey map of 1867 and has been assessed to be of medium value, HLT 18 retains little of the original features and has been assessed to be of low value.
- 15.3.49 The 17th to 19th Century Rectilinear Fields and Farms HLT (HLT 1, Figure 15.2) reflects the reorganisation of agricultural land during the Improvement Era which resulted in the development of the pattern of straight sided field boundaries seen today. As a common landscape type, but reflecting its historic interest relating to the impacts of the Improvement Era on the agricultural landscape of the Highlands, this historic landscape type has been assessed to be of low value.
- 15.3.50 The 19th Century to Present Urban Areas HLT (HLT 4, Figures 15.2a and 15.2b) reflects the growth of rural settlements including Blair Atholl and Calvine as a result of agricultural improvements during the Improvement Era. Others are more recent satellite urban developments beyond the edge of larger centres. HLT 4 includes small clusters of houses which today have little or no specific link to rural land use, although they are sited within the countryside. In consideration of the limited historical significance of this type of landscape type, and reflecting its frequency within the study area, HLT 4 has been assessed to be of low value.
- 15.3.51 An additional seven historic landscape types have been identified within the baseline including Recreation Area (HLT 6, Figure 15.2), Rough Grazing (HLT 10, Figure 15.2), 19th Century to Present Quarry (HLT 12, Figure 15.2a), Blair Atholl Golf Course (HLT 13, Figure 15.2a), Transport (HLT 15, Figure 15.2) Freshwater Area (HLT 17, Figures 15.2a and 15.2b) and Uncultivated Land, Flood Margin (HLT 24, Figure 15.2a). These HLTs are not rare and as such have been assessed to be of low or negligible value.
- 15.3.52 Areas of Managed Woodland (HLT 2, Figure 15.2) comprises largely deciduous woodland once intensively managed for the long-term production of timber to supply rural crafts and industries, whereas the majority of 19th Century to Present Coniferous Plantation (HLT 3, Figure 15.2c), have relatively modern origins as part of commercial forestry. While Managed Woodland (HLT 2) provides evidence for earlier woodland management, given its lack of rarity it has been assessed to be of low value. In consideration of its frequency within the region, and reflecting the limited historical significance of this form of land management, HLT 3 has been assessed to be of negligible value.

15.4 Potential Impacts

- 15.4.1 The design of the proposed scheme has been developed through an iterative design process involving engineering, landscape and cultural heritage specialists, in order to avoid or reduce potential impacts on cultural heritage assets. Further information is provided in Chapter 4 (Iterative Design Development). This section takes into account the embedded and standard mitigation presented in Section 15.5, and describes the potential impacts that would be expected to occur in the absence of specific mitigation.
- 15.4.2 Potential significant impacts (i.e. of **Moderate** or higher significance) on cultural heritage assets are discussed in full below. Appendix A15.4 (Cultural Heritage Impact, Mitigation and Residual Impact Tables) presents a detailed assessment of all potential significant and non-significant impacts, mitigation measures where applicable, and residual impacts on cultural heritage assets. Unless otherwise stated, all impacts described below are adverse.
- 15.4.3 Close consultation has been maintained with other environmental teams during the development of the landscape and ecological mitigation plans to ensure that any potential impacts on cultural heritage assets, both physical and on setting, have been considered and integrated into mitigation plans, shown on Figure 13.5 and described in Chapter 13 (Landscape) and Chapter 12 (Ecology).

Construction

Archaeological Remains

- 15.4.4 Please note that impacts on Balchroic Field Boundaries and Pits (Asset 770) are considered under Historic Landscape Types below as they form part of the special qualities of Killiecrankie Battlefield.
- 15.4.5 Widening of the A9 carriageway and construction of the access road between ch1350 and ch1400 will remove archaeological remains associated with Old Faskally Cairn (Asset 331, Figure 15.1a). The impact on this medium value asset has been assessed to be moderate magnitude and of **Moderate** significance.
- 15.4.6 Construction of the drainage system for the proposed scheme (SuDS features) between ch1320 and ch1420 would remove archaeological remains associated with Old Faskally Possible Structures 1 (Asset 769, Figure 15.1a).
- 15.4.7 Construction of the Aldclune Junction would remove archaeological remains associated with Aldclune Possible Structures and Enclosures (Asset 771, Figure 15.1b) and Clunebeg Possible Trackway Structures and Enclosures (Asset 772, Figure 15.1b).
- 15.4.8 Construction of the SuDS features between ch19510 and ch19650 would result in the removal of archaeological remains associated with Dalreoch Possible Structures and Enclosures (Asset 773, Figure 15.1g).
- 15.4.9 The impact on all four low value cultural heritage assets outlined above has been assessed to be major magnitude and of **Moderate** significance.
- 15.4.10 In addition to the impacts identified above, impacts during construction of Slight and Neutral significance are predicted on a further 15 archaeological remains. These are presented in Appendix A15.4 (Cultural Heritage Impact, Mitigation and Residual Impact Tables).
- 15.4.11 Construction of the proposed scheme also has the potential to remove unknown (buried) archaeological remains.

Historic Buildings

- 15.4.12 Due to its proximity to the proposed scheme, there is the potential during construction for accidental damage to Shierglas Farmhouse (Asset 365, Figure 15.1b). In the absence of mitigation, the potential

impact on this medium value asset has been assessed to be major magnitude and of **Large** significance.

- 15.4.13 Impacts during construction of Slight and Neutral significance are predicted on the setting of a further 35 historic buildings. These direct impacts also include potential accidental damage to four historic buildings. These are presented in Appendix A15.4 (Cultural Heritage Impact, Mitigation and Residual Impact Tables).

Historic Landscapes

- 15.4.14 Construction of the proposed scheme has the potential to impact on the following special qualities and key landscape characteristics of Killiecrankie Battlefield (HLT 23). All special qualities and key landscape characteristics have been assigned a high value given their association with the designated battlefield and are shown on Figure 15.4.
- 15.4.15 A summary of the potential construction impacts on Killiecrankie Battlefield's special qualities and key landscape characteristics is provided in Table 15.5. Cross-sections that highlight how changes to the battlefield topography relate to the special qualities and key landscape characteristics of the battlefield outlined below are provided in Chapter 13 (Landscape), Figure 13.6:
- Figure 13.6a, ch1680: North-East of Roan Ruairidh and the southern slopes of Creag Eallaich;
 - Figure 13.6b, ch2360: Terraces to the south of Mains of Orchil and level ground to the south of the A9.

Special Qualities of Killiecrankie Battlefield

Potential archaeological remains associated with Roan Ruairidh House Redoubt (Asset 344)

- 15.4.16 Given the location of the redoubt is now considered to be occupied by Urrard House and falls outside the area of the proposed scheme, it is unlikely that any archaeological remains associated with it would be disturbed by the construction of the proposed scheme. No construction impacts have therefore been identified.

Potential archaeological remains associated with Croftcarnoch Redoubt (Asset 346)

- 15.4.17 Given that the conjectured location of the redoubt is over 180m to the north-east of the existing A9 it is unlikely that any archaeological remains associated with it would be disturbed by the construction of the proposed scheme. No construction impacts have therefore been identified.

Tomb Clavers

- 15.4.18 No direct physical impacts have been identified on this special quality during construction.
- 15.4.19 Due to the presence of woodland screening, there are no temporary visual impacts expected during construction. Temporary noise impacts associated with the movement of plant and construction work are expected.

Archaeological remains associated with the battle recorded and recovered during metal detecting surveys in 2003 and 2015

- 15.4.20 The construction of the following components of the proposed scheme will result in the removal of unknown archaeological remains associated with the battle at the following locations:
- ch1700: SuDS feature;
 - ch1720-1880: lay-by;
 - ch2150-2450: northbound carriageway, associated earthworks and haulage routes; and

- ch2800-3320: northbound carriageway, associated earthworks, SuDS feature and associated access track.

Potential archaeological remains associated with the battle recorded during geophysical surveys in 2016

- 15.4.21 The construction of the northbound carriageway, associated earthworks and an access track to a SuDS feature will result in the removal of a series of potential pits of archaeological origin (Asset 770) that were recorded during geophysical survey close to Balchroic Cottages at ch2900 and ch3200.

Key Landscape Characteristics of Killiecrankie Battlefield

The Pass of Killiecrankie

- 15.4.22 During construction, it is anticipated that construction plant and infrastructure, and construction work itself would temporarily be visible from the Pass to the north-west, north, north-east and east.

The southern slopes of Creag Eallaich

- 15.4.23 During construction, it is anticipated that construction plant and infrastructure, and construction work itself would interrupt key views across the battlefield between the Jacobite and Government lines, and this would temporarily diminish the ability to appreciate the relationships between the lower and upper slopes of Creag Eallaich, i.e. between the lines of the upslope Jacobite forces and the downslope Government forces.

The terraces to the south of Mains of Orchil and the level ground to the south of the A9

- 15.4.24 The main body of the terraces are located in the open ground to the south of Mains of Orchil and to the north of the existing A9, and due to the proposed widening to the opposite side of the A9 at this location (northbound widening), the terraces do not fall within land required for the proposed scheme, and therefore no impacts on them at this location have been identified. The proposed scheme will require the construction of a new carriageway on a raised embankment, with associated SuDS feature and access track.

- 15.4.25 The presence and movement of plant, and the construction works themselves, will result in a further effect on the ability to appreciate the relationship between the terraces to the north of the existing A9 and the flat ground to the south, that is already affected by the existing A9.

North-East of Roan Ruairidh

- 15.4.26 The proposed northbound widening at this location will not require any land take from this area and no construction impacts have been identified as a result.

The position of the Government baggage train at Claverhouse's Stone field

- 15.4.27 No direct physical or non-physical construction impacts associated with the proposed scheme have been identified on this location, given its distance from the A9 and the presence of woodland screening between it and the existing A9.

River Garry and Soldier's Leap

- 15.4.28 No direct physical or non-physical construction impacts associated with the proposed scheme have been identified on this location, given its distance from the A9 and the presence of woodland screening between it and the existing A9.

Table 15.5: Summary of the Construction Impacts on the Special Qualities and Key Landscape Characteristics of Killiecrankie Battlefield (HLT 23)

	Description of potential impact
Special Qualities	
Potential archaeological remains associated with Roan Ruairidh House Redoubt	No construction impacts have been identified.
Potential archaeological remains associated with Croftcarnoch Redoubt	No construction impacts have been identified.
Tomb Clavers	No physical impacts have been identified on this special quality during construction. There will be temporary noise impacts caused by the presence and movement of construction plant and construction works to the north.
Archaeological remains associated with the battle recorded and recovered during metal detecting surveys in 2003 and 2015	The construction of the following components of the proposed scheme would result in the removal of any surviving archaeological artefacts and remains associated with the battle: at ch1700: SuDS feature; ch1720-1880: layby; ch2150-2520: northbound carriageway, associated earthworks and haulage routes; ch2800-3320: northbound carriageway, associated earthworks, SuDS feature and associated access track.
Potential archaeological remains associated with the battle recorded during geophysical surveys in 2016	The construction of the northbound carriageway, associated earthworks, SuDS feature and access track would result in the removal of a series of potential pits of archaeological origin that were recorded during geophysical survey close to Balchroic Cottages between ch2800-3000.
Key Landscape Characteristics	
The Pass of Killiecrankie	During construction, there will be temporary visual and noise impacts from movement of plant and the construction works themselves.
The southern slopes of Creag Eallaich	During construction, the integrity of the area would be temporarily compromised by the presence of construction plant and infrastructure, and from the construction work itself, that would interrupt key views across the battlefield. In addition, there would be a temporary change to how the battlefield is experienced due to the presence of construction works and associated plant movement and noise.
The terraces to the south of Mains of Orchil and the level ground to the south of the A9	Construction will require the land take to the south of the existing A9, and will temporarily impact on the ability to appreciate the relationship between this area and the terraces to the north.
North-east of Roan Ruairidh	No construction impacts have been identified.
The position of the Government baggage train at Claverhouse's Stone Field	No construction impacts have been identified.
River Garry and Soldier's Leap	No construction impacts have been identified.

15.4.29 In the absence of specific mitigation, the potential construction impact on Killiecrankie Battlefield has been assessed to be moderate magnitude and of **Moderate** significance. This has taken into account the removal of archaeological artefacts and possible pits associated with the battle; and temporary impacts on the way the battlefield is understood and experienced caused by construction-related traffic and works.

15.4.30 Potential impacts during construction of Slight and Neutral significance are predicted on a further eight historic landscape types due to the loss of elements from these types; however, this would not affect our understanding of them. These are presented in Appendix A15.4 (Cultural Heritage Impact, Mitigation and Residual Impact Tables).

Operation

Archaeological Remains

15.4.31 No significant impacts are predicted on archaeological remains as a result of the operation of the proposed scheme.

- 15.4.32 Potential impacts during operation of Slight significance are predicted on the setting of two archaeological remains. These are presented in Appendix A15.4 (Cultural Heritage Impact, Mitigation and Residual Impact Tables).

Historic Buildings

- 15.4.33 No significant impacts are predicted on historic buildings as a result of the operation of the proposed scheme.
- 15.4.34 Potential impacts during operation of Slight and Neutral significance are predicted on the setting of 24 historic buildings. These are presented in Appendix A15.4 (Cultural Heritage Impact, Mitigation and Residual Impact Tables).

Historic Landscapes

- 15.4.35 Operation of the proposed scheme has the potential to impact on the special qualities and key landscape characteristics associated with Killiecrankie Battlefield (HLT 23), these are discussed below, and are summarised in Table 15.6.
- 15.4.36 Cross-sections that highlight how changes to the battlefield topography relate to the special qualities and key landscape characteristics of the battlefield are provided in Chapter 13 (Landscape), Figure 13.6.

Special Qualities of Killiecrankie Battlefield

Potential archaeological remains associated with Roan Ruarridh Redoubt (Asset 344)

- 15.4.37 As the value of this asset is derived from its physical remains rather than its setting, no impact during operation has been identified.

Potential archaeological remains associated with Croftcarnoch Redoubt (Asset 346)

- 15.4.38 As the value of this asset is derived from its physical remains rather than its setting, no impact during operation has been identified.

Tomb Clavers (Asset 348)

- 15.4.39 The operation of the proposed scheme would have no visual impact on Tomb Clavers (Asset 348), as the existing woodland will screen the road from the asset. Noise assessment (Chapter 17: Noise and Vibration, Tables 17.5 and 17.7, and noise change contour maps Figures 17.3 – 17.8 (sheet b) indicate that noise levels would decrease at this location during operation of the proposed scheme (-2.9 to -1.0dB_{LA10,18h}) in the short term when the project is opened (assumed to be 2026 for the purposes of the assessment) due to the provision of low noise surfacing as part of the A9 dualling programme. In the long term, after 15 years of operation (assumed to be 2041), it is predicted that there will be a negligible decrease (-2.9 to -0.1dB_{LA10,18h}) in noise levels. It is considered that a change in road traffic noise of 1dB_{LA10,18h} in the short term (when a project is opened) is the smallest that is considered perceptible. In the long term (typically 15 years after project opening), a 3dB_{LA10,18h} change is considered perceptible.

Archaeological remains associated with the battle recorded and recovered during 2003 and 2015 metal detecting surveys

- 15.4.40 As the value of these is derived from their physical remains rather than their setting, no impact during operation has been identified.

Potential archaeological remains associated with the battle recorded during 2016 geophysical surveys

- 15.4.41 As the value of these is derived from their physical remains rather than their setting, no impact during

operation has been identified.

Key Landscape Characteristics of Killiecrankie Battlefield

For visualisations of the proposed scheme as it passes through Killiecrankie battlefield please refer to:

- Viewpoint 1 (Figure 14.6): South-western slopes of Ben Vrackie;
- Viewpoint 2 (Figure 14.7): PKC Core Path KCKI/120 Bealach Walk near Killiecrankie Water Treatment Works;
- Viewpoint 3 (Figure 14.8): PKC Core Path KCKI/122 to Craig Fonvuick; and
- Viewpoint 6 (Figure 14.11): Creag Odhar.

The Pass of Killiecrankie

- 15.4.42 During operation, the proposed scheme would be seen from the northern extent of the Pass of Killiecrankie, from the B8079 looking north, however views of the proposed scheme from Trooper's Den and the National Trust for Scotland visitor centre (see inset photograph relating to Trooper's Den on Figure 15.4a) would not be affected.

The southern slopes of Creag Eallaich

- 15.4.43 The southern slopes of Creag Eallaich encompass a large area, taking in the high ground to the north of the existing A9, and the lower ground towards the south of the existing A9. From the high ground to the north of the existing A9, there are commanding views across the battlefield and beyond (see Viewpoints 1 and 2, Figures 14.6 and 14.7) and it is from here that an appreciation of the scale of the battle, as well as an understanding of the layout and inter-relationships between the special qualities and key landscape characteristics of the battlefield can be gained. During the operation of the proposed scheme, the A9 will be a more prominent feature within the battlefield than it is now, particularly in views towards the Pass of Killiecrankie, Urrard House, Balchroic Cottages and Essangal and the associated proposed junction and bridge, and this increased prominence will reinforce the severance of the battlefield already caused by the existing A9.

- 15.4.44 The operation of the proposed scheme will not, however, result in a reduced capacity to understand or experience the battlefield. The terraces to the south of Mains of Orchil and the areas where the opposing armies lined up before the battle, the area around Urrard House where the main body of the fighting occurred and the route of the subsequent Government rout and retreat towards the River Garry and Pass of Killiecrankie, will not be removed and will therefore retain their overall integrity and legibility.

The terraces to the south of Mains of Orchil and the level ground to the south of the A9

- 15.4.45 During the operation of the proposed scheme the terraces to the north of the existing A9 will remain as an integral part of the battlefield given that the northbound widening (i.e. to the south of the existing A9) is proposed which would not require their removal, and there will be no impact on how they can be appreciated and understood as the route of the Jacobite's famous Highland Charge. Due to this, no operational impact has been identified.

- 15.4.46 In relation to the level ground to the south of the existing A9, the topography here will be altered by the construction of a shallow earthwork embankment for the northbound widening of the proposed scheme, and this will be bordered to the south by an access track leading to a SuDS feature at ch3250, just to the north of Balchroic Cottage. This will represent a change to the existing topography at this location and will serve to reinforce the severance of this key landscape characteristic by the proposed scheme.

North-east of Roan Ruarridh Redoubt

- 15.4.47 The proposed scheme to the south of this key landscape characteristic area will comprise a new

northbound carriageway, lay-by, SuDS features, and improved access tracks (see Viewpoints 2, Figure 14.7). During operation, this will result in the reinforcement the severance of this area from the battlefield to the south of the A9.

The position of the Government's baggage train at Claverhouse's Stone Field

- 15.4.48 The operation of the proposed scheme would have no impact on this key landscape characteristic area as it will remain screened from the proposed scheme.

River Garry and Soldier's Leap

- 15.4.49 The operation of the proposed scheme would have no impact on this key landscape characteristic area as it will remain screened from the proposed scheme.

Table 15.6: Summary of the Operational Impacts on the Special Qualities and Key Landscape Characteristics of Killiecrankie Battlefield (HLT 23)

	Description of potential impact
Special Qualities	
Potential archaeological remains associated with Roan Ruairidh House Redoubt	No impacts have been identified during operation as the value of this special quality is derived from its archaeological remains rather than its setting.
Potential archaeological remains associated with Croftcarnoch Redoubt	No impacts have been identified during operation as the value of this special quality is derived from its archaeological remains rather than its setting.
Tomb Clavers	The operation of the proposed scheme would have no visual impact on Tomb Clavers, as the existing woodland will screen it from the road. Noise assessment has identified that noise levels at Tomb Clavers associated with the operation of the proposed scheme would not exceed those associated with the existing A9.
Archaeological remains associated with the battle recorded and recovered during metal detecting surveys in 2003 and 2015	No impacts have been identified during operation as the value of this special quality is derived from its archaeological remains rather than its setting.
Potential archaeological remains associated with the battle recorded during geophysical surveys in 2016	No impacts have been identified during operation as the value of this special quality is derived from its archaeological remains rather than its setting.
Key Landscape Characteristics	
The Pass of Killiecrankie	Views towards the proposed scheme from Troopers Den will not be affected due to the presence of woodland screening.
The southern slopes of Creag Eallaich	During operation, the proposed scheme will reinforce the severance of the southern slopes due to the construction of the northbound carriageway and associated earthworks. In addition, views from the slopes of Creag Eallaich across the battlefield will be interrupted by the more prominent road and associated infrastructure.
The terraces to the south of Mains of Orchil and the level ground to the south of the A9	During operation, there will be a change in topography to the south of the A9, and this will remove an area of level ground that is a constituent element of the landscape characteristic.
North-East of Roan Ruairidh	Reinforcement of the severance of the battlefield at this location by northbound carriageway, layby, SuDS features and access track.
The position of the Government baggage train at Claverhouse's Stone Field	No impacts have been identified during construction given the distance of the landscape characteristic from the proposed scheme, and presence of woodland screening.
River Garry and Soldier's Leap	No impacts have been identified during construction given the distance of the landscape characteristic from the proposed scheme, and presence of woodland screening.

Overall Potential Impacts on Killiecrankie Battlefield

- 15.4.50 As explained in Section 3.2 (Chapter 3: Alternatives Considered), the A9 PES and A9 SEA, which provided an equivalent assessment to the DMRB Stage 1 level of consideration for the A9 dualling programme, identified that online widening, generally following the route of the existing A9, was the most suitable option. The alignment of the proposed widening of the A9 through Killiecrankie Battlefield was considered during development of the route options at DMRB Stage 2.
- 15.4.51 Whilst northbound widening has been selected for the proposed scheme it was recognised that widening to either northbound or southbound would be similar in terms of overall impacts on the battlefield in that both could remove any present archaeological remains, introduce noise and temporary noise and visual intrusion into the setting of the battlefield, result in changes to battlefield topography and reinforce visual severance. Where there was a difference in significance of impacts between north and southbound widening they were not considered to be a differentiator. For example, the DMRB Stage 2 assessment identified that southbound widening could have an adverse impact on the setting of Croftcarnoch Redoubt (Site of) (Asset 346) but as the significance of this impact was assessed to be Slight, this impact was not considered to be a differentiator between options. As explained in Section 3.5 (Chapter 3: Alternatives Considered), northbound widening through this section of the proposed scheme was determined as the preferred option as it requires the least volume of material excavation from site, has a better balance of earthworks compared to other options and retains of the Allt Girnaig and Allt Chluain underbridges, avoiding demolition of existing bridges and construction of new replacement bridges.
- 15.4.52 Whilst the existing A9 carriageway already passes through Killiecrankie Battlefield, construction and operation of the proposed scheme will require the widening of the A9, along with the construction of additional highways infrastructure into the battlefield such as lay-bys, SuDS features and access tracks. When the existing A9 and proposed scheme are considered together, this will represent the increased severance of the battlefield by the proposed scheme.
- 15.4.53 The assessment has given consideration to the potential impacts of the construction and operation of the proposed scheme on the amenity value of Killiecrankie Battlefield (HLT 23). The majority of visitors enjoy and experience the battlefield by visiting the National Trust for Scotland's visitor centre at the Pass of Killiecrankie; and by attending the annual Soldiers of Killiecrankie event and re-enactment at Claverhouse's Stone Field. As these will not be affected by the proposed scheme, no impact on the amenity value of Killiecrankie Battlefield (HLT 23) is predicted.
- 15.4.54 In the absence of specific mitigation, the magnitude of potential impact during operation on Killiecrankie Battlefield has been assessed to be moderate and the significance has been assessed to be **Moderate**.
- 15.4.55 Potential impacts during operation of Slight and Neutral significance are predicted on an additional eight historic landscape types. These are presented in Appendix A15.4 (Cultural Heritage Impact, Mitigation and Residual Impact Tables).

15.5 Mitigation

- 15.5.1 This chapter makes reference to overarching standard measures applicable across A9 dualling projects ('SMC' mitigation item references), and also to project-specific measures ('P05' mitigation item references). Those that specifically relate to cultural heritage are assigned an 'CH' reference.
- 15.5.2 Mitigation for potential significant and non-significant impacts on cultural heritage assets is described below. Further detail is presented in Appendix A15.4 (Cultural Heritage Impact, Mitigation and Residual Impact Tables).

Embedded Mitigation

- 15.5.3 The design of the proposed scheme has sought to avoid impact through DMRB Stage 3 design

development taking into account the Strategic Environmental Design Principles – Historic Environment as listed in Table 5 of Appendix 2.1.

15.5.4 Chapter 4 (Iterative Design Development) describes key design developments that have avoided or reduced potential impacts on the following cultural heritage assets:

- the grading out of earthworks to improve integration with the existing landform, and a more natural appearance between Troopers Burn and Allt Girnaig, and at Aldclune Junction; and the control of planting to allow open views, details of which are outlined in Chapter 13 (Landscape);
- locating SuDS features to reduce impacts on areas of high archaeological potential for unknown archaeological remains identified during metal detecting surveys;
- SuDS features were relocated to avoid impacts on the setting of Old Faskally House (Asset 333) and Calvine Village (Asset 585);
- early refinements of the proposed scheme design are such that the final DMRB Stage 3 design completely avoids Clach na h'lobairt Standing Stone (Asset 446), a Scheduled Monument; and
- design development of an access track has avoided a direct impact on Dalnamein New Bridge (Asset 481) a Category B Listed Building.

Standard Mitigation

15.5.5 The Contractor will consult with the relevant local authority and Transport Scotland's historic environment advisor should any archaeological or cultural heritage finds or sites be discovered or revealed during construction to enable appropriate measures to be implemented to mitigate potential impacts (**Mitigation Item SMC-CH1**).

Specific Mitigation

Archaeological Remains

15.5.6 A Level 3 landscape survey record (English Heritage, 2007) of Old Faskally Cairn (Asset 331) and Dalnamein Lodge Shielings (Site of) (Asset 480) will be undertaken (**Mitigation Item P05-CH2**) to make a permanent record of the assets. A Level 3 record provides an enhanced and integrated, multi-disciplinary record. It will comprise an account of the sites and their landscape setting accompanied by a full range of measured and annotated drawings as well as photographs and reconstruction/phased diagrams and an accurate measured survey plan alongside three-dimensional data. As part of the mitigation, a report on the results of the Level 3 landscape survey records will be prepared and submitted to the Perth & Kinross Historic Environment Record and the National Record of the Historic Environment, along with an ordered archive which will be submitted to an appropriate repository.

15.5.7 Following trial trenching targeted on both known archaeological remains and areas of archaeological potential, to inform the nature scope and scale of mitigation required (**Mitigation Item P05-CH3**), archaeological excavation (**Mitigation Item P05-CH4**) would be undertaken in advance of construction to make a permanent record of any affected archaeological remains at:

- Old Faskally Cairn (Asset 331);
- Luragbeath Lime Kiln (Site of) (Asset 379);
- Dalnamein Lodge Shielings (Site of) (Asset 480);
- Balchroic Field Boundaries and Pits (Asset 770);
- Aldclune Possible Structures and Enclosures (Asset 771);
- Clunebeg Possible Trackway, Structures and Enclosures (Asset 772); and
- Dalreoch Possible Structures and Enclosures (Asset 773).

15.5.8 Following trial trenching targeted on both known archaeological remains and areas of archaeological potential, to inform the nature scope and scale of mitigation required (**Mitigation**

Item P05-CH3), archaeological strip, map and sample (**Mitigation Item P05-CH5**) would be undertaken in advance of construction to make a permanent record of any affected archaeological remains at:

- Calvine Camp No. 66 (Asset 442);
- Crom Bhruthach Farmstead (Site of) (Asset 472);
- Old Faskally Possible Structures (Asset 768); and
- Old Faskally Possible Structures 1 (Asset 769).

15.5.9 Archaeological recording during construction (watching brief) (**Mitigation Item P05-CH6**) will be maintained during construction to make a permanent record of any surviving archaeological remains at:

- Dunkeld to Inverness Military Road (Site of) (Asset 456);
- Clunes Lodge/Cluns Township (Site of) (Asset 466);
- Clunes Lodge Township (Site of) (Asset 468); and
- Allt Nan Cuiinneag Township (Site of) (Asset 571)

15.5.10 In addition to the detailed excavation and strip, map and sample and archaeological recording outlined above, further archaeological mitigation maybe be identified on unknown archaeological remains that may be identified during trial trenching.

Historic Buildings

15.5.11 Based on the recommendations set out in Appendix A15.2 (Shierglas Farmhouse Structural Overview), the following will be undertaken prior to construction (**Mitigation Item P05-CH7**):

- A dilapidation survey including record photographs of Shierglas Farmhouse (Asset 365) and surrounding buildings.
- Vibration monitoring transducers installed around the farmhouse in locations advised by a vibration specialist and a base log of vibration information gathered. These transducers would also be used to monitor vibration and ensure works remain below an appropriate threshold.
- If it is safe to do so, installation of survey retro-reflective targets to record the current verticality at the corners and areas thought to be at significant risk, such as the chimneys. These locations would be monitored frequently throughout the construction works for indications of potential movement.
- Blasting schedules obtained from the quarry operator and construction works to be halted during quarry blasting in the vicinity of Shierglas Farmhouse.
- Following monitoring it may be a requirement that during construction the speed limit of construction traffic in the vicinity of the farmhouse is lowered to prevent sources of increased vibration propagation from ramps, potholes and changes in the road surface level. The use of road plates to temporarily cover excavations in the vicinity of the farmhouse would be avoided.

15.5.12 In addition, Shierglas Farmhouse (Asset 365) will be securely fenced off, using Heras-type fencing, for the duration of construction, and should be identified on the Construction Environmental Management Plan (CEMP) to avoid accidental damage (**Mitigation Item P05-CH8**).

15.5.13 The following historic buildings will be securely fenced off, using Heras-type fencing, for the duration of construction, and should be identified on the CEMP to avoid accidental damage (**Mitigation Item P05-CH11**):

- Urrard House Walled Garden and Bothies (Asset 343);
- Essangal Lime Kiln (Asset 369);

- Clach Na H'lobairt Standing Stone, 300m east of Pitagowan (Asset 446);
- Chrombaidh Bridge (Asset 461);
- Dalnamein New Bridge (Asset 481);
- Old Bridge over Allt Andeir (Asset 484); and
- Geallaidh Bridge (Asset 492).

15.5.14 A photographic record (**Mitigation Item P05-CH12**) of the following historic buildings will be undertaken to document the assets in their existing setting prior to construction commencing. This will include the preparation of a report on the results of the survey and preparation and submission of an ordered archive:

- Essangal Lime Kiln (Asset 369);
- Chrombaidh Bridge (Asset 461);
- Dalnamein New Bridge (Asset 481); and
- Old Bridge over Allt Andeir (Asset 484).

Historic Landscapes

15.5.15 A Level 2 landscape survey (English Heritage, 2007) (**Mitigation Item P05-CH9**) of Gardens and Designed Landscapes – retaining core elements (HLT 8), Killiecrankie Battlefield (HLT 23), and Blair Caste Garden and Designed Landscape (HLT 21) will be undertaken to record the current form and condition of the areas that will be affected by construction. A Level 2 record provides a descriptive and interpretative record that is both metrically accurate and analytical, and includes the core monument record, a written account, survey drawings and ground photography.

15.5.16 An archaeological metal detecting survey (**Mitigation Item P05-CH10**) of the affected areas of Killiecrankie Battlefield will be undertaken, including preparation of a report on the results of the survey and preparation and submission of an ordered archive. The results of the Level 2 survey and the metal detecting survey at the battlefield, will be used to identify areas that will be subject to archaeological trial trenching (**Mitigation Item P05-CH3**). Trial trenching of apparently blank areas (where no archaeological remains have been identified) will also be undertaken. The results of the surveys and trial trenching will inform the subsequent mitigation strategy, that may comprise one or more of the following:

- Archaeological excavation in advance of construction to make a permanent record of any affected archaeological remains (**Mitigation Item P05-CH4**);
- Strip, map and sample (**Mitigation Item P05-CH5**); and
- Archaeological recording during construction ('watching brief') (**Mitigation Item P05-CH6**).

15.5.17 To ensure adherence to good practice guidance, all cultural heritage mitigation, including that outlined in Appendix A15.4 (Cultural Heritage Impact, Mitigation and Residual Impact Tables) will be undertaken in accordance with relevant guidance provided by the Chartered Institute for Archaeologists, HES and Historic England, and a Written Scheme of Investigation (**Mitigation Item P05-CH13**) that will be agreed with Perth & Kinross Heritage Trust and Transport Scotland's historic environment advisor.

15.5.18 To ensure appropriate reporting and dissemination of the results, all cultural heritage mitigation will include a programme of assessment, reporting, analysis, publication and dissemination of results commensurate with the value of the archaeological remains, historic buildings and historic landscapes affected. This will include the preparation of reports which will be submitted to the Perth & Kinross Historic Environment Record and the National Record of the Historic Environment, along with ordered archives which will be submitted to an appropriate repository (**Mitigation Item P05-CH14**).

15.5.19 In line with Stage 3 (Mitigate and Enhance) of Managing Change in the Historic Environment: Historic

Battlefields (HES, 2016), opportunities to offset the impacts on the Killiecrankie Battlefield will be explored with interested parties including Historic Environment Scotland, the National Trust for Scotland and the Perth & Kinross Heritage Trust (**Mitigation Item P05-CH15**). This could be achieved through measures such as increased interpretation and/or additional research to increase the ability to understand the battlefield.

15.6 Residual Impacts

15.6.1 Residual impacts are those that remain once the described mitigation measures have been implemented. Residual impacts of **Moderate** and above are considered to be significant and are described below. Non-significant impacts are not discussed here but are presented in Appendix A15.4 (Cultural Heritage Impact, Mitigation and Residual Impact Tables).

Archaeological Remains

15.6.2 No significant residual impacts on archaeological remains are predicted to result from construction of the proposed scheme. Residual impacts of Slight and Neutral significance on 21 archaeological remains are predicted during construction; see Appendix A15.4 (Cultural Heritage Impact, Mitigation and Residual Impact Tables) for more information on these impacts.

15.6.3 No significant residual impacts on archaeological remains are predicted to result from operation of the proposed scheme. Residual impacts of Slight significance on two archaeological remains are predicted during operation; see Appendix A15.4 (Cultural Heritage Impact, Mitigation and Residual Impact Tables) for more information on these impacts.

Historic Building

15.6.4 No significant residual impacts on historic buildings are predicted to result from construction of the proposed scheme. Residual impacts of Slight and Neutral significance on the setting of 36 historic buildings are predicted during construction; see Appendix A15.4 (Cultural Heritage Impact, Mitigation and Residual Impact Tables) for more information on these impacts.

15.6.5 No significant residual impacts on historic buildings are predicted to result from operation of the proposed scheme. Residual impacts of Slight and Neutral significance on the setting of 24 historic buildings during operation are predicted; see Appendix A15.4 (Cultural Heritage Impact, Mitigation and Residual Impact Tables) for more information on these impacts.

Historic Landscapes

Killiecrankie Battlefield

15.6.6 Table 15.7 presents significant residual impacts on historic landscapes.

Table 15.7: Residual impacts on Historic Landscapes

Asset no.	Asset Name	Designation	Value	Impact Magnitude	Impact Significance	Mitigation Item	Residual magnitude of impact	Residual significance of effect
Operation								
HLT23	Killiecrankie Battlefield	Inventory Battlefield	High	Moderate	Moderate	None proposed	Moderate	Moderate

15.6.7 With appropriate and effective mitigation in place, no significant residual impacts on Killiecrankie Battlefield are predicted to result from construction of the proposed scheme.

15.6.8 The operation of the proposed scheme within Killiecrankie Battlefield (HLT 23), would result in the reinforcement of the existing severance of the battlefield by the A9. No specific mitigation has been proposed as it is not believed the overall effect of severance can be reduced, therefore the

significance of the residual impact on the battlefield has been assessed to remain as **Moderate**.

- 15.6.9 Residual impacts of Slight and Neutral significance as a result of the loss of historic elements during construction have been identified on eight historic landscape types. Details of these are provided in Appendix A15.4 (Cultural Heritage Impact, Mitigation and Residual Impact Tables).
- 15.6.10 Residual impacts of Slight significance during operation have been identified on eight historic landscape types. Details of these are provided in Appendix A15.4 (Cultural Heritage Impact, Mitigation and Residual Impact Tables).

15.7 Statement of Significance

- 15.7.1 With proposed mitigation, the overall impact on the cultural heritage resource comprising archaeological remains and historic buildings has been assessed to be of Slight significance.
- 15.7.2 With proposed mitigation, the overall impact on the cultural heritage resource comprising historic landscapes has been assessed to be of **Moderate** significance.

15.8 References

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