

A9 DUALLING: LUNCARTY TO PASS OF BIRNAM

VOLUME 3 OF 5

EMPLOYER'S REQUIREMENTS

PART 2 – SCHEME SPECIFIC REQUIREMENTS

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CONTRACT NUMBER TS/MTRIPS/WKS/2017/01

CONTRACT DOCUMENT

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TRANSPORT SCOTLAND

A9 DUALLING: LUNCARTY TO PASS OF BIRNAM

TS/MTRIPS/WKS/2017/01

CONTRACT DOCUMENT

VOLUME 3 OF 5

EMPLOYER'S REQUIREMENTS

PART 2 - SCHEME SPECIFIC REQUIREMENTS

DOCUMENT ISSUE RECORD

I hereby confirm that this is the current version of the Employer's Requirements and supersedes all previous issues of such document by the Employer.

Signed _____
Name (Block capitals) _____
Date _____
Contractor _____

Copy of signed page shall be sent to, Transport Scotland, [REDACTED]

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VOLUME 3 OF 5
EMPLOYER'S REQUIREMENTS
PART 2 – SCHEME SPECIFIC REQUIREMENTS
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1. GENERAL REQUIREMENTS

1.1 Introduction

1.1.1 This document, Part 2 to these Employer's Requirements, has been compiled to provide the Scheme Specific Requirements for the A9 Dualling: Luncarty to Pass of Birnam. It should be read in conjunction with the General Requirements outlined in Part 1 to these Employer's Requirements and the Appendices to these Employer's Requirements outlined in Part 3.

1.2 Design

1.2.1 Refer to Part 1 – General Requirements.

1.3 Construction

1.3.1 Refer to Part 1 – General Requirements.

1.4 General Requirements

1.4.1 Refer to Part 1 – General Requirements.

1.5 Provision of Records and Information

1.5.1 Property Building Surveys

1.5.1.1 In addition to the requirements of Part 3 Appendix V, a property Building Survey shall be undertaken for [REDACTED].

1.5.1.2 Building Surveys shall be carried out in accordance with the "Guide to surveys and inspections of buildings and associated structures", The Institution of Structural Engineers, 2008.

1.5.1.3 Such surveys shall be carried out by a Chartered Engineer / Structural Engineer / Surveyor, as appropriate. Prior to undertaking any such survey, the qualifications and experience of the Chartered Engineer / Structural Engineer / Surveyor, as appropriate, which the Contractor intends to use to carry out the surveys shall be submitted for the written consent of the Engineer.

Such surveys shall be carried out in two stages as follows:

(i) The first stage shall consist of a pre-construction start survey including photographic records to be carried out prior to the commencement of any Works.

Two copies of the pre-construction start survey records and reports shall be completed and forwarded to the Engineer in advance of any Works commencing.

(ii) The second stage shall consist of a post-construction completion Building Survey including photographic records to be carried out within 4 weeks after the issue of the Certificate of Completion for the Whole of the Works, or where relevant, a Section.

Two copies of the post-construction completion Building Survey records and reports shall be completed and forwarded to the Engineer within 8 weeks of the issue of the Certificate of Completion for the Whole of the Works, or where relevant, a Section.

1.5.1.4 In respect of all such property Building Surveys, the Contractor shall arrange entry to the properties with the property owners.

1.5.1.5 This entry arrangement shall be in writing with a copy of this correspondence issued to the Engineer.

- 1.5.1.6 The Contractor shall provide the property owners with a copy of both the pre-construction and post-construction property Building Surveys within 4 weeks of issue to the Engineer.

1.6 Disruption During Construction

- 1.6.1 Noise protection and visual screening shall be provided prior to construction of the Broompark retaining wall and shall comply with the requirements of Appendix 1/9 of the Specification.

1.7 Temporary Traffic Management Schemes

- 1.7.1 The relevant roads authorities for the Design, construction, completion and maintenance of the Works are:

(i) Perth & Kinross Council

Contact person: [REDACTED]

Email: [REDACTED]

Telephone Number: [REDACTED]

in connection with the local road network.

(ii) BEAR Scotland Limited, Network Manager

Contact person: [REDACTED]

Email: [REDACTED]

Telephone Number: [REDACTED]; and

(iii) Transport Scotland, Trunk Roads and Bus Operations

Contact person: [REDACTED]

Email: [REDACTED]

Telephone number: [REDACTED]

in connection with the trunk road network.

- 1.7.2 Consultation with Police Scotland shall be through:

(i) Contact Person: [REDACTED]

Email: [REDACTED]

Telephone Number: [REDACTED]

1.8 Further Requirements

1.8.1 Network Rail

- 1.8.1.1 All works in the vicinity of the Ordie Burn Viaduct shall comply with Network Rail's "Asset Protection Outside Parties, Guidance Document, Requirements for Construction Work on or Near Railway Operational Land by Outside Parties" and all relevant Network Rail, Rail Industry, Construction Industry, British and EU Standards.

- 1.8.1.2 The Contractor shall enter into a Basic Asset Protection Agreement (BAPA) with Network Rail for all works in the vicinity of the Ordie Burn Viaduct.

- 1.8.1.3 The Contractor shall consult and comply with the requirements of

(i) Network Rail

Contact person: [REDACTED]
 Email: [REDACTED]
 Telephone Number: [REDACTED]

in connection with all works in the vicinity of Ordie Burn Viaduct.

The Contractor shall provide the Engineer with the completed Consultation Certificate(s) in accordance with the Certification Procedure.

1.8.2 National Grid

1.8.2.1 Measures for safeguarding the existing National Grid high pressure pipelines in the vicinity of [REDACTED] shall comply with the requirements of National Grid's "T/SP/SSW/22 – Specification for safe working in the vicinity of National Grid high pressure gas pipelines and associated installations – requirements for third parties".

1.8.2.2 All works in the vicinity of existing National Grid apparatus shall comply with HSE Guidance Notes: "HSG47 – Avoiding Danger from Underground Services" and "GS6 – Avoidance of danger from overhead electric power lines".

1.8.2.3 The Contractor shall consult and comply with the requirements of

(i) National Grid

Contact person: [REDACTED]
 Email: [REDACTED]
 Telephone Number: [REDACTED]

in connection with measures for safeguarding the existing National Grid high pressure pipelines in the vicinity of [REDACTED].

The Contractor shall provide the Engineer with the completed Consultation Certificate(s) in accordance with the Certification Procedure.

1.9 Sustainability

1.9.1 The Contractor shall be required to provide a biannual report against the Employer's sustainability objectives set out in the A9 Dualling: Perth to Inverness Sustainability Strategy published by Transport Scotland, February 2016.

1.10 Communications

1.10.1 General

Community Liaison Officer

1.10.1.1 The Contractor shall appoint a Community Liaison Officer ("CLO"), who shall be the primary contact point for the Employer in relation to the Contractor's communications and community liaison responsibilities.

1.10.1.2 The CLO shall have recent and relevant experience of community liaison on major infrastructure construction projects. This role shall be a full time position from the Date for Commencement of the Works until the issue of the Certificate of Completion for the Whole of the Works.

1.10.1.3 The CLO shall be responsible for ensuring that the Employer is alerted as soon as practicable to any matter (including any direct or indirect communication received), which may have an impact upon the reputation of the Works, the Contractor, or the Employer.

- 1.10.1.4 The CLO shall be supported by a community liaison team to be provided by the Contractor. This team shall be sufficient to meet the requirements of the Contract.

1.10.2 Communications Meetings

- 1.10.2.1 At least 48 hours in advance of any communications meeting, the Contractor shall submit in electronic format (Microsoft Word or compatible), to the Employer the following information containing sufficient detail and notice to allow quarterly forward planning of proactive and reactive communications activities:
- (i) milestones for the Works construction programme (updated as appropriate);
 - (ii) a three-month forward projection of anticipated sustained traffic management proposals;
 - (iii) a three-month forward projection of any construction works or any construction related activities that are likely to cause disruption to the public;
 - (iv) a monthly summary report of enquiries, correspondence, complaints and responses as detailed in the contacts log defined in Section 1.10.6 of Part 1, particularly identifying any significant trends or issues that require further discussion or handling; and
 - (v) any forthcoming activities which may be controversial and / or may be of interest to the media.

1.10.3 General Communications Requirements

Newsletter

- 1.10.3.1 The final newsletter content and layout shall be provided to the Employer for approval. The standard anticipated layout is as follows:
- (i) A4 size;
 - (ii) a minimum of 4 pages in length;
 - (iii) full colour print to a high quality standard; and
 - (iv) provided in .pdf format for inclusion on the project website.
- The standard layout may be subject to change based on the volume and nature of the works and will be agreed with the Employer prior to publication.
- 1.10.3.2 The number of copies to be printed shall be subject to the approval of the Employer (maximum 3,000 copies in total per newsletter).
- 1.10.3.3 An electronic HTML version of the newsletter shall also be prepared and sent out using a specialist third party distribution service to enable monitoring of opens, unsubscribes, story popularity, hard bounces and the like. The initial mailing list will be provided by the Employer and will be maintained by the Contractor.
- 1.10.3.4 The newsletter shall be produced and procured quarterly.

1.10.4 Publicity Sign Boards

- 1.10.4.1 The Contractor shall provide 3 publicity sign boards.

1.10.5 Meetings, Events and Site Visits

- 1.10.5.1 The Contractor shall facilitate all meetings, site visits and events with a dedicated Site Visit and Presentation Room within the Contractor's main site

compound. The Contractor shall provide high quality information boards for use in the room, which shall feature information about the project and shall remain in the room when not in use.

- 1.10.5.2 The CLO shall be responsible for liaising with the Employer in relation to the arrangement and booking of visits, the provision of suitable catering for each visit, updating wall displays and other presentation materials and undertaking presentations on the progress of the Works. Catering shall be provided by the Contractor which shall consist of tea, coffee, biscuits and the like, and where requested by the Employer, a light lunch buffet.
- 1.10.5.3 The Contractor shall organise the venue for the drop-in events which shall include an exhibition area for up to 100 people and a separate break-out area for staff and meetings with individual members of the public and / or stakeholders, if required. The Contractor shall also:
- (i) provide a minimum of 10 high quality A1 information boards, including relevant information relating to the proposed Works. These must include activities likely to impact on landowners and the general public, including traffic management proposals and timescales;
 - (ii) provide personnel to attend the event, including the CLO and 5 other members of the Contractor's organisation with suitable knowledge of the Works;
 - (iii) develop a printed summary leaflet of the exhibition panels so members of the public can take these away. Sufficient quantities should be printed so attendees can take extra copies for neighbours and other members of the community unable to attend;
 - (iv) provide a feedback form for the public to complete at the event or return by a later specified date for review and analysis by the Contractor and Employer to, where appropriate, influence future events/communications; and
 - (v) successfully promote the drop-in event, starting at least two weeks in advance. Tactics must include printed posters distributed to key community locations, advertising in local press and other necessary tactics to make the community aware the event's happening.

1.10.6 Education Programme

- 1.10.6.1 The Contractor shall be required to support the Employer's Academy9 education programme by providing a minimum of 4 man days support per annum to events organised by the Employer in local schools. Current activities the Employer is undertaking include:
- (i) Roadshow - lessons on geology, ecology and route selection;
 - (ii) Groundbreaking apprenticeship pilot - involving activities and careers/training talks for senior pupils; and
 - (iii) SCQF awareness modules - A9 awareness for teachers.
- 1.10.6.2 Contractor support may include but not be limited to:
- (i) Careers presentations or advice;
 - (ii) Technical talks;
 - (iii) Site visits; and
 - (iv) General participation in Academy9 activities.

The Contractor shall be required to seek prior approval from the Employer for any education related activities he chooses to undertake out with

Academy9 such that synergies with the wider programme may be recognised.

2. DESCRIPTION OF THE DESIGN AND THE WORKS

2.1 General Scheme Details

The full scope of the Design, construction, completion and maintenance of the Works and the obligations of the Contractor, including the Contractor's obligations to remedy any defects in the Works, shall be ascertained by reference to the Contract.

3. SITE INFORMATION**3.1 Land Made Available by the Employer for the Works****3.1.1** Contact details in connection with the location of the permanent fencing and Accommodation Works fencing for:

the Land Made Available by the Employer for the Works; and, if relevant;

additional land as described in Section 3.1.2. of Part 1 of these Employer's Requirements are:

- (i) Transport Scotland, Major Transport Infrastructure Projects

Contact person: [REDACTED]

Email: [REDACTED]

Telephone number: [REDACTED]

3.1.2 As shown on the Land Made Available by the Employer for the Works drawings, identified in Appendix 0/4 of the Specification, the Contractor shall maintain land and/or property as follows for the duration of the Design, construction, completion and maintenance of the Works:

- (i) the building(s) and land known as Glenordie on the Ordie View access road off the B9099, including:

- a) maintaining all buildings and outbuildings in a secure, windproof and waterproof condition;
- b) maintaining Glenordie house in a habitable condition including but not limited to appropriate heating, vermin control and capability of being connected to utilities and telecommunications if not already; and
- c) maintenance of the grounds including but not limited to grass cutting, litter clearance, vegetation management and maintenance of all walls, fences, boundaries and the like.

- (ii) unless where noted in (i) above, all other land as shown in Dark Green, including:

- a) maintenance of the land including but not limited to grass cutting, litter clearance, vegetation management and maintenance of all walls, fences, boundaries and the like.

The Contractor shall not be permitted to store materials or plant or locate site accommodation or compounds on or otherwise inhabit the above land and/or property unless otherwise agreed with the Employer.

3.2 Permissions and the Like**3.2.1** The Contractor shall consult and comply with the requirements of:

- (i) Scottish Environment Protection Agency (SEPA)

Contact person: [REDACTED]

Email: [REDACTED]

Telephone Number: [REDACTED]

in connection with complying with the requirements of the Water Environment (Controlled Activities) (Scotland) Regulations 2011 ("CAR") and The Water Environment (Miscellaneous) (Scotland) Regulations 2017, and with respect to obtaining the necessary Permissions and the

like to enable the Design, construction, completion and maintenance of the Works; and

(ii) Perth & Kinross Council

Contact person: [REDACTED]

Email: [REDACTED]

Telephone Number: [REDACTED]

in connection with compliance with the requirements of planning regulations and the like with respect to obtaining the necessary Permissions and the like to enable the Design, construction, completion and maintenance of the Works.

3.2.2 Subject to the other requirements of the Contract, the normal working hours within the Site shall be in accordance with Appendix 1/9 of the Specification. Contact details in connection with working hours and the control of noise and vibration are:

(i) Perth & Kinross Council

Contact person: [REDACTED]

Email: [REDACTED]

Telephone Number: [REDACTED]

3.3 Access to the Site

3.3.1 Refer to Part 1 – General Requirements.

3.4 Maintenance of Existing Public Roads within the Site

3.4.1 The authorities responsible for all routine, cyclic and winter maintenance of existing public roads within the Site, together with undertaking emergency response procedures and actions are:

(i) Perth & Kinross Council

Contact person: [REDACTED]

Email: [REDACTED]

Telephone Number: [REDACTED]

(ii) BEAR Scotland Limited, Network Manager

Contact person: [REDACTED]

Email: [REDACTED]

Telephone Number: [REDACTED]

3.5 Statutory Orders

3.5.1 Refer to Part 1 – General Requirements.

3.6 Accommodation Works

3.6.1 Refer to Part 1 – General Requirements.

3.7 Public and Private Roads, Accesses and Public/Private Rights of Way

3.7.1 Contact details in connection with alterations to public and private roads, accesses and public/private rights of way are:

(i) Perth & Kinross Council

Contact person: [REDACTED]
Email: [REDACTED]
Telephone Number: [REDACTED]; and

(ii) The relevant landowners as identified in Appendix 1/15.

3.8 Site Security

3.8.1 Contact details for Police Scotland are:

(i) Contact Person: [REDACTED]
Email: [REDACTED]
Telephone Number: [REDACTED]

4. DESIGN CRITERIA

4.1 Standards

4.1.1 Not used.

4.1.2 Contact details in connection with the Design for the side roads, as identified in Appendix A of Part 3 of these Employer's Requirements, are:

- (i) Perth & Kinross Council
 - Contact person: [REDACTED]
 - Email: [REDACTED]
 - Telephone Number: [REDACTED]

4.2 Road Design Criteria

4.2.1 Road Design Standard

4.2.1.1 Junctions

The Design shall ensure that:

- (i) all junctions shall have desirable minimum visibility from the minor road in both directions in accordance with paragraphs 7.3-7.11 of TD 42 and TD 9 of the Design Manual for Roads and Bridges (DMRB). No Departures from Standard in visibility from the minor road shall be permitted.

4.2.1.2 Closure of Existing Roads, Junctions, Lay-bys and Accesses

The Design shall ensure that:

- (i) All existing at-grade junctions and accesses on the A9 mainline carriageway between Reference Points R01 and R06 as shown in drawings B1557602/CD/REF/001 to B1557602/CD/REF/007 shall be permanently removed, and replaced with Grade Separated Junctions in accordance with TD22 of the DMRB or, with new alternative means of accesses leading to the side or local road network;
- (ii) The existing lay-by at chainage 600m on the northbound carriageway, signposted as lay-by number 5 shall be permanently removed;
- (iii) The existing lay-by at chainage 850m on the southbound carriageway, signposted as lay-by number 6 shall be permanently removed;
- (iv) The existing access to Ordie View at chainage 1160m on the east side of the proposed alignment, for a distance of approximately 17m, shall be permanently removed;
- (v) The existing access to Northleys Farm at chainage 1165m on the west side of the proposed alignment, for a distance of approximately 35m, shall be permanently removed;
- (vi) The existing access to the C569 Strathord Station Road at chainage 1970m on the east side of the proposed alignment, for a distance of approximately 170m, shall be permanently removed;
- (vii) The existing field access at chainage 1980m on the west side of the proposed alignment, for a distance of approximately 10m, shall be permanently removed;

- (viii) The existing access to Rosevale House at chainage 2480m on the east side of the proposed alignment, for a distance of approximately 25m, shall be permanently removed;
- (ix) The existing access to U32 Newmill – Letham – Tullybelton Road at chainage 2780m on the west side of the proposed alignment, for a distance of approximately 175m, shall be permanently removed;
- (x) The existing field access and link access to the U38 Benchil Road at chainage 2790m on the east side of the proposed alignment, for a distance of approximately 223m, shall be permanently removed;
- (xi) The existing access to the U38 Benchil Road at chainage 3090m on the east side of the proposed alignment, for a distance of approximately 40m, shall be permanently removed;
- (xii) The existing field access at chainage 3490m on the east side of the proposed alignment, for a distance of approximately 10m, shall be permanently removed;
- (xiii) The existing access to East Mains at chainage 3500m on the west side of the proposed alignment, for a distance of approximately 15m, shall be permanently removed;
- (xiv) The existing access to East Mains at chainage 3920m on the west side of the proposed alignment, for a distance of approximately 20m, shall be permanently removed;
- (xv) The existing access to Westwood Farm and fields at chainage 3930m on the east side of the proposed alignment, for a distance of approximately 5m, shall be permanently removed;
- (xvi) The existing access to Westwood Farm at chainage 3925m on the east side of the proposed alignment, for a distance of approximately 20m, shall be permanently removed;
- (xvii) The existing lay-by at chainage 4295m on the northbound carriageway, signposted as lay-by number 7 shall be permanently removed;
- (xviii) The existing lay-by at chainage 4445m on the southbound carriageway, signposted as lay-by number 8 shall be permanently removed;
- (xix) The existing access to the Sewage Works at chainage 4485m on the west side of the proposed alignment, for a distance of approximately 12m, shall be permanently removed;
- (xx) The existing access to Westwood Farm fields at chainage 4485m on the east side of the proposed alignment, for a distance of approximately 12m, shall be permanently removed;
- (xxi) The existing access to Westwood Farm fields at chainage 4980m on the east side of the proposed alignment, for a distance of approximately 20m, shall be permanently removed;
- (xxii) The existing access to Coltrannie at chainage 6905m on the west side of the proposed alignment, for a distance of approximately 17m, shall be permanently removed;
- (xxiii) The existing access to North Barns Farm at chainage 6905m on the east side of the proposed alignment, for a distance of approximately 13m, shall be permanently removed;

- (xxiv) The existing lay-by at chainage 7155m on the northbound carriageway, signposted as lay-by number 9 shall be permanently removed;
- (xxv) The existing lay-by at chainage 7280m on the southbound carriageway, signposted as lay-by number 10 shall be permanently removed;
- (xxvi) The existing access to Gellywood at chainage 8580m on the west side of the proposed alignment, for a distance of approximately 15m, shall be permanently removed;
- (xxvii) The existing access to Murthly at chainage 8580m on the east side of the proposed alignment, for a distance of approximately 15m, shall be permanently removed;
- (xxviii) The existing lay-by at chainage 8700m on the northbound carriageway, signposted as lay-by number 11 shall be permanently removed; and
- (xxix) The existing lay-by at chainage 8805m on the southbound carriageway, signposted as lay-by number 12 shall be permanently removed.

4.2.1.3 Lay-bys

The Design shall ensure that:

- (i) An area of 2.5m x 10m of reinforced grass surfacing is provided within the verge behind all lay-bys in accordance with Path for All's 'Developing & Managing Paths' good practice guidance;
- (ii) The footway at the back of the lay-by shall be surfaced with resin bound gravel a sample panel of which shall be installed for the approval of the Engineer prior to installation of the footway;
- (iii) The kerbs between the footway and the lay-by shall be rustic finish natural granite 125mm in width; and
- (iv) A 50mm width weathering steel flush kerb shall be installed to delineate the boundary between the footway and the grass verge.

4.2.1.4 Accesses

The Design shall ensure that:

- (i) Passing bays shall be provided, only at locations that achieve forward visibility to the next passing bay;
- (ii) Gelly Access track shall be provided with a minimum of 5 passing bays; and
- (iii) Passing bays shall be sized such that farm and goods vehicles may pass, in accordance with the SCOTS National Roads Development Guide, or as otherwise noted in Appendix A of Part 3.

4.2.1.5 Side Roads

Refer to Section 4.2 of Part 1 – General Requirements.

4.2.1.6 Provision for Non-Motorised Users (NMU) (pedestrians, equestrians, cyclists and the like)

Contact details in connection with NMU facilities are as follows:

For cycle tracks adjacent to the new A9 Trunk Road:

- (i) Transport Scotland, Trunk Roads and Bus Operations

Contact person: [REDACTED]

Email: [REDACTED]

Telephone number: [REDACTED]

For cycle tracks adjacent to Side Roads:

- (ii) Perth & Kinross Council

Contact person: [REDACTED]

Email: [REDACTED]

Telephone Number: [REDACTED]

4.2.1.7 Maintenance Crossovers

The Design shall ensure that maintenance crossovers, with removable central reserve barrier and in line with the requirements of TA 92, are provided at the following locations:

- (i) Commencing at approximate chainage 650m, south of Shochie Burn culvert;
- (ii) Commencing at approximate chainage 4200m, south of Bankfoot South Junction; and
- (iii) Commencing at approximate chainage 7800m, south of Gelly Overbridge.

4.2.1.8 Turning Areas

Refer to Section 4.2 of Part 1 – General Requirements.

4.2.1.9 Access Roads and Tracks

The Design shall ensure that:

- (i) All access roads/tracks shall include horizontal radii and curve widening to accommodate a farm tractor and hay wagon (19.02 metres long) and UK Freight Transport Association Design Articulated Vehicle (1998) (16.48 metres long) unless otherwise identified in Appendix A in Part 3;
- (ii) The maximum gradient normally permitted for all access roads/tracks shall be 8% unless otherwise noted in Appendix A in Part 3. The gradient may be increased to 15% over short lengths at the discretion of the Engineer;
- (iii) The minimum gradient for drainage purposes shall be 0.8%;
- (iv) Passing bays are provided. Passing bays shall be a widening of the carriageway to a minimum of 6m with 15m stopping bay and 15m tapers to each end at a maximum spacing of 300m such that adjacent bays are inter-visible, or as noted in Appendix A in Part 3;
- (v) Junctions with side roads are designed in accordance with SCOTS National Roads Development Guide, except where otherwise noted in Appendix A in Part 3;
- (vi) All access roads/tracks shall include vertical alignment to accommodate a farm tractor and hay wagon (19.02 metres long) and UK Freight Transport Association Design Articulated Vehicle (1998)

(16.48 metres long) unless otherwise identified in Appendix A in Part 3; and

- (vii) Where an adjacent ditch is required by the Contract, offlet culverts shall be provided under the built track with ditch blockers installed immediately downstream of the offlet culvert inlet such that the volumes of flows in the ditch is reduced and an even redistribution of runoff for infiltration into the existing ground is provided.

4.2.2 Site Clearance

4.2.2.1 The Contractor is not required to consult and comply with Transport Scotland, Trunk Road and Bus Operations (TRBO) in connection with trunk road site clearance.

4.2.2.2 Contact details in connection with side road site clearance are:

- (i) Perth & Kinross Council
 - Contact person: [REDACTED]
 - Email: [REDACTED]
 - Telephone Number: [REDACTED]

4.2.2.3 Felling of Existing Trees

The design shall ensure that felled timber is offered back to the previous landowner. Should the previous landowner decline the offer, the remaining timber shall be dealt with in accordance with the forest development plans. Disease free felled timber throughout the remainder of the scheme shall be relocated into areas of existing and newly created woodland habitats, or adjacent habitats.

4.2.3 Fencing and Environmental Barriers

4.2.3.1 Permanent Fencing, Walling, Gates and the Like

The Design shall ensure that:

- (i) a continuous traditional stone dyke, of approximately 1.4m height is provided on the eastern extent of the Land Made Available between approximate chainage 7600m and chainage 8300m, a sample panel of which shall be provided for the approval of the Engineer prior to installation of the stone dyke;
- (ii) a continuous traditional stone dyke, of approximately 1.4m height is provided on the eastern extent of the Land Made Available between approximate chainage 8300m and chainage 8425m, a sample panel of which shall be provided for the approval of the Engineer prior to installation of the stone dyke;
- (iii) otter proof fencing without a crank/overhang is provided at the locations stated in the Environmental Statement in accordance with "Otters and Development", SNH, 2008;
- (iv) unless otherwise stated all otter fencing shall be provided for a length of 150m either side of the watercourses listed in the Environmental Statement;
- (v) gaps of less than 10 metres in the otter fencing shall be infilled with a similar type of otter fencing to the adjacent lengths;
- (vi) where badger proof fencing is required at wall locations, this shall be incorporated along the centreline of the wall on galvanised steel

- cranked posts, with depth and returns in accordance with the DMRB and a minimum height of 800mm above finished ground level;
- (vii) a close boarded timber screen fence not less than 2.4 metres in height above finished road level shall be provided between the A9 Trunk Road and proposed access track from chainage 1390m to 1470m approximately at the property known as Ordie View in order to provide a visual screen to benefit equestrian users of the access track;
 - (viii) a hedgerow shall be provided to the east of the A9 Trunk Road from chainage 3600m to 4800m approximately at the property known as Westwood Farm in order to reduce visual impact from the A9 Trunk Road;
 - (ix) bunding shall be provided between the A9 Trunk Road and proposed access track from chainage 2470m to 2850m approximately. The bunding shall have a minimum height above the access track of at least 2.3 metres at the property known as Newmill Farm Cottage and at least 1.75 metres between chainage 2470m and Newmill Farm Cottage; and
 - (x) sufficient landscaping/barriers/bunding shall be provided in order to mitigate glare for both trunk and local road drivers.

4.2.3.2 Deer Fencing

- (i) In addition to the areas described elsewhere in these Employer's Requirements, where the Contractor considers that deer proof fencing is required to reduce the risk of motor vehicle collisions or to prevent damage to planting areas, such fencing shall be installed in accordance with Clause 370AR of the Specification.
- (ii) Any deer fencing damaged or removed during the construction of the Works shall be repaired or replaced to maintain existing protection.
- (iii) Where deer fencing shall be required to tie in to Structure wing walls, the deer fencing shall be provided such that no deer can access the trunk road.

4.2.3.3 Permanent fencing

Contact details in connection with permanent fencing, gates and the like to be constructed, other than that identified in Appendix 1/15 of the Specification, are:

- (i) Transport Scotland: [REDACTED]
Contact person: [REDACTED]
Email: [REDACTED]
Telephone number: [REDACTED]

4.2.4 Road Restraint Systems (Vehicular and Pedestrian)

4.2.4.1 The Contractor is not required to consult and comply with Transport Scotland, Trunk Road and Bus Operations (TRBO) in connection with the location and type of anti-glare screens between the side roads and access tracks and the new trunk roads being provided.

4.2.4.2 Contact details in connection with the Design of road restraint systems are:

- (i) Transport Scotland Trunk Roads: [REDACTED]
Contact person: [REDACTED]

Email: [REDACTED]

Telephone number: [REDACTED]

4.2.5 Drainage and Service Ducts

4.2.5.1 Contact details in connection with the drainage Design including but not limited to drainage outfalls, culverts and works on all inland watercourses are:

(i) SEPA

Contact person: [REDACTED]

Email: [REDACTED]

Telephone number: [REDACTED]

4.2.5.2 Contact details in connection of drainage to the existing road drainage network are:

(i) Perth & Kinross Council

Contact person: [REDACTED]

Email: [REDACTED]

Telephone number: [REDACTED]

in relation to existing side roads; and

(ii) Transport Scotland, Trunk Road and Bus Operations

Contact person: [REDACTED]

Email: [REDACTED]

Telephone number: [REDACTED]

in relation to the existing trunk road.

4.2.5.3 Not used.

4.2.5.4 Contact details of those interested parties identified in Section 4.2.5 of Part 1 in relation to discharging water from the Site on either a temporary or permanent basis are:

(i) Scottish Environment Protection Agency (SEPA)

Contact person: [REDACTED]

Email: [REDACTED]

Telephone number: [REDACTED]

(ii) Scottish Water

Contact person: [REDACTED]

Email: [REDACTED]

Telephone number: [REDACTED]

(iii) BEAR Scotland Ltd

Contact person: [REDACTED]

Email: [REDACTED]

Telephone number: [REDACTED]

(iv) Perth & Kinross Council

Contact person: [REDACTED]
Email: [REDACTED]
Telephone number: [REDACTED]

4.2.5.5 General Drainage

The Design shall ensure that:

- (i) account shall be taken of CIRIA Report C697 "The SuDS Manual" and all surface water runoff from the new A9 Trunk Road shall pass through two levels of treatment of Sustainable Drainage Systems (SuDS), as defined in CIRIA Report C697, prior to out-falling into any watercourse, unless otherwise consented in writing by SEPA;
- (ii) all surface water runoff from the side roads shall pass through two levels of treatment of Sustainable Drainage Systems (SuDS), as defined in CIRIA Report C697, prior to out-falling into any watercourse, with the exception of the Pitlandie Overbridge side road between chainages 0m and 112m approximately and the B867 between chainages 240m and 399m approximately which shall have one level of treatment through filter drains, unless otherwise consented in writing by SEPA;
- (iii) the drainage system shall attenuate the discharge rates to the equivalent greenfield runoff rates for each return period. Attenuation features shall attenuate up to the 1 in 100 year return period (inclusive of climate change) without flooding. Consideration shall be given to any highway flooding up to and including the 1 in 100 year return period (inclusive of climate change), that it may not adversely affect any third party land or property;
- (iv) SuDS attenuation features shall be designed as detention basins, as defined in CIRIA Report C753, with an outlet at the base. Basins shall not be designed to accommodate a permanent pool of water;
- (v) all SuDS basins shall have a minimum of 75mm orifice plate to reduce the risk of blockage;
- (vi) an impermeable liner shall be placed at the base and side surfaces of all SuDS basins;
- (vii) a one way flap valve shall be installed at all outfalls to ensure that the flow does not "back-up" into the pipe or drainage system;
- (viii) carrier drains and filter drains shall accommodate a one-year storm with a 20% allowance for climate change in-bore without surcharge;
- (ix) carrier drains and filter drain design shall be checked against a five-year storm intensity including 20% climate change to ensure that the chamber surcharge levels do not exceed formation level or sub-formation level where a capping layer shall be present;
- (x) attenuation features and drainage systems shall be designed to account for climate change (+20%);
- (xi) greenfield runoff shall be assessed as the surface water runoff regime from the site before development;
- (xii) pipes within filter drains placed in embankments with diameters greater than 500mm may only be permitted where appropriate and subject to the approval of the Engineer;

- (xiii) culverts shall have a minimum internal diameter of 600 millimetres, excluding the culvert at Broomhill Burn which shall have two culverts both having a minimum internal diameter of 450mm;
- (xiv) not used;
- (xv) existing drainage on the U38 Benchil Road at Newmill Cottages shall be retained or replaced to drain the proposed side road embankment at Tullybelton / Stanley Overbridge;
- (xvi) a swale shall be provided to treat surface water runoff from chainages 0m to 160m approximately of the Tullybelton / Stanley Overbridge prior to the proposed outfall at the Ordie Burn;
- (xvii) SuDS features shall be designed in accordance with Section 4.4.4.3 of Part 2;
- (xviii) all surface water runoff from surfaced access tracks shall pass through a minimum of one level of treatment of Sustainable Drainage Systems (SuDS), as defined in CIRIA Report C697, prior to out-falling into any watercourse, unless otherwise agreed with SEPA;
- (xix) with reference to the DMRB Stage 3 Environmental Statement Volume 2 Appendix A9.5, the existing piped culverts at the following waterbodies shall be replaced, with sufficient length to complete the Works:
 - a. Unnamed Tributary 4 of Ordie Burn (known as Culvert 2a);
 - b. Unnamed Tributary 4 of Ordie Burn by Newmill (known as Culvert 2c);
 - c. Unnamed Tributary of Ordie Burn by Newmill Cottages (known as Culvert 2d);
 - d. Unnamed Drain 3 (known as Culvert 4);
 - e. Unnamed Drain 4 (known as Culvert 5);
 - f. Unnamed Tributary 1 of Gelly Burn (known as Culvert 5a);
 - g. Unnamed Tributary 2 of Gelly Burn (known as Culvert 6);
 - h. Gelly Burn North (known as Culvert 7);
 - i. Unnamed Drain 5 (known as Culvert 8);
 - j. Unnamed Tributary 3 of Gelly Burn (known as Culvert 9);
 - k. Broomhill Burn (known as Culvert 10);
 - l. Unnamed Watercourse (known as Culvert 11);
 - m. Unnamed Watercourse (known as Culvert 12);
 - n. Unnamed Watercourse (known as Culvert 13);

The Contactor shall not be required to comply with Sections 4.2.5.9 (iv), (vi) or (xviii) of Part 1 when replacing the existing piped culverts listed above;
- (xx) Subject to the condition that during the planning and undertaking of the Works damage does not occur and flow does not become obstructed, the Contractor shall not be required to replace:
 - a. the existing 1050mm diameter section of piped culvert at Unnamed Tributary 3 of Ordie Burn (known as Culvert 2b); or

- b. the existing section of piped culvert at Ardonachie Burn (known as Culvert 3); and
- (xxi) The Contractor shall undertake pre-construction and post-construction CCTV surveys of Culvert 2b and Culvert 3 and shall submit to the Engineer to demonstrate there has been no detrimental impact on the culvert structure and operation of the culvert.
- 4.2.5.6 Contact details in connection with the Design for watercourse diversions are:
- (i) SEPA
- Contact person: [REDACTED]
- Email: [REDACTED]
- Telephone number: [REDACTED]
- 4.2.5.7 Dry mammal culverts shall be provided to make provision for mammal passage in accordance with DMRB Volume 10. Dry mammal culverts shall be provided at the following locations:
- (i) Shochie Burn culvert;
- (ii) Ordie Burn culvert;
- (iii) Ardonachie culvert; and
- (iv) Culvert 13 at chainage 9120m.
- 4.2.5.8 Ducts
- Not used.
- 4.2.5.9 Pollution Control and Flood Prevention
- Contact details in connection with flood prevention and pollution control measures are:
- (i) SEPA
- Contact person: [REDACTED]
- Email: [REDACTED]
- Telephone number: [REDACTED]
- (ii) Perth & Kinross Council
- Contact person: [REDACTED]
- Email: [REDACTED]
- Telephone number: [REDACTED]
- 4.2.5.10 Contact details in connection with measures to prevent unauthorised use of maintenance access routes are:
- (i) Transport Scotland, Trunk Roads and Bus Operations
- Contact person: [REDACTED]
- Email: [REDACTED]
- Telephone number: [REDACTED]

4.2.6 Earthworks and Rock Cuttings

Refer to Section 4.4 and Part 1 – General Requirements.

4.2.7 Road Pavements

4.2.7.1 Contact details in connection with the pavement Design for all side roads and all carriageway tie-ins to side roads are:

(i) Perth & Kinross Council

Contact person: [REDACTED]

Email: [REDACTED]

Telephone number: [REDACTED]

4.2.7.2 The road pavement Design for roads as described in Appendix A in Part 3 shall be as identified in Table 4.2.7.2. The road pavement Design for all roads described in Table 4.2.7.2 shall be designed for the design life shown in accordance with the DMRB.

Table 4.2.7.2

Road Name	Reference Points	Pavement Design / millions of standard axles (msa)	Design Life	Analytical Approach Design Method (HD 26) Permitted
New A9 Trunk Road	R01 to R06	66.5	40	No
Side Roads	L01 to L03, L04 to L06, L07 to L11, L12 to L13. L14 to L15. L16 to L17. L18 to L19. L20 to L21.	2.2	40	No
Junction Loops	R07 to R08, R08 to R09, R10 to R11, R11 to R12, R13 to R14, R14 to R15, R16 to R25, R25 to R18	4.7	40	No

4.2.7.3 Between reference points R01 and R06, performance design in accordance with IAN 73 is only permitted to facilitate the use of existing pavement as a foundation layer and the design of adjacent carriageway widening up to a maximum width of 3.65 metres.

4.2.7.4 The Design shall ensure that:

- (i) a "low noise" surface course system shall be provided on the new A9 Trunk Road in accordance with Section 4.2.7.4 (vi) (a) of Part 1;
- (ii) High Modulus Base Material with 35 penetration grade binder (HMB35) shall not be permitted; and
- (iii) a minimum aggregate Polished Stone Value (PSV) of 68 and maximum Aggregate Abrasion Value (AAV) of 14 shall be provided for a minimum distance of 50m on the C408 on approach to the junction at Bankfoot North Junction within Reference Points L13 to L12.

4.2.7.5 Contact details in connection with the application of approved polymer modified binder based thin surface course to surface course specification TS2010 are:

- (i) Transport Scotland, Trunk Roads and Bus Operations
Contact person: [REDACTED]
Email: [REDACTED]
Telephone number: [REDACTED]

4.2.7.6 Road pavement for Accesses, Access Roads / Tracks and Accommodation Works tracks are detailed in Employer's Requirements Part 3 Appendix A, Table 3.

The Design shall ensure that:

- (i) Surfaced access construction shall comprise of: 300 millimetres thick type 1 sub-base to Clause 803 of the Specification, 100 millimetres thick Dense Bitumen Macadam to Clause 906 of the Specification, 50 millimetres thick Close Graded Bitumen Macadam to Clause 912 of the Specification and capping in accordance with Clause 613 of the Specification where required;
- (ii) Unsurfaced tracks shall comprise of: 300 millimetres thick type 1 sub-base to Clause 803 of the Specification and 150 millimetres capping in accordance with Clause 613 of the Specification where required; and
- (iii) Accommodation Works tracks shall be constructed in line with the requirements of Appendix 1/15 of the Specification.

4.2.8 Kerbs, Footways and Paved Areas

4.2.8.1 Contact details in connection with the Design for all NMU facilities associated with the trunk road are:

- (i) Transport Scotland, Trunk Roads and Bus Operations

Contact person: [REDACTED]

Email: [REDACTED]

Telephone number: [REDACTED]

Contact details in connection with the Design for all NMU facilities associated with the side roads are:

- (ii) Perth & Kinross Council

Contact person: [REDACTED]

Email: [REDACTED]

Telephone number: [REDACTED]

4.2.8.2 The Design shall ensure that:

- (i) Unless required by Section 4.2.8 of Part 1, pavement for the NMU facilities shall be bound flexible surfacing in accordance with the requirements of Cycling by Design, 2010, Table 10.2; and
- (ii) High kerbs shall be provided on the access track off Pitlandie Overbridge at the Ordie Burn Viaduct to provide protection to the pier and abutment.

4.2.8.3 The Contractor shall consult and comply with the requirements of

- (i) Network Rail

Contact person: [REDACTED]

Email: [REDACTED]

Telephone Number: [REDACTED]

in connection with the provision of high kerbs on the access track off Pitlandie Overbridge at the Ordie Burn Viaduct.

The Contractor shall provide the Engineer with the completed Consultation Certificate(s) in accordance with the Certification Procedure.

4.2.9 Traffic Signs, Road Markings and Studs

General

4.2.9.1 The Contractor shall consult and comply with the requirements of:

- (i) Transport Scotland, Trunk Roads and Bus Operations

Contact person: [REDACTED]

Email: [REDACTED]

Telephone number: [REDACTED]

in connection with all details for the provision of all traffic signs, road markings and studs for the new Trunk Roads stated in Appendix A of Part 3; and

- (ii) Perth & Kinross Council

Contact person: [REDACTED]

Email: [REDACTED]

Telephone number: [REDACTED]

in connection with all details for the provision of traffic signs, road markings and studs for the side roads stated in Appendix A of Part 3.

The Contractor shall provide the Engineer with the completed Consultation Certificate(s) in accordance with the Certification Procedure.

Traffic Sign Posts

4.2.9.2 The provision of tourist information signs shall include but not be limited to, the following attractions:

- (i) Perthshire Visitor Centre;
- (ii) The Scottish Liqueur Centre;
- (iii) Stewart Tower Ice cream Dairy;
- (iv) Stanley Mills; and
- (v) Active Kid Adventure Park.

4.2.9.3 All trunk road Directional and Route Confirmatory Signs shall include Gaelic translation in accordance with the Traffic Signs Regulations and General Directions 2016.

4.2.9.4 Contact details in connection with maintaining existing sign information during construction of the Works are:

- (i) Transport Scotland, Trunk Roads and Bus Operations

Contact person: [REDACTED]

Email: [REDACTED]

Telephone number: [REDACTED]

- (ii) BEAR Scotland Ltd

- Contact person: [REDACTED]
Email: [REDACTED]
Telephone number: [REDACTED]
- (iii) Perth & Kinross Council
- Contact person: [REDACTED]
Email: [REDACTED]
Telephone number: [REDACTED]

Markers

4.2.9.5 Contact details in connection with the locations for the CHART link and section node markers are:

- (i) Transport Scotland (Asset Management Branch of Trunk Roads and Bus Operations)
- Contact person: [REDACTED]
Email: [REDACTED]
Telephone number: [REDACTED]

Traffic Bollards

4.2.9.6 The Design shall ensure that:

- (i) Bollards to deter the use of any NMU facilities by vehicles shall be provided by the Contractor at the start/end of each NMU facility.
- (ii) Bollards for NMU facilities shall be designed in accordance with Transport Scotland's 'Cycling by Design 2010', and Transport Scotland's 'Roads For All: Good Practice Guide for Roads'.

4.2.10 Road Lighting

4.2.10.1 Not used.

4.3 Structures General Requirements

4.3.1 General

4.3.1.1 Contact details with regard to the Design, construction, completion and maintenance of all Structures affecting Perth and Kinross Council road network are:

(i) Perth and Kinross Council

Contact person: [REDACTED]

Email: [REDACTED]

Telephone number: [REDACTED]

4.3.1.2 Contact details with regard to the Design, construction, completion and maintenance of all Structures adjacent to watercourses are:

(i) SEPA

Contact person: [REDACTED]

Email: [REDACTED]

Telephone number: [REDACTED]

4.3.1.3 Contact details for Statutory Undertakers in connection with the design for the layout and location of apparatus, over, through and adjacent to Structures and the method of access to such apparatus are:

i. BT Openreach

Contact person: [REDACTED]

Email: [REDACTED]

Telephone number: [REDACTED]

ii. Scottish Water

Contact person: [REDACTED]

Email: [REDACTED]

Telephone number: [REDACTED]

iii. Scottish and Southern Energy

Contact person: [REDACTED]

Email: [REDACTED]

Telephone number: [REDACTED]

(iv) Scottish Gas Networks

Contact person: [REDACTED]

Email: [REDACTED]

Telephone number: [REDACTED]

(v) National Grid

Contact person: [REDACTED]

Email: [REDACTED]

Telephone number: [REDACTED]

(vi) Cornerstone Telecommunications Infrastructure Limited (CTIL)

Contact person: [REDACTED]

Email: [REDACTED]

Telephone number: [REDACTED]

and any other Relevant Statutory Undertaker.

4.3.2 Structural Form

4.3.2.1 The use of gabions shall not be permitted in any part of the Design and the Permanent Works with the exception of where gabions are used to provide scour protection at Shochie Burn Culvert and Ordie Burn Culvert.

4.3.2.2 The use of gabion retaining structures shall not be permitted in any part of the Design and the Permanent Works.

4.3.2.3 Structures over waterways

- (i) For the purposes of ensuring the safe passage of mammals when the watercourse is in spate at the Ordie Burn Underbridge, spate shall be assumed to be the flood flow for a storm with a return period of 50 years.

4.3.2.4 Earthworks at bridge abutments shall be no steeper than 1:2 unless otherwise agreed with the Engineer.

4.3.2.5 Maintenance platforms shall be provided at bankseat abutments unless otherwise agreed with the Engineer.

4.3.2.6 Arch structures on the A9 Trunk Road shall not be permitted.

4.3.3 Durability

4.3.3.1 Steelwork

Structural steelwork shall be protected using a paint system appropriate to an inland environment 'Difficult' access.

Contact details in connection with the approvals for the Contractor's proposed paint systems are:

- (i) Transport Scotland (Bridges Branch)

Contact person: [REDACTED]

Email: [REDACTED]

Telephone number: [REDACTED]

4.3.3.2 Structures with bearings shall not be permitted without the prior approval of Transport Scotland (Bridges Branch).

4.3.3.3 Waterproofing

Contact details in connection with the proprietary waterproofing system are:

- (i) Transport Scotland (Bridges Branch)

Contact person: [REDACTED]

Email: [REDACTED]

Telephone number: [REDACTED]

4.3.4 Resin Anchors

4.3.4.1 Refer to Part 1 – General Requirements.

4.3.5 Reinforced Soil

4.3.5.1 Contact details in connection with precast concrete facing panels associated with reinforced soil structures in the Works are:

- (i) Transport Scotland (Bridges Branch)
Contact person: [REDACTED]
Email: [REDACTED]
Telephone number: [REDACTED]

4.3.6 Existing Structures

4.3.6.1 The colour of the final paint coat on existing structures on which maintenance painting is carried out shall be Medium Grey 18 B 21 to BS 4800.

4.3.7 Particular Requirements for Structures

4.3.7.1 Open abutments shall be used within the overbridge structures, with no piers being permitted in the central reserve for overbridge structures.

4.3.7.2 The design shall ensure passage for mammals over the Gelly Overbridge in the form of a dedicated width of green bridge. The width of the green bridge shall be in addition to the bridge width required to accommodate the Gelly Access Track, as specified in Part 3, Appendix B.

4.3.7.3 The green bridge features of Gelly Overbridge shall be provided with the following:

- (i) Topsoil shall be a minimum of 350mm deep and a maximum of 450mm deep;
- (ii) Below the topsoil a suitable arrangement shall be provided to maintain the growth of the landscaping and to facilitate drainage. Below this, a root barrier system shall be provided to protect the waterproofing membrane and structure; and
- (iii) Hardened outer verges shall be provided at the edges of the landscaping in accordance with Appendix B of Part 3.
- (iv) The landscaped section shall comprise of one continuous 'green' strip with a minimum width of 4.5m.

4.3.7.4 Notwithstanding the other requirements of the Contract, mammal ledges shall be provided at the following Structures:

- (i) Ordie Burn Underbridge.

4.3.7.5 Concrete parapet copes on new overbridges and underbridges shall incorporate a profiled outer face. The upper portion shall be inclined at 11 degrees from the vertical over the upper 75% of the cope depth, the inclination extending away from the bridge deck from top to bottom. The lower portion shall be inclined towards the bridge deck from top to bottom, with an internal angle of 135 degrees between the upper and lower portions. The depth of the cope shall be considered to include the depth of the drip check downstand.

4.3.7.6 Drip checks on concrete parapet copes on new overbridges and underbridges shall take the form of a 100mm to 150mm wide by 75mm deep projections below the deck soffit.

4.3.7.7 The finish to retaining wall Structures shall be in accordance with Clause 1779 AR of the Specification.

- 4.3.7.8 A dismounting facility for equestrians shall be provided on each approach to Pitlandie Overbridge. The Contractor shall consult and comply with the requirements of
- (i) British Horse Society
- Contact person: [REDACTED]
Email: [REDACTED]
Telephone Number: [REDACTED]
- in connection with the position and dimensions and the like for dismounting facilities.
- 4.3.7.9 Gelly Accommodation Overbridge shall incorporate parapets of height 1.8m in accordance with TD 19. A solid infill panel 800mm high shall be provided at the bottom of the parapets. Mesh infill shall be provided for the remaining height.
- 4.3.7.10 Tullybelton / Stanley Junction Overbridge shall incorporate parapets of height 1.8m in accordance with TD 19 with full height solid infill panels.
- 4.3.7.11 Unless otherwise agreed with Perth and Kinross Council, steel galvanised and painted parapets with mesh infill and a minimum containment level of N2 shall be provided at the following structures:
- (i) Pitlandie Retaining Wall; and
 - (ii) Ordie Burn Underbridge.
- 4.3.7.12 The bridge deck waterproofing system on the following structures shall be provided with an Additional Protective Layer as defined in BD 47/99 comprising a 20mm thick red asphalt sand carpet extending from coping face to coping face:
- (i) Ordie Burn Underbridge.
- 4.3.7.13 Impact protection to bridge piers in the form of concrete encasement or low height concrete walls shall not be permitted.
- 4.3.7.14 Pitlandie Retaining Wall shall be positioned to provide a 300mm minimum offset clear of obstructions from the swept path of a UK Freight Transport Association Design Articulated Vehicle (1998) (16.48 metres long), for any turning movement between the B9099 and Pitlandie Overbridge.
- 4.3.7.15 Where the design of the Works results in the existing Hunters Lodge Underbridge structure being retained and where widening is achieved with no additional live loadings being transferred to the existing structure and where the modifications to the existing structure are limited to some or all of:
- lateral repositioning of the carriageway;
 - minor revisions to deck surfacing and verge thicknesses; and
 - local cope modifications resulting from either of the above,
- then the following modified Procedure For Structure Assessment shall apply:
- a) Analyse the existing structure under the reconfigured carriageway scenario in accordance with current assessment standards.
 - b) If the resulting Assessed Live Load capacity is not less than 40 tonnes and minimum HB capacity in accordance with BD37/01: Section 4.1 then no strengthening shall be required to the existing structure.

- c) If the resulting Assessed Live Load capacity is less than 40 tonnes and minimum HB capacity in accordance with BD37/01: Section 4.1 then the Procedure For Structures Assessment set out in Appendix W of Part 3, Volume 3 shall apply.

Any minor cope modifications shall be designed to accommodate the local load effects determined in accordance with current Eurocode design standards.

4.3.7.16 Notwithstanding the Contractor's obligation to consult and comply with Perth and Kinross Council in relation to any modification to existing structures in accordance with Section 4.3.1.4 of Part 1, Section 4.3.16 of Part 1 shall not apply to the B9099 bridge over the Ordie Burn, known as B9099/3 Ordie Arch Bridge.

4.3.7.17 A hard facing on the embankment below the Pitlandie retaining wall shall be permitted, subject to the requirements of Section 4.3.1 of this Part 2 and notwithstanding the other requirements of the Contract.

4.3.7.18 The use of Silane shall not be permitted at the following structures:

- (i) Pitlandie Retaining Wall; and
- (ii) Ordie Burn Underbridge.

4.3.7.19 The use of weathering steel shall not be permitted at the following structures:

- (i) Pitlandie Retaining Wall; and
- (ii) Ordie Burn Underbridge.

4.3.8 Structural Finish

4.3.8.1 Finishes to all exposed vertical concrete surfaces on extensions to existing Structures shall match the existing Structure in accordance with Section 4.3.16.6 of Part 1.

4.4 Environmental Criteria

4.4.1 General Requirements

4.4.1.1 Refer to Part 1 – General Requirements.

4.4.2 Indicative Landscape and Planting Works Drawings

4.4.2.1 Scheme specific requirements for the Planting Works are outlined on the Indicative Landscape and Planting Works Drawings, as listed in Appendix 0/4 of the Specification.

4.4.3 Qualified Professional Assistance

4.4.3.1 Contact details in connection with approvals for the appointment of the Landscape Architect and the Landscape Clerk of Works are:

- (i) Transport Scotland
 - Contact person: [REDACTED]
 - Email: [REDACTED]
 - Telephone number: [REDACTED]

4.4.3.2 Contact details in connection with approvals for the appointment of the archaeologist are:

- (i) Transport Scotland's Historic Environment Advisor
 - Contact person: [REDACTED]
 - Email: [REDACTED]
 - Telephone number: [REDACTED]

4.4.3.3 Contact details in connection with approvals for the appointment of the Ecological Clerk of Works are:

- (i) Scottish Natural Heritage
 - Contact person: [REDACTED]
 - Email: [REDACTED]
 - Telephone number: [REDACTED]

4.4.4 Environmental Design and Mitigation

4.4.4.1 Air Quality and Dust

Contact details in connection with air quality and the reduction of dust nuisance are:

- (i) Perth and Kinross Council
 - Contact person: [REDACTED]
 - Email: [REDACTED]
 - Telephone number: [REDACTED]

4.4.4.2 Re-Use of Materials and Waste Management

Contact details in connection with Site Waste Management and the disposal of waste materials that cannot be recycled are:

- (i) SEPA
 - Contact person: [REDACTED]

Email: [REDACTED]

Telephone number: [REDACTED]

The Contractor shall prepare a Waste Management Plan in accordance with Section 1.9.6 of Part 1, which should include details of how the minimisation of waste on site will be achieved and demonstrate adherence to Scotland's Zero Waste Plan. The Contractor shall consult and comply with SEPA with respect to Site Waste Management and recycling of material.

4.4.4.3 Water Quality and Drainage

Contact details in connection with water quality and drainage and the use of approved herbicides on embankments, cuttings and verges in proximity to watercourses are:

(i) SEPA

Contact person: [REDACTED]

Email: [REDACTED]

Telephone number: [REDACTED]

Contact details in connection with monitoring water quality during construction, completion and maintenance of the Works are:

(ii) SEPA

Contact person: [REDACTED]

Email: [REDACTED]

Telephone number: [REDACTED]

The Contractor shall provide the Engineer with the completed Consultation Certificate(s) in accordance with the Certification Procedure.

(iii) SuDS detention basins or otherwise, required as part of the road drainage system, shall:

- (a) be designed to integrate with the surrounding landscape and provide habitat for wildlife;
- (b) be sited within naturally low lying areas and have earthworks with smooth flowing contours to integrate seamlessly with the surrounding landform;
- (c) avoid abrupt changes in slope, sharp angles and steep side slopes;
- (d) have perimeter access tracks that are at existing grade or in cutting, where possible, to avoid a banded appearance;
- (e) include grading out of the outer slopes to varied slope angles to tie in with the surrounding landform where access tracks and paths are required to be on embankment;
- (f) be designed with gradients of the inner slopes varied along their length to reflect the naturally occurring topography of the immediate surroundings, varying the distance of the access track / path from the SuDS detention basin or otherwise to accommodate this;

- (g) have bank slopes no steeper than 1:3 at any point and shallower where possible with varied microtopography and avoiding straight batters;
- (h) include the localised compression and loosening of the soil to allow a variety of different plant communities to establish;
- (i) have a presumption against the provision of fencing – if fencing is deemed appropriate following a suitable risk assessment in accordance with Section 4.2.3.4 of Part 1 it shall be as unobtrusive as possible, with the fence type and alignment designed to minimise visual impact;
- (j) have planting to help screen hard elements including any fencing, outlet and inlet structures, enhance wildlife habitat and provide visual interest;
- (k) have adjacent open ground around the SuDS detention basins or otherwise seeded with semi-natural vegetation/wildflowers to provide added wildlife habitat and visual interest;
- (l) include planting of native marginal aquatic species in flatter areas in the base of SuDS detention basins;
- (m) include sowing of temporarily wet areas of the sloping banks within detention basins or otherwise sown with species rich / wet grassland; and
- (n) include an informal, unbound section of track to permit occasional vehicular and pedestrian access to any inlet and outlet structures – it should not surround the entire SuDS detention basin. A section of track for pedestrian access shall be provided around the remainder of the SuDS detention basin. The track shall be designed to be as unobtrusive as possible and reflect the rural nature of the site.

4.4.4.4 Planning and Land Use

Contact details in connection with planning policies and any statutory planning consents required in respect of the Design, construction and completion of the Works are:

- (i) Perth and Kinross Council, Development Management
 - Contact person: [REDACTED]
 - Email: [REDACTED]
 - Telephone number: [REDACTED]

4.4.4.5 Ecology and Nature Conservation

Contact details in connection with any species or Sites protected by legislation which are likely to be affected by the Design, construction, completion and maintenance of the Works including hard and soft landscape are:

- (i) SNH
 - Contact person: [REDACTED]
 - Email: [REDACTED]
 - Telephone number: [REDACTED]

The Design shall include ecological impact mitigation and habitat creation associated with riparian corridors affected by the proposals. The Contractor shall consider the guidance provided in "Otters and Development" (SNH, 2008).

Cultural Heritage Interests

- 4.4.4.6 The Contractor shall ensure that a suitably qualified archaeological contractor is appointed to carry out the archaeological trial trenching and mitigation requirements of the scheme as set out in the Environmental Statement Chapter 13, the Schedule of Environmental Commitments.
- 4.4.4.7 Contact details in connection with any cultural heritage interests which shall likely be affected by the Design, construction, completion and maintenance of the Works including the landscape Design are:
- (i) Transport Scotland's Historic Environment Advisor
 - Contact person: [REDACTED]
 - Email: [REDACTED]
 - Telephone number: [REDACTED]
 - (ii) Historic Environment Scotland (for matters relating to Scheduled Monuments, Category A Listed Buildings, Registered Battlefields, Registered Gardens and Designed Landscapes)
 - Contact Person: [REDACTED]
 - Email: [REDACTED]
 - Telephone number: [REDACTED]
- 4.4.4.8 The Contractor shall ensure that Scheduled Monuments, Listed Buildings, and archaeological sites and any other sites of archaeological interest or archaeological remains identified as requiring protection by Historic Environment Scotland and/or Transport Scotland's Historic Environment Advisor within the vicinity of the Site shall not be adversely affected by the Design, construction and completion of the Works without written consent from Historic Environment Scotland and/or Transport Scotland's Historic Environment Advisor as applicable.
- 4.4.4.9 Using the Environmental Statement, archaeological trial trenching and any other relevant information, the Contractor shall prepare a Written Scheme of Investigation (WSI) for all mitigation works. The WSI shall be agreed with the Engineer and Transport Scotland's Historic Environment Advisor prior to the mitigation works commencing.
- 4.4.4.10 The Contractor shall ensure that the archaeological contractor carrying out the mitigation works is allowed sufficient time to carry out the work to the standards required by the Chartered Institute for Archaeologists.
- 4.4.4.11 In the event of archaeological remains being discovered during the construction works, the Contractor shall cease work in the vicinity, erect temporary fencing around the remains, and the Contractor shall immediately inform the Engineer and Transport Scotland's Historic Environment Advisor in writing of the nature and location of the discovery. The Contractor shall not carry out any further Works within the fenced off area until written approval to do so has been given by the Engineer following consultation with Transport Scotland's Historic Environment Advisor.
- 4.4.4.12 The Contractor shall store any finds in a suitable location until such time as the final repository for the finds has been determined by the Scottish

- Archaeological Finds Allocation Panel, and instructions for the transfer to the final repository have been received.
- 4.4.4.13 Where the need for archaeological mitigation measures is identified, the Contractor shall submit a WSI detailing the mitigation measures proposed for the approval of the Engineer and Transport Scotland's Historic Environment Advisor. The WSI shall also detail the approach to post-excavation assessment and reporting. No archaeological mitigation measures within the fenced area shall be undertaken until the WSI has been approved in writing by the Engineer following consultation with Transport Scotland's Historic Environment Advisor.
- 4.4.4.14 Upon completion of mitigation measures, the Contractor shall prepare a Post-Excavation Assessment and Mitigation Excavation Assessment Report including a Justified Update Project Design (UPD) including Research Objectives for further analysis and a publication strategy. This shall be issued to the Engineer and Transport Scotland's Historic Environment Advisor for comment and agreement.
- 4.4.4.15 The programme and proposals for post-excavation analysis and publication shall be agreed with the Engineer following consultation with Transport Scotland's Historic Environment Advisor. After receipt of written instruction from the Engineer, the Contractor shall undertake the post-excavation analysis and publication in accordance with the agreed programme and proposals.
- 4.4.4.16 Within 8 months of the instruction to proceed with analysis and publication the Contractor shall prepare a report detailing the results of the mitigation excavation assessment and analysis. A draft copy of this report shall be provided to the Engineer and Transport Scotland's Historic Environment Advisor for review and comment. In finalising the report, the Contractor shall take into account any comments made by the Engineer and Transport Scotland's Historic Environment Advisor and remedy any faults identified. The finalised report shall be submitted to the Engineer for approval, including the identification of the preferred publication medium, to the Engineer and Transport Scotland's Historic Environment Advisor.
- 4.4.4.17 The Contractor shall submit a digital copy of all reports to the National Record for the Historic Environment (NRHE) and the Perth and Kinross Heritage Historic Environment Record within 12 months of their acceptance by the Engineer and Transport Scotland's Historic Environment Advisor.
- 4.4.4.18 The Contractor shall, within 8 months of publication, prepare an archive and procure the deposition and long-term storage of each archive in the HRHE.
- 4.4.4.19 On completion of all fieldwork, the Contractor shall submit a brief report to Discovery and Excavation in Scotland (DES).

Traffic Noise and Vibration

- 4.4.4.20 Should an exceedance of the traffic noise levels stated in the Environmental Statement be identified through model checking/interrogation and measurements after opening, the Contractor shall report this to the Engineer. Where practicable suitable mitigation measures to reduce the noise levels to those specified in 4.4.4.25 (i) of Part 1 having due regard for the requirements of the Contract shall be submitted to the Engineer. Should further mitigation measures not be considered practicable by the Contractor, the Contractor shall provide justification to the Engineer.
- 4.4.4.21 The Contractor shall provide or update mitigation measures at the request of the Engineer, addressing any comments or instructions made by the

Engineer. The Contractor shall implement the mitigation measures once approved by the Engineer.

4.4.4.22 Contact details in connection with construction noise related issues are:

- (i) Perth and Kinross Council
 - Contact person: [REDACTED]
 - Email: [REDACTED]
 - Telephone number: [REDACTED]

4.4.4.23 Visual Impact

Visual Impact shall be mitigated for the following visual receptors:

- (i) users of the existing roads;
- (ii) residents in all adjacent properties; and
- (iii) users of all adjacent public buildings, work places, footpaths and bridleways.

4.4.5 Scheme Specific Landscape Design Requirements

Landscape Drawings

4.4.5.1 Notwithstanding any other provision of the Contract, the landscape Design drawings shall be at an appropriate scale to show the nature and extent of the landscape Design.

4.4.5.2 The overall landscape Design shall be illustrated at a minimum scale of 1:1250.

4.4.5.3 Cross sections, detail areas and otherwise shall be at a scale sufficient to show the detail of the Design.

4.4.5.4 The drawings shall show, but not be limited to, the following:

- (i) landform by levels, contours, gradients and the transition of gradients;
- (ii) planting layout, species and planting densities;
- (iii) seeding layout, species mix and rates of application;
- (iv) layout and details of any areas of special treatment, including SuDS structures etc; and
- (v) layout and details of all areas that require to be protected.

4.4.5.5 Scheme Specific Landscape Integration and Mitigation

The landscape Design shall provide integration of the Works with the surrounding landscape and built environment together with any other mitigation measures identified in the Environmental Assessment Documents.

The overall landscape Design philosophy generally shall respond to or reflect the landscape through which it passes and shall reflect the largely agricultural landscape by the inclusion of planting of predominantly native trees and shrubs appropriate to the locality.

4.4.5.6 Contact details in connection with the landscape design approvals are:

- (i) Transport Scotland
 - Contact person: [REDACTED]
 - Email: [REDACTED]

- Telephone number: [REDACTED]
- (i) Transport Scotland Historic Environment Advisor
Contact person: [REDACTED]
Email: [REDACTED]
Telephone number: [REDACTED]
- (ii) Historic Environment Scotland
Contact Person: [REDACTED]
Email: [REDACTED]

The Contractor shall provide the Engineer with the completed Consultation Certificate(s) in accordance with the Certification Procedure.

4.4.6 Protection of Existing Vegetation

4.4.6.1 The Design shall ensure that:

- (i) all existing trees and vegetation within the Site shall be retained and preserved except where they shall be required to be removed to accommodate the Design; and
- (ii) the existing woodland to the east of the existing A9 between chainages 1050m and 1350m shall be retained.

Removal of woodland between these chainages shall only be permitted where appropriate and subject to the agreement of the Engineer.

4.4.6.2 The Contractor shall submit drawings indicating his proposals for clearance of existing trees and vegetation within the Site to the Engineer for agreement not less than ten working days prior to commencement of site clearance works. Such drawings shall clearly indicate the location and extent of areas of trees and vegetation to be removed and to be retained, and trees and vegetation to be protected in accordance with section 4.4.6 of Part 1.

Existing Landscape Features

4.4.6.3 The Design shall ensure that:

- (i) all existing dry stone walling and other built landscape, prominent features and local landmarks within the Site shall be retained and preserved except where they shall be required to be removed to accommodate the Design.
- (ii) where dry stone wall is removed to accommodate the Design, it shall be stored and reinstated using traditional techniques on a new line. Re-used stone shall be placed with existing lichen, if present, on the outside of the wall.

4.4.7 Landscape and Earthworks Design Requirements

4.4.7.1 The landform design and construction shall achieve the following:

- (i) slope gradients shall vary along the length of the embankment or cutting to reflect the surrounding natural topography and avoid constant slope gradients;
- (ii) slope gradients shall vary in cross section with varied microtopography to reflect the surrounding natural topography, avoiding straight batters at a constant gradient;

- (iii) those areas where earthworks are to be graded out, as identified on the Indicative Landscape and Planting Works Drawings shall generally have slopes no steeper than 1:6 where space permits within the Land made Available;
- (iv) where land may be returned to the previous landowner, graded out slopes shall be prepared and seeded in accordance with the Indicative Landscape and Planting Works Drawings; and
- (v) unless otherwise noted within this Part 2, where reinforced soil slopes are adopted in the Design hard facings shall not be permitted, soil nail heads and mesh shall be concealed and the slopes shall be vegetated to minimise visual impact.

Additional Landform Integration

- 4.4.7.2 In addition to the landform and grading shown on the Indicative Landscape and Planting Works Drawings the Contractor may also carry out additional landform Design through raising existing ground levels in the locations shown on the Indicative Landscape and Planting Works Drawings. Any such modifications shall meet the general requirements set out in Section 4.2.6 of this Part 2.

4.4.8 Planting Design

- 4.4.8.1 Changes to the planting Design may be permitted where appropriate only in locations where the Design differs significantly from that indicated on the Indicative Landscape and Planting Works Drawings as listed in Appendix 0/4 of the Specification.
- 4.4.8.2 The various species and sizes of trees and shrubs incorporated in the Design shall be arranged in such a way that they create either natural woodland characteristics typical in the locality or a designed landscape feature.
- 4.4.8.3 The Design shall ensure that areas disturbed during the construction of the Works shall be reinstated with a vegetation cover similar to that in areas adjacent to the disturbed area except for areas of planting, land reinstated for arable agricultural purposes and areas of wildflower seeding.
- 4.4.8.4 Contact details in connection with the planting design approvals are:
- (i) Transport Scotland

Contact person:	[REDACTED]
Email:	[REDACTED]
Telephone number:	[REDACTED]

Plant Selection and Proof of Provenance

- 4.4.8.5 The following plants shall not be permitted in the Works:
- (i) Gorse;
 - (ii) Broom;
 - (iii) Sycamore;
 - (iv) Bare root evergreens; and
 - (v) Bare root birch.
- 4.4.8.6 Planting of oak shall not be permitted to the east of the A9 between chainages 1050m and 1350m.

- 4.4.8.7 The following plant stock to be used in the Design shall be in accordance with Appendix 30/6 of the Specification and selected from the following types:
- (i) standard, heavy standard and extra heavy standard trees;
 - (ii) feathered and standard trees, with rabbit protection;
 - (iii) 1+2 transplanted trees;
 - (iv) 1+1 transplanted trees, protected by tree shelters;
 - (v) cell grown trees, protected by tree shelters; and
 - (vi) container grown plants grown in containers of 2 litres minimum size, protected by tree shelters.
- 4.4.8.8 All planting areas shall be protected from damage by deer, rabbits hares and livestock until the end of the Period of Establishment Maintenance. Protective measures shall be in place at the time of planting to ensure that no damage occurs. All evergreen trees shall be protected by tree or shrub shelters as appropriate, with stakes.
- 4.4.8.9 Shelters and stakes shall be removed from the Site before the end of the Period of Establishment Maintenance with the agreement of the Engineer and shall become the property of the Contractor.

Extent of Planting

- 4.4.8.10 The Design shall ensure that:
- (i) only grass shall be planted within 3 metres of a carriageway and no trees within 5 metres; and
 - (ii) only verge amenity grass shall be sown within 3 metres of a carriageway unless written consent shall be granted by the Engineer.

Grass and Herbaceous Vegetation Specific Design Requirements

- 4.4.8.11 The seeding design shall be as the Indicative Landscape and Planting Works Drawings, as listed in Appendix 0/4 of the Specification, with grass seed mixture for roadside verges and visibility splays, and species rich grassland for planting areas, general slopes and embankments and detention basins. In addition, the planting Design shall include herbaceous planting associated with detention basins and wildlife ponds.

Management of Existing Vegetation General Design Requirements

- 4.4.8.12 The written action report of remedial management measures shall include, but shall not be limited to:
- (i) felling or pruning of any dead, diseased or unsafe trees or plants blocking signs and lines of sight;
 - (ii) thinning of any existing overcrowded trees and shrubs to allow better specimens to grow, improve habitat value or reduce shading to adjacent houses and gardens;
 - (iii) coppicing of overgrown trees and shrubs to allow growth of new shoots; and
 - (iv) measures to mitigate the potential for wind throw in areas of trees affected by the Works.

4.4.9 Scheme Specific Environmental Requirements

4.4.9.1 River Tay Special Area of Conservation (SAC)

- (i) The Contractor shall take due cognisance in the Design, construction, completion and maintenance of the Works with respect to the designation of the River Tay and certain of its tributaries as a SAC. The Contractor shall undertake works within the environs of the SAC (and any area or watercourse upstream of the boundary of the SAC which may impact the SAC) in strict compliance with the requirements of the Habitat Regulations Appraisal (including Appropriate Assessment) undertaken in respect of the implications of the proposed A9 Dualling Luncarty to Pass of Birnam upon the River Tay SAC.

- (ii) Contact details in connection with works adjacent to the tributaries of the River Tay SAC are:

Scottish Natural Heritage

Contact person: [REDACTED]

Email: [REDACTED]

Telephone number: [REDACTED]

- 4.4.9.2 A wildlife pond shall be located at the Bankfoot North Junction Loop, as shown on the Indicative Landscape and Planting Works Drawings and designed in accordance with clause 3004 AR of the Specification.

4.5 Settlement

- 4.5.1 Refer to Part 1 – General Requirements.

4.6 Instrumentation

- 4.6.1 Refer to Part 1 – General Requirements.

- 4.6.2 The Contractor shall maintain and keep all groundwater monitoring instrumentation accessible throughout the execution and completion of the Works. Any instrumentation found to be damaged or defective shall be repaired or replaced by the Contractor as soon as practicable.

- 4.6.3 All boreholes with monitoring wells that are no longer required, including those in dry condition, shall be decommissioned by the Contractor in accordance with the requirements of the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (CAR) and SEPA guidance on “Decommissioning Redundant Boreholes and Wells”.

4.7 Contaminated Land

4.7.1 Contact details in connection with treatment and disposal of all contaminated materials are:

- (i) SEPA
 - Contact person: [REDACTED]
 - Email: [REDACTED]
 - Telephone number: [REDACTED]
- (ii) Perth and Kinross Council
 - Contact person: [REDACTED]
 - Email: [REDACTED]
 - Telephone number: [REDACTED]

4.8 Requirements for Intelligent Transport Systems**4.8.1 General**

4.8.1.1 Contact details in connection with the requirements for Traffic Scotland are:

- (i) Transport Scotland
 - Contact Person: [REDACTED]
 - Email: [REDACTED]
 - Telephone: [REDACTED]

4.8.2 Provision of Intelligent Transport Systems Works

4.8.2.1 The Contractor shall Design, develop, execute, implement, test, commission and handover the Intelligent Transport Systems (ITS) facilities and Traffic Scotland Equipment (TSE) to Transport Scotland for transfer to the live Traffic Scotland Service (TSS) network. Refer to Table 4.8.4.1.1 of Part 1 for details of equipment to be issued by Transport Scotland.

4.8.2.2 ITS works are required between Reference Points R01 to R06 only.

4.8.2.3 The Contractor shall provide five TSE sites at the indicative locations shown in Table 4.8.1.3.1:

Table 4.8.1.3.1 Traffic Scotland Equipment (TSE) Sites

Site Number	Active Equipment Technology	Location and Approximate Chainage
1	VMS (MS4) + CCTV Camera	Tullybelton / Stanley Junction at chainage 940
2	CCTV Camera + Data Service Equipment Loops	Tullybelton / Stanley Junction at chainage 2920
3	CCTV Camera + Data Service Equipment Loops	Bankfoot South Junction at chainage 4950
4	CCTV Camera + Data Service Equipment Loops	Bankfoot North Junction at chainage 5950
5	VMS (MS4) + CCTV Camera	Bankfoot North Junction at chainage 8200

4.8.2.4 The design shall ensure:

- (i) the safety of the motorists using the road;
- (ii) the safety of the Traffic Scotland maintenance personnel through ease of access, and proximity of the site relative to the carriageway; and
- (iii) the minimisation of the visible impact of the sites on the environment and on those travelling on the road.

5. UNDERTAKERS WORKS AND PRIVATE APPARATUS WORKS**5.1 General****5.1.1 Existing Private Apparatus**

Contact details for Statutory Undertakers in connection with the location of apparatus and any diversion works are:

- (i) BT Openreach
 - Contact person: [REDACTED]
 - Email: [REDACTED]
 - Telephone number: [REDACTED]
- (ii) Scottish Water
 - Contact person: [REDACTED]
 - Email: [REDACTED]
 - Telephone number: [REDACTED]
- (iii) Scottish and Southern Energy
 - Contact person: [REDACTED]
 - Email: [REDACTED]
 - Telephone number: [REDACTED]
- (vii) Scottish Gas Networks
 - Contact person: [REDACTED]
 - Email: [REDACTED]
 - Telephone number: [REDACTED]
- (viii) National Grid
 - Contact person: [REDACTED]
 - Email: [REDACTED]
 - Telephone number: [REDACTED]
- (ix) CTIL
 - Contact person: [REDACTED]
 - Email: [REDACTED]
 - Telephone number: [REDACTED]

5.1.2 Existing Private Water Supplies and Septic Tanks

- 5.1.2.1 The Contractor shall locate and protect/relocate the existing septic tank and/or existing soakaway for East Mains Cottages as required.
- 5.1.2.2 The Contractor shall locate any existing private water supplies within the Land Made Available and carry out appropriate protection or diversion works where there is interference with the Works.
- 5.1.2.3 Contact details for landowners in connection with the existing septic tank at East Mains Cottages are:
 - (i) Holm Cottage
 - Contact person: [REDACTED]
 - Address: [REDACTED]

- [REDACTED]
[REDACTED]
[REDACTED]
- (ii) Anvil Cottage
Contact person: [REDACTED]
Address: [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
- (iii) Barn House
Contact person: [REDACTED]
Address: [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

5.1.3 Proposed Private Apparatus

The Contractor shall arrange for water supplies for field troughs as outlined in Appendix 1/15 of the Specification.

5.2 Advance Indicative Undertakers' Works

5.2.1 British Telecommunications Plc. (Openreach) have been instructed to undertake advance works comprising temporary diversions BT-04 and BT-05 as detailed in Appendix 1/16. The Notices for these works are listed in the Employer's Requirements Volume 3 Part 3 Appendix E. These works will commence prior to Contract Award and will continue thereafter. Until such time as these works are complete there is potential for disruption and exclusion of access from areas of the site required for the diversion works and for protection of the existing utilities until the diversions are complete. In accordance with Volume 2 Conditions of Contract Clauses 27 and 31 and Annex 1 Special Requirements Relating to Undertakers and Other Relevant Companies from the date of Contract Award the Contractor acting as the Overseeing Organisation's Agent will be responsible for managing these works on behalf of the Employer.

5.2.2 CTIL will be undertaking mast relocation works adjacent to the western LMA boundary at Cairnleith Moss (approximately CH7770). A new mast will be installed set back from the LMA, along with supporting services, and the existing mast immediately adjacent to the LMA will be removed. These works will commence prior to Contract Award and will continue thereafter. Until such time as these works are completed there is the potential for disruption due to the close proximity to the LMA. In accordance with Volume 2 Conditions of Contract Clauses 27 and 31 and Annex 1 Special Requirements Relating to Undertakers and Other Relevant Companies from the date of Contract Award the Contractor acting as the Overseeing Organisation's Agent will be responsible for managing these works on behalf of the Employer.

6. SUPERVISION, SAMPLING AND TESTING REQUIREMENTS**6.1 Supervision**

6.1.1 Notwithstanding any other provision of the Contract the Contractor shall ensure that a Designer's Site Representative, supported by a minimum of two engineers (one of whom with relevant bridges/structures experience), a minimum of two experienced and competent engineering works inspector/clerk of works, Landscape Clerk of Works and Ecological Clerk of Works all from the Designer's organisation, shall be based on the Site throughout the period of the construction, completion and maintenance of the Works unless otherwise consented to in writing by the Engineer. This shall include at least one Chartered geotechnical/geological Designer's Section Engineer Representative, with relevant experience of site supervision as a Designer's Site Representative, within the Design, construction and completion process.

6.2 Sampling and Testing

6.2.1 Refer to Part 1 – General Requirements.

6.3 Compliance Surveys**6.3.1 General**

6.3.1.1 Contact details for obtaining the relevant details of the RMMS referencing system are:

- (i) Transport Scotland, Trunk Roads and Bus Operations

Contact person: [REDACTED]

Email: [REDACTED]

Telephone number: [REDACTED]

6.3.2 Deflectograph Surveys (DS) of Flexible Pavements

6.3.2.1 Any section of the new A9 Trunk Road pavement which is not identified by PANDEF as having a residual life greater than that listed below shall be deemed to be a potential defect and shall be subject to further investigation as described in sections 6.3.4.4 to 6.3.4.8 of Part 1.

Road Name	Reference Points	Minimum Residual Life (msa)
New A9 Trunk Road	R1 to R6	36

7. AS CONSTRUCTED REQUIREMENTS**7.1 General**

7.1.1 Refer to Part 1 – General Requirements.

7.2 Health and Safety File

7.2.1 Refer to Part 1 – General Requirements.

7.3 As-Constructed Records

7.3.1 Refer to Part 1 – General Requirements.

7.4 Maintenance Manuals

7.4.1 Refer to Part 1 – General Requirements.

7.5 Network Referencing & Inventory**7.5.1 Inventory Requirements**

Contact details in connection with Inventory Requirements are:

- (i) Transport Scotland (Asset Management Branch of Trunk Roads and Bus Operations)

Contact person: [REDACTED]

Email: [REDACTED]

Telephone number: [REDACTED]

7.6 Building Information Modelling (BIM)

7.6.1 Refer to Part 1 – General Requirements.

8. CERTIFICATION PROCEDURE

8.1 Introduction

8.1.1 Refer to Part 1 – General Requirements.

8.2 Design Certificates and Design Check Certificates

8.2.1 Refer to Part 1 – General Requirements.

8.3 Design Interim Certificates and Design Check Interim Certificates: Staged Procedure

8.3.1 Refer to Part 1 – General Requirements.

8.4 Information to be provided with Design Certificates, Design Check Certificates, and/or Design Interim Certificates and Design Check Interim Certificates

8.4.1 Refer to Part 1 – General Requirements.

8.5 Interim Construction Certificates

8.5.1 Refer to Part 1 – General Requirements.

8.6 Final Construction Certificates

8.6.1 Refer to Part 1 – General Requirements.

8.7 Interim Post Construction Certificates

8.7.1 Refer to Part 1 – General Requirements.

8.8 Final Post Construction Certificates

8.8.1 Refer to Part 1 – General Requirements.

8.9 Consultation Certificates

8.9.1 Refer to Part 1 – General Requirements.

8.10 Temporary Works Certificates

8.10.1 Refer to Part 1 – General Requirements.

8.11 Road Safety Audits

8.11.1 Refer to Part 1 – General Requirements.

8.12 Departures from Standard

8.12.1 Where the Contractor proposes to incorporate a Departure from Standard from Transport Scotland's 'Roads For All: Good Practice Guide for Roads' within the Design, the Contractor shall seek the formal approval in writing of Transport Scotland.

Contact details in connection with the submission of Departures from Standard from Transport Scotland's 'Roads For All: Good Practice Guide for Roads' are:

(i) Transport Scotland, Major Transport Infrastructure Projects

Contact person: [REDACTED]

Email: [REDACTED]

Telephone number: [REDACTED]

8.13 Walking, Cycling and Horse-Riding Assessment and Review Requirements

8.13.1 Refer to Part 1 – General Requirements.

8.13.2 For the purposes of the Walking, Cycling and Horse-Riding Review the Contractor shall follow the procedure for large schemes in accordance with DMRB HD 42.

8.14 Provenance Certificates

8.14.1 Refer to Part 1 – General Requirements.