Pullar House 35 Kinnoull Street Perth PH1 5GD Tel: 01738 475300 Fax: 01738 475310 Email: onlineapps@pkc.gov.uk

Applications cannot be validated until all the necessary documentation has been submitted and the required fee has been paid.

Thank you for completing this application form:

ONLINE REFERENCE 100683342-001

The online reference is the unique reference for your online form only. The Planning Authority will allocate an Application Number when your form is validated. Please quote this reference if you need to contact the planning Authority about this application.

Applicant or Agent Details

Are you an applicant or an agent? * (An agent is an architect, consultant or someone else acting on behalf of the applicant in connection with this application) ☐ Applicant ☒ Agent

Agent Details

Please enter Agent details

Company/Organisation:	Savills		
Ref. Number:		You must enter a Building Name or Number, or both: *	
First Name: *	Alexandria	Building Name:	Earn House,Broxden Business Park
Last Name: *	Scott	Building Number:	
Telephone Number: *	[redacted]	Address 1 (Street): *	Lamberkine Drive
Extension Number:		Address 2:	
Mobile Number:		Town/City: *	Perth
Fax Number:		Country: *	United Kingdom
		Postcode: *	PH1 1RA
Email Address: *	alexandria.scott@savills.com		

Is the applicant an individual or an organisation/corporate entity? *

☐ Individual ☒ Organisation/Corporate entity

Applicant Details

Please enter Applicant details

Title:	Mr	You must enter a Building Name or Number, or both: *	
Other Title:		Building Name:	c/o Savills
First Name: *	David	Building Number:	
Last Name: *	Gane	Address 1 (Street): *	Earn House, Broxden Business Park
Company/Organisation	H C Pilkington Trust	Address 2:	Lamberkine Drive
Telephone Number: *	[redacted]	Town/City: *	Perth
Extension Number:		Country: *	United Kingdom
Mobile Number:		Postcode: *	PH1 1RA
Fax Number:			
Email Address: *	alexandria.scott@savills.com		

Site Address Details

Planning Authority:	Perth and Kinross Council

Full postal address of the site (including postcode where available):

Address 1:	THE CASTLE FARM
Address 2:	METHVEN
Address 3:	
Address 4:	
Address 5:	
Town/City/Settlement:	PERTH
Post Code:	PH1 3SU

Please identify/describe the location of the site or sites

Northing	726151	Easting	304303

Description of Proposal

Please provide a description of your proposal to which your review relates. The description should be the same as given in the application form, or as amended with the agreement of the planning authority: *
(Max 500 characters)

Demolition Buildings and Erection of 3 agricultural Buildings, formation of hardstanding and associated works 23/01610/FLL

Type of Application

What type of application did you submit to the planning authority? *

☒ Application for planning permission (including householder application but excluding application to work minerals).

☐ Application for planning permission in principle.

☐ Further application.

☐ Application for approval of matters specified in conditions.

What does your review relate to? *

☒ Refusal Notice.

☐ Grant of permission with Conditions imposed.

☐ No decision reached within the prescribed period (two months after validation date or any agreed extension) – deemed refusal.

Statement of reasons for seeking review

You must state in full, why you are a seeking a review of the planning authority's decision (or failure to make a decision). Your statement must set out all matters you consider require to be taken into account in determining your review. If necessary this can be provided as a separate document in the 'Supporting Documents' section: * (Max 500 characters)

Note: you are unlikely to have a further opportunity to add to your statement of appeal at a later date, so it is essential that you produce all of the information you want the decision-maker to take into account.

You should not however raise any new matter which was not before the planning authority at the time it decided your application (or at the time expiry of the period of determination), unless you can demonstrate that the new matter could not have been raised before that time or that it not being raised before that time is a consequence of exceptional circumstances.

See MC30 - Appeal Statement.

Have you raised any matters which were not before the appointed officer at the time the Determination on your application was made? * ☐ Yes ☒ No

If yes, you should explain in the box below, why you are raising the new matter, why it was not raised with the appointed officer before your application was determined and why you consider it should be considered in your review: * (Max 500 characters)

Please provide a list of all supporting documents, materials and evidence which you wish to submit with your notice of review and intend to rely on in support of your review. You can attach these documents electronically later in the process: * (Max 500 characters)

See 23/01610/FLL Appeal to Local Review Body List of Supporting Documents.

Application Details

Please provide the application reference no. given to you by your planning authority for your previous application.	23/01610/FLL
What date was the application submitted to the planning authority? *	26/09/2023
What date was the decision issued by the planning authority? *	06/06/2024

Review Procedure

The Local Review Body will decide on the procedure to be used to determine your review and may at any time during the review process require that further information or representations be made to enable them to determine the review. Further information may be required by one or a combination of procedures, such as: written submissions; the holding of one or more hearing sessions and/or inspecting the land which is the subject of the review case.

Can this review continue to a conclusion, in your opinion, based on a review of the relevant information provided by yourself and other parties only, without any further procedures? For example, written submission, hearing session, site inspection. *

☒ Yes ☐ No

In the event that the Local Review Body appointed to consider your application decides to inspect the site, in your opinion:

Can the site be clearly seen from a road or public land? *	☐ Yes ☒ No
Is it possible for the site to be accessed safely and without barriers to entry? *	☒ Yes ☐ No

If there are reasons why you think the local Review Body would be unable to undertake an unaccompanied site inspection, please explain here. (Max 500 characters)

If you require access inside the building, we would make the client aware. To note the site is a working farm.

Checklist – Application for Notice of Review

Please complete the following checklist to make sure you have provided all the necessary information in support of your appeal. Failure to submit all this information may result in your appeal being deemed invalid.

Have you provided the name and address of the applicant?. * ☒ Yes ☐ No

Have you provided the date and reference number of the application which is the subject of this review? * ☒ Yes ☐ No

If you are the agent, acting on behalf of the applicant, have you provided details of your name and address and indicated whether any notice or correspondence required in connection with the review should be sent to you or the applicant? * ☒ Yes ☐ No ☐ N/A

Have you provided a statement setting out your reasons for requiring a review and by what procedure (or combination of procedures) you wish the review to be conducted? * ☒ Yes ☐ No

Note: You must state, in full, why you are seeking a review on your application. Your statement must set out all matters you consider require to be taken into account in determining your review. You may not have a further opportunity to add to your statement of review at a later date. It is therefore essential that you submit with your notice of review, all necessary information and evidence that you rely on and wish the Local Review Body to consider as part of your review.

Please attach a copy of all documents, material and evidence which you intend to rely on (e.g. plans and Drawings) which are now the subject of this review * ☒ Yes ☐ No

Note: Where the review relates to a further application e.g. renewal of planning permission or modification, variation or removal of a planning condition or where it relates to an application for approval of matters specified in conditions, it is advisable to provide the application reference number, approved plans and decision notice (if any) from the earlier consent.

Declare – Notice of Review

I/We the applicant/agent certify that this is an application for review on the grounds stated.

Declaration Name: Mr Ewan Caldwell

Declaration Date: 04/09/2024

5 September 2024

Development Management
Planning and Development
Pullar House
Kinnoull Street
Perth
PH1 5GD

Alexandria Scott
E: alexandria.scott@savills.com

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Dear Sir/Madam,

Appeal to Local Review Body for proposal to Demolish Buildings and Erection of 3 agricultural Buildings, formation of hardstanding and associated works. Application reference: 23/01610/FLL

We submit on behalf of Pilkington Trust an appeal to the Local Review Body for application reference 23/01610/FLL for the Demolition of buildings and Erection of 3 agricultural buildings, formation of hardstanding and associated works.

The appeal includes all documents associated with application reference 23/01610/FLL and the Listed Building Consent application 23/01611/LBC. These applications are inextricably linked and therefore all documents from both applications have been submitted, a supporting list is attached with the application. To note the submitted documents include a measured survey which was submitted as part of 23/01611/LBC, this is not available online.

We look forward to confirmation that the appeal has been registered. In the meantime, please do not hesitate to contact me should you have any queries on the information we have submitted please get in touch.

Yours sincerely

[redacted]

Alexandria Scott
Senior Planner

23/01610/FLL Appeal to Local Review Body

Uploaded Supporting Documents:

MC1: Planning Statement

MC2: Structural Condition Survey

MC3: Agricultural Justification Statement and Waste Management Plan

MC4: Feasibility Study

MC5: Pre Application Enquiry Response

MC6: Planning letter response April 2024

MC7: 23/01610/FLL Report of Handling

MC8: 23/01611/LBC Report of Handling

MC9: Location Plan

MC10: Proposed section

MC11: Proposed floor plan

MC12: Proposed elevations

MC13: Proposed block plan

MC14: Existing Block plan

MC15: Existing West elevation

MC16: Existing South Elevation

MC17: Existing North Elevation

MC18: Existing East Elevation

MC19: Demolition plan

MC20: Schedule of Works

MC21: Topographical Survey

MC22: Proposed Photomontages

MC23: Odour Impact Assessment

MC24: Noise Impact Assessment

MC25: Ecological Impact Assessment

MC26: Design Statement

MC27: Bat Survey Report

MC28: Drainage

MC29: Measured Survey

MC30: Appeal Statement

MC31: Notice of Review

Supporting Statement – Demolition of steading and erection of new agricultural buildings

Methven Castle Steading, Perth, PH1 1SU

Contents

1. Introduction

1.1. Savills are submitting a planning application, on behalf of their client, Pilkington Trust, to demolish a redundant farm steading and replace with new agricultural buildings at Methven Castle, Methven, Perth, PH1 1SU.

1.2. To be clear, the planning application is to demolish the steading, which is currently falling into a state of disrepair, and replace with three modern agricultural sheds, including a grain store, cattle shed and general-purpose building. These sheds are required to meet operational needs of the farm tenant.

1.3. Methven Castle steading is located 1.19km to the east of Methven at Methven Castle Farm. It can be accessed via a private agricultural track off the A85, the main road between Perth and Crieff. It is located to the east of a cluster of residential properties and to the north-east of Methven Castle.

1.4. A pre-application enquiry response was provided in April 2022 (reference: 22/00094/PREAPP) which noted that the principle of the new agricultural buildings was considered acceptable, however planning challenges were noted related to the impact on residential amenity and cultural heritage. It is hoped that this application and Planning Statement, which is supported by the following documents provides sufficient information to justify the replacement of the steading in this area:

- Design and Access Statement
- Drainage Impact Assessment
- Preliminary Ecological Assessment
- Bat Surveys
- Odour Impact Assessment
- Noise Impact Assessment
- Agricultural Justification Statement
- 3D visualisations
- Structural Condition Assessment

2. Site Context and Background

2.1. As mentioned, the steading is located to the east of Methven, in an area predominantly rural in nature with a small number of residences surrounding. It can be accessed directly off a private track from the A85 road. Please refer to the Location Plan submitted with the application showing the site and access track bound in red.

Figure 1 - Wider Context Plan

2.2. The proposal site comprises the series of farm buildings at Methven Farm, a working farm, surrounded by its own farmland.

2.3. The proposal site enjoys a partially hidden aspect when viewed from the A85. Parts of the steading can be seen at a distance when travelling west along the A85, however the tree belt running along the edge of the road and the sporadic mature trees surrounding the steading at the same level, act as a natural screen. The steading cannot be seen whilst travelling east along the A85 as a combination of topography, bends in the road, and intervening buildings and mature trees and hedges, create cover to public views. Those living in the residential properties to the west of the steading are unable to see the steading from their properties due to the dense planting bounding the residential cluster to the east.

2.4. The steading is currently leased by Pilkington Trust to a long-term agricultural tenant. The tenant has use of the buildings and surrounding area at Methven Castle Steading as part of the tenancy agreement. It includes a range of traditional and non-traditional agricultural buildings and three grain silos. In addition to the cluster of houses to the west, there are three residential properties at the steading. One of these properties is lived in by the tenant whilst the other two are unoccupied.

2.5. Until recently, the farmer has benefited from farm sheds at another location close-by. These farm buildings have had to be taken back in hand by the landlord because they form part of a wider residential development project allocated in the Perth and Kinross Local Development Plan, (Ref: MU73) Almond Valley). Therefore by necessity, and through agreement with the farmer, the use of these sheds has had to be lost and a replacement location is required with some urgency. The most appropriate alternative location is the Methven Farm complex. This is because of its central location to the farming operations and the opportunity it offers to use brownfield land avoiding the necessity to re-locate the farm buildings on greenfield land.

2.6. The buildings at the proposal site have for some time been inappropriate to modern day agricultural practices and serve no function on this active farm except for ancillary stabling for horses which is now no longer viable due to the building condition. The steading has been challenging to maintain for many years since it no longer has an economic use. In addition, it has suffered significant weathering and damage from the storms of recent years. The Structural Condition Survey accompanying this planning application provides more details on the condition of the site and concludes it would be unviable to convert and re-use the buildings.

2.7. The steading is in poor condition and the plan is to replace it with modern agricultural buildings suited to today's requirements in order to improve the operation of the farm and to enhance the amenity and safety of the area.

2.8. The Agricultural Justification Statement provides further details of the operational requirement for the new buildings. It notes that the steadings sit within the heart of the farming operation and therefore the buildings are not suitable for alternative uses or for sale.

2.9. We have undertaken a desktop analysis of constraints on the site and our key findings are summarised below:

- Cultural Heritage: the steading is not listed however in-curtilage impacts are possible on the setting of Methven Castle. Figure 2 shows the listing designation covering the Castle only. We hope the information within this submission and the 3D visualisations in particular demonstrate that the proposal is low impact in visual terms and does not have an impact on Methven Castle. The steading is located within the Methven Castle Garden and Designed Landscape designation.

Figure 2 - Pastmap extract showing listing designation

- Natural Heritage: There are no special biodiversity designations such as Sites of Special Scientific Interest or Special Areas of Conservation on or close to the site.
- Flood risk: After an investigation using SEPA's flood map, it can be confirmed that the site is not vulnerable to flooding.
- Trees: The site contains various trees around the steading however none of them are covered by Tree Preservation Orders. There is a strip of ancient woodland to the south-east outwith the site.
- A Core Path runs along the northern edge of the current steading connecting Methven to Almondbank.
- An area to the south-east of the site is subject to a consultation zone for National Grid Pipeline. We acknowledge that the Health and Safety Executive will be consulted as part of the consultee process.

2.10. Figure 3 is an aerial view of the site and it demonstrates the unsafe and dilapidated condition of the majority of the buildings. To be clear, the two large sheds to the south of steading are to be retained. These sheds are shown shaded grey on Figure 4.

Figure 3 - Aerial View of Steading

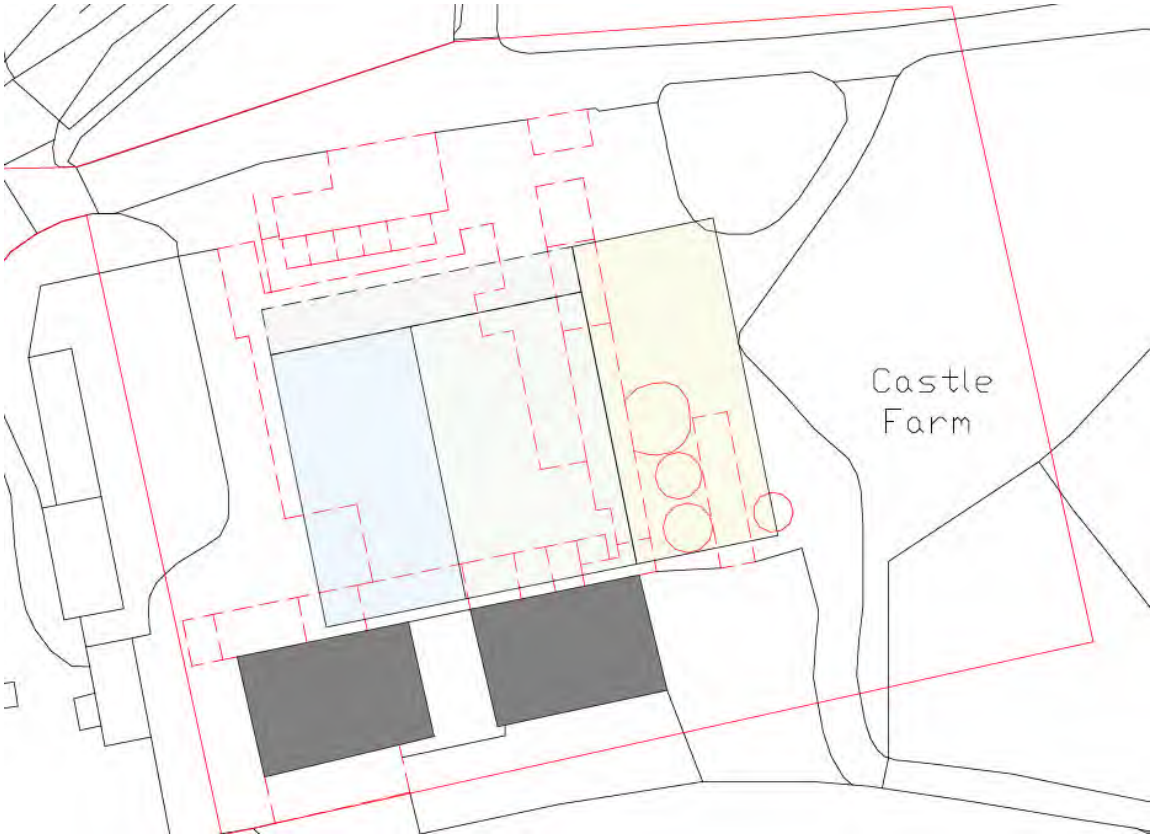

Figure 4 - Demolition Plan (buildings being demolished shown as dashed red)

3. The Proposal

3.1. As discussed, the planning application is to demolish the steading and replace with modern agricultural buildings. The new agricultural buildings would comprise one grain store, one cattle building and a general-purpose building. As mentioned, the two large, non-traditional agricultural sheds to the south of the site (shaded grey) would be retained. Please see the proposed block plan below.

Figure 5 – Proposed Block Plan

3.2. In terms of shed design, the proposed grain store is approximately 36m x 19m, the proposed cattle shed is approximately 36m x 23m and the proposed general-purpose shed is approximately 36m x 18m. The grain store has two roller doors on the north and south elevations. The cattle shed has sliding doors on both sides accessing a 4.5m feed passage on to four pens. The general purpose shed simply has sliding doors on both sides. Please refer to full suite of drawings including location plan, existing block plan, demolition block plan, proposed block plan, proposed floor plan, proposed elevations, proposals portal section and proposed photo montages (visualisations) that accompany this application.

3.3. Steadmans single skin steel cladding in juniper green colour will clad the new buildings. All roofs, sliding doors and roller doors are slate blue. It is considered these colours are sensitive to the surrounding natural countryside area and landscape.

3.4. As mentioned, the steading is currently in a state of disrepair and economically unviable to convert. Please see the Structural Condition Assessment which demonstrates this. The Assessment notes that Methven Castle Steading is generally found to be in poor condition, and in some instances, appear to pose a health and safety hazard for both the current tenant, and potentially to the public. Indeed, it is the Surveyor's view that the physical condition of the Methven Castle Steading is so poor that is considered to be beyond viable economic repair.

3.5. The only course of action therefore is to remove the derelict and dangerous steading and replace with buildings that are needed by the tenant farmer to improve operational efficiency at the farm. As explained within the Agricultural Justification Statement, the steading buildings are not suitable to the farming business due to the change in agricultural machinery and how operations are carried out now. The design and scale of the new sheds are typical to regular farm complexes across the country.

4. Supporting Information

4.1. A suite of supporting information is provided with the application to demonstrate that the site is suitable to support the proposal for replacement agricultural buildings. A summary of the findings within the various reports is provided below:

Agricultural Justification Statement

4.2. The Agricultural Justification statement, written by Savills Food & Farming Consultancy, concludes that the existing buildings provide a significant health and safety risk and note that it is critical to get the buildings demolished to reduce any risk to the public. It also notes that the existing buildings are not suitable to support modern farm practices.

4.3. The statement gives details on the total number of animals to be housed in the building at Table 3, which in total is 180 livestock which require 800m2 of storage. The proposed sheds meet this requirement.

4.4. The Statement provides a locational justification and notes that the steading is central to the wider farming area making it a very good location for the replacement buildings. It is key to ensure that the buildings are in a good location for all farming operations so that the business can be efficient in its operations. Additional to this, having the buildings in a central location to the farmed area makes it easier for transporting goods and carting grain back to the steading saving: time, money and emissions.

Bat Survey Report

4.5. Neo Environmental undertook bat surveys at the site in June, July and August 2022 to identify any impact the proposal would bring upon any bat or bird species that may be present within the site. The surveys included a full daylight inspection of all buildings to be impacted by the proposed development in conjunction with dusk emergence and dawn swarming surveys.

4.6. The results established the presence of 24 non-breeding roost sites for common pipistrelle and soprano pipistrelle. The largest number of bats recorded roosting within a single roost site was five.

4.7. The non-breeding roosts identified are of low conservation significant, according to Bat Mitigation Guidelines, however the proposal will result in the destruction of these roost sites and therefore it is necessary to obtain a European Protected Species License from NatureScot. A mitigation plan is presented within the report (page 42) which will compensate for the loss of roost sites and all continued use of the site by bats.

4.8. In terms of birds, active nests for swallows, feral pigeons and blackbirds were identified within the site. A full species protection plan for breeding birds is presented in Appendix 8 within the Bat Surveys.

Ecological Impact Assessment

4.9. Tay Ecology undertook an ecological impact assessment at the proposal site and field surveys were carried out in October and November 2022 to assess habitat, tree, bats, badger, red squirrels, pine martins, otter, and reptiles. The likelihood of specially protected, sensitive, or very rare, species of birds, flora and fauna was assessed.

4.10. In summary, the assessment found that demolishing the existing buildings will result in a loss of existing bat roost and bird nesting locations, however it notes that the buildings are in a poor state of repair, dangerous in places, and will continue to decline. As mentioned within the Bat Survey report, there is the capacity to provide replacement roosting and nesting locations as part of the new development and in the adjacent retained habitats. There is also an opportunity enhance the existing habitat with new planting of trees, shrubs and hedgerows. The Ecological Impact Assessment outlines a mitigation strategy.

Noise Impact Assessment

4.11. Bureau Veritas were instructed to undertake a noise impact assessment in relation to the proposal. This assessment looked to establish the following:

- Daytime and night-time background noise levels at the nearest sensitive receptors
- Current impact of the grain dryer and associated extract system
- Predicted impact of the new grain dryer and associated extract system
- Predicted impact of new cattle building

4.12. A noise model was prepared using the modelling software CadnaA and the noise model predicted noise levels at the nearest identified receptors which were found to be Kineel Cottage, Pepperwell and Castle Farm Cottage. All of these properties are owned by the Applicant.

4.13. The replacement of the old grain dryer with the new system is likely to see a drop in noise levels by approximately 20 dB, indicating an amelioration of noise levels. Furthermore, the impact of the cow shed in line with BS 4142 is likely to be low for the daytime and night-time periods. Therefore, no unacceptable noise impact on the nearby residential properties is anticipated.

Odour Impact Assessment

4.14. Bureau Veritas were also instructed to undertake an Odour Impact Assessment at the site which assesses the potential odour impacts associated with the erection and housing of 180 cattle throughout the year on the amenity of existing residential dwellings in the area.

4.15. The assessment sets out the results of the dispersion modelling and compares predicted concentrations against the odour criterion of OU_e/m_3 as a 98th percentile of 1-hour mean odour concentrations and concluded that the two residential receptors observe the highest maximum odour emissions of 3.17 OU_e/m_3 and 3.54 OU_e/m_3 respectively. However, despite exceeding the threshold of 3 OU_e/m_3, it is important to note that the model is a worst-case scenario as it does not consider the effect the buildings will have on the odour as they are unable to be implemented into the model. As such, it is likely that the building (to the west of the source) will reduce the odour impact at these receptors. It should also be noted that several worst case assumptions with regards to the size and number of cattle and maintenance and cleaning regime at the site have been used to inform the odour modelling, in practice it is expected that the odour impact will be less than is modelled.

Drainage Impact Assessment

4.16. Allen Gordon LLP were commissioned to undertake a drainage impact assessment at Methven Castle Steading. The assessment describes the surface water drainage arrangements for the proposed steading and assesses the impact on existing drainage systems and the water environment.

4.17. The proposed drainage arrangements comprise a SUDS detention basin and swale as part of the SUDS treatment. The assessment identifies further assessments in relation to discharge flow rates at construction.

Building Condition Assessment

4.18. The Building Condition Assessment provides a summary of the building's condition in addition to a photographic record of condition.

4.19. As mentioned, it concludes that Methven Castle steading is in poor condition and is now considered to be beyond viable economic repair. The buildings also pose a health and safety risk and should therefore be made safe as soon as practicable.

5. Policy Context and Analysis

5.1. Commentary on the policy context relevant to this proposal is presented below.

Town and Country Planning (Scotland) Act 1997 (as amended)

5.2. Sections 25 and 37 of the Town & Country Planning (Scotland) Act 1997 (as amended) outline the requirement of Development Plans. It states:

"Where in making any determination under the Planning Act, regard is to be had to the Development Plan that determination shall be made in accordance with the Development Plan unless material considerations indicate otherwise" (Section 25).

"In dealing with an application, the Planning Authority shall have regard to the provisions of the Development Plan so far as material to the application and to any other material considerations" (Section 37).

5.3. In the context of the proposed development, the Development Plan compromises:

- National Planning Framework 4 (adopted 13 February 2023); and
- Perth and Kinross Council (adopted 29 November 2019).

5.4. This section will highlight the main policy considerations set out in the Development Plan.

National Planning Policy

National Planning Framework 4

5.5. The National Planning Framework 4 (NPF4) was approved by ministers on 13 February 2023 and is a material consideration as it now forms part of the Development Plan. NPF4 has three key focus areas which aim to create Sustainable Places, Liveable Places and Productive Places. Each focus area has a number of policies and spatial principles which are designed to achieve the expected outcomes. The nature of NPF4 is that the document requires to be considered in the round and planning judgement applied dependent on-site specific requirements etc.

5.6. NPF4 outlines a National Spatial Strategy for Scotland to 2045, central to this is a need to reduce greenhouse gas emissions and adapt to the future impacts of climate change and to respond to a growing nature crisis. It also aims to address the social and economic legacy of the coronavirus pandemic, cost crisis and longstanding inequality.

5.7. In this instance, it is relevant to demonstrate what impact the proposal has on climate change and nature restoration. The social aims mentioned above are more relevant to proposals of a different nature.

5.8. We have provided a full analysis of the proposal against all relevant policies within NPF4 below. This is structured as follows:

- Proposals' response to the climate and biodiversity crises
- Analysis against policies directly related to the principle of the proposal
- Table 1 provides a response to all other policies.

Proposals' response to the climate and biodiversity crises

Summary

5.9. As discussed, NPF4 was produced to align with the declared climate emergency and therefore Scotland's response to the climate and biodiversity crises sits at the forefront of the document. This section provides an overall consideration of the proposal against Policy 1 'Tackling the climate and nature crises' and Policy 2 'Climate mitigation and adaptation'.

5.10. It is our overarching view that the proposal will not have a significant impact on the climate and biodiversity crises due to its small-scale nature. It is also important to re-emphasise that this proposal is essential for the continuing operations of Methven Castle Farm thus the proposal does not increase the development impact of the farming business. As discussed above, the current farm buildings that the farmer uses at another location are being taken back in-hand and therefore the farmer requires new buildings. This particular location has been chosen because it is close to where the farmer lives and is central to the landholding. It also involves the redevelopment of a brownfield site which prevents the loss of a greenfield site elsewhere and any biodiversity impact this could bring. The Structural Condition Survey has concluded that the current buildings are unviable to reuse and in turn the Agricultural Justification Statement has concluded they do not meet modern farming requirements. The sum of the above is that the demolition and replacement of buildings at this site is the only option. We hope the operational requirement is considered strongly when assessing this proposal against policies 1, 2 and 3 of NPF4.

Biodiversity Crisis

5.11. Policy 3 'Biodiversity' ensures that development proposals contribute to the enhancement of biodiversity, including where relevant, restoring degraded habits and building and strengthening nature networks and the connections between them. Proposals should also integrate nature-based solutions, where possible.

5.12. The proposals are informed by Bat Surveys undertaken by Neo Environmental Ltd. and an Ecological Impact Assessment undertaken by Tay Ecology.

5.13. The ecology surveys confirm the baseline of the site and that there are no adverse impacts as a result of the proposals on local, national or European designations.

5.14. The Bat Surveys identify that, without mitigation, the proposal would cause destruction to roost sites for common pipistrelle and soprano pipistrelle. The Applicant will therefore apply for a European Protection Species Licence before development takes place. In order to maintain the favourable conservation status of the bat population at the site, mitigation in the form of careful timing, supervision of the works, and retention/re-creation of all roost sites and access point will take place. Prior to the start of works, a total of six bat boxes will be erected on mature trees within 100m of the original roost sites to provide a safe location away from the ongoing works to move any bats that are discovered. The bat boxes will remain on site in perpetuity which will provide additional compensation for any loss. The relevant pre-works inspections and supervision by a bat ecologist will be undertaken to ensure any bats found are relocated to the pre-installed bat boxes.

5.15. In terms of birds, nesting opportunities for swallows, feral pigeons and blackbirds were evident and the mature woodland surrounding the steading was identified as a good habitat for bats and nesting birds. The proposal retains all the existing trees and woodland around the site and incorporates a SUDS basin as part of the proposals, which will incorporate appropriate planting and therefore contribute to the enhancement of biodiversity. Nest boxes for a range of bird species will also be provided along with appropriate planting of species to ensure suitable habitats.

5.16. The Ecological Impact Assessment suggests limited habitat diversity due to the brownfield nature of the site. The assessment found that demolishing the existing buildings will result in a loss of existing bat roost and bird nesting locations, however it notes that the buildings are in a poor state of repair, dangerous in places, and will continue to decline. It notes there is capacity to provide replacement roosting and nesting locations both as part of the new development and in the adjacent retained habitats and to enhance the existing habitat with new planting of trees, shrubs and hedgerows. This will ultimately enhance the local biodiversity at the site and ensure there isn't a negative impact to wildlife from the proposed development.

Climate Crises

5.17. Policy 1 'Tackling the climate and nature crises' and Policy 2 'Climate mitigation and adaptation' ensure that all development proposals consider the climate crisis and that the assessment of development proposals must give significant weight to the global climate and nature crises. It also ensures development minimises emissions and adapts to the current and future impacts of climate change.

5.18. The policy has been considered through the design and siting of the proposal and it is considered that planning judgement should be applied in favour of the proposals.

5.19. The scale of the proposal means it will not have a significant impact on the climate and nature crises. As discussed, the new sheds are located at a central location on the landholding. This central base for the farming operations means that journey times are cut allowing for efficiency and reduction of emissions. It is important to note that the proposal will not bring any new traffic to the area.

5.20. Furthermore, the 'Policy Impact' section within Policy 1 notes 'Rural revitalisation'. NPF4 notes that Rural revitalisation is achieved by distributing development, investment and infrastructure strategically and by actively enabling rural development in particular. The proposal rejuvenates a derelict site to provide new rural development that is essential in securing the future of farming at Methven Castle Farm. Allowing efficient farming operations means that the farm can deliver its output successfully and enhance the local economy.

5.21. It has been shown that the proposals do not exacerbate any particular constraint and can be developed without adverse impacts on important climate related issues such as flood risk. This is explained further within Table 1.

5.22. It is considered that the proposal actively meets the aspirations set out in Policy 1 and 2 whilst being able to provide facilities to meet the farmers requirements. Overall, the development will not have a significant impact on the climate or biodiversity crises due to its nature and scale, and it is hoped our commentary demonstrates this and emphasises the urgent operational need for the proposal.

Analysis against policies directly related to the principle of the proposal

Policy 29: Rural Development

5.23. The key NPF4 policy with regards to the principle of the proposed development is Policy 29: 'Rural Development', this policy therefore carries significant weight in relation to application of planning judgement when NPF4 policies are considered as a whole. The policy aims to encourage: rural economic activity, innovation and diversification, whilst ensuring that the distinctive character of the rural area's natural assets and cultural heritage are safeguarded and enhanced.

5.24. This particular proposals falls within clause a) i) of this policy, which outlines support for development proposals that contribute to the viability, sustainability and diversity of an area's local rural economy, this includes for *"**farms**, crofts, woodland crofts or other land use businesses, where use of good quality land for development is minimised and business viability is not adversely affected*" and clause a) viii) *"**reuse of brownfield land** where a return to a natural state as not or will not happen without intervention*" (pg 86).

5.25. The proposal involves the demolition of derelict farm buildings and the replacement with new agricultural buildings which allow the farm to operate more efficiently, therefore contributing to the economy of the local area. The new buildings are located on an existing brownfield site and not on 'high-quality' greenfield or agricultural land. The existing steading area provides the ideal location for the new buildings as it is central to the farming operations and is an area with existing development.

5.26. The applicant is mindful of clause b) of Policy 29 which ensures that development proposals are suitably, scaled, sited and designed to be in keeping with the character of the area, and how they contribute to local living and take account transport needs in a rural location. The proposal site has been subject to farming operations historically and is therefore in a suitable location to continue to run a farming business from. The replacement sheds have a rural and agricultural character which fits in with the sheds that are to be retained. The 3D Visualisations accompanying the application demonstrate how well hidden the new buildings assimilate with the existing character of the site.

Policy 9: Brownfield, vacant and derelict land and empty buildings

5.27. Policy 9 'Brownfield, vacant and derelict land and empty buildings' is relevant and carries policy weight as it promotes the sustainable reuse of brownfield land. In this case, the proposal is brownfield development at a central location to the farming operations. The redevelopment of the derelict site prevents the use of a greenfield site elsewhere on the landholding.

5.28. The policy presents a presumption against demolition and supports the re-use of buildings, taking into account their suitability for conversion to other uses. The Structural Condition Assessment concludes that the current buildings are unviable to convert and therefore re-use is not feasible and demolition is the only option. If the buildings are not removed, they will continue to degrade and become more un-safe, creating a site that becomes more visually unpleasant as time goes on. As the option for conversion has been explored and ruled out, it is considered that the proposal meets Policy 9, as it is reusing a brownfield site through the only option to redevelop it fully.

Policy 7: Historic assets and places

5.29. Policy 7 'Historic assets and places' part a) deals with development proposals affecting listed buildings. As discussed, Methven Castle is 100m to the south-west of the proposal site. Part c) notes that development proposals affecting the setting of a listed building should preserve its character, and its special architectural or historic asset. The distance of the Castle from the site and the natural landscape characteristics, such as tree cover and topography which separate the two sites physically and visually, prevent the proposal from having an impact on the setting of the listed building.

5.30. The site is located within the Methven Castle Gardens and Designed Landscape. NPF4 policy 7 i) notes that development proposals affecting nationally important Gardens and Designed Landscapes will be supported where they protect, preserve or enhance their cultural significance, character and integrity and where proposals will not significantly impact on important views to, from and within the site, or its setting. Similar to the comment made above, the demolition and replacement of the buildings at Methven Castle Steading will improve the visual amenity and overall appearance of the designation, and therefore have no negative impact on it.

Policy 8: Green Belts

5.31. The site is also located within the Perth and Kinross Green Belt. Policy 8 'Green Belts' notes that development proposals within a green belt designated within the LDP will only be supported if they are i) for development associated with agriculture. Therefore, the proposal complies within Policy 8.

Further NPF4 Policies

5.32. Additional NPF4 policies relating to the site are detailed in Table 1 below:

Table 1: Analysis of further NPF4 policies

Policy Number and Name	Summary	Proposed Development
Policy 4: Natural Places	Policy 4: Natural Places states that development proposals which will have an unacceptable impact on the natural environment will not be supported. Development proposals that impact a National Park, National Scenic Area, SSSI or Nature Reserve will only be supported where the objectives of the area are not compromised and any significant adverse effects on the quality of the area are outweighed by social, economic or environmental benefits.	The proposal brings no impacts on any European, national or local nature conservation sites and this is confirmed via the Ecology Reports. There are no impacts on any National Scenic Area or Local Landscape Areas. There is no policy impact as a result of the proposals and this is a positive.
Policy 12: Zero Waste	The policy encourages, promotes and seeks to facilitate development consistent with the waste hierarchy. a) Development proposals are to seek to reduce, reuse, or recycle materials in line with the waste hierarchy. b) Proposals will be supported where they reuse existing buildings and infrastructure; minimise demolition and salvage materials for reuse; use materials with the lowest forms of embodied emissions; and use materials that are suitable for reuse with minimal reprocessing. c) Proposals are to set out how much waste will be generated and how it will be managed including, provision to maximise waste reduction and waste separation at source, and measures to minimise cross-contamination of materials.	During construction, the contractor will ensure that the materials being removed from site are recycled appropriately. The Agricultural Justification Statement also includes a Waste Management Plan at Appendix 1 demonstrating the waste measures that will take place when the new sheds are operational.
Policy 14: Design, Quality and Place	*To encourage, promote and facilitate well designed development that makes successful places by taking a design-led approach and applying the Place Principle.*	The design of the proposal has been arrived at through the farmer's requirements for a new grain store, cattle shed and general purpose shed at this location. The sheds are of a generic design and what you would typically see on a modern working farm.

		The colour palette used ensures the new sheds integrate sensitively with the surrounding countryside landscape. As discussed, the proposal improves the visual quality of Methven Castle Steading which therefore brings a positive impact to Methven Castle and its surroundings. The removal of the dilapidated buildings and replacement with safe and secure buildings provides a safer and more pleasant fam complex. We therefore consider the proposal to meet Policy 14.
Policy 20: Blue and Green Infrastructure	To protect and enhance blue and green infrastructure and their networks. LDPs should safeguard access rights and core paths.	A core path runs along the northern edge of the steading, connecting Methven to Almondbank. The proposal does not impact the core path as the new buildings are located on the footprint of the existing buildings, which sit south of the core path route.
Policy 22: Flood Risk and Water Management	Policy intent is to strengthen resilience to flood risk by promoting avoidance as a first principle and reducing the vulnerability of existing and future development to flooding. a) Development proposals at risk of flooding or in a flood risk area will only be supported if for specific reasons b) Not relevant c) Development proposals will i) not increase the risk of surface water flooding to others, or itself be a risk, ii) manage all rain and surface water through SUDS, iii) seek to minimise the area of impermeable surface d) Proposals will be supported that can connect to the public water mains e) Development proposals that create, expand or enhance opportunities for natural flood risk management will be supported	The SEPA Flood Maps and previous conversations with PKC at the pre-application enquiry stage confirm that the proposals are not at flood risk. The proposals do not increase the flood risk elsewhere. Allen Gordon LLP has recommended a SUDS basin and swale is implemented to the east of the new sheds to ensure sustainable drainage methods form part of the proposal. The proposals can be connected to the public water mains.

Policy 23: Health and Safety	Proposals with a positive impact on health will be supported and conversely those with adverse impacts on health will not be. Where adverse impacts on air quality or noise are expected the proposals will not be supported.	The Proposed Development has been assessed in relation to noise and odour and no negative impacts that cannot be mitigated are identified. Furthermore, the removal of the dilapidated buildings increases the safety of the area.

Perth and Kinross Local Development Plan 2 (2019)

5.33. The Perth and Kinross Local Development Plan 2 (LDP2) was adopted in 2019 and the relevant policies include Policy 1A/B, Policy 8, Policy 43, Policy 27, Policy 29, Policy 15 and Policy 41. The proposal is assessed against these policies below.

Policy 1A and 1B – Placemaking

5.34. The proposed block plan demonstrates that a positive redevelopment of the site can take place to provide a tidier and more attractive farm complex.

5.35. Policy 1B states that proposals:

(a) "Should create a sense of identity by developing a coherent structure of streets, spaces, and buildings, safely accessible from its surroundings" (page 20)

(c)"The design and density should complement its surroundings in terms of appearance, height, scale, massing, materials, finishes and colours."(page 20).

(d) "All buildings, streets, and spaces (including green spaces) should create safe, accessible, inclusive places for people, which are easily navigable, particularly on foot, bicycle and public transport."(page 20).

5.36. The proposal will create an identifiable farm complex which is safely accessible from surrounding areas. At the moment, the steading contradicts all aims and aspirations set out within PKC's overarching Placemaking policy as it is unsightly and un-safe. The proposal will create a development that respects the character and amenity of the place and contributes positively to the quality of the surrounding built and natural environment. If the steading isn't redeveloped, it will continue to rot and degrade causing a blot on the attractive Perthshire countryside, since there is no viable alternative use for the buildings.

5.37. Additionally, the proposal would see the redevelopment of a brownfield site in the countryside to provide a more productive use.

Policy 8: Rural Business and Diversification

5.38. Policy 8 highlights that:

"the Council will give favourable consideration to the expansion of existing businesses and the creation of new ones in rural areas. There is a preference that this will generally be within or adjacent to existing settlements. Sites outwith settlements may be acceptable where they offer opportunities to diversify an existing business or are related to a site-specific resource or opportunity." (page 29).

5.39. It is considered that this proposal should be viewed positively in light of Policy 8 as it is helping to improve the operational efficiency of a farming business in the countryside.

5.40. All rural business proposals are expected to meet the following criteria. We have provided our policy analysis in the second column of Table 2.

Table 2: Analysis of Policy 8 - Rural Business and Diversification

Rural Business and Diversification Criteria	Policy Analysis
(a) The proposal will contribute to the local economy through the provision of permanent employment, visitor accommodation (see also Policy 9), additional tourism or recreational facilities, or the re-use of existing buildings.	The proposal will ensure the ongoing farming operation at Methven Castle Farm. Once complete, the farm output will increase as a result of easier and more efficient working practices. Increased efficiency and productivity then helps give back to the local economy.
(b) The proposal will not result in suburbanisation of the rural area or encourage unsustainable travel patterns.	It is considered that the proposal does not suburbanise the area as the buildings are agricultural sheds.
(c) The proposed use is compatible with the surrounding land uses and will not detrimentally impact on the amenity of residential properties within or adjacent to the site.	The proposed development will be visually interpreted as a series of agricultural buildings. There is a specific need for the business to be located in a countryside location. The residential buildings to the west of the site along the access track are considered to be separated from the steading site by distance and an area of dense planting. There are three residential properties at the steading itself, with one being occupied by the tenant farmer whilst the others are unoccupied.
(d) The proposal can be satisfactorily accommodated within the landscape and environmental capacity of the site.	It is considered that the proposal would have negligible visual impact on the landscape as there are already agricultural sheds at the site. Furthermore, the site can hardly be seen from public views.
(e) The proposal meets a specific need by virtue of its quality or location in relation to existing business or tourist facilities.	The principle of the steading and agricultural buildings has already been established at this location through its historical use.
(f) Where any new building or extensions are proposed they should achieve a high quality of design to reflect the rural nature of the site and be in keeping with the scale of the existing buildings.	The design is considered to be appropriate to a rural setting using a palette of materials that would normally be employed for agricultural sheds. The proposed buildings will be a 'juniper green' colour whilst the roof and doors will be 'slate blue' to fit in with the surrounding countryside character.

(g) The local road network must be able to accommodate the nature and volume of the traffic generated by the proposed development in terms of road capacity, safety and environmental impact.	There is no increase to traffic as a result of the new sheds.
(h) Outwith settlement centres retailing will only be acceptable if it can be demonstrated that it is ancillary to the main use of the site and would not be deemed to prejudice the vitality of existing retail centres in adjacent settlements.	Retail forms no part of this proposal.
(i) Developments employing more than 25 people in rural locations will be required to implement a staff travel plan or provide on-site staff accommodation.	Owing to the number of employees anticipated at this site, this matter is not applicable in this instance.

Policy 43: Green Belt

5.41. The steading is located within the Green Belt. Policy 43 only permits development in the green belt if it meets certain criteria.

5.42. The proposal meets part (a) of Policy 43 in that it supports an established farming use which has a direct relationship to the land.

5.43. It is noted that the overall objective of the Green Belt is to protect and enhance the character, landscape setting and identity of settlements. The replacement buildings are bigger in scale however the 3D visualisations show that they have no impact on the wider character of the area as they are hidden by natural landscape features. The replacement of the existing buildings also improves the visual amenity of the area and therefore enhances the character and setting of the green belt.

Policy 27: Listed Buildings

5.44. As discussed above, the steading proposed to be demolished is not listed, however Policy 27 is relevant as Methven Castle is A-Listed and is located 100m to the south-west.

5.45. This policy promotes the retention, sympathetic restoration, correct maintenance and sensitive management of listed buildings. This allows listed properties to remain in active use without any adverse impacts on its special architectural or historic interest.

5.46. We consider that the proposal is sensitive to the listed building and to the surrounding landscape through subtle design and siting. The current dilapidated buildings degrade the special qualities of the Castle whilst the replacement will rejuvenate an unsightly site and improve the visual amenity of the whole area.

5.47. The prospective sheds are in a location which is shielded by dense tree coverage separating the steading from the castle. We are therefore of the opinion that the development proposed is not detrimental to the architectural merit of the castle and if the proposal was to go ahead, the overall amenity of the castle would be significantly improved.

Policy 29: Gardens and Designed Landscapes

5.48. The steading is located within the Methven Castle Gardens and Designed Landscape.

5.49. Gardens and Designed Landscapes make a significant contribution to the character and quality of the landscape in Perth and Kinross. The Council will seek to manage change in order to protect and enhance the integrity of those sites included on the current Inventory of Gardens and Designed Landscapes.

5.50. The steading is currently decreasing the attractiveness of the Garden and Designed Landscape as it is causing a blot on the landscape due to its poor condition. The redevelopment will improve the character and quality of the area.

Policy 15: Public Access

5.51. A core path runs through the proposal site to the north of the buildings that are to be replaced. Policy 15 ensures that core paths do are not impacted as a result of proposals.

5.52. The proposal does not impact the core path or its integrity in any way as it is left untouched.

Policy 41: Biodiversity

5.53. The PKC LDP states that "*Planning permission will not be granted for development that would be likely to have an adverse effect on protected species unless it can be justified in accordance with the relevant protected species legislation (Wildlife and Countryside Act 1981 (as amended) and the Protection of Badgers Act (1992)).*" (pg 14).

5.54. The required ecological assessments have been undertaken to confirm that development does not bring adverse effects and outlines necessary mitigation solutions moving forward. Further information on how the proposal affects biodiversity is provided in our NPF4 analysis.

6. Conclusion

6.1. As discussed, the proposal is essential to ensure the continuing efficient operation of Methven Castle Farm. The Estate have taken the current farm buildings associated with Methven Castle Farm back in-hand and the farmer now needs new buildings to undertake the farm operations from. To meet modern farming practices, a grain store, cattle shed and general purpose shed of the scale and design shown is required.

6.2. The current steading buildings do not support the current farming practices and are unviable to convert, whilst posing a health and safety risk. Therefore, full replacement is the only option. This particular site location is important as it is central to the landholding. The redevelopment of the brownfield site is in-line with national and local planning policies and prevents the development of nearby high-quality greenfield land.

6.3. The policy analysis shows that the proposals meet NPF4 and the PKC LDP2. Importantly, the scale of the development, the design and mitigation proposed mean that there are no significant impacts on the overarching aspirations in relation to the climate and biodiversity crises set out within NPF4.

6.4. Furthermore, there are no negative impacts on the landscape or visual character of Methven Castle or the Gardens and Designed Landscape designation. Natural resources such as tree coverage and topography provide shielding to the proposal. The proposal will enhance the Garden and Designed Landscape designations and improve the visual amenity of Methven Castle Steading's surroundings. There are very limited public views on to the proposal site.

6.5. The proposal is essential for the ongoing operations at Methven Castle Farm and the design and scale is typical to other farm complexes across the countryside.

6.6. Considering all of the above, it is hoped that PKC can show support to this planning application. Please do get in touch if you require any further information on the proposal.

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Building Surveyor's Report

Structural Condition Assessment – Methven Castle Steading

Contents

Building Surveyor's Report

Structural Condition Assessment –Methven Castle Steading

Written by:	Ryan Timpson
Issue date:	14 March 2022
File reference:	RT/ABS/PEEM338563

1. Introduction

1.1. Instruction

Savills have been instructed by David Gane, c/o Savills (UK) Limited, Earn House, Broxden Business Park, Perth, to undertake a full condition survey at Methven Castle steadings, Methven, Perth PH1 3SU. The purpose of this instruction is to report on the current condition of the building, with a view to providing an opinion as to the viability of retaining these structures, as part of a pre-application to Perth Council, Perth and Kinross.

1.2. The Brief

The brief is to provide a structural assessment of the condition of the existing building, looking at roof structure, roof coverings, wall structure and foundations with a view to determining the viability of retaining the existing buildings for farming use.

This includes for the following:

1. Site survey of all existing external elements of the building.
2. Photographic record of condition, with comments
3. Summary report and opinion on viability

1.3. Survey

This survey has been undertaken on Wednesday 2nd March 2022 by Ryan Timpson MRICS, where access was provided to the external outer perimeter of the property, the internal ground floor levels of the property, with internal roof access only where a hatch and ladder was provided, or where the roof void was visible from ground floor level below.

The weather on the date of survey was cloudy, with occasional sunshine.

1.4. Limitations

All references to a visual inspection refer to an inspection from within the property, without causing damage to the property and externally from a safe access point, where appropriate. No inspection has been made to parts of the property which were covered, unexposed or inaccessible.

All comments referring to services are based on a visual inspection only, and testing and commissioning by specialists would still be required to confirm the viability of these assets.

No access was provided internally to building(s) or parts thereof where partial collapse had occurred to the roof structure.

1.5. Assumptions

For the purposes of this report, we have assumed that the property complies with the current legislation and has full certification where appropriate in terms of any alterations made over the years. However, it must be borne in mind that any future sale may involve having to secure a letter of comfort from the planning and building standards departments of Perth Council for any works which do not have the correct Statutory Consents.

2. Summary Report and Opinion

2.1. History of the Site

History of the Site

Methven Castle Steading resides within the grounds of Methven Castle, east of the village of Methven. The current buildings generally comprise a square shaped grouping of stone and slate steadings, solid brick steadings with pitched asbestos clad roofs, timber framed steadings with metal roof coverings, and modern open Portal framed sheds with asbestos wall and roof cladding. The steadings are currently mostly vacant with the exception of building 01 and 04, which are currently utilised to shelter horses, building 14 which is used to store grain, and building 12 and 13 used to store agricultural vehicles and equipment. The remaining buildings have not been used formally for agricultural purposes for a number of years.

Fig 01: Excerpt from the National Library of Scotland; 1843 - 1882

A search through the National Library of Scotland's historic map archives has revealed that the steading grouping has undergone a number of changes over the years. This first excerpt appears to show Methven Castle steadings, as a square shaped structure, with detached buildings to the South, West and Northwest of the main block respectively. Buildings 01, 05, 06, 07, 09, 14 and 15 have not yet been constructed. Buildings to the Northwest corner adjacent to the NW cottage no longer exist.

Fig 02: Excerpt from the National Library of Scotland; 1900s

By the 1900s, it appears that buildings 05, 06, 07 have been added to in-fill the central space between buildings 04 and 08. Building 15 has also been constructed. Building 11 appears to have a larger footprint toward the most northern third of the building than currently exists.

Fig 03: Excerpt from the National Library of Scotland; 1944-1970

Between 1944 and 1970, the mapping is not sufficiently detailed to confirm further alterations. However, we assume that buildings 01, 09, 12, 13 and 14 have subsequently added given our observations of their condition and construction methods.

However, by 2022, it appears that a lean-to section to the northern third of building 11 has been demolished. Approximately 30% of the roof of Building 05 has collapsed, as has 30% of the roof of Building 09. The roof to building 02 (cottage) has also collapsed. All remaining building are in varying states of deterioration.

2.2. Condition Summary

Please refer to Appendix 01 "Photographic Record of Condition" when reading this section of the report. Images referred to within appendix 01 can be referenced from Appendix 02 "Block Plan". Buildings labelled as 12 and 13 have been excluded from this report, as they are currently under consideration to be retained by the client.

General Observations

Methven Castle steadings are generally found to be in poor condition, and in some instances, appear to pose a health and safety hazard for both the current tenants, and potentially to the public at large.

Most notably concerning are buildings 05 and 09, where up to 30% of the roof structures have failed, leading to a catastrophic collapse of parts of these buildings. Building 02 has also been subject to collapse of part of the roof and internal floor structure. A lean-to building attached to building 08 has also had its roof partially collapse into the internal footprint. A dormer feature to building 11 is exhibiting signs of severe distortion due to the failure of a window lintel below and is vulnerable to collapse of this section of the roof.

Building 04 is currently in use to stable horses. This building is positioned between the partially collapsed roof structures of buildings 05 and 09. Its proximity gives cause for concern to occupants using this building being at risk if further collapse of these adjacent structures occurs.

The site is generally open, with missing/open window and door openings allowing access into the majority of spaces and buildings available. This poses a risk to trespassers/members of the public inadvertently entering a dangerous building/structure.

2.3. Summary Opinion

We would ask that you refer to Appendix 01 "Photographic Record of Condition" for our detailed opinion on buildings contained within this pre-application.

We would also ask that you refer to Appendix 02 "Block Plan" when considering images referenced with Appendix 01.

It is our overarching opinion that Methven Castle steading is in poor condition and is now considered to be beyond viable economic repair. The buildings also pose a health and safety risk and should therefore be made safe as soon as practicable, including, where necessary, demolition.

Appendix 1.0
Photographic Record of Condition

PHOTOGRAPHS

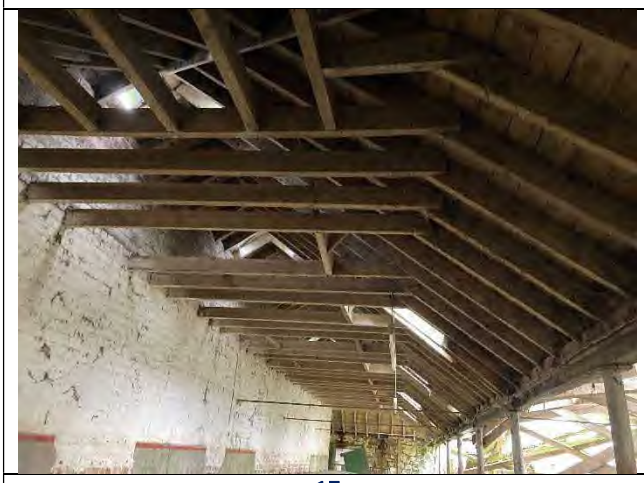
	**Building 01 - Roof Construction** **Description:** Timber cut roof trusses. **Condition:** Poor –evidence of significant staining and wet rot to timber structure, particularly at the wall heads and surrounding rooflights, which are also in poor condition with corroded frames and cracked/broken glass to isolated areas.
01	
	**Building 01 - Roof Coverings & Rainwater Goods** **Description:** Profiled asbestos sheet cladding, cast iron rooflights, galvanised steel ridges and hips. Cast iron gutters and downpipes. **Condition:** Poor –slipped sheeting, undulations beginning to form in roof profile, particularly at the ridge. Heavy moss growth to surfaces. Corroded rooflight frames, cracked and missing rooflight glazing Choked and corroded gutters, broken and missing section and joints.
02	
	**Building 01 –External Walls** **Description:** Solid brick masonry walls, vertical timber cladding. Metal and timber doors. **Condition:** Poor –solid masonry walls in fair condition generally, however they are poor to isolated areas at the wall head, where impacted by choked/missing gutters. Wet rot and mould to external cladding, undulations and bowing cladding to isolated areas. Base of timber doors suffering significantly from wet rot.
03	

	**Building 02 - Roof Construction** **Description:** Timber cut roof trusses. **Condition:** Poor –not accessible internally. Partial collapse to north section of roof structure, missing trusses and ridge line.
04	
	**Building 02 - Roof Coverings & Rainwater Goods** **Description:** Profiled asbestos sheet cladding, natural slate coverings, galvanised ridges, cast iron gutters and downpipes. **Condition:** Poor –missing section of roof. Evidence of slipped slates, generally, moderate moss growth to asbestos sheet cladding. Corroded and choked rainwater goods with missing gutter lengths, missing and broken downpipes, open joints etc.
05	
	**Building 02 –External Walls** **Description:** Solid coursed rubble stone masonry walls, dressed to window and door openings. Timber doors and windows. **Condition:** Poor –solid masonry walls in fair condition generally, however they are poor to isolated areas at the wall head, where impacted by choked/missing gutters. Mortar pointing to stonework is deteriorating due to missing/overflowing rainwater goods. Vertical cracks through mortar joints at either end of pedimented first floor window, foliage taking hold within the cracked mortar. Windows and doors missing/very poor condition and likely beyond recovery.
06	

	**Building 03 - Roof Construction** **Description:** Timber cut roof trusses. **Condition:** Poor –evidence of significant staining and wet rot to timber structure, particularly at the wall heads and surrounding rooflights, which are also in poor condition with corroded frames and cracked/broken glass to isolated areas.
07	
	**Building 03 - Roof Coverings & Rainwater Goods** **Description:** Natural slate coverings, cast iron rooflights, galvanised steel ridges and hips. Cast iron gutters and downpipes. **Condition:** Poor –slipped slates. Heavy mould growth to north facing surfaces. Corroded rooflight frames, cracked and missing rooflight glazing. Choked and corroded gutters, broken and missing section and joints.
08	
	**Building 03 –External Walls** **Description:** Solid coursed rubble stone masonry walls, dressed to window and door openings. Timber doors and windows. **Condition:** Poor –solid masonry walls in fair condition generally, however they are poor to isolated areas at the wall head, where impacted by choked/missing gutters. Mortar pointing to stonework is deteriorating due to missing/overflowing rainwater goods. Windows and doors generally in poor condition with wet rot to frames, and cracked/missing glazing to areas.
09	

 10	**Building 04 - Roof Construction** **Description:** Timber cut roof trusses, timber sarking boards. **Condition:** Fair –evidence of moderate staining and deterioration to timber structure, particularly to the sarking boards. Undulating ridge line is evident externally.
 11	**Building 04 - Roof Coverings & Rainwater Goods** **Description:** Natural slate coverings, cast iron rooflights, galvanised steel ridges and hips. Cast iron gutters and downpipes. **Condition:** Poor –slipped slates across majority of surfaces Missing sections of gutters and missing downpipes. Stained stone surfaces at the wall head to areas where gutters are choked/missing. Missing section of metal ridges.
 12	**Building 04 –External Walls** **Description:** Solid coursed rubble stone masonry walls, dressed to window and door openings. Timber/Metal doors and timber windows. **Condition:** Poor –solid masonry walls in fair condition generally, however they are poor to isolated areas at the wall head, where impacted by choked/missing gutters. Mortar pointing to stonework is deteriorating due to missing/overflowing rainwater goods. Windows and doors generally in poor condition with wet rot to frames, and cracked/missing glazing to areas.

	**Building 04 –Interior Features** **Description:** Timber suspended floor comprising timber joists with T&G timber boarding. **Condition:** Poor –evidence of wood boring insects and wet rot evident – first floor not accessible due to safety concerns.
13	
	**Building 05 - Roof Construction** **Description:** Timber cut roof trusses, timber sarking boards. **Condition:** Very poor –partial collapse of approximately 1/3rd of the pitched roof structure. Building considered to be dangerous.
14	
	**Building 05 - Roof Coverings & Rainwater Goods** **Description:** Natural slate coverings, cast iron rooflights, galvanised steel ridges and hips. Cast iron gutters and downpipes, concealed gutters. **Condition:** Very poor –partial collapse of roof. Remaining roof coverings in very poor condition with slipped courses and open sections of roof evident.
15	

	**Building 05 –External Walls** **Description:** Solid coursed rubble stone masonry walls (shared with buildings 03 and 04), Metal beams and columns (shared with buildings 06 and 09). **Condition:** Poor –undulations in beams evident, moderate corrosion to columns.
16	
	**Building 06, 07 - Roof Construction** **Description:** Timber cut roof trusses, timber sarking boards. **Condition:** Fair –evidence of moderate staining and deterioration to timber structure, particularly to the sarking boards. Undulating ridge line is evident externally.
17	
	**Building 06, 07 - Roof Coverings & Rainwater Goods** **Description:** Natural slate coverings, cast iron rooflights, galvanised steel ridges and hips. Internal guttering. **Condition:** Poor –slipped slates across majority of surfaces. Partially collapsed section of roof approx 5m2. Choked internal valley gutters. Corroded rooflight frames, cracked and missing rooflight glazing.
18	

	**Building 06, 07 –External Walls** **Description:** Solid coursed rubble stone masonry walls (shared with buildings 03 and 08), Metal beams and columns (shared with buildings 05 and 09) intermediate brick masonry wall. **Condition:** Poor –undulations in beams evident, moderate corrosion to columns. Masonry walls in fair condition.
19	
	**Building 08 - Roof Construction** **Description:** Timber cut roof trusses, timber sarking boards. **Condition:** Fair –evidence of moderate staining and deterioration to timber structure, particularly to the sarking boards. Areas of wet rot evident to timbers below internal valley guttering. Partially collapsed roof structure to small lean-to on South elevation.
20	
	**Building 08 - Roof Coverings & Rainwater Goods** **Description:** Natural slate coverings, cast iron rooflights, galvanised steel ridges and hips. Cast iron gutters and downpipes, concealed gutters. Corrugated metal hipped coverings over former do 'cot; metal tank to roof apex and metal pipework below. **Condition:** Moderate –slipped slates across isolated surfaces. Partially collapsed section of roof approx 8m2 to lean-to. Choked internal valley gutters. Corroded rooflight frames, cracked and missing rooflight glazing. Corroded tank and metal pipework.
21	

	**Building 08 –External Walls** **Description:** Solid coursed rubble stone masonry walls (shared with buildings 03 and 07) as well as external coursed rubble walls. Metal external doors and timber framed window. **Condition:** Fair. Windows generally in poor condition with wet rot to frames, and cracked/missing glazing. Corrosion to door screens.
22	
	**Building 09 - Roof Construction** **Description:** Timber and metal trussed rafters, timber sarking boards. **Condition:** Very poor –partial collapse of approximately 1/3rd of the pitched roof structure. Building considered to be dangerous.
23	
	**Building 09 - Roof Coverings & Rainwater Goods** **Description:** Natural slate coverings, cast iron rooflights, galvanised steel ridges and hips. Cast iron gutters and downpipes, concealed gutters. **Condition:** Very poor –partial collapse of roof. Remaining roof coverings in very poor condition with slipped courses and open sections of roof evident. Section to west hipped return wall, partial collapse with slate and sarking slipped to approximately ¼ of surface area at this elevation.
24	

	**Building 09 –External Walls** **Description:** Solid coursed rubble stone masonry walls (shared with buildings 04, 10 and 11), Metal beams and columns (shared with buildings 05 and 06). **Condition:** Poor –undulations in beams evident, moderate corrosion to columns. Stone walls shared with building 09 are particularly poor, wet masonry, mould and foliage growth along the valley gutter line. Mortar pointing severely deteriorating at this location.
25	
	**Building 10 - Roof Construction** **Description:** Timber cut roof trusses. **Condition:** Poor –evidence of significant staining and wet rot to timber structure, particularly at the wall heads and surrounding rooflights, which are also in poor condition with corroded frames and cracked/broken glass to isolated areas. Undulations in ridge line is evident, partial failure of rafter ends causing collapse of slates and sarking to isolated areas.
26	
	**Building 10 - Roof Coverings & Rainwater Goods** **Description:** Natural slate coverings, cast iron rooflights, galvanised steel ridges and hips. Cast iron gutters and downpipes. **Condition:** Poor –slipped slates, slipped courses and isolated areas of collapse to slate surfaces, around the wall heads . Corroded rooflight frames, cracked and missing rooflight glazing. Missing rainwater goods, generally.
27	

	**Building 10 –External Walls** **Description:** Solid coursed rubble stone masonry walls, dressed to window and door openings. Timber doors and windows. **Condition:** Poor –solid masonry walls in fair condition generally, however they are poor to isolated areas at the wall head, where impacted by choked/missing gutters. Mortar pointing to stonework is deteriorating due to missing/overflowing rainwater goods. Windows and doors generally in poor condition with wet rot to frames, and cracked/missing glazing to areas.
28	
	**Building 11 - Roof Construction** **Description:** Timber cut roof trusses. **Condition:** Poor –evidence of significant staining and wet rot to timber structure, particularly at the wall heads and surrounding rooflights, which are also in poor condition with corroded frames and cracked/broken glass to isolated areas. Undulations in ridge line is evident, partial failure of rafter ends causing collapse of slates and sarking, particularly to the East facing wall head. Partially collapsed dormer roof structure, due to collapse of window lintel below.
29	
	**Building 11 - Roof Coverings & Rainwater Goods** **Description:** Natural slate coverings, cast iron rooflights, galvanised steel ridges and hips. Cast iron gutters and downpipes. **Condition:** Poor –slipped slates, slipped courses and isolated areas of collapse to slate surfaces, around the wall heads . Corroded rooflight frames, cracked and missing rooflight glazing. Missing rainwater goods, generally.
30	

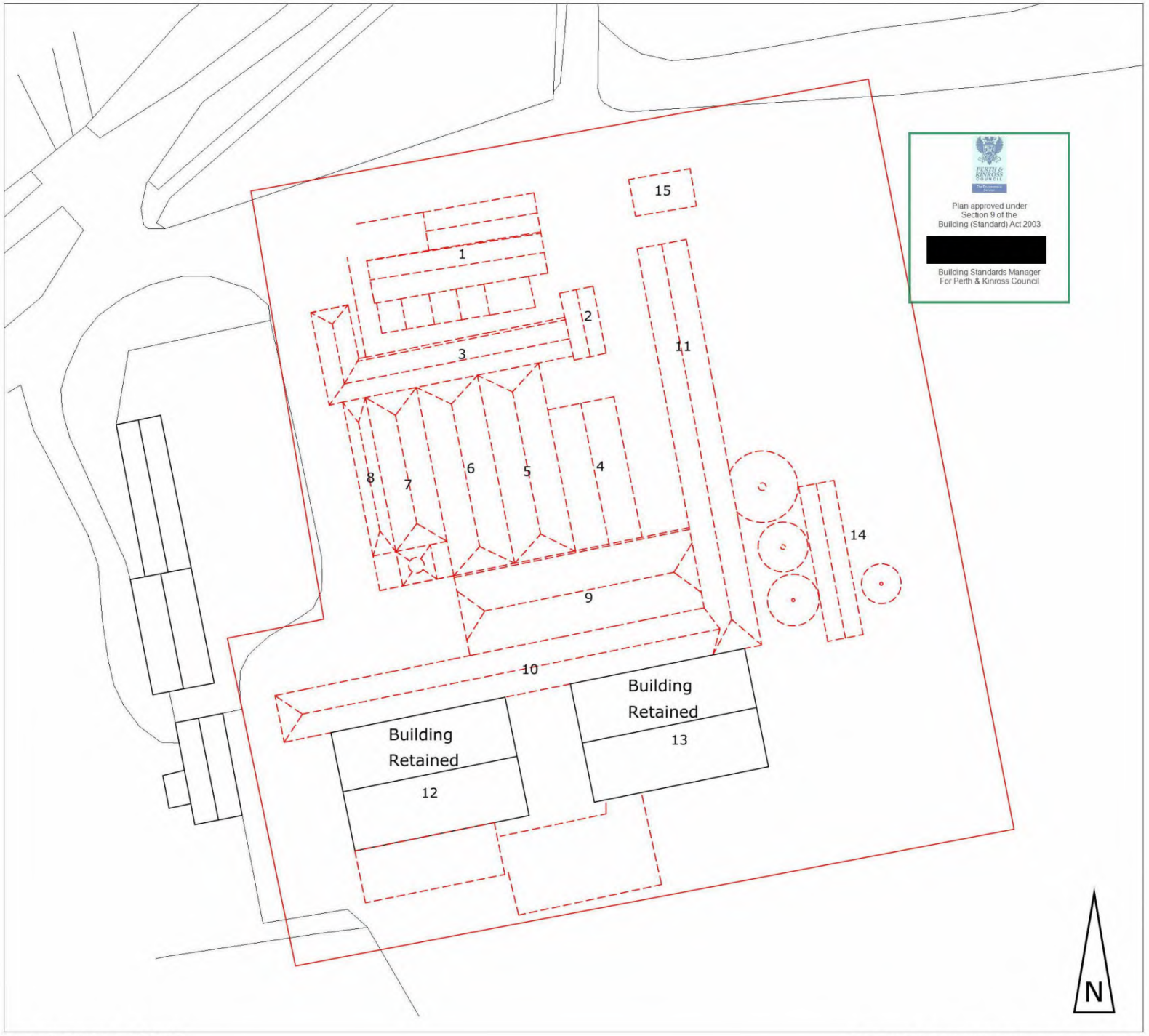
	**Building 11 –External Walls** **Description:** Solid coursed rubble stone masonry walls, dressed to window and door openings. Timber doors and windows. Timber lintels to larger barn openings. **Condition:** Poor –solid masonry walls in poor condition generally, principally to the east elevation wall head, where impacted by missing gutters. Mortar pointing to stonework is deteriorating due to missing/overflowing rainwater goods. Windows and doors generally in poor condition with wet rot to frames, and cracked/missing glazing to areas. Timber lintels exhibiting signs of wet rot.
31	
	**Building 14 - Roof Construction** **Description:** Portal frame construction with corrugated metal sheet cladding. Metal framed and clad silage tanks. **Condition:** Fair.
32	
	**Building 14 - Roof Coverings & Rainwater Goods** **Description:** Profiled metal sheet cladding, no rainwater goods. **Condition:** Poor –slipped sheeting, undulations beginning to form in roof profile, particularly at the ridge. Heavy moss growth to surfaces. Heavy corrosion to metal roof cladding to silage tanks
33	

	**Building 14 –External Walls** **Description:** Profiled metal sheet cladding, brick masonry base. **Condition:** Poor –Heavy corrosion to metal wall cladding. Silage tanks exhibiting moderate corrosion to surfaces.
34	
	**Building 15 - Roof Construction** **Description:** Timber cut roof trusses. **Condition:** Poor –evidence of significant staining and wet rot to timber structure, particularly at the wall heads and surrounding rooflights, which are also in poor condition with corroded frames and cracked/broken glass to isolated areas.
35	
	**Building 15 - Roof Coverings & Rainwater Goods** **Description:** Profiled metal sheet cladding, no rainwater goods. **Condition:** Poor –heavily corroded metal sheeting, undulations beginning to form in roof profile, particularly at the ridge. Heavy corrosion to rooflight frames and broken/missing glass.
36	

	**Building 15 –External Walls** **Description:** Vertical timber cladding. Timber doors and windows. **Condition:** Poor – Wet rot and mould to external timber cladding, undulations and bowing cladding to isolated areas. Base of timber doors suffering significantly from wet rot.
37	

(END)

Appendix 2.0
Block Plan



Plan approved under
Section 9 of the
Building (Standard) Act 2003

[redacted]

Building Standards Manager
For Perth & Kinross Council

BLOCK PLAN 1:500 A3

OS Reference: NO 04308 26135

Proposed demolition in red dashed

0m 10m 20m 30m 40m 50m

NOTES

REVISIONS

savills

PROJECT TITLE
FARM RATIONALISATION
METHVEN CASTLE FARM, METHVEN
PERTH, PH1 3SU

CLIENT
PILKINGTON TRUST

DRAWING TITLE
BLOCK PLAN

SCALES @ A3	PROJECT / DWG / REV NO.
1:500	DHBU393113-DEM-02

DRAWING STATUS
PLANNING/WARRANT

DRAWN BY	CHECKED BY	DATE
CR/GT	-	05-02-18

RICS

Earn House
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Agricultural Justification Statement – Demolition of steading and erection of new agricultural buildings

Methven Castle Steading, Perth, PH1 1SU

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Agricultural Justification Statement – Demolition of steading and erection of new agricultural building

Methven Castle Steading, Perth, PH1 3QE

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Agricultural Justification Statement – Demolition of steading and erection of new agricultural building

Methven Castle Steading, Perth, PH1 3QE

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1. Introduction

Savills has been instructed by Pilkington Trust, to prepare an agricultural justification statement for the proposed demolition of a redundant farm steading to be replaced by three modern agricultural sheds at Methven Castle Steading, Methven, Perth, PH1 3QE.

This instruction has been requested due to the extremely poor repair of the current agricultural buildings on the site which are unusable and are no longer fit for purpose for modern agriculture as they do not allow access with modern machinery or the appropriate amount of storage for the production of the associated farmland. It is proposed to replace these sheds following the demolition with three new agricultural modern buildings to include a grain store, a cattle shed and a general purpose storage shed. These buildings are required as part of the agricultural operations on the land around Methven Castle and to allow the farm tenant to continue carrying out the agricultural operations on the holding.

Pilkington Trust has submitted a planning application for the approval for the demolition of the Methven Castle Steading buildings to provide better use of the assets by the tenant farmer and to allow the business succession for the next generation. This report will describe the current business operations, the justification for the new buildings to be erected and the reason for the buildings required to be located on this site.

2. Current Agricultural Business

Pilkington Trust currently leases the steading and surrounding land to a long term agricultural tenant on a 1991 Agricultural Holdings Act Tenancy (secure long term tenancy). The tenant has use of the buildings and surrounding area at Methven Castle Steading as part of the tenancy agreement. However, some of the buildings are not suitable for the size and scale of the farming operations taking place, or the machinery used to operate the land and the farming business. The farming business is primarily focussed on arable production, growing a variety of cereal crops, as well as a small area of permanent grassland pasture covering a total area of approx. 220 hectares. Additional to the arable enterprises there is also 70 breeding cows with calves raised and sold that are also owned by the farm tenant and require housing.

The total arable area is approx. 180ha which is farmed on a rotational basis of cereal crops to include Winter Wheat, Spring Barley, Winter Barley and Winter Oilseed Rape. As part of this rotation there is a requirement for grain storage to allow the tenant farmer to store grain in the shed up to the point of sale/movement. The area of each crop will vary depending on the rotation and the year, however the below table shows approx. areas each year and also expected yields for each crop in the area:

Table 1: Proposed cropped area and expected yields in area (add a column to show total tonnages of each crop)

Crop	Area (ha)	Yield (ton/ha)
Winter Wheat	85.00	8.50
Winter Barley	25.00	7.00
Spring Barley	45.00	5.50
Winter Oilseed Rape	25.00	4.00
Total	**180.00**	

As mentioned previously, there is also a cattle enterprise with approx. 70 breeding cows and 3 bulls. These animals are kept on the permanent pasture and the tenant wishes to house all cattle during the winter months and during calving. The cattle enterprise calves in the early spring months and fatten the calves over 18-24 months depending on the weights and condition of the animals.

Figure 1 shows the map of the farm with Methven Farm Steading highlighted in purple in the centre of the wider farmed area.

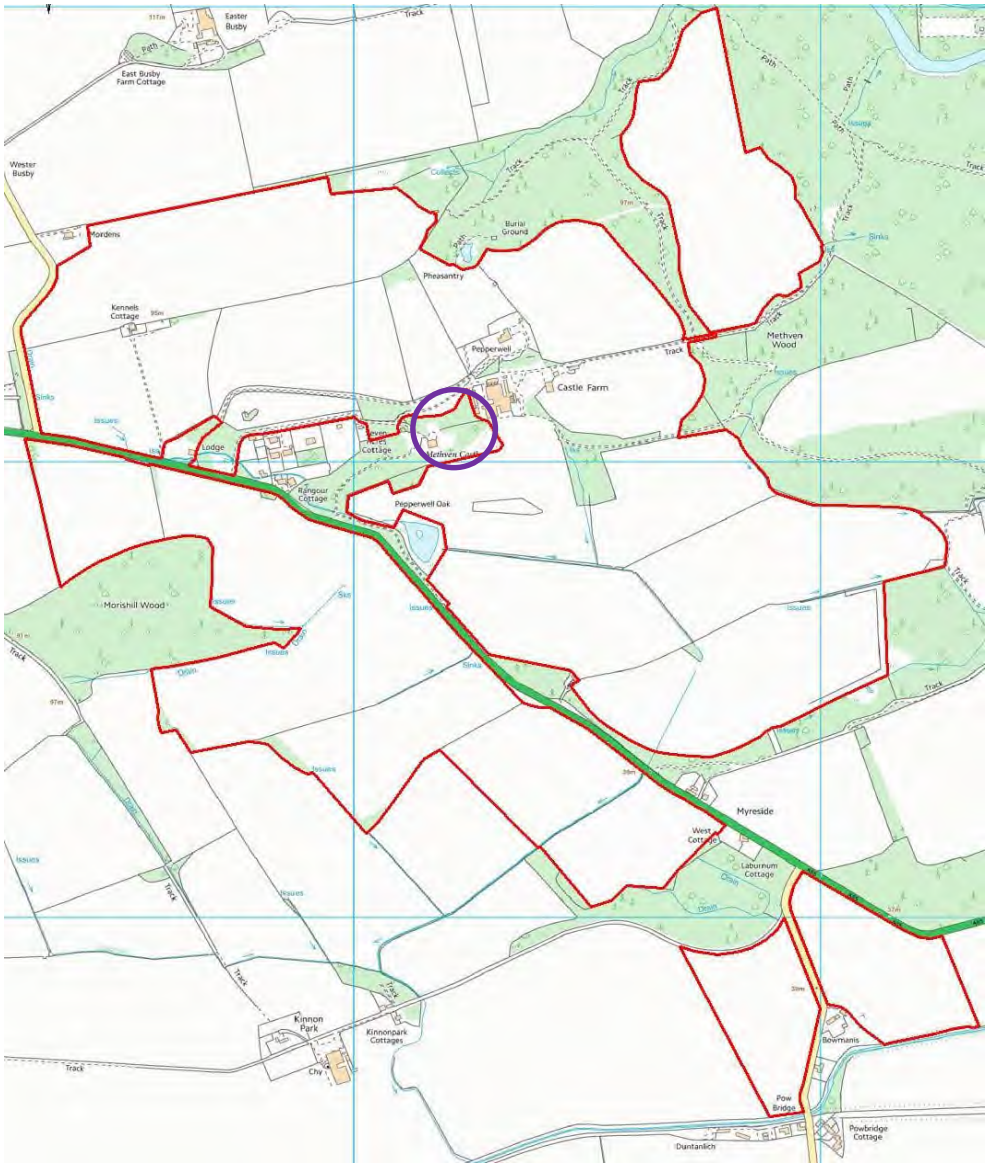

Figure 1: Farm Plan outlined in red with Methven Castle Steading shown in purple circle

As can be seen from Figure 1 the circle marked in purple shows the location of the current steading and location of Methven Castle Steading, with the red outlines showing the farmed area which makes up the long term secure tenancy. For clarification, the farm tenant does not have any other land out with this area and the total farmed area under his control is as outlined above in red under the long term secure tenancy in place.

3. Building Justification

To support the planning application for demolishing the steading at Methven Castle Steading, this section will provide information to justify the reason for demolition and rebuilding. As previously stated, the suitability of the buildings are poor and not useable in the current condition. There is also a health and safety risk of the buildings making it even more important for them to be demolished and reinstated.

Old agricultural buildings, including those at Methven Castle Steading are not suitable mainly due the change in agricultural machinery and how operations are carried out now. Agricultural machinery has become bigger, making it difficult for the machinery to enter into the buildings, to therefore store grain and store equipment. During busy periods such as at harvest it makes it easier to have buildings that are easily accessible.

The proposed shed design is to include the grain store (approximately 36m x 19m), the cattle shed approximately (36m x 23m) and the general purpose shed approximately (36m x 18m). The grain store has roller doors on the north and south elevations. The large roller doors provides easy access for the large machinery going in and out of the buildings to tip and load grain. The cattle shed has sliding doors on both sides accessing a 4.5m feed passage on to four pens. The sliding doors allow for ease access for machinery to clear the sheds, load and feed the livestock being housed. The general purpose shed simply has sliding doors on both sides which are big enough to allow all machinery access to the building.

The current farm tenant uses some of the buildings surrounding the site but a key reason for the demolition of the unsafe and unused buildings at Methven Castle Steading is to erect a multi-use shed to accommodate the growing farming business. Until recently, the tenant farmer has benefitted from the use of farm buildings off-site farm sheds on extending to a gross external area of approx. 28,500sq ft. These farm buildings are no longer available to the tenant farmer which has had a wider impact on the agricultural business and operations. The landlord has an obligation to provide buildings that are suitable for agricultural use and due to the loss of the off-site buildings there is a need to provide appropriate agricultural buildings for the tenant farmer.

Being able to store grain is a massive advantage for farmers as it allows them to achieve the best price for the produce and to sell the grain at the correct time. With the recent uncertainty and changes in the grain market, having the opportunity to store grain to sell at the best time allows for better financial planning. It also provides opportunities for the tenant farmer to benefit from an increased price and achieve more for the crop grown compared to when it is sold straight at harvest time or if they had to pay for external storage. It is common for farmers to store the harvest crop until the January/February following harvest and to then sell when the price improves allowing them to benefit from improve margins overall on the farmed produce.

Additional storage with new sheds would also be beneficial to the business to provide storage for fertiliser and other crop inputs purchased. The continued uncertainty in the agricultural market for input price purchase is making it different for farmers to plan financially, however with the added storage facilities it would allow the tenant farmer to purchase inputs early and at the best price and store before applying to crops. The price difference to purchasing in June and January can be up to £400/ton which is a significant financial cost to a farming business with available storage would help minimise this impact and effect on the business.

The proposed block plan shown in Figure 2 below helps demonstrate the proposed plans and requirements on the site and the two sheds shaded in grey being retained for straw storage to be used for the cattle enterprise.

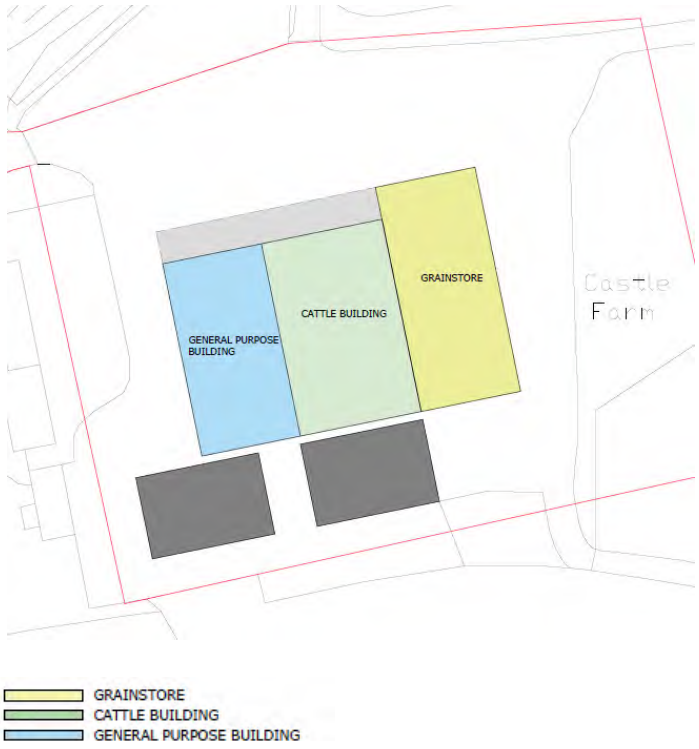

Figure 2: Proposed Block Plan which accompanies the planning application

The table below shows the approx. budgeted tonnage that will be produced off the area on the farm:

Table 2: Expected tonnage produced from proposed cropping

Crop	Area (ha)	Yield (ton/ha)	Total tonnage
Winter Wheat	85	9.00	765.00
Winter Barley	25	7.00	187.50
Spring Barley	45	6.00	270.00
Winter Oilseed Rape	25	4.50	112.50
Total	**180**		**1,335.00**

Footnote: Yields obtained from SAC Farm Management Handbook as reference

The above table shows the approximate areas each year that will be grown on the farm with an expected yield and tonnage for each. These amounts may vary depending on the growing year and yields. On most occasions the Winter Oilseed Rape and Spring Barley will be sold and moved at combining however there could be the occasion storage is required for these crops. Therefore, a minimum storage requirement would be approx. 1,000 tons based on poorer yields but it would be hoped for higher yields than the above budgeted. The proposed building would be able to hold approx. 3,000 tons full of one crop but in practice this would not happen due the crop separation, therefore it would be more likely to be able to store 2,000 tons of two separate crops. This ensures there is plenty of capacity for any improvements in yield, changes in cropping area and if the requirement to store all produce for the agricultural business.

As previously mentioned there is also a requirement by the tenant farmer for cattle housing during the winter months and also calving time. The below table shows the requirements for cattle housing, based on the current numbers on farm.

Table 3: Livestock housing requirements and areas

Livestock Housing	Number	Area (m^2/animal)	Total area (m^2)
Cow (600kg animal with calf housed on straw)	70	6.00	420.00
Store Cattle	70	5.00	350.00
Bulls (individual pens)	3	10.00	30.00
Total	**180**		**800.00**

Footnote: Yields obtained from SAC Farm Management Handbook as reference

The space requirement of each animals is taken from the recommended and standard welfare requirements of housing livestock inside to ensure the best welfare for the animals during the period they are housed inside. The building is designed with a feed passage through the middle and would be bedded on straw. The total area required to house this number of cattle would be 800m^2 which would be met with the proposed shed, providing additional space if required.

On the current steading there are two buildings that are being kept and are used for storage of straw for the cattle enterprise which are not near the current housing for livestock which makes it difficult for moving supplies around to the livestock. The new site for cattle housing is a more preferred location as it is beside the storage buildings, making the cattle enterprise more efficient.

As noted, the new buildings are situated adjacent to the residential properties on the farm. Currently there are two of these unoccupied and the other occupied by a farmer worker on the farm. The new buildings would not generate any further additional traffic to the current amount due to the continued use of the steading. No user conflict would be generated on the current or potentially new residential occupiers from the proposed buildings. The steading will continue to be used for the agricultural operations as per its current use and it will not see additional vehicular activity near to the residential properties.

4. Building Location

The second part of this report is to demonstrate the reason for the replacement buildings to be located at Methven Castle Steading. Figure 1 above shows the farm plan and the location of Methven Castle Steading. This map shows the steading is very central to the wider farming area making it a very good location for these buildings. It is key to ensure that the buildings are in a good location for all farming operations so that the business can be efficient with operations. Additional to this having the buildings in a central location to the farmed area makes it easier for transporting goods and carting grain back to the steading saving time, money and emissions therefore benefitting the environment. The farm tenant stays locally and additional labour staying on site makes this location more attractive for looking after the livestock and maintaining good animal welfare.

Figure 3 below shows a map of the wider context location around Methven Castle Steading.

Figure 3: Context location of Methven Castle Steading circled in red

As can be seen from Figure 3 above, it shows the Methven Castle Steading highlighted in the red circle. It can be seen from this map there is well established transport links directly off the A85 into the steading making it suitable for large machinery and large goods vehicles to access the site. Recently there has been an increase in fuel and energy prices and having a site such as Methven Castle Steading being located in the centre of the farming operations helps to make the operations more efficient due to less travelling required between locations. This overall improvement will then have an impact in reducing the carbon emitted from agriculture which will have wider benefit on the environment.

At Methven Castle, there is a core path that runs near to the steading and the current buildings provide a serious health and safety risk to the public in this area. It is critical to get these controlled and demolished to reduce any risk to the public and replace these with modern safe buildings that cause less risk to the public in the area. The old buildings are not aesthetically pleasing to look at which is another reason why this demolition and reinstatement should be addressed.

5. Recommendations and Conclusions

Overall, in this report it has been demonstrated the requirement of demolishing and reinstating with new modern agricultural buildings is justified at the Methven Castle Steading. The location of this site is ideally suited for all farming operations in the area for the farming tenant, allowing all operations to continue uninterrupted and efficiently.

Therefore, the below recommendations should be carried out:

1. Demolish the old agricultural buildings that are unusable due to the health and safety risk posed by these buildings
2. New modern agricultural buildings on the same site to replace the old buildings to be used by the farming tenant following the loss of other buildings held by the landlord
    a. To house 70 cows and calves on straw with a feed passage for easy and efficient access to the stock
    b. To store all the grain produced on the farm in one year to allow forward selling to be achieved to benefit the long term agricultural business

Finally, as mentioned the old buildings provide a significant health and safety risk to the passing public, especially as a core public footpath runs through the farm. The replacement of the current buildings would not only improve the aesthetics of the farm, but also the safety to the farm and the public as well as allowing the farm to continue to function efficiently and effectively with the use of the modern replaced buildings.

6. Appendix 1: Waste Management Plan

Identified Waste	Management Plan
Plastic – chemical containers, vet and med supplies and fertiliser containers	Preferred method of disposal is to be sent for recycling with a local licensed agricultural recycling unit for processing. All waste will be stored in large sealed bags until collection is arranged to reduce impact on the area. When collected all licensed carriers will issue a transfer note of the waste being uplifted for records.
Paper and Cardboard	Minimal amount of product produced but will be sent for recycling with a local licensed agricultural recycling unit for disposal. All waste will be stored in large sealed bags until collection is arranged to reduce impact on the area. When collected all licensed carriers will issue a transfer note of the waste being uplifted for records.
Glass	Minimal amount of product produced but will be sent for recycling with a local licensed agricultural recycling unit for disposal. All waste will be stored in large sealed bags until collection is arranged to reduce impact on the area. When collected all licensed carriers will issue a transfer note of the waste being uplifted for records.
Fallen Stock	Any fallen stock will be collected by a licensed carrier under the National Fallen Stock Licensing for disposal promptly after death. When collected all licensed carriers will issue a transfer note of the waste being uplifted for records.
Slurry and Manure	All stock are housed on straw bedded courts and a midden will be created in fields for storing before spreading the manure on arable agricultural fields each year. The straw midden will be away from any water courses to reduce runoff impact and will be rotated around the land on an annual basis.

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savills

MC4

March 2024

Feasibility Report

Methven Castle Farm Steadings, Perth

13 March 2024

Ref: RT/ABS/PEEM338563

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David Gane
C/O Savills (UK) Ltd
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Dear David,

Please find attached hereto a copy of the Feasibility Report for Methven Castle Farm Steadings, Perth, together with appendices.

Yours faithfully

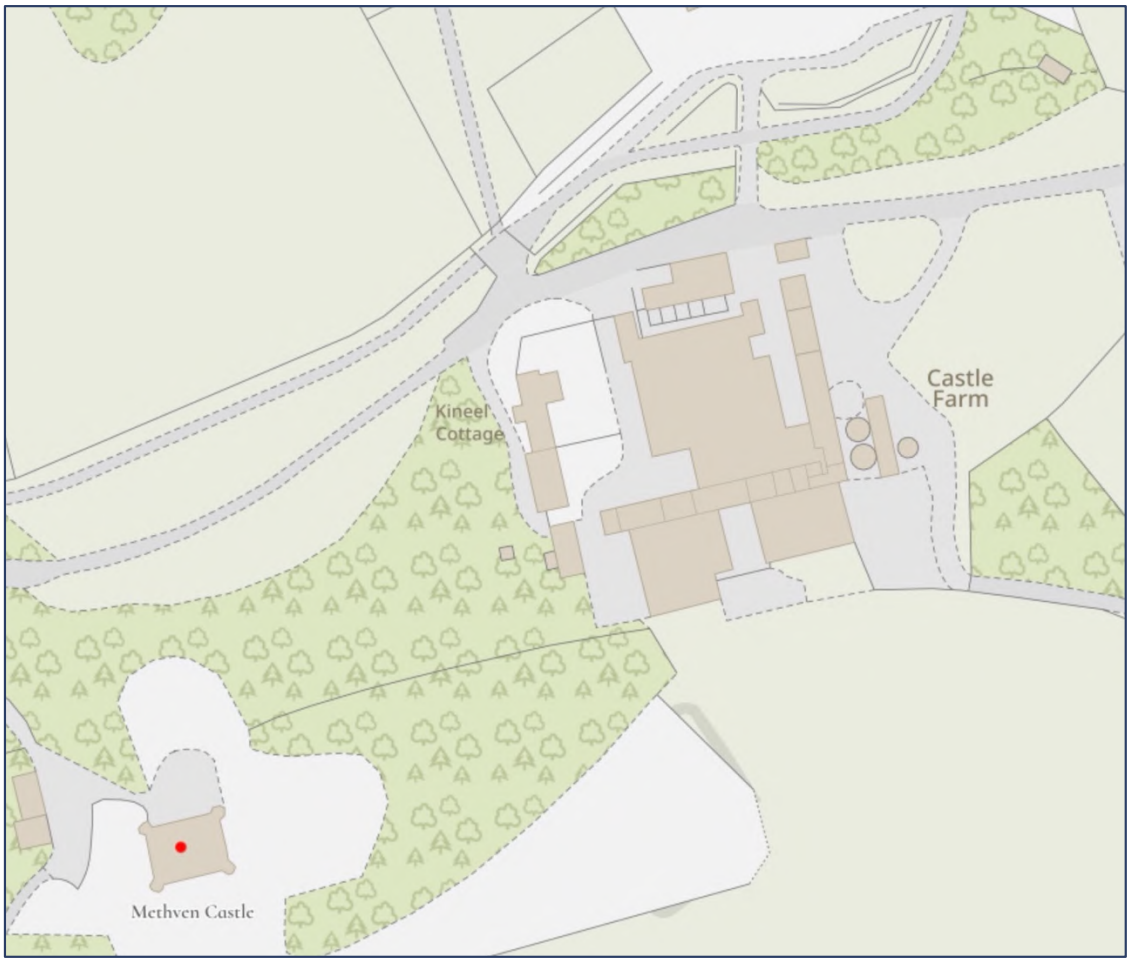
Ryan Timpson BSc (Hons) MRICS

Associate

For and on behalf of Savills (UK) Limited

Feasibility Report

Methven Castle Farm Steadings, Perth



Location of Property – Known as "Castle Farm" on the above map

March 2024

Contents

Feasibility Report

Methven Castle Farm Steadings, Perth

Written by:	Ryan Timpson
Issue date:	13th March 2024
File reference:	RT/ABS/PEEM338563

1. Introduction

1.1. Instruction

Savills have been instructed by David Gane of Savills (UK) Ltd, to undertake a feasibility study of Methven Castle Steadings, Methven, Perth PH1 3SU. The purpose of this instruction is to report on the structural condition of the building, along with budget costs for the restoration of the building.

1.2. The Brief

The purpose of this survey is to follow up on our previous structural condition of the building and extent of work required to:

- Appraise the remaining structures and identify which buildings/structures can be retained and converted.
- Prepare a feasibility report setting out our viability assessment and describing the redevelopment into two alternative uses; the first being residential and the second being commercial.
- Prepare budget costs for the demolition of buildings considered not viable, and costs per m2 for each of the two alternative uses.

This report should be read in conjunction with Appendix 1.0 'Structural Condition Assessment – Methven Castle Steading,' as well as Appendix 2.0 'Block Plan' as attached to this report.

This survey report will include an elemental analysis of both the external and internal fabric and will include the inspection of roof spaces and floor voids where possible.

This report will also set out the current condition and identify at a high-level necessary works to address the internal and external elements of the building, including indicative budget costs.

1.3. Limitations

All references to a visual inspection refer to an inspection from within the property, without causing damage to the property and externally from a safe access point, where appropriate. No inspection has been made to parts of the property which were covered, unexposed or inaccessible. The inspection of the roof sections was from ground level only with limited access through windows.

All comments referring to services are based on a visual inspection only, and testing and commissioning by specialists would still be required to confirm the viability of these assets.

1.4. Terminology

Description	Definition
Good condition	Generally, as new or in reasonable condition with only minor wear and tear.
Fair condition	Showing signs of wear and tear and/or minor defects, which, although do not affect performance, may require some maintenance or remedial works.

Poor condition	Showing signs of major wear and tear and/or defects which are either already affecting performance or are likely to do so within the near future, and hence remedial works are required.

2. Brief Description of the Property

2.1. Description Summary

Methven Castle Steading resides within the grounds of Methven Castle, east of the village of Methven. The current buildings generally comprise a square shaped grouping of stone and slate steadings, solid brick steadings with pitched asbestos clad roofs, timber framed steadings with metal roof coverings, and modern open Portal framed sheds with asbestos wall and roof cladding.

The steadings are currently mostly vacant with the exception of building 01 and 04, which are currently utilised to shelter horses, building 14 which is used to store grain, and building 12 and 13 used to store agricultural vehicles and equipment. The remaining buildings have not been used formally for agricultural purposes for a number of years.

It is envisaged that buildings 12 and 13 will be retained for farming activities on the site. A new grain store will be constructed to replace building 14.

2.2. Brief Condition Summary

Methven Castle steadings are generally found to be in poor condition, and in some instances, appear to pose a health and safety hazard for both the current tenants, and potentially to the public at large.

Most notably concerning are buildings 05 and 09, where up to 30% of the roof structures have failed, leading to a catastrophic collapse of parts of these buildings. Building 02 has also been subject to collapse of part of the roof and internal floor structure. A lean-to building attached to building 08 has also had its roof partially collapse into the internal footprint. A dormer feature to building 11 is exhibiting signs of severe distortion due to the failure of a window lintel below and is vulnerable to collapse of this section of the roof.

Building 04 is currently in use to stable horses. This building is positioned between the partially collapsed roof structures of buildings 05 and 09. Its proximity gives cause for concern to occupants using this building being at risk if further collapse of these adjacent structures occurs.

3. Services

No tests whatsoever were carried out to the services, systems or appliances. However, we would summarise the general systems as follows:-

3.1. Electrical

The property features ageing electrical wiring to provide rudimentary lighting and power to the several steadings. This system would have to be removed and upgraded in its entirety.

3.2. Heating and Hot Water

The property does not appear to feature any heating or hot water systems.

3.3. Water and Drainage

It is understood that the property is served by a public water supply.

The rainwater drainage requires further investigation to determine extent and condition of any underground network to soakaway, septic system or to a public sewer.

4. Assumptions

A search of this property on Historic Environment Scotland's online Designations Map Search has found that these buildings are not listed individually, however, they are covered by 'curtilage' listing to the adjacent Category A listed Methven Castle (LB17895, and is found to be located within Methven Castle Designed Landscape (GDL00285).

For the purposes of this report, we have assumed that the property complies with the current legislation and has full certification where appropriate in terms of any alterations made over the years. However, it must be borne in mind that any future sale may involve having to secure a letter of comfort from the planning and building standards departments of Perth Council for any works which do not have the correct Statutory Consents.

5. Viability Assessment

Refer to Appendix 2.0 'Block Plan' as attached to this report, for reference to building numbers and their location.

5.1. Building 01

Constructed post 1944, single storey with a GIFA of approximately 169m2 this building comprises solid brick masonry walls with no cavity, vertical timber cladding, profiled asbestos sheet cladding to its roof structure and timber cut roof trusses. The building appears to be in poor condition, generally, with the exception of the masonry walls, which appear in fair condition.

The age profile and construction of this building does not merit any form of historical interest, and its construction does not lend itself to be economically converted for other uses. We would consider that this building is not retained, and instead be demolished as part of a consolidation of the steading grouping.

5.2. Building 02

Constructed 1843 - 1882, 1.5 storeys with a GIFA of approximately 35m2 this building comprises solid stone masonry walls, profiled asbestos sheet cladding to its roof structure and timber cut roof trusses. The building appears to be in poor condition, generally, with the exception of the masonry walls, which appear in fair condition generally, with the exception of wall heads and the window pediment that will require partial demolition and rebuilding.

Whilst salvageable, this building requires a significant level of investment to ensure that it is structurally stable, wind and watertight, prior to it being re-occupied for either commercial or residential use.

These works include but are not limited to the wholesale replacement of roof structure and coverings, significant repairs to sandstone walls, renewal of external windows and doors, and the full underpinning of all external walls and installation of new floors.

5.3. Building 03

Constructed 1843 - 1882, single storey with a GIFA of approximately 148m2 this building comprises solid stone masonry walls, slate finishes to its roof structure and timber cut roof trusses. The building appears to be in fair condition, generally, with the exception of the masonry walls, which appear in fair condition generally, with the exception of the roof coverings and structure, with missing slates and an undulating ridge line respectively.

Whilst salvageable, this building requires a significant level of investment to ensure that it is structurally stable, wind and watertight, prior to it being re-occupied for either commercial or residential use.

These works include but are not limited to the wholesale replacement of roof structure and coverings, significant repairs to sandstone walls, renewal of external windows and doors, and the full underpinning of all external walls and installation of new floors.

5.4. Building 04

Constructed 1843 - 1882, 1.5 storeys with a GIFA of approximately 195m2 this building comprises solid stone masonry walls, slate finishes to its roof structure and timber cut roof trusses. The building appears to be in poor condition, generally, with the exception of the masonry walls, which appear in fair condition generally, with the exception of wall heads and the window pediment that will require partial demolition and rebuilding.

Whilst salvageable, this building requires a significant level of investment to ensure that it is structurally stable, wind and watertight, prior to it being re-occupied for either commercial or residential use.

These works include but are not limited to the wholesale replacement of roof structure and coverings, significant repairs to sandstone walls, renewal of external windows and doors, and the full underpinning of all external walls and installation of new floors.

5.5. Buildings 05, 06 and 07

Constructed in the 1900s, single storey with a GIFA of approximately 528m2 combined, these buildings were constructed as infill areas to a former central courtyard, and as such comprise mainly solid stone masonry cross walls, with slate finished roof structures and timber cut roof trusses. The building appears to be in poor condition, generally, building 05 has partially collapsed.

The configuration and construction and condition of these buildings do not lend themselves to be economically converted for other uses. We would consider that these buildings are not retained, and instead be demolished as part of a consolidation of the steading grouping.

5.6. Building 08

Constructed 1843 - 1882, single storey with a GIFA of approximately 56m2 this building comprises solid stone masonry walls, slate and metal finishes to its roof structure and timber cut roof trusses. The building appears to be in fair condition, generally, with the exception of the masonry walls, which appear in fair condition generally, with the exception of the roof coverings and structure, with missing slates and a partial collapse to an annexe section.

Whilst salvageable, this building requires a significant level of investment to ensure that it is structurally stable, wind and watertight, prior to it being re-occupied for either commercial or residential use.

These works include but are not limited to the wholesale replacement of roof structure and coverings, significant repairs to sandstone walls, renewal of external windows and doors, and the full underpinning of all external walls and installation of new floors.

5.7. Building 09

Constructed in the 1900s, single storey with a GIFA of approximately 320m2 this building was constructed as an infill area to a former central courtyard, and as such comprises mainly columns and piers, with slate finished roof structure and metal roof trusses. The building appears to be in poor condition, and approximately one third of the roof structure has collapsed.

The configuration and construction and condition of this building does not lend itself to be economically converted for other uses. We would consider that this building is not retained, and instead be demolished as part of a consolidation of the steading grouping.

5.8. Building 10

Constructed 1843 - 1882, single storey with a GIFA of approximately 280m2 this building comprises solid stone masonry walls, slate finishes to its roof structure and timber cut roof trusses. The building appears to be in poor condition, generally, slipped and missing slates, undulating ridges, rotten rafter ends and deteriorating stone masonry wall heads.

Whilst salvageable, this building requires a significant level of investment to ensure that it is structurally stable, wind and watertight, prior to it being re-occupied for either commercial or residential use.

These works include but are not limited to the wholesale replacement of roof structure and coverings, significant repairs to sandstone walls, renewal of external windows and doors, and the full underpinning of all external walls and installation of new floors.

5.9. Building 11

Constructed 1843 - 1882, 1.5 storeys with a GIFA of approximately 400m2 this building comprises solid stone masonry walls, slate finishes to its roof structure and timber cut roof trusses. The building appears to be in poor condition, generally, slipped and missing slates, undulating ridges, rotten rafter ends, collapsed pediments and deteriorating stone masonry wall heads.

Whilst salvageable, this building requires a significant level of investment to ensure that it is structurally stable, wind and watertight, prior to it being re-occupied for either commercial or residential use.

These works include but are not limited to the wholesale replacement of roof structure and coverings, significant repairs to sandstone walls, renewal of external windows and doors, and the full underpinning of all external walls and installation of new floors.

5.10. Buildings 12 and 13

It is envisaged that buildings 12 and 13 will be retained for farming activities on the site. These buildings are not under consideration for demolition or conversion.

5.11. Building 14

Constructed post 1944, single storey with a GIFA of approximately 96m2 this building comprises a steel portal frame, with profiled asbestos sheet cladding to its roof and wall structure. The building appears to be in poor condition, generally.

The age profile and construction of this building does not merit any form of historical interest, and its construction does not lend itself to be economically converted for other uses. We would consider that this building is not retained, and instead be demolished as part of a consolidation of the steading grouping.

5.12. Building 15

Constructed in the 1900s, with a GIFA of approximately 35m2 this building comprised a timber frame, with metal sheet cladding to its roof and timber cladding to its wall structure. The building appeared to be in poor condition, generally. It is understood that this building has since collapsed.

The age profile and construction of this building did not merit any form of historical interest, and its construction did not lend itself to be economically converted for other uses. We would have considered that this building not be retained, and instead be demolished as part of a consolidation of the steading grouping.

6. Conclusions and Recommendations

On the whole, Methven Castle Farm Steadings requires a significant level of investment to ensure that it is structurally stable, wind and watertight, prior to it being re-occupied for either commercial or residential use. Several structures do not lend themselves to being converted at all, and should be considered to be demolished in a concerted effort to rationalise and consolidate the traditional parts of the steading grouping.

These works include but are not limited to the wholesale replacement of roof structure and coverings, significant repairs to stone walls, renewal of external windows and doors, and the full underpinning of all external walls and installation of new concrete floors.

Indicative Costs to Restore, Convert or Re-build.

The following table breaks down our costs to structurally repair and restore the steading block back into its original condition. Options firstly to convert the building into commercial use, and secondly convert into residential use:

Estimated Project Cost Summary to Restore:

Estimated Construction Works – Restoration of Steadings for commercial fit out:		
(note that fit out is excluded from this cost, structural works to create a serviced shell viable for lease only)		
Building 01	**GIFA**	**£**
Demolition only.	169	£ 11,830.00
Building 02		
Conversion to commercial use.	35	£ 80,639.04
Building 03		
Conversion to commercial use.	148	£ 340,987.95
Building 04		
Conversion to commercial use.	195	£ 449,274.66
Building 05, 06 and 07		
Demolition only.	528	£ 36,960.00
Building 08		
Conversion to commercial use.	56	£ 129,022.47
Building 09		
Demolition only.	320	£ 22,400.00
Building 10		
Conversion to commercial use.	280	£ 645,112.33.00
Building 11		
Conversion to commercial use.	400	£ 921,589.04
Building 12 and 13		
No works.		£ 0.00

Building 14		
Demolition only.	96	£ 6,720.00
Building 15		
No works.	35	£ 0.00
Sub-total		**£2,644,535.49**
Prelims @ 11%		**£ 290,898.90**
Contingency @ 10%		**£ 293,543.44**
Total Build Cost Excl. Fees & VAT		**£3,228,977.83**

Estimated Project Cost Summary to Convert:

This option involves taking the newly restored steadings, as costed above, and applying an uplift to fit out and convert into a reasonable standard of finish for residential use:

Estimated Construction Works – Restoration of Steadings for residential use:		
(note that fit out is included within this cost – based on a moderate standard of conversion)		
Building 01	**GIFA**	**£**
Demolition only.	169	£ 11,830.00
Building 02		
Conversion to residential use.	35	£ 105,711.29
Building 03		
Conversion to residential use.	148	£ 447,007.75
Building 04		
Conversion to residential use.	195	£ 588,962.91
Building 05, 06 and 07		
Demolition only.	528	£ 36,960.00
Building 08		
Conversion to residential use.	56	£ 169,138.07
Building 09		
Demolition only.	320	£ 22,400.00
Building 10		
Conversion to residential use.	280	£ 845,690.33
Building 11		

Conversion to residential use.	400	£ 1,208,129.04
Building 12 and 13		
No works.		£ 0.00
Building 14		
Demolition only.	96	£ 6,720.00
Building 15		
No works.	35	£ 0.00
Sub-total		**£3,442,549.39**
Prelims @ 11%		**£ 378,680.43**
Contingency @ 10%		**£ 382,122.98**
Total Build Cost Excl. Fees & VAT		**£4,203,352.80**

General Assumptions / Notes:

The following points have been assumed in the preparation of this high-level budget cost:

1. Our budget figures are based upon construction rates and comparable tender costs as at Q1 2024
2. All costs are based upon approximate quantities. These have not been prepared in accordance with any standard method of measurement e.g. SMM7, New Rules of Measurement (NRM)
3. The property will be unoccupied for the duration of the works
4. Works will be competitively tendered and carried out under a single fixed-price lump sum project procured using a traditional form of building contract

Exclusions:

The following items are specifically excluded from the costs provided:

1. Value Added Tax (if applicable)
2. Cost of Inflation
3. Additional specialist surveys e.g. bat surveys
4. Structural or Civil Engineering input
5. Disposal of contaminated material e.g. asbestos, excavated spoil
6. Major External Site Works (Allowances for hard standings and some soft landscaping have been included)
7. Furniture, Soft Furnishings and Fittings
8. White goods
9. Professional fees, statutory fees.

Summary:

In summary, we would estimate the cost of restoring/rebuilding New Farm Steadings from its current condition into either commercial or residential accommodation to be in the region of **£3.2m and £4.2m** exclusive of VAT, professional fees and statutory fees.

While we believe the above budget to be a reasonable forecast at this stage, it should be noted that this is indicative in nature and could only be substantiated by compiled a detailed budget cost following a detailed options appraisal, then by obtaining competitive tenders on the preferred option following the preparation and issue of a full design and a specification package.

As stated in our assumptions section, it is also predicated upon the works being carried out under a single fixed price lump sum project procured using a traditional form of building contract.

Final costs are likely to vary dependent upon a number of factors yet to be determined however we do hope that this preliminary budget estimate meets with your immediate requirements.

Appendix 1.0
Structural Condition Assessment – Methven Castle Steading

Appendix 2.0
Block Plan

March 2022

Building Surveyor's Report

Structural Condition Assessment – Methven Castle Steading

8th December 2021

Ref: RT/ABS/PEEM338563

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Dear David,

Please find attached hereto a copy of the Condition Survey Report for Methven Castle Steadings, Methven PH1 3SU, together with appendices.

Yours faithfully

Ryan Timpson BSc (Hons) MRICS

Associate Building Surveyor

For and on behalf of Savills (UK) Limited

Contents

Building Surveyor's Report

Structural Condition Assessment – Methven Castle Steading

Written by:	Ryan Timpson
Issue date:	14 March 2022
File reference:	RT/ABS/PEEM338563

1. Introduction

1.1. Instruction

Savills have been instructed by David Gane, c/o Savills (UK) Limited, Earn House, Broxden Business Park, Perth, to undertake a full condition survey at Methven Castle steadings, Methven, Perth PH1 3SU. The purpose of this instruction is to report on the current condition of the building, with a view to providing an opinion as to the viability of retaining these structures, as part of a pre-application to Perth Council, Perth and Kinross.

1.2. The Brief

The brief is to provide a structural assessment of the condition of the existing building, looking at roof structure, roof coverings, wall structure and foundations with a view to determining the viability of retaining the existing buildings for farming use.

This includes for the following:

1. Site survey of all existing external elements of the building.
2. Photographic record of condition, with comments
3. Summary report and opinion on viability

1.3. Survey

This survey has been undertaken on Wednesday 2nd March 2022 by Ryan Timpson MRICS, where access was provided to the external outer perimeter of the property, the internal ground floor levels of the property, with internal roof access only where a hatch and ladder was provided, or where the roof void was visible from ground floor level below.

The weather on the date of survey was cloudy, with occasional sunshine.

1.4. Limitations

All references to a visual inspection refer to an inspection from within the property, without causing damage to the property and externally from a safe access point, where appropriate. No inspection has been made to parts of the property which were covered, unexposed or inaccessible.

All comments referring to services are based on a visual inspection only, and testing and commissioning by specialists would still be required to confirm the viability of these assets.

No access was provided internally to building(s) or parts thereof where partial collapse had occurred to the roof structure.

1.5. Assumptions

A search of this property on Historic Environment Scotland's online Designations Map Search has found that these buildings are not listed individually, however, they are covered by 'curtilage' listing to the adjacent Category A listed Methven Castle (LB17895, and is found to be located witin Methven Castle Designed Landscape (GDL00285).

For the purposes of this report, we have assumed that the property complies with the current legislation and has full certification where appropriate in terms of any alterations made over the years. However, it must be borne in mind that any future sale may involve having to secure a letter of comfort from the planning and building standards departments of Perth Council for any works which do not have the correct Statutory Consents.

2. Summary Report and Opinion

2.1. History of the Site

History of the Site

Methven Castle Steading resides within the grounds of Methven Castle, east of the village of Methven. The current buildings generally comprise a square shaped grouping of stone and slate steadings, solid brick steadings with pitched asbestos clad roofs, timber framed steadings with metal roof coverings, and modern open Portal framed sheds with asbestos wall and roof cladding. The steadings are currently mostly vacant with the exception of building 01 and 04, which are currently utilised to shelter horses, building 14 which is used to store grain, and building 12 and 13 used to store agricultural vehicles and equipment. The remaining buildings have not been used formally for agricultural purposes for a number of years.

Fig 01: Excerpt from the National Library of Scotland; 1843 - 1882

A search through the National Library of Scotland's historic map archives has revealed that the steading grouping has undergone a number of changes over the years. This first excerpt appears to show Methven Castle steadings, as a square shaped structure, with detached buildings to the South, West and Northwest of the main block respectively. Buildings 01, 05, 06, 07, 09, 14 and 15 have not yet been constructed. Buildings to the Northwest corner adjacent to the NW cottage no longer exist.

Fig 02: Excerpt from the National Library of Scotland; 1900s

By the 1900s, it appears that buildings 05, 06, 07 have been added to in-fill the central space between buildings 04 and 08. Building 15 has also been constructed. Building 11 appears to have a larger footprint toward the most northern third of the building than currently exists.

Fig 03: Excerpt from the National Library of Scotland; 1944-1970

Between 1944 and 1970, the mapping is not sufficiently detailed to confirm further alterations. However, we assume that buildings 01, 09, 12, 13 and 14 have subsequently added given our observations of their condition and construction methods.

However, by 2022, it appears that a lean-to section to the northern third of building 11 has been demolished. Approximately 30% of the roof of Building 05 has collapsed, as has 30% of the roof of Building 09. The roof to building 02 (cottage) has also collapsed. All remaining building are in varying states of deterioration.

2.2. Condition Summary

Please refer to Appendix 01 "Photographic Record of Condition" when reading this section of the report. Images referred to within appendix 01 can be referenced from Appendix 02 "Block Plan". Buildings labelled as 12 and 13 have been excluded from this report, as they are currently under consideration to be retained by the client.

General Observations

Methven Castle steadings are generally found to be in poor condition, and in some instances, appear to pose a health and safety hazard for both the current tenants, and potentially to the public at large.

Most notably concerning are buildings 05 and 09, where up to 30% of the roof structures have failed, leading to a catastrophic collapse of parts of these buildings. Building 02 has also been subject to collapse of part of the roof and internal floor structure. A lean-to building attached to building 08 has also had its roof partially collapse into the internal footprint. A dormer feature to building 11 is exhibiting signs of severe distortion due to the failure of a window lintel below and is vulnerable to collapse of this section of the roof.

Building 04 is currently in use to stable horses. This building is positioned between the partially collapsed roof structures of buildings 05 and 09. Its proximity gives cause for concern to occupants using this building being at risk if further collapse of these adjacent structures occurs.

The site is generally open, with missing/open window and door openings allowing access into the majority of spaces and buildings available. This poses a risk to trespassers/members of the public inadvertently entering a dangerous building/structure.

2.3. Summary Opinion

We would ask that you refer to Appendix 01 "Photographic Record of Condition" for our detailed opinion on buildings contained within this pre-application.

We would also ask that you refer to Appendix 02 "Block Plan" when considering images referenced with Appendix 01.

It is our overarching opinion that Methven Castle steading is in poor condition and is now considered to be beyond viable economic repair. The buildings also pose a health and safety risk and should therefore be made safe as soon as practicable, including, where necessary, demolition.

Appendix 1.0
Photographic Record of Condition

PHOTOGRAPHS

	**Building 01 - Roof Construction** **Description:** Timber cut roof trusses. **Condition:** Poor – evidence of significant staining and wet rot to timber structure, particularly at the wall heads and surrounding rooflights, which are also in poor condition with corroded frames and cracked/broken glass to isolated areas.
01	
	**Building 01 - Roof Coverings & Rainwater Goods** **Description:** Profiled asbestos sheet cladding, cast iron rooflights, galvanised steel ridges and hips. Cast iron gutters and downpipes. **Condition:** Poor – slipped sheeting, undulations beginning to form in roof profile, particularly at the ridge. Heavy moss growth to surfaces. Corroded rooflight frames, cracked and missing rooflight glazing Choked and corroded gutters, broken and missing section and joints.
02	
	**Building 01 – External Walls** **Description:** Solid brick masonry walls, vertical timber cladding. Metal and timber doors. **Condition:** Poor – solid masonry walls in fair condition generally, however they are poor to isolated areas at the wall head, where impacted by choked/missing gutters. Wet rot and mould to external cladding, undulations and bowing cladding to isolated areas. Base of timber doors suffering significantly from wet rot.
03	

	**Building 02 - Roof Construction** **Description:** Timber cut roof trusses. **Condition:** Poor – not accessible internally. Partial collapse to north section of roof structure, missing trusses and ridge line.
04	
	**Building 02 - Roof Coverings & Rainwater Goods** **Description:** Profiled asbestos sheet cladding, natural slate coverings, galvanised ridges, cast iron gutters and downpipes. **Condition:** Poor – missing section of roof. Evidence of slipped slates, generally, moderate moss growth to asbestos sheet cladding. Corroded and choked rainwater goods with missing gutter lengths, missing and broken downpipes, open joints etc.
05	
	**Building 02 – External Walls** **Description:** Solid coursed rubble stone masonry walls, dressed to window and door openings. Timber doors and windows. **Condition:** Poor – solid masonry walls in fair condition generally, however they are poor to isolated areas at the wall head, where impacted by choked/missing gutters. Mortar pointing to stonework is deteriorating due to missing/overflowing rainwater goods. Vertical cracks through mortar joints at either end of pedimented first floor window, foliage taking hold within the cracked mortar. Windows and doors missing/very poor condition and likely beyond recovery.
06	

	**Building 03 - Roof Construction** **Description:** Timber cut roof trusses. **Condition:** Poor – evidence of significant staining and wet rot to timber structure, particularly at the wall heads and surrounding rooflights, which are also in poor condition with corroded frames and cracked/broken glass to isolated areas.
07	
	**Building 03 - Roof Coverings & Rainwater Goods** **Description:** Natural slate coverings, cast iron rooflights, galvanised steel ridges and hips. Cast iron gutters and downpipes. **Condition:** Poor – slipped slates. Heavy mould growth to north facing surfaces. Corroded rooflight frames, cracked and missing rooflight glazing. Choked and corroded gutters, broken and missing section and joints.
08	
	**Building 03 – External Walls** **Description:** Solid coursed rubble stone masonry walls, dressed to window and door openings. Timber doors and windows. **Condition:** Poor – solid masonry walls in fair condition generally, however they are poor to isolated areas at the wall head, where impacted by choked/missing gutters. Mortar pointing to stonework is deteriorating due to missing/overflowing rainwater goods. Windows and doors generally in poor condition with wet rot to frames, and cracked/missing glazing to areas.
09	

	**Building 04 - Roof Construction** **Description:** Timber cut roof trusses, timber sarking boards. **Condition:** Fair – evidence of moderate staining and deterioration to timber structure, particularly to the sarking boards. Undulating ridge line is evident externally.
10	
	**Building 04 - Roof Coverings & Rainwater Goods** **Description:** Natural slate coverings, cast iron rooflights, galvanised steel ridges and hips. Cast iron gutters and downpipes. **Condition:** Poor – slipped slates across majority of surfaces Missing sections of gutters and missing downpipes. Stained stone surfaces at the wall head to areas where gutters are choked/missing. Missing section of metal ridges.
11	
	**Building 04 – External Walls** **Description:** Solid coursed rubble stone masonry walls, dressed to window and door openings. Timber/Metal doors and timber windows. **Condition:** Poor – solid masonry walls in fair condition generally, however they are poor to isolated areas at the wall head, where impacted by choked/missing gutters. Mortar pointing to stonework is deteriorating due to missing/overflowing rainwater goods. Windows and doors generally in poor condition with wet rot to frames, and cracked/missing glazing to areas.
12	

	**Building 04 – Interior Features** **Description:** Timber suspended floor comprising timber joists with T&G timber boarding. **Condition:** Poor – evidence of wood boring insects and wet rot evident – first floor not accessible due to safety concerns.
13	
	**Building 05 - Roof Construction** **Description:** Timber cut roof trusses, timber sarking boards. **Condition:** Very poor – partial collapse of approximately 1/3rd of the pitched roof structure. Building considered to be dangerous.
14	
	**Building 05 - Roof Coverings & Rainwater Goods** **Description:** Natural slate coverings, cast iron rooflights, galvanised steel ridges and hips. Cast iron gutters and downpipes, concealed gutters. **Condition:** Very poor – partial collapse of roof. Remaining roof coverings in very poor condition with slipped courses and open sections of roof evident.
15	

	**Building 05 – External Walls** **Description:** Solid coursed rubble stone masonry walls (shared with buildings 03 and 04), Metal beams and columns (shared with buildings 06 and 09). **Condition:** Poor – undulations in beams evident, moderate corrosion to columns.
16	
	**Building 06, 07 - Roof Construction** **Description:** Timber cut roof trusses, timber sarking boards. **Condition:** Fair – evidence of moderate staining and deterioration to timber structure, particularly to the sarking boards. Undulating ridge line is evident externally.
17	
	**Building 06, 07 - Roof Coverings & Rainwater Goods** **Description:** Natural slate coverings, cast iron rooflights, galvanised steel ridges and hips. Internal guttering. **Condition:** Poor – slipped slates across majority of surfaces. Partially collapsed section of roof approx 5m2. Choked internal valley gutters. Corroded rooflight frames, cracked and missing rooflight glazing.
18	

	**Building 06, 07 – External Walls** **Description:** Solid coursed rubble stone masonry walls (shared with buildings 03 and 08), Metal beams and columns (shared with buildings 05 and 09) intermediate brick masonry wall. **Condition:** Poor – undulations in beams evident, moderate corrosion to columns. Masonry walls in fair condition.
19	
	**Building 08 - Roof Construction** **Description:** Timber cut roof trusses, timber sarking boards. **Condition:** Fair – evidence of moderate staining and deterioration to timber structure, particularly to the sarking boards. Areas of wet rot evident to timbers below internal valley guttering. Partially collapsed roof structure to small lean-to on South elevation.
20	
	**Building 08 - Roof Coverings & Rainwater Goods** **Description:** Natural slate coverings, cast iron rooflights, galvanised steel ridges and hips. Cast iron gutters and downpipes, concealed gutters. Corrugated metal hipped coverings over former do 'cot; metal tank to roof apex and metal pipework below. **Condition:** Moderate – slipped slates across isolated surfaces. Partially collapsed section of roof approx 8m2 to lean-to. Choked internal valley gutters. Corroded rooflight frames, cracked and missing rooflight glazing. Corroded tank and metal pipework.
21	

	**Building 08 – External Walls** **Description:** Solid coursed rubble stone masonry walls (shared with buildings 03 and 07) as well as external coursed rubble walls. Metal external doors and timber framed window. **Condition:** Fair. Windows generally in poor condition with wet rot to frames, and cracked/missing glazing. Corrosion to door screens.
22	
	**Building 09 - Roof Construction** **Description:** Timber and metal trussed rafters, timber sarking boards. **Condition:** Very poor – partial collapse of approximately 1/3rd of the pitched roof structure. Building considered to be dangerous.
23	
	**Building 09 - Roof Coverings & Rainwater Goods** **Description:** Natural slate coverings, cast iron rooflights, galvanised steel ridges and hips. Cast iron gutters and downpipes, concealed gutters. **Condition:** Very poor – partial collapse of roof. Remaining roof coverings in very poor condition with slipped courses and open sections of roof evident. Section to west hipped return wall, partial collapse with slate and sarking slipped to approximately ¼ of surface area at this elevation.
24	

	**Building 09 – External Walls** **Description:** Solid coursed rubble stone masonry walls (shared with buildings 04, 10 and 11), Metal beams and columns (shared with buildings 05 and 06). **Condition:** Poor – undulations in beams evident, moderate corrosion to columns. Stone walls shared with building 09 are particularly poor, wet masonry, mould and foliage growth along the valley gutter line. Mortar pointing severely deteriorating at this location.
25	
	**Building 10 - Roof Construction** **Description:** Timber cut roof trusses. **Condition:** Poor – evidence of significant staining and wet rot to timber structure, particularly at the wall heads and surrounding rooflights, which are also in poor condition with corroded frames and cracked/broken glass to isolated areas. Undulations in ridge line is evident, partial failure of rafter ends causing collapse of slates and sarking to isolated areas.
26	
	**Building 10 - Roof Coverings & Rainwater Goods** **Description:** Natural slate coverings, cast iron rooflights, galvanised steel ridges and hips. Cast iron gutters and downpipes. **Condition:** Poor – slipped slates, slipped courses and isolated areas of collapse to slate surfaces, around the wall heads . Corroded rooflight frames, cracked and missing rooflight glazing. Missing rainwater goods, generally.
27	

	**Building 10 – External Walls** **Description:** Solid coursed rubble stone masonry walls, dressed to window and door openings. Timber doors and windows. **Condition:** Poor – solid masonry walls in fair condition generally, however they are poor to isolated areas at the wall head, where impacted by choked/missing gutters. Mortar pointing to stonework is deteriorating due to missing/overflowing rainwater goods. Windows and doors generally in poor condition with wet rot to frames, and cracked/missing glazing to areas.
28	
	**Building 11 - Roof Construction** **Description:** Timber cut roof trusses. **Condition:** Poor – evidence of significant staining and wet rot to timber structure, particularly at the wall heads and surrounding rooflights, which are also in poor condition with corroded frames and cracked/broken glass to isolated areas. Undulations in ridge line is evident, partial failure of rafter ends causing collapse of slates and sarking, particularly to the East facing wall head. Partially collapsed dormer roof structure, due to collapse of window lintel below.
29	
	**Building 11 - Roof Coverings & Rainwater Goods** **Description:** Natural slate coverings, cast iron rooflights, galvanised steel ridges and hips. Cast iron gutters and downpipes. **Condition:** Poor – slipped slates, slipped courses and isolated areas of collapse to slate surfaces, around the wall heads . Corroded rooflight frames, cracked and missing rooflight glazing. Missing rainwater goods, generally.
30	

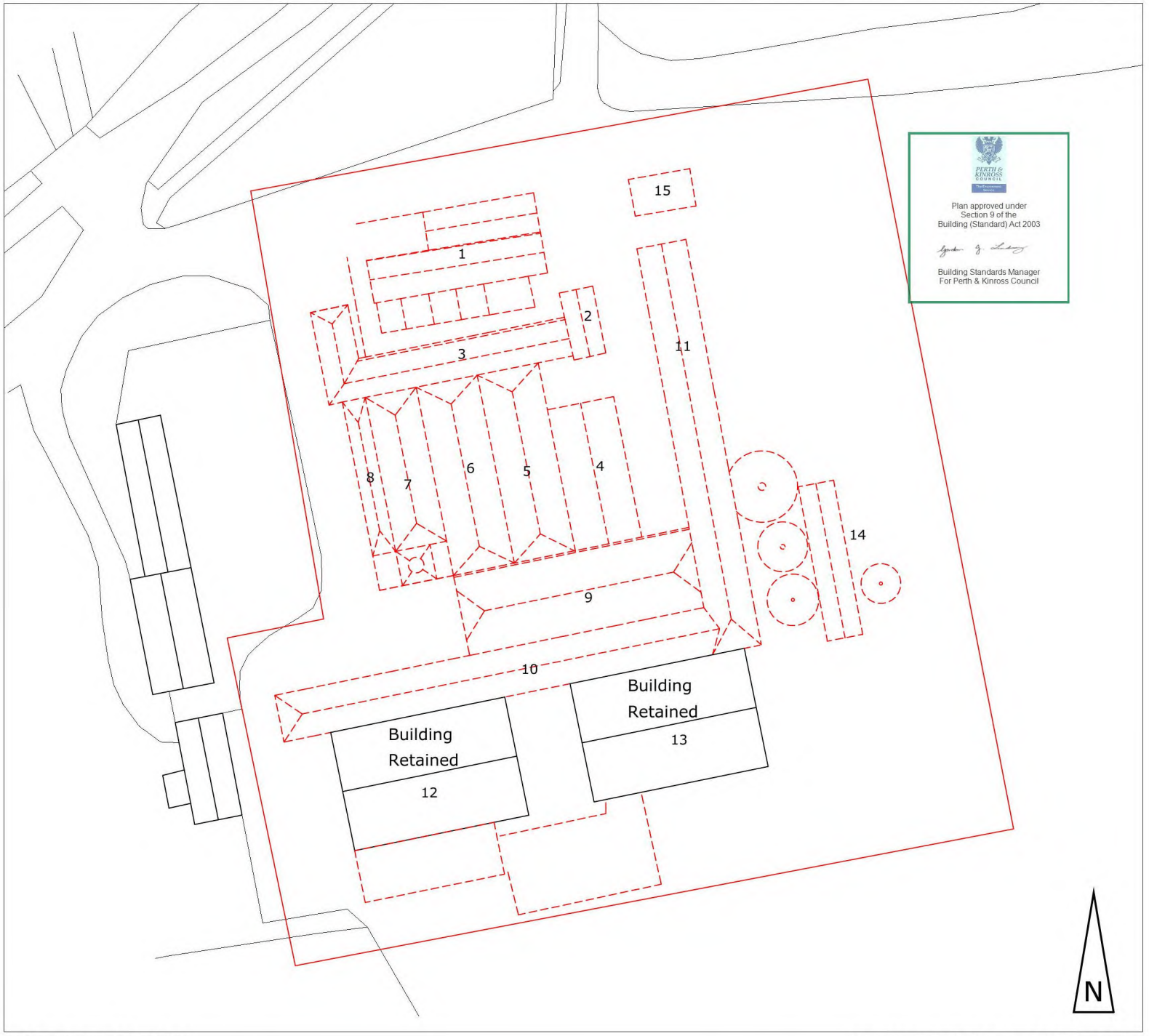
	**Building 11 – External Walls** **Description:** Solid coursed rubble stone masonry walls, dressed to window and door openings. Timber doors and windows. Timber lintels to larger barn openings. **Condition:** Poor – solid masonry walls in poor condition generally, principally to the east elevation wall head, where impacted by missing gutters. Mortar pointing to stonework is deteriorating due to missing/overflowing rainwater goods. Windows and doors generally in poor condition with wet rot to frames, and cracked/missing glazing to areas. Timber lintels exhibiting signs of wet rot.
31	
	**Building 14 - Roof Construction** **Description:** Portal frame construction with corrugated metal sheet cladding. Metal framed and clad silage tanks. **Condition:** Fair.
32	
	**Building 14 - Roof Coverings & Rainwater Goods** **Description:** Profiled metal sheet cladding, no rainwater goods. **Condition:** Poor – slipped sheeting, undulations beginning to form in roof profile, particularly at the ridge. Heavy moss growth to surfaces. Heavy corrosion to metal roof cladding to silage tanks
33	

	**Building 14 – External Walls** **Description:** Profiled metal sheet cladding, brick masonry base. **Condition:** Poor – Heavy corrosion to metal wall cladding. Silage tanks exhibiting moderate corrosion to surfaces.
34	
	**Building 15 - Roof Construction** **Description:** Timber cut roof trusses. **Condition:** Poor – evidence of significant staining and wet rot to timber structure, particularly at the wall heads and surrounding rooflights, which are also in poor condition with corroded frames and cracked/broken glass to isolated areas.
35	
	**Building 15 - Roof Coverings & Rainwater Goods** **Description:** Profiled metal sheet cladding, no rainwater goods. **Condition:** Poor – heavily corroded metal sheeting, undulations beginning to form in roof profile, particularly at the ridge. Heavy corrosion to rooflight frames and broken/missing glass.
36	

	**Building 15 – External Walls** **Description:** Vertical timber cladding. Timber doors and windows. **Condition:** Poor –Wet rot and mould to external timber cladding, undulations and bowing cladding to isolated areas. Base of timber doors suffering significantly from wet rot.
37	

(END)

Appendix 2.0
Block Plan



Plan approved under
Section 9 of the
Building (Standard) Act 2003

Building Standards Manager
For Perth & Kinross Council

BLOCK PLAN 1:500 A3

OS Reference: NO 04308 26135

Proposed demolition in red dashed

0m 10m 20m 30m 40m 50m

NOTES

REVISIONS

savills

PROJECT TITLE
FARM RATIONALISATION
METHVEN CASTLE FARM, METHVEN
PERTH, PH1 3SU

CLIENT
PILKINGTON TRUST

DRAWING TITLE
BLOCK PLAN

SCALES @ A3	PROJECT / DWG / REV NO.
1:500	DHBU393113-DEM-02

DRAWING STATUS
PLANNING/WARRANT

DRAWN BY	CHECKED BY	DATE
CR/GT	-	05-02-18

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Head of Service David Littlejohn

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Tel 01738 475300

RefNo 22/00094/PREAPP

Date 8 April 2022

Pilkington Trust
c/o Hannah Belford

Dear Sir/Madam,

Town and Country Planning (Scotland) Act, 1997

RE: Demolition of steading and erection of replacement agricultural building at 2 Castle Farm Cottage Methven Perth PH1 3SU

Please find attached a response to your pre application enquiry.

Yours faithfully

John Williamson

Planning Officer

Pre-Application Service

PERTH & KINROSS COUNCIL

NON-HOUSEHOLDER PRE-APPLICATION ADVICE

All applicants are advised that Perth & Kinross Council encourages the completion of Processing Agreements with all planning applications. The Agreement will set out timescales for the processing of the application, the submission of additional information if required and a target date for the decision or committee date.

All comments are based on the information submitted and are made without prejudice to any decision Perth & Kinross Council may make in the future. It is not usually possible for an officer to consult on a proposal at the pre-application stage but this is part of the formal planning application process, as is public notification. Additional issues may arise as a result of detailed analysis of any submitted application, associated plans and supporting documentation. A site visit will be carried out during the consideration of the application if the case officer considers it necessary.

Further discussion on a revised proposal will normally require to be the subject of a fresh pre-application enquiry (and incurring a further fee). Clarification of comments contained below can be provided by the case officer but no further discussion will be entered into at this stage as to how the policies are interpreted or applied.

CASE DETAILS	
Reference number of pre-app	22/00094/PREAPP
Site Address/location	2 Castle Farm Cottage Methven Perth PH1 3SU
Details of Proposal	Demolition of steading and erection of replacement agricultural building
Case Officer	John Williamson
Date	8 April 2022

SITE DESIGNATIONS AND CONSTRAINTS
Perth Green Belt Methven Castle Historic Garden and Designed Landscape Category A listed Methven Castle located to south west of site Transport Infrastructure Developer Contribution Area

National Grid Pipeline Consultation Zone Core Path METH 114/1 located on access track to north of site Ancient Woodland located to south east of site.	
RELEVANT PLANNING POLICIES AND GUIDANCE	
TAYplan2 Policies https://www.tayplan-sdpa.gov.uk/strategic_development_plan	TAYPlan sets out a vision for how the region will be in 2036 and what must occur to bring about change to achieve this vision. The vision for the area as set out in the plans states that: "By 2036 the TAYplan area will be sustainable, more attractive, competitive and vibrant without creating an unacceptable burden on our planet. The quality of life will make it a place of first choice where more people choose to live, work, study and visit, and where businesses choose to invest and create jobs" The following sections of the TAYplan 2016 will be of particular importance in the assessment of this proposal. Policy 1: Locational Priorities Policy 2: Shaping Better Quality Places Policy 3: First Choice for Investment Policy 4: Homes Policy 5: Town Centre First Policy 6: Developer Contributions Policy 7: Energy, Waste and Resources Policy 8: Green Networks Policy 9: Managing TAYplan's Assets Policy 10: Connecting People, Places and Markets
Perth & Kinross Local Development Plan Policies www.pkc.gov.uk/developmentplan	The Local Development Plan 2 is the most recent statement of Council policy and is augmented by Supplementary Guidance. The principal policies are: Policy 1A: Placemaking Policy 1B: Placemaking Policy 1C: Placemaking Policy 1D: Placemaking Policy 2: Design Statements Policy 5: Infrastructure Contributions Policy 6: Settlement Boundaries Policy 8: Rural Business and Diversification Policy 27A: Listed Buildings Policy 29: Gardens and Designed Landscapes

	Policy 31: Other Historic Environment Assets Policy 32: Embedding Low & Zero Carbon Generating Technologies in New Development Policy 38B: Environment and Conservation: National Designations Policy 38C: Environment and Conservation: Local Designations Policy 39: Landscape Policy 40B: Forestry, Woodland and Trees: Trees, Woodland and Development Policy 41: Biodiversity Policy 43: Green Belt Policy 53A: Water Environment and Drainage: Water Environment Policy 53B: Water Environment and Drainage: Foul Drainage Policy 54: Health and Safety Consultation Zones Policy 55: Nuisance from Artificial Light and Light Pollution Policy 56: Noise Pollution Policy 60B: Transport Standards and Accessibility Requirements: New Development Proposals
Other Policies and Guidance https://beta.gov.scot/policies/planning-architecture/planning-guidance/ https://www.pkc.gov.uk/ldp2guidance	**National** **Creating Places:** A policy statement on architecture and place for Scotland 2013 **Designing Streets**: A Policy Statement for Scotland 2010 **National Roads Development Guide** 2014 **Historic Environment Scotland**: Legislation and Guidance **Perth & Kinross Council** **National** **Creating Places:** A policy statement on architecture and place for Scotland 2013 **Designing Streets**: A Policy Statement for Scotland 2010 **National Roads Development Guide** 2014 **Historic Environment Scotland**: Legislation and Guidance

	Perth & Kinross Council **Supplementary Guidance:** • Supplementary Guidance - Airfield Safeguarding (adopted in 2020) • Supplementary Guidance - Developer Contributions & Affordable Housing (adopted 2020) • Supplementary Guidance - Flood Risk and Flood Risk Assessments (adopted in 2021) • Supplementary Guidance - Green & Blue Infrastructure (adopted in 2020) • Supplementary Guidance - Landscape (adopted in 2020) • Supplementary Guidance - Placemaking (adopted in 2020) • Plannin • Supplementary Guidance - Renewable & Low Carbon Energy (draft) **Non-Statutory Guidance:** • Planning Guidance - Planning & Biodiversity • Conservation areas
LIKELY CONSULTEES	
PKC Internal	Transport Planning Environmental Health – Noise and Odour Development Negotiations Officer (Contributions) Structures and Flooding – Surface Water Drainage Biodiversity
External	Scottish Water Historic Environment Scotland – Cat A Listed Building and HGDL
SUMMARY OF CONSIDERATIONS	
Planning Principle The general principle of erection agricultural buildings within a countryside location is considered to be acceptable under Policy 8 of the Perth and Kinross Local Development Plan 2019 (LDP2) however there are land designations within this location which will play an important part in the assessment of any application. The site is located within the Perth Green Belt where Policy 43 applies. This requires a submission to demonstrate that the proposal is essential for agriculture. It goes on to state that the submission should demonstrate that the proposal protects and enhances the character and landscape setting of	

the area which is a particularly important factor on this site given the location within a Historic Garden and Designed Landscape and the location within close proximity to the category A listed Methven Castle.

Furthermore, as stated in your submission a justification for demolition of the existing traditional steading structures should be submitted and it is noted that this is included within the submission.

Cultural Heritage

The proposed site is located within the Methven Castle Historic Garden and Designed Landscape (HGDL) and approximately 100 metres from the category A listed Methven Castle. The impact which the proposed development has on the HGDL will be a material consideration in the assessment of any application. Policy 29 requires the integrity, character and quality of the HGDL to be protected. Policy 27A states that the layout, design, materials, scale and siting of development should be appropriate to a buildings character, appearance and setting. Any application should be accompanied by a Design Statement, as required by Policy 2, which explains how the impact on these designations have been considered in the proposal and explains why the design, layout and form of development has been chosen, together with how the existing landscape framework has been used to help to accommodate the development.

It is clear that the site has a well established agricultural use, however from the information provided this appear to indicate that this is within a low level, limited scale building which appears to sit as a subservient estate building when considered in relation to the listed Methven Castle and the wider HGDL. The proposed development appears to be significantly larger in both scale and height, extending to 14 metres in height and this requires to be fully justified so that an assessment can be undertaken in accordance with the above policies. Historic Environment Scotland will be a key consultee given the potential impact on the setting of the listed building and the character and integrity of the HGDL. Given the increased scale of the proposed buildings the initial reaction is that there could potentially be a significant impact on these features and the wider landscape setting of the Green Belt. Therefore the information presented in the Design Statement in terms of the above would be a key part of the assessment of an application.

Residential Amenity

Policy 56 of the LDP relates to noise pollution and states that there is a presumption against the siting of development which will generate high levels of noise in the locality of existing noise sensitive land uses.

Planning control has a duty to future occupiers not to create situations of potential conflict between neighbours. The impact of odour from any cattle shed and livestock would also be a key material consideration.

As noted in your submission there are residential properties located immediately adjacent to the proposed site but it is noted that the site appears to currently be in agricultural use but not to the level indicated in the submission. It appears that the proposal would result in an uplift and increase in the agricultural operations on site and therefore this should be explained in any planning submission in order for an assessment of the impact on residential amenity to

be made. Furthermore, The Code of Good Practice for the Prevention of Environmental Pollution from Agricultural Activity which was prepared in 2005 by the Scottish Executive recommends that new livestock buildings should not be located within 400 metres of residential properties and where possible should be downwind of residential areas. The new livestock buildings appear to be immediately adjacent of residential uses. Whilst it is noted that one of the immediate dwellings is occupied by the tenant farmer and the other two are unoccupied this would not necessarily be the case in the longer term and therefore the impact on these unoccupied dwellings requires to be considered as does the impact on all other nearby residential properties.

As with all proposals, it is expected and anticipated that existing residential amenity enjoyed by existing dwellinghouses will be protected. The application site sits adjacent to residential properties which are noise sensitive to the east, west and north. The submission also indicates that a grain dryer is proposed. If this is the case the application should be accompanied by a detailed Noise Impact Assessment (NIA) to demonstrate the existing background noise levels and the likely noise generation by the grain dryer to demonstrate that the residential amenity of these properties will not be detrimentally impacted upon. Noise and odour from livestock is also a potential concern and the submission appears to suggest that the existing buildings do not currently accommodate livestock as these are kept on permanent pasture. The submission should therefore also include detailed information on:

- the total number of livestock to be housed in the buildings (it is noted this is referenced in the submission)
- an odour impact assessment to identify and quantify the sources of emissions from the operation
- an odour management plan to demonstrate how odour would be controlled and managed on site including a complaint investigation procedure
- waste management plan detailing how waste will be adequately handled, stored and removed from site
- details of any proposed ventilation system/plant equipment associated with the buildings

The proximity of this proposal to residential properties is a significant concern and there is no guarantee that the submission of the NIA and information outlined above would be sufficient to address concerns regarding residential amenity impacts. Given the proposed livestock use and the proposals for a grain dryer it is suggested that these would be better placed more remote from residential receptors.

Furthermore, Policy 55 relates to light pollution and seeks to ensure that lighting proposals do not spill into adjacent residential areas. Details of all lighting for the site should be submitted in the interests of both residential amenity.

Ecology and Bio Diversity

Policy 41 of the LDP2 states that the Council will seek to protect and enhance all wildlife and habitats, whether formally designated or not, considering natural processes in the area. Planning permission will not be granted for development likely to have an adverse effect on

protected species unless clear evidence can be provided that the ecological impacts can be satisfactorily mitigated.

Ecological survey is required in the form of an Ecological Impact Assessment with clear implementation of the mitigation hierarchy of reduce, avoid and compensate. There are likely to be bats and breeding birds present within the existing buildings and adjacent ancient woodland

Please be aware of the timings for preparation of the ecological survey work and your ecologist will be able to advise further on this. Bat Surveys, for example, can only be carried out at certain times of year and this may impact on the timing of submission of the application. Any tree felling may impact on bats and this will require to be taken into account and require survey work. The application should not be submitted until the appropriate survey work has been undertaken at the correct time of year.

The PKC bat survey guidance is available on the Planning Guidance - Planning & Biodiversity page. The information is not formal supplementary development plan guidance but is council guidance.

Any tree felling may also have implications on ecology and should any trees be proposed for felling these should also form part of the ecology assessment to ascertain whether they contain habitat for protected species. Mitigation measures should be proposed where required. Policy 41 of the LDP2 is relevant here.

Biodiversity Enhancement

Enhancement for biodiversity should be an objective of all planning projects and can be realised in several ways depending on location, surrounding habitats and landscape character. An ecologist will advise on this, and measures may include:

- Planting native trees, orchards, hedgerows and wildflowers.
- Providing nesting boxes, bricks or tubes for swallow, house martin and tree sparrows.
- Providing nesting boxes for kestrel and owls in woodland.
- Creating wildlife corridors for hedgehogs, frogs and newts.
- Installing a green living roof.

Guidance is available on the Tayside Biodiversity Partnership website:
http://www.taysidebiodiversity.co.uk/information/information-guides-manuals/

Traffic and Transport

Policy 60B of the LDP2 and the National Roads Development Guide is relevant. As mentioned above it is not clear if the proposed works would result in an uplift in agricultural activity on the site. If an uplift is proposed it would be useful for an understanding of the traffic generation associated with the new development. This should give a general indication of the exiting traffic levels and explain how these will change. The main access to serve the site should also be indicated, given the presence of further dwellings to the west of the site and whether the access route passes these dwellings.

The main access into the site appears to be from the A85 Trunk Road. Transport Scotland would be a key consultee on the application given the access onto the A85 Trunk Road and you may wish to liaise with them prior to submitting any application to establish any comments they may have.

Drainage

The proposal should be accompanied by a detailed Sustainable Urban Drainage scheme in order to cater for potential increase surface water flooding from the introduction of increased areas of hardstanding and built form. This should include greenfield run off rate calculations. The Council's Supplementary Guidance on Flood Risk is relevant where Section 7 explains the requirements of surface water drainage design. A Drainage Impact Assessment should accompany the application and the detailed requirements of this are outlined in Section 5 of the above SG. The exert below from SEPA's flood maps indicates a small area of surface water flood risk on the western side of the site. Policy 53C is applicable here.

National Grid Pipeline

The land to the south east of the site is within the consultation zone for a National Grid Pipeline (see exert below) and therefore the pipeline operator and the Health and Safety Executive would be consulted upon submission of any planning application in order for them to comment on whether the proposed development could impact on the safe operation of the pipeline as required by Policy 54 of the LDP2.

Core Path

The access track to the north of the site is part of the core path network. Policy 15 of the LDP2 seeks to ensure that new development does not have an adverse impact on the integrity of the core path.

Developer Contributions

The site is located within the Transportation Infrastructure Contribution Area. Policy of the LDP2 is applicable. As outlined within the associated Supplementary Guidance agricultural buildings are generally not required to make a contribution towards transportation infrastructure.

Summary

Any future development proposal will be considered primarily in relation to the policies of the Council and the guidance of the Scottish Government, in particular the Development Plan for the area, which in this case comprises the Tayplan 2016 and the Local Development Plan 2019 (LDP 2). The contents and requirements of each of these policies should be considered in full prior to any submission being made to establish the level of information which will be required to accompany the planning application.

It is only by submitting a formal application that a measured and comprehensive response to a proposed development can be given as quickly as resources permit. A formal application involves considering a proposal in terms of the Development Plan and the Council's policies on the basis of detailed plans and any further information and justification which is considered necessary. Formal assessment will also involve visiting the site and the surrounding area; researching the planning history of the site and the surrounding area; carrying out any necessary consultations; and taking account of any comments received from notified neighbours and the wider public.

You should note that I have not necessarily identified all the policies or material considerations which might influence the determination of any planning application.

The Council would not in any event be bound by such advice in the event that you submit a planning application. As such the determination of the application will very much depend on the supplementary information which is submitted with the application and also the impact which the scale and form of the development has on the HGDL and Methven Castle. Whilst the general principle of agricultural buildings is considered to be acceptable this particular site is considered to be a difficult one to justify in planning terms due to the impact on residential amenity and how the scale of the development impacts upon cultural heritage.

Please note that the Council would not in any event be bound by such advice in the event that you submit a planning application.

PLANS AND DOCUMENTS REQUIRED WITH PLANNING APPLICATION SUBMISSION

For information on what you will need to submit with your application please see our application checklists which can be found on our website at www.pkc.gov.uk/planning . The document Additional Supporting Information Guidance identifies the circumstances where further information will be required to allow us and consultees to fully consider your planning application. Failure to provide this information at the time of submission may delay the consideration of your application. You should also submit photographs of the site with your application as this may speed up the assessment.

PLEASE NOTE THAT THIS RESPONSE IS THE CONSIDERED OPINION OF A PLANNING OFFICER. NO FURTHER DISCUSSION WILL BE ENTERED INTO AS TO HOW THE POLICIES ARE INTERPRETED OR APPLIED.

Reviewed January 2022

MC6

18 April 2024

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Dear Ms Blake

Response to Historic Environment Scotland -

23/01610/FLL and 23/01611/LBC – Demolition of buildings and erection of 3 agricultural buildings, formation of hardstanding and associated works – The Castle Farm Methven, Perth, PH1 3SU

We are writing on behalf of Pilkington Trust, the Applicant who submitted planning application 23/01610/FLL and 23/01611/LBC on 26th September 2023, for the demolition of buildings and erection of 3 agricultural buildings, formation of hardstanding and associated works at The Castle Farm, Methven PH1 3SU.

Historic Environment Scotland commented on the planning application on 16th November for application 23/01610/FLL and note 'the proposals do not raise historic environment issues of national significance and do not object'. However, HES comments on the 21st December for application 23/01611/LBC and objects to the application.

This letter aims to review the concerns raised by HES.

The letter layout assesses NPF4 Policy 7 b) Historic assets and places with the proposal. The letter should be read in conjunction to the Planning Support Statement, Agricultural Justification Statement, Structural Condition Assessment and Feasibility Study.

The Applicant is happy to discuss any points within the letter with the Council and HES.

NPF4 Policy 7 Historic assets and places part b) notes proposals for the demolition of listed buildings will not be supported unless it has been demonstrated that there are exceptional circumstances and that all reasonable efforts have been made to retain, reuse and/or adapt the listed building. Considerations include whether the:

I. Building is no longer of special interest;
II. Building is incapable of physical repair and re-use as verified through a detailed structural condition survey report
III. Repair of the building is not economically viable and there has been adequate marketing for existing and/or new uses at a price reflecting its location and condition for a reasonable period to attract interest from potential restoring purchasers; or
IV. Demolition of the building is essential to delivering significant benefits to economic growth of the wider community

These points are expanded below:

I. Building is no longer of special interest;

The buildings, as recorded by HES, are of improvement period agricultural buildings and appear on the 1st Edition Ordnance Survey Map.

However, the buildings have changed over the years, such as the grain dryer is in what appears to be a doocot. Furthermore, there are older elements that infill the original courtyard, that are collapsing and damaging the earlier elements. These have occurred due to changes in agricultural practices.

It is noted there are parts of interest, although the condition of the buildings as outlined in the Structural Condition Assessment, the agricultural justification and the feasibility study comment on the dilapidation and are of poor state, these will continue to degrade and become more un-safe, and visually unpleasant as time goes on.

This note explains that there is no viable other use for these buildings that would enable their retention. The elements considered to be of special interest will therefore deteriorate further as there is no economic way to arrest their decline.

II. Building is incapable of physical repair and re-use as verified through a detailed structural condition survey report

A Structural Condition Assessment was conducted, the assessment states that *'It is our overarching opinion that Methven Castle steading is in poor condition and is now considered to be beyond viable economic repair. The buildings also pose a health and safety risk and should therefore be made safe as soon as practicable, including, where necessary, demolition'*. It is noted that HES accept that the buildings are in a poor state of repair.

III. Repair of the building is not economically viable and there has been adequate marketing for existing and/or new uses at a price reflecting its location and condition for a reasonable period to attract interest from potential restoring purchasers; or

HES noted that there was little information on the repair of the buildings and so conclude it may be possible to repair and retain all, or substantial part of the steading as part of a proposal. The applicant commissioned a feasibility study to understand the structural condition of the buildings along with a budget cost for the restoration of the buildings for commercial and residential.

The feasibility study outlines that the 15 buildings comprise of "*square shaped grouping of stone and slate steadings, solid brick steadings with pitched asbestos clad roofs, timber framed steadings with metal roof coverings, and modern open Portal framed sheds with asbestos wall and roof cladding".*

The steadings are currently mostly vacant with the exception of building 01 and 04 these are used to shelter horses, building 14 is used to store grain and building 12 and 13 are used to store agricultural vehicles and equipment, see appendix 1of the feasibility study for building numbers.

Below is a brief overview of the buildings from the accompanying feasibility study:

Building 1	The age profile and construction of this building does not merit any form of historical interest, and its construction does not lend itself to be economically converted for other uses. We would consider that this **building is not retained**, and instead be demolished as part of a consolidation of the steading grouping.
Building 2	Building 2 has also been subject to collapse of part of the roof and internal floor structure. Whilst salvageable, this building requires a significant level of investment to ensure that it is structurally stable, wind and watertight, prior to it being re-occupied for either commercial or residential use. These works include but are not limited to the wholesale replacement of roof structure and coverings, significant repairs to sandstone walls, renewal of external windows and doors, and the full underpinning of all external walls and installation of new floors.
Building 3	Whilst salvageable, this building requires a significant level of investment to ensure that it is structurally stable, wind and watertight, prior to it being re-occupied for either commercial or residential use. These works include but are not limited to the wholesale replacement of roof structure and coverings, significant repairs to sandstone walls, renewal of external windows and doors, and the full underpinning of all external walls and installation of new floors.
Building 4	Building 04 is currently in use to stable horses. This building is positioned between the partially collapsed roof structures of buildings 05 and 09. Its proximity gives cause for concern due to occupants using this building being at risk if further collapse of these adjacent structures occurs. This building requires a significant level of investment to ensure that it is structurally stable, wind and watertight, prior to it being re-occupied for either commercial or residential use. These works include but are not limited to the wholesale replacement of roof structure and coverings, significant repairs to sandstone walls, renewal of external windows and doors, and the full underpinning of all external walls and installation of new floors.
Building 5	Most notably concerning are buildings 05 and 09, where up to 30% of the roof structures have failed, leading to a catastrophic collapse of parts of these buildings. The configuration and construction and condition of these buildings do not lend themselves to be economically converted for other uses. We consider that these **buildings cannot be retained**, and instead be demolished as part of a consolidation of the steading grouping.
Building 6	The configuration and construction and condition of these buildings do not lend themselves to be economically converted for other uses. We would consider that these **buildings are not retained**, and instead be demolished as part of a consolidation of the steading grouping.

Building 7	The configuration and construction and condition of these buildings do not lend themselves to be economically converted for other uses. We would consider that these **buildings are not retained**, and instead be demolished as part of a consolidation of the steading grouping.
Building 8	A lean-to building attached to building 08 has also had its roof partially collapse into the internal footprint. Whilst salvageable, this building requires a significant level of investment to ensure that it is structurally stable, wind and watertight, prior to it being re-occupied for either commercial or residential use. These works include but are not limited to the wholesale replacement of roof structure and coverings, significant repairs to sandstone walls, renewal of external windows and doors, and the full underpinning of all external walls and installation of new floors.
Building 9	Most notably concerning are buildings 05 and 09, where up to 30% of the roof structures have failed, leading to a catastrophic collapse of parts of these buildings. The configuration and construction and condition of this building does not lend itself to be economically converted for other uses. We would consider that this **building is not retained**, and instead be demolished as part of a consolidation of the steading grouping
Building 10	Whilst salvageable, this building requires a significant level of investment to ensure that it is structurally stable, wind and watertight, prior to it being re-occupied for either commercial or residential use. These works include but are not limited to the wholesale replacement of roof structure and coverings, significant repairs to sandstone walls, renewal of external windows and doors, and the full underpinning of all external walls and installation of new floors.
Building 11	A dormer feature to building 11 is exhibiting signs of severe distortion due to the failure of a window lintel below and is vulnerable to collapse of this section of the roof. Whilst salvageable, this building requires a significant level of investment to ensure that it is structurally stable, wind and watertight, prior to it being re-occupied for either commercial or residential use. These works include but are not limited to the wholesale replacement of roof structure and coverings, significant repairs to sandstone walls, renewal of external windows and doors, and the full underpinning of all external walls and installation of new floors
Building 12	It is envisaged that building 12 will be retained for farming activities on the site. These buildings are not under consideration for demolition or conversion.
Building 13	It is envisaged that building 13 will be retained for farming activities on the site. These buildings are not under consideration for demolition or conversion.
Building 14	The age profile and construction of this building does not merit any form of historical interest, and its construction does not lend itself to be economically converted for other uses. We would consider that this **building is not retained**, and instead be demolished as part of a consolidation of the steading grouping.
Building 15	The age profile and construction of this building did not merit any form of historical interest, and its construction did not lend itself to be economically converted for other uses. We would have considered that this **building not be retained**, and instead be demolished as part of a consolidation of the steading grouping.

Total build costs excluding fees and VAT for a commercial fit out and restore farm buildings: **£3,228,977.83**

Total build costs excluding fees and VAT for the restoration of steadings for residential use: **£4,203,352.80**

A market view was sought for both commercial and residential uses, these are outlined below:

1) **Residential**

We sought professional advice, who noted:

"*The location would be good for permanent homes or for holiday lets. However converting old stone steadings is very expensive and expensive and it is much harder to make a profit than it was five years ago. Steading developments were extremely popular in the early 2000s. These properties can be harder to sell when they come back to the market these days".*

"I have never felt that steadings work well divided into lots of small units. Sometimes you see them converted into a few large houses. These can sell well with 5 bed houses fetching anything up to £800k if done to a high standard. But, it could cost you £700k to build some of these big houses these days – more if you have to do landscaping and take on demolition. Therefore there is a very slim or no financial margin to be made in converting steadings particularly with the high cost of materials. There is also a limited number of developers interested in taking on steading conversions because of the cost, complexity and high level of risk involved, particularly if listed".

The owners also comment that the steading site is within the core area of the estate and farming operation and therefore private residences in this location would not be compatible with farming activities.

2) **Commercial**

We sought professional advice, who noted:

"*The site is in the middle of a working farm, and any diversification would impact directly on or be impacted by the current and proposed farming operations (noise / safe working environment / animal welfare).*

The privately shared (single track) access servicing the site would be inappropriate for the increased number and/or larger commercial vehicles. The upgrade required would further impact on viability of any commercial venture.

Given its hidden location and connectivity this would limit the appeal to the commercial market."

As stated above and in the Agricultural Justification, the steadings sit within the heart of the farming operation and therefore the buildings are not suitable for alternative uses or for sale. They have therefore not been marketed for a restoring purchaser.

IV. Demolition of the building is essential to delivering significant benefits to economic growth of the wider community

The demolition and provision of new farm buildings would help support the viability of the agricultural business for its operations. The working farm provides economic growth for the local area through its arable production and cattle enterprise.

Even if the building were converted back to their original state, they would not be of use due to changes in modern agricultural practices.

As mentioned in the planning supporting statement, until recently, the farmer has benefited from farm sheds at another location close-by. These farm buildings have had to be taken back in hand by the landlord because they form part of a wider residential development project allocated in the Perth and Kinross Local Development Plan, (Ref: MU73) Almond Valley). Therefore by necessity, and through agreement with the farmer, the use of these sheds has had to be lost and a replacement location is required. The most appropriate alternative location is the Methven Farm complex. This is because of its central location to the farming operations and the opportunity it offers to use brownfield land avoiding the necessity to re-locate the farm buildings on greenfield land.

Overall, we hope the above helps provide a detailed response on the comments raised by HES regarding the agricultural buildings and the need for demolition to ensure the viability of the farm.

We would be happy to discuss anything further with Perth and Kinross Council and Historic Environment Scotland.

Yours sincerely

Alexandria Scott
Senior Planner

REPORT OF HANDLING

DELEGATED REPORT

Ref No	**23/01610/FLL**	
Ward No	**P9- Almond And Earn**	
Due Determination Date	**7th January 2024 Extended to 6th June 2024**	
Draft Report Date	**5th June 2024**	
Report Issued by	**Jody Blake**	**Date 6th June 2024**

PROPOSAL: Demolition of buildings and erection of 3 agricultural buildings, formation of hardstanding and associated works

LOCATION: The Castle Farm Methven Perth PH1 3SU

SUMMARY:

This report recommends **refusal** of the application as the development is considered to be contrary to the relevant provisions of the Development Plan and there are no material considerations apparent which justify setting aside the Development Plan.

BACKGROUND AND DESCRIPTION OF PROPOSAL

The Castle Farm is a steading complex located approximately 100m north-east of Methven Castle. The Castle Farm comprises a complex of barns, byres, stables, cart and storage sheds, and a doocot laid out in a courtyard arrangement. The buildings appear on the 1st Edition Ordnance Survey map (surveyed 1864).

The Castle Farm is a curtilage listed building to Methven Castle (Category A listed) as identified under S1(4) of the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997.

The subject site sits within the Perth Green Belt, the Methven Castle Historic Garden and Designed Landscape and the Tay Catchment SAC. A core path (METH 114/1) is located along the access track to the north of the site.

The proposal seeks planning permission to demolish all listed steading buildings (excluding the two modern portal framed agricultural structures) and construct three agricultural sheds (grain store 36m x 19m, cattle shed 36m x 23m and general purpose shed 36m x 18m).

A concurrent listed building application (23/01611/LBC) for demolition of the historic steading buildings has been submitted.

SITE HISTORY

18/00185/PND Demolition of buildings 6 February 2018

23/00821/FLL Demolition of buildings and erection of 3 agricultural buildings, formation of hardstanding and associated works 31 August 2023

23/01611/LBC Demolition of buildings

PRE-APPLICATION CONSULTATION

Pre application Reference: 22/00094/PREAPP

DEVELOPMENT PLAN

The Development Plan for the area comprises National Planning Framework 4 (NPF4) and the Perth and Kinross Local Development Plan 2 (2019) (LDP2).

National Planning Framework 4

The National Planning Framework 4 (NPF4) is the Scottish Government's long-term spatial strategy with a comprehensive set of national planning policies. This strategy sets out how to improve people's lives by making sustainable, liveable and productive spaces.

NPF4 was adopted on 13 February 2023. NPF4 has an increased status over previous NPFs and comprises part of the statutory development plan.

The Council's assessment of this application has considered the following policies of NPF4:
Policy 3: Biodiversity
Policy 7: Historic Assets and Places
Policy 8: Green Belt
Policy 14: Design, Quality and Place
Policy 22: Flood Risk and Water Management
Policy 29: Rural Development

Perth and Kinross Local Development Plan 2 – Adopted November 2019

The Local Development Plan 2 (LDP2) is the most recent statement of Council policy and is augmented by Supplementary Guidance.

The principal policies are:
Policy 1A: Placemaking
Policy 1B: Placemaking
Policy 2: Design Statements
Policy 6: Settlement Boundaries

Policy 8: Rural Business and Diversification
Policy 15: Public Access
Policy 27B: Demolition of Listed Buildings
Policy 29: Gardens and Designed Landscapes
Policy 41: Biodiversity
Policy 43: Green Belt
Policy 52: New Development and Flooding
Policy 53A: Water Environment and Drainage: Water Environment
Policy 53B: Water Environment and Drainage: Foul Drainage
Policy 56: Noise Pollution
Policy 60B: Transport Standards and Accessibility Requirements: New Development Proposals

Statutory Supplementary Guidance

- (adopted in 2020)
- Supplementary Guidance - Flood Risk and Flood Risk Assessments (adopted in 2021)
- 2020)
- Supplementary Guidance - Landscape (adopted in 2020)
- Supplementary Guidance - Placemaking (adopted in 2020)

OTHER POLICIES

Non Statutory Guidance

- Planning Guidance - Planning & Biodiversity
- Supplementary Guidance - Renewable & Low Carbon Energy (draft)

Historic Environment Policy for Scotland (HES 2019)
HEPS is a national policy statement which defines how decisions should be made in relation to management and protection of the historic environment.

NATIONAL GUIDANCE

The Scottish Government expresses its planning policies through The National Planning Framework, Planning Advice Notes, Creating Places, Designing Streets, National Roads Development Guide and a series of Circulars.

Planning Advice Notes

The following Scottish Government Planning Advice Notes (PANs) and Guidance Documents are of relevance to the proposal:

- PAN 40 Development Management
- PAN 51 Planning, Environmental Protection and Regulation
- PAN 61 Planning and Sustainable Urban Drainage Systems
- PAN 68 Design Statements
- PAN 69 Planning and Building standards Advice on Flooding

CONSULTATION RESPONSES

Conservation Team
Case officer is the conservation officer. A detailed assessment of the proposal is provided under the heading Appraisal.

Historic Environment Scotland
The Historic Environment Scotland (HES) remit in this case is to consider the potential impacts of the proposals on the character of the Methven Castle Inventory Garden and Designed Landscape and on the setting of category A listed Methven Castle

HES would prefer the retention and repair of the existing steading because it is an important feature of the designed landscape and contributes positively to the Castle's setting. However, while they consider the proposals would have adverse impacts on these assets, the submitted visualisations show that the level of potential impact does not reach a level that raises issues of national importance and they do not object to it.

Transportation And Development
No new parking bays are proposed, however, within the Design Statement the applicant has demonstrated that adequate operational parking space exists within the site.

Asset Protection Team (formerly National Grid)
No national gas transmission assets affected by the proposal.

Development Contributions Officer
Proposed buildings for agricultural use, such as cattle sheds and storage units needed to operate the farm business, will generally not be required to make a contribution. Office and Staff Buildings in association with agricultural use may be required to contribute.

Development Plan
The proposal is compatible with Green Belt policy although note that there are other policy considerations which also need to be taken into account.

Perth And Kinross Heritage Trust
Objects due to the proposed loss of the historic steading, however, should planning permission be granted, a detailed historic building survey should be undertaken (secured via condition).

Environmental Health (Noise Odour)
No objection subject to conditional control (reference detail within appraisal below).

Environmental Health (Contaminated Land)

A search of the historic records did not raise any concerns regarding ground contamination and therefore they have no adverse comments to make on the application.

Structures And Flooding
Following receipt of additional information, there are no objections (subject to an Informative).

Biodiversity
A bat survey has been submitted with mitigation proposed of a minimum of six bat boxes (subject to a condition) and the requirement for a NatureScot licence (subject to an informative).

REPRESENTATIONS

Two representations were received, both in support of the proposal, however they both raised concerns.

The comments made may be summarised as:

- Concerns over access to the core path
- Poor state of repair and ongoing maintenance of the access road to the steading

The above issues are addressed within the appraisal section below.

Additional Statements Received:

Screening Opinion	Not Required
Environmental Impact Assessment (EIA): Environmental Report	Not applicable
Appropriate Assessment under Habitats Regulations	Habitats Regulations AA Not Required
Design Statement or Design and Access Statement	Submitted
Report on Impact or Potential Impact eg Flood Risk Assessment	Submitted

APPRAISAL

Sections 25 and 37 (2) of the Town and Country Planning (Scotland) Act 1997 require that planning decisions be made in accordance with the development plan unless material considerations indicate otherwise. The Development Plan comprises NPF4 and the Perth and Kinross Local Development Plan 2019. The relevant policy considerations are outlined in the policy section above and are considered in more detail below. In terms of other material considerations, involving considerations of the Council's other approved

policies and supplementary guidance, these are discussed below only where relevant.

In this instance, section 14(2) of the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 places a duty on planning authorities in determining such an application as this to have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses. Section 64(1) of the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 is relevant and requires planning authorities to pay special attention to the desirability of preserving or enhancing the character or appearance of the designated conservation area.

The determining issues in this case are whether; the proposal complies with development plan policy; or if there are any other material considerations which justify a departure from policy.

Policy Appraisal

The general principle of erection of agricultural buildings within a countryside location is considered to be acceptable under Policy 8 Rural Business and Diversification of the Perth and Kinross Local Development Plan 2019 (LDP2). However, there are land designations within this location which will play an important part in the assessment of any application. The site is located within the Perth Green Belt where Policy 43 applies. This requires a submission to demonstrate that the proposal is essential for agriculture. It goes on to state that the submission should demonstrate that the proposal protects and enhances the character and landscape setting of the area which is a particularly important factor on this site given the location within a Historic Garden and Designed Landscape and that the steading complex is a Category A curtilage listed building.

Design and Layout

The proposed development will be significantly larger in both scale and height than the existing steading buildings, extending to 13.7 metres in height and 60 metres x 36 metres in length. No justification has been submitted for the proposed height of the grain store, being substantially taller than the cattle and general storage sheds proposed, and much larger than the existing structures..

The Applicant was advised that further consideration as per national policy was required into to the repair and reuse of the listed steading. There is no indication of what detailed alternatives to the current proposal have been considered, including the investigation of siting the proposed agricultural buildings elsewhere within the blue line (land within the applicants/landowners control).

Demolition of the Category A curtilage listed steading buildings

The demolition of the listed steading buildings will be considered under the associated listed building consent application (ref: 23/01611/LBC) and an assessment of that is provided in the Report of Handling for that application which can be found on the planning portal. In summary, the demolition of the historic steading buildings is considered to be contrary to planning policy and has not been sufficiently justified as required by local and national policy.

Ultimately, the proposal involves the demolition of a Category A listed steading (by curtilage) and the justification for this demolition is not appropriate and does not accord with the requirements of NPF4, the Council's Local Development Plan or national guidance provided by Historic Environment Scotland. There are also substantial concerns regarding the impact the loss of the steading would have on Methven Castle and the wider Garden and Designed Landscape.

Impact on the Setting of Listed Buildings and Garden and Designed Landscape

NPF4 states that development proposals affecting the setting of listed buildings should preserve their character and their special architectural or historic interest. This is also stated within Policy 27A Listed Buildings of LDP2.

NPF2 Policy 7i) states that proposals affecting national important Gardens and Designed Landscapes will be supported where they protect, preserve or enhance their cultural significance, character and integrity and where proposals will not significantly impact on important views to, from and within the site, or its setting. This is also stated by Policy 29 Gardens and Designed Landscapes of LDP2.

The site has a well-established agricultural use; however, this is within a low level, limited scale building which appears to sit as a subservient estate building when considered in relation to the listed Methven Castle and the wider Garden and Designed Landscape.

HES have considered the proposal in respect to the setting of the Category A Methven Castle and the Methven Castle Inventory Garden and Designed Landscape. The preference would be to retain and repair the existing steading as it is an important feature within the designed landscape and makes a positive contribution to the setting of Methven Castle. However, whilst the proposals would have adverse impacts on these heritage assets, the submitted visualisations show that a level of potential impact does not reach a level that raises issues of national importance. Nonetheless, as noted above, it is considered that alternative siting of the proposed buildings elsewhere

within the control of the applicant, would result in considerable betterment in comparison to the submitted position.

The proposal is therefore considered to be contrary to Policy 14 Design Quality and Place of NPF 4 and Policy 1A Placemaking of LDP2 as it would not contribute positively to the quality of the surrounding built and natural environment, and associated landscape character in the vicinity of Methven Castle.

Residential Amenity

Policy 1A and B and 56 of LDP2 and Policy 14c) and 23 of NPF4 require any development to not detrimentally impact on residential amenity. The site has three residential properties adjacent to it to the north, east and west, the closest residential receptor is approximately 25 metres to the west of the site boundary.

Noise

The proposed grain dryer would only operate once a year for a period of up to 14 days and the noise impact is confined to the summer when this machinery becomes active after harvest of the crop. A condition to control plant noise has been recommended by Environmental Health.

Odour

The proposed operation on the site is the requirement to house cattle during the winter months and at calving time, with a total of 180 cattle to be housed.

The proposed cattle shed has natural ventilation through a ventilating ridge that run along the roof as well three sets of sliding doors on the north and south façade of the building. A condition requiring an Odour Management Plan has been recommended by Environmental Health

Contaminated Land

A search of the historic records did not raise any concerns regarding ground contamination and Environmental Health have raised no objections.

Roads and Access

No new vehicle access to or from a public road is proposed. Access via a private track that is taken off the existing access onto the A85 Trunk Road. This development is not likely to result in a material increase in the volume of traffic on the trunk road.

No new parking bays are proposed, however, within the Design Statement the applicant has demonstrated that adequate operational parking space exists within the site.

Drainage and Flooding

The proposed site drainage includes the integration of a detention basin and swale SuDS features. A Drainage Impact Assessment accompanies the application which is acceptable. The Flooding team have recommended an informative directing the applicant to Supplementary Guidance on Flood Risk.

Natural Heritage and Biodiversity

The Council will seek to protect and enhance all wildlife and habitats, whether formally designated or not, considering natural processes within the area. Planning permission will not be granted for development likely to have an adverse effect on protected species unless clear evidence can be provided that the ecological impacts can be satisfactorily mitigated. This is referenced in both Policy 41 of LDP2 and Policy 3 of NPF4.

The submitted Bat Survey (by Neo Environmental) identified over twenty non-breeding roost sites for common pipistrelle and soprano pipistrelle bats within the steading complex. The proposed works would for demolition would result in the loss of the roost sites and therefore mitigation and a NatureScot licence (to be included as an informative) is required. Swallows and common pigeons were also noted within the survey. Full mitigation is proposed in Appendix 6 (bat mitigation strategy) and Appendix 8 (breeding birds species protection plan).

Developer Contributions

The Developer Contributions Guidance is not applicable to this application and therefore no contributions are required in this instance.

Economic Impact

The economic impact of the proposal is likely to be minimal and limited to the construction phase of the development.

PLANNING OBLIGATIONS AND LEGAL AGREEMENTS

None required.

DIRECTION BY SCOTTISH MINISTERS

None applicable to this proposal.

CONCLUSION AND REASONS FOR DECISION

Whilst the general principle of the proposal for enhanced agricultural buildings is considered to be acceptable, it is not enough to outweigh the cultural heritage policy considerations identified above. For the avoidance of any doubt, the principle of the construction of the agricultural buildings within this

green belt location is considered acceptable, however, the development is required to be considered as a whole.

To conclude, the application must be determined in accordance with the Development Plan unless material considerations indicate otherwise. In this respect, the proposal is considered to be contrary to the Development Plan. Account has been taken of the relevant material considerations and none has been found that would justify overriding the Development Plan.

Accordingly, the proposal is refused on the grounds identified below.

Reason for Refusal

1 The proposals which would include the demolition of the Category A curtilage listed steading complex is contrary to National Planning Framework 4 (NPF4) Policy 7b) Historic Assets and Places and Policy 28A of the Perth and Kinross Local Development Plan 2019 which seeks to preserve the character, special architectural or historic interest of listed buildings. Furthermore, it is considered that it has not been adequately demonstrated that this is the only suitable site for the replacement buildings, which would have a reduced impact on the setting of the Category A listed castle, and its associated designed landscape.

2 The proposal is contrary to Policy 14 Design Quality and Place of National Planning Framework 4 and Policy 1A Placemaking of the Perth and Kinross Local Development Plan 2019 as it would not contribute positively to the quality of the surrounding built and natural environment, and associated landscape character in the vicinity of Methven Castle by virtue of the siting, scale and appearance of the buildings proposed.

Justification

The proposal is not in accordance with the Development Plan and there are no material reasons which justify departing from the Development Plan.

Informatives

Nil

Procedural Notes

Not Applicable.

PLANS AND DOCUMENTS RELATING TO THIS DECISION

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REPORT OF HANDLING

DELEGATED REPORT

Ref No	**23/01611/LBC**	
Ward No	**P9- Almond and Earn**	
Due Determination Date	**17th December 2023 Extended to 6th June 2024**	
Draft Report Date	**30th May 2024**	
Report Issued by	**Jody Blake**	**Date 6th June 2024**

PROPOSAL: Demolition of buildings

LOCATION: The Castle Farm Methven Perth PH1 3SU

SUMMARY:

This report recommends **refusal** of the application as the development is considered to be contrary to the relevant provisions of the Development Plan and there are no material considerations apparent which justify setting aside the Development Plan.

BACKGROUND AND DESCRIPTION OF PROPOSAL

The Castle Farm is a curtilage listed building to Methven Castle (Category A listed) as identified under S1(4) of the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997.

The Castle Farm appears on the 1st edition OS Map of 1864, named Home Farm. The footprint shown on the 1864 map can be interpreted in the existing steading structures including the doocot to the south-east.

The Castle Farm is a steading complex located approximately 100m north-east of Methven Castle. The Castle Farm comprises a complex of barns, byres, stables, cart and storage sheds, and a doocot laid out in a courtyard arrangement. The buildings appear on the 1st Edition Ordnance Survey map (surveyed 1864).

The central courtyard was filled with additional agricultural buildings by the 2nd Edition map (surveyed 1899). We note the buildings marked 10 and 11 on the submitted building surveyors report may be earlier in date: the L-plan layout of these ranges appear on a map of 1783 by James Stobie. There have been some 20th century alterations, but overall, the complex retains its earlier 19th century layout and fabric, including distinctive architectural features.

The historic setting of the farm (within the Methven Castle Garden & Designed Landscape) has also been largely retained and, together with the cottages (outwith the scope of this application), are a good surviving historic group of Improvement period agricultural buildings. The complex makes a positive contribution to the architectural and historic resource of Perth & Kinross and the Methven estate.

The Castle Farm is constructed of stone with slate roofs in a broader L-shape plan and courtyard within. The condition of the steading is poor and appears to have been neglected and not used for several years. To the immediate south of the steading are two large modern agricultural structures.

The proposal seeks listed building consent to demolish all listed steading buildings (excluding the two modern portal framed agricultural structures).

A concurrent planning application (23/01610/FLL) for demolition of the steading and construction of three agricultural buildings has been submitted.

SITE HISTORY

23/01610/FLL Demolition of buildings and erection of 3 agricultural buildings, formation of hardstanding and associated works

PRE-APPLICATION CONSULTATION

Pre application Reference: 22/00094/PREAPP

DEVELOPMENT PLAN

The Development Plan for the area comprises National Planning Framework 4 (NPF4) and the Perth and Kinross Local Development Plan 2 (2019) (LDP2).

National Planning Framework 4

The National Planning Framework 4 (NPF4) is the Scottish Government's long-term spatial strategy with a comprehensive set of national planning policies. This strategy sets out how to improve people's lives by making sustainable, liveable and productive spaces.

NPF4 was adopted on 13 February 2023. NPF4 has an increased status over previous NPFs and comprises part of the statutory development plan.

The Council's assessment of this application has considered the following policy of NPF4:

Policy 7: Historic Assets and Places

Perth and Kinross Local Development Plan 2 – Adopted November 2019

The Local Development Plan 2 (LDP2) is the most recent statement of Council policy and is augmented by Supplementary Guidance.

The principal policy is:

Policy 27A: Listed Buildings

OTHER POLICIES

Historic Environment Policy for Scotland (HES 2019)

HEPS is a national policy statement which defines how decisions should be made in relation to management and protection of the historic environment.

CONSULTATION RESPONSES

Conservation Team:
Case officer is the conservation officer. A detailed assessment of the proposal is provided under the heading Appraisal.

Historic Environment Scotland:
Historic Environment Scotland initially objected to the proposed due to a lack of information demonstrating that all reasonable efforts had been made to retain, reuse and/or adapt the listed building when tested against the considerations set out in national policy and guidance.

After further information was submitted, Historic Environment Scotland objected again because the information supporting the application does not justify the case for demolition when tested against the considerations set out in national policy and guidance for listed buildings.

Perth & Kinross Heritage Trust:
The Perth & Kinross Heritage Trust has recommended refusal as the proposed loss of the listed steading complex contravenes policy and does not aim to protect or preserve the historic asset. If demolition is approved, it is recommended that a historic building survey is undertaken.

REPRESENTATIONS

No representations were received.

Additional Statements Received:

Schedule of Works	Submitted

Design Statement or Design and Access Statement	Not Submitted

APPRAISAL

Sections 25 and 37 (2) of the Town and Country Planning (Scotland) Act 1997 require that planning decisions be made in accordance with the development plan unless material considerations indicate otherwise. The Development Plan comprises NPF4 and the Perth and Kinross Local Development Plan 2019. The relevant policy considerations are outlined in the policy section above and are considered in more detail below. In terms of other material considerations, involving considerations of the Council's other approved policies and supplementary guidance, these are discussed below only where relevant.

In this instance, section 14(2) of the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 places a duty on planning authorities in determining such an application as this to have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses. Section 64(1) of the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 is relevant and requires planning authorities to pay special attention to the desirability of preserving or enhancing the character or appearance of the designated conservation area.

The determining issues in this case are whether; the proposal complies with development plan policy; or if there are any other material considerations which justify a departure from policy.

Design and Layout
It is proposed to demolish the historic steading and construct three large agricultural sheds and hardstanding on the current site. Details of this are assessed under application 23/01610/FLL.

Policy Appraisal of Demolition

There is a strong presumption against demolition or partial demolition of a listed building and the demolition of a listed building should only be considered as a last resort. This is set out in Policy 7 of National Planning Framework 4, Policy 27B of the Perth and Kinross Council Local Development Plan 2019 and within associated guidance from Historic Environment Scotland.

Policy 7b) of NPF4 states that development proposals for the demolition of listed buildings will not be supported unless it has been demonstrated that there are exceptional circumstances and that all reasonable efforts have been made to retain, reuse and/or adapt the listed buildings. Similarly, LDP2 Policy 27B states that there is a presumption against the demolition of listed buildings.

Both NPF4 and LDP2 include considerations which must be addressed when a listed building is proposed for demolition.

NPF4 Policy 7b) states that such considerations include whether:

i. building is no longer of special interest;
ii. building is incapable of physical repair and re-use as verified through a detailed structural condition survey report;
iii. repair of the building is not economically viable and there has been adequate marketing for existing and/or new uses at a price reflecting its location and condition for a reasonable period to attract interest from potential restoring purchasers; or
iv. demolition of the building is essential to delivering significant benefits to economic growth or the wider community.

Like the NPF4 policy for demolition of listed buildings, LDP2 Policy 27B states that where the application proposes the demolition of a listed building, applicants will be expected to provide evidence to show that:

(a) the building is not of special interest; or
(b) the building is incapable of repair; or
(c) the demolition of the building is essential to delivering significant benefits to economic growth or the wider community; or
(d) the repair of the building is not economically viable and that it has been marketed at a price reflecting its location and condition to potential restoring purchasers for a reasonable period.

<u>The special interest of the listed building</u>

Policy 7a) of NPF4 states that development proposals with a potentially significant impact on historic assets or places will be accompanied by an assessment which is based on an understanding of the historic asset and/or place. No assessment of the listed building or the setting (Methven Castle and the Methven Castle Garden & Designed Landscape) of the listed building has been provided.

The design, details, plan form and construction materials of the steading complex are characteristic of an improvement era steading dating to the early 19th century. The steading was the Home Farm to Methven Castle, a Category A listed building.

<u>Is the listed building capable of meaningful repair and/or reuse?</u>

It is accepted that the steading complex is in a poor condition, however the submitted Structural Condition Assessment by Savills (March 2022) does not conclude that the buildings are incapable of meaningful repair.

The Structural Condition Assessment does not establish that repair and/or reuse would not be possible. Therefore, it may be possible to repair and retain all or substantial parts of the steading as part of a proposal for reuse.

The Historic Environment Scotland Managing Change – Demolition guidance states that if a listed building application is submitted arguing that a building is

incapable of meaningful repair, supporting evidence for this will need to be provided. This should include a full condition assessment by appropriately qualified and experienced professionals, and a statement placing the condition assessment in context of the building's significance. As described above, no such statement including the building's significance has been provided.

Delivery of significant benefits to economic growth or the wider community
Some projects may be of such economic or public significance that their benefits may be seen to outweigh the strong presumption in favour of retaining a listed building. This case has not been made by the applicant, and no information has been submitted that suggests this consideration is relevant.

Economic Viability
A Feasibility Report by Savills (March 2024) was submitted as additional information following the initial objection from Historic Environment Scotland. It is unclear within the Feasibility Report whether the estimated costings for conversion to commercial and residential uses are for repairs to masonry and roofs that are in a fair condition, or if they are proposed to be fully taken down and rebuilt. A full breakdown of costings is required to allow an understanding of the scope of works being used to inform estimates. It is unclear whether the

The estimated existing value and the estimated end value for the restored buildings have not been provided and therefore, it is unclear whether there is a conservation deficit. Where the cost of works is higher than the end value, the difference is referred to as the 'conservation deficit'.

National policy states that the principle of demolition should only be accepted where it has been demonstrated that all reasonable efforts have been made to retain the listed building. The efforts made should take into consideration the special interest of the listed building, this includes pro-active marketing measures. Professional opinions on market conditions have been provided in the Response to HES correspondence, however, there is no information to suggest that the listed building has been marketed. Marketing is necessary to demonstrate that every effort has been made to secure a buyer who would retain the building. The Feasibility Report does not clearly demonstrate that alternatives to demolition of the listed building have been explored to a reasonable level.

The information which has been submitted does not provide appropriate justification for the demolition of the listed steading as it does not meet one of the four categories outlined above.

The proposal for the demolition is therefore considered to be contrary to Policy 27B of the Perth and Kinross Local Development Plan 2019 and Policy 7(b) of NPF4 and the associated national policy and guidance.

Developer Contributions

The Developer Contributions Guidance is not applicable to this application and therefore no contributions are required in this instance.

Economic Impact

The economic impact of the proposal is likely to be minimal and limited to the construction phase of the development.

PLANNING OBLIGATIONS AND LEGAL AGREEMENTS

None required.

DIRECTION BY SCOTTISH MINISTERS

None applicable to this proposal.

CONCLUSION AND REASONS FOR DECISION

To conclude, the application must be determined having regard to Section 14 (2) of the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 and in accordance with the Development Plan unless material considerations indicate otherwise. In this respect, the proposal is considered not to comply with NPF4, and the adopted Local Development Plan 2 (2019). Account has been taken of the relevant material considerations and none has been found that would justify overriding the Development Plan.

Accordingly, the proposal is refused on the grounds identified below.

Conditions and Reasons

The proposal would result in the loss of Category A curtilage listed building. This is not fully justified in accordance with the requirements set out in national policy and guidance. Approval would therefore be contrary to Sections 14 and 59 of the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997; Policy 7(b) of National Planning Framework 4 and Policy 27B of the Perth & Kinross Local Development Plan 2.

Justification

The proposal does not accord with section 14(2) of the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 or the Development Plan, and there is no material reason to justify departing from the Development Plan.

Informatives

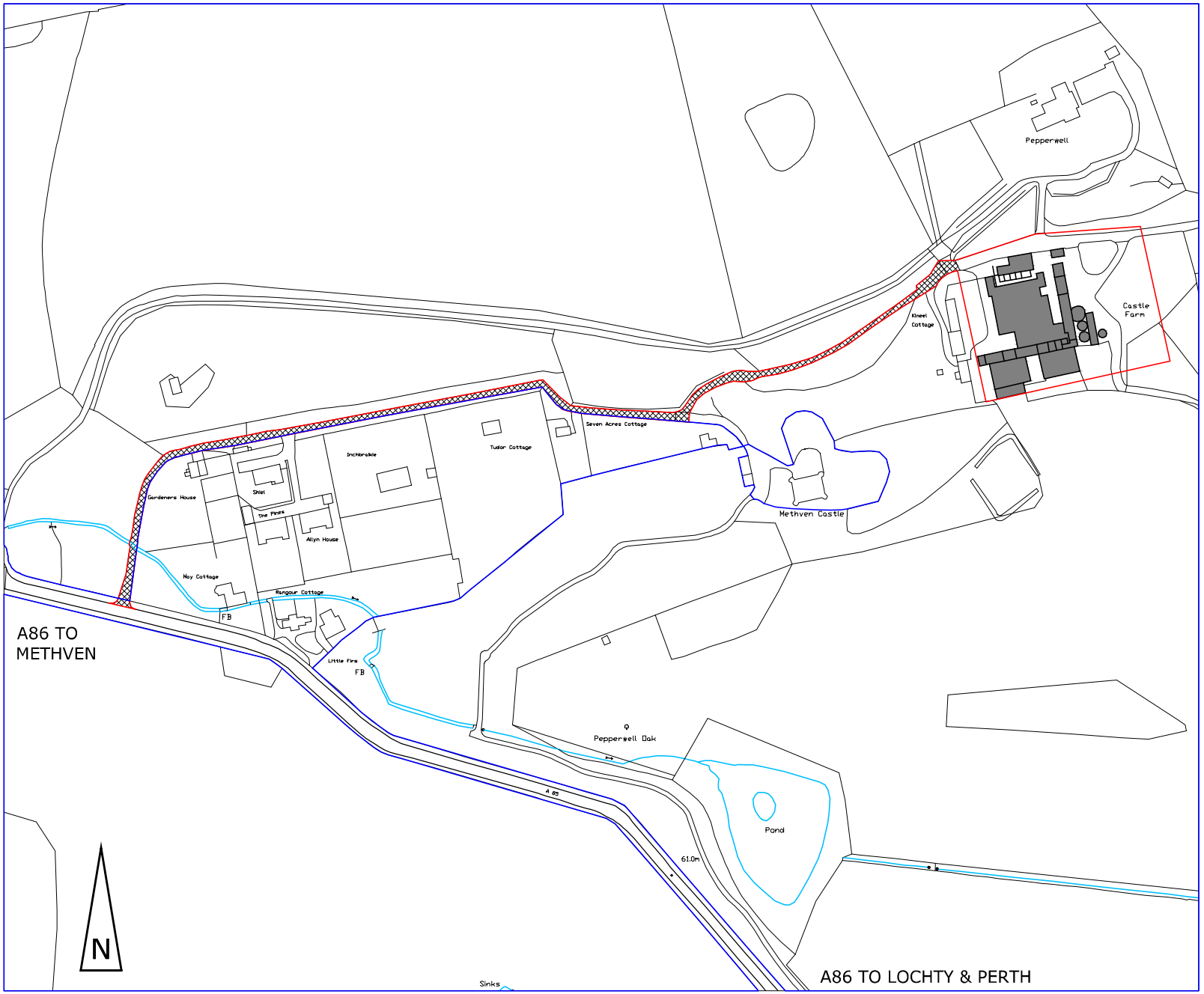
None.

Procedural Notes

Not Applicable.

PLANS AND DOCUMENTS RELATING TO THIS DECISION

01 – 14 inclusive.



Location Plan 1:2500 A3

APPLICANT OWNERSHIP BLUE EXTENTS

0 80 160 240 320 400

NOTES

REVISIONS

REV	NOTE / DRAWN BY	DATE
REV:A:	NON DEVELOPMENT SITE ACCESS ADDED	14-06-23

NON DEVELOPMENT SITE ACCESS

savills

PROJECT TITLE
FARM RATIONALISATION
METHVEN CASTLE FARM, METHVEN
PERTH, PH1 3SU

CLIENT
PILKINGTON TRUST

DRAWING TITLE
LOCATION PLAN

SCALES @ A3	PROJECT / DWG / REV NO.
1:2500	DHBU393113-01 A

DRAWING STATUS
PLANNING

DRAWN BY	CHECKED BY	DATE
CR	-	01-05-23

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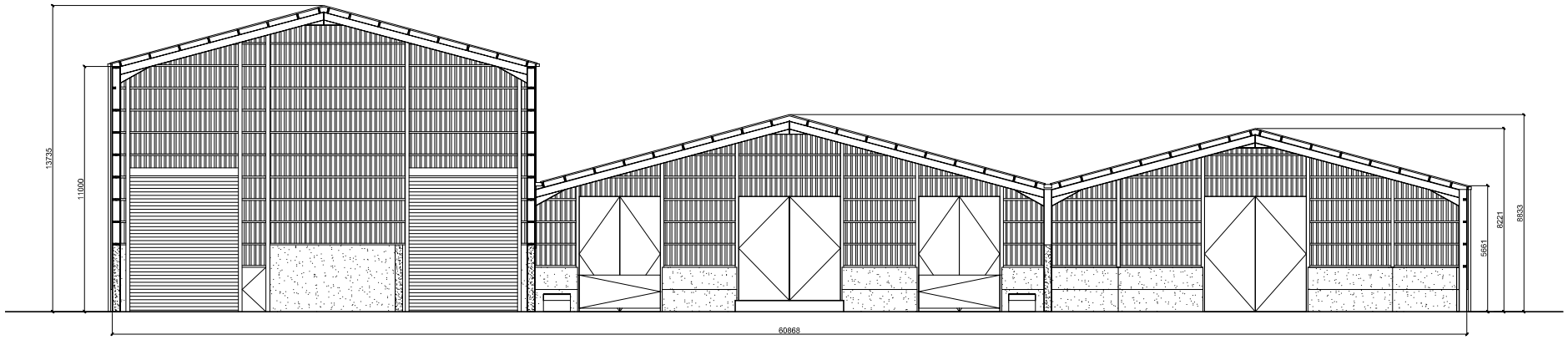
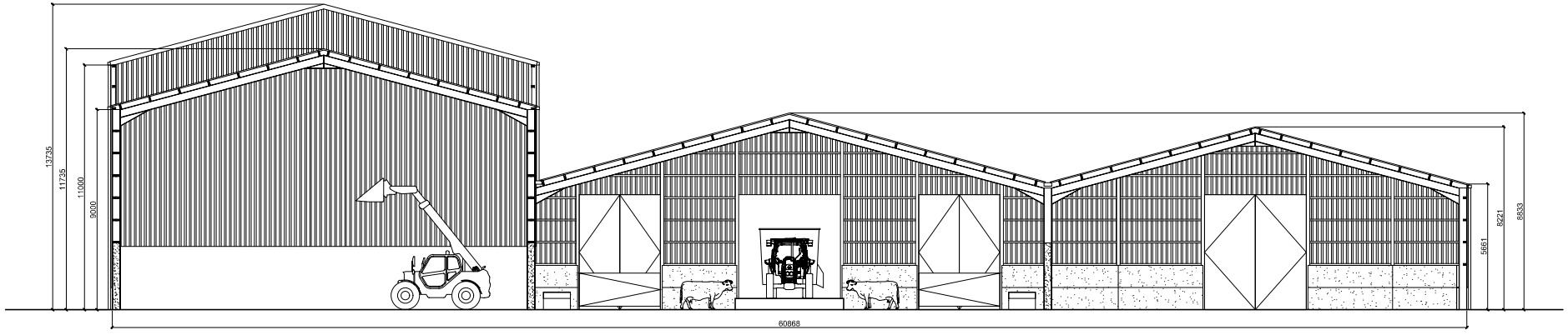


PROPOSED PORTAL SECTION A-A 1:100



PROPOSED PORTAL SECTION B-B 1:100

0 1m 2m 3m 4m 5m 6m 7m 8m 9m 10m

SCALE OF METRES

NOTES

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PROJECT TITLE

FARM RATIONLISATION
METHVEN CASTLE FARM, METHVEN
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CLIENT

PILKINGTON TRUST

DRAWING TITLE

PROPOSED PORTAL SECTIONS

SCALE	PAPER SIZE	DRAWING NUMBER	REVISION
1:100	@A1	DHBU393113-07	--

DRAWING STATUS

PLANNING

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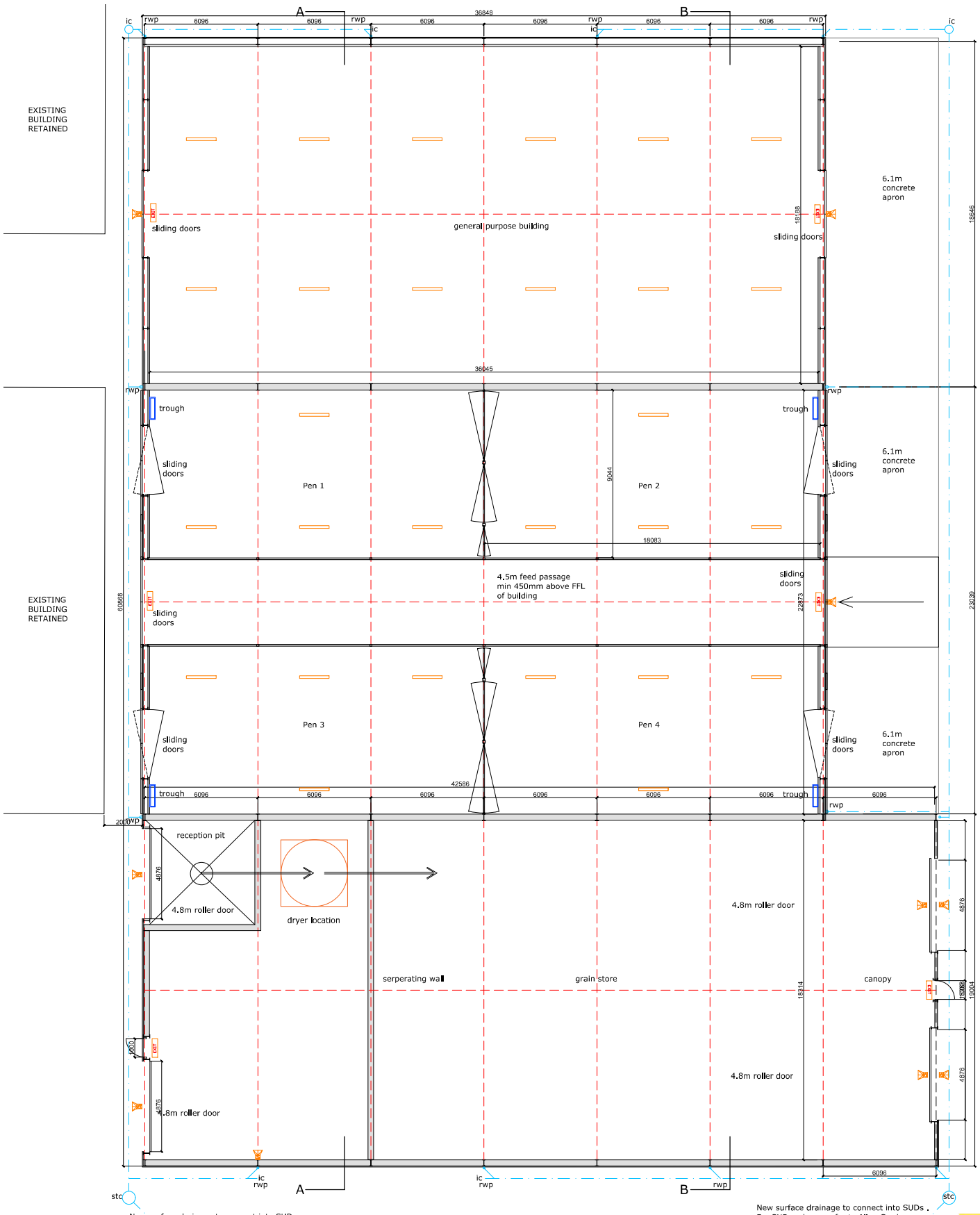

SPECIFICATION

Steel Portal frame, foundations and all structures to be designed by structural engineer.

Roof:
Marley Eternit P6 Fibre cement sheets in Slate Blue, Falling to galvanised steel box gutters and new downpipes, new surface drainage to new SUDs System,

Walls:
Juniper Green Steadmans AS35 single skin cladding.

Floors & Aprons:
150mm RC35 concrete slab incorporating A252mesh on. 1200gauge DPM on 50mm sand blinding on well consolidated 150mm type 1 sub base layers as required.

External Doors: Grainstore
2No, 4.8m wide 6.0m tall roller shutter doors in slate blue.
2No, 1.0m steel panel pedestrian doors in slate blue.

External Doors: Cattle Building
8No, 1.8m wide 5.1m tall sliding doors in slate blue, fitted with non lockable slip bolts and be capable of being opened internally.
4No, 2.25m wide x 4.7m tall sliding door to centre passage.

External Doors: General Purpose Building
4No, 2.25m wide 5.7m tall sliding doors in slate blue, fitted with non lockable slip bolts and be capable of being opened internally.

Electrics: Grain Store
4No, External LED Floor lights on manual switches over roller shutter doors.
4No. LED flood lights internal.

Electrics: Cattle Building
1No, External LED Floor lights on manual switches on gables over sliding doors, 1 per gable.
16No. LED Strip lights internally as indicated.

Electrics: General Purpose Building
2No, External LED Floor lights on manual switches on gables over sliding doors. 1 per gable.
12No. LED Strip lights internally as indicated.

All external lighting shall be sufficiently screened and aligned so as to ensure that there is no direct illumination of neighbouring land and that light spillage beyond the boundaries of the site is minimised to a degree that it does not adversely affect the amenity of the neighbouring land.

Electrics: Escape
Emergency exit lighting to be fitted over all pedestrian doors. lighting to be on protected circuit with battery back up.

NOTES

REVISIONS

REV	NOTE / DRAWN BY	DATE

PROJECT TITLE
FARM RATIONLISATION
METHVEN CASTLE FARM, METHVEN
PERTH, PH1 3SU

CLIENT
PILKINGTON TRUST

DRAWING TITLE
PROPOSED FLOOR PLAN

SCALE	PAPER SIZE	DRAWING NUMBER	REVISION
1:100	@A1	DHBU393113-05	--

DRAWING STATUS
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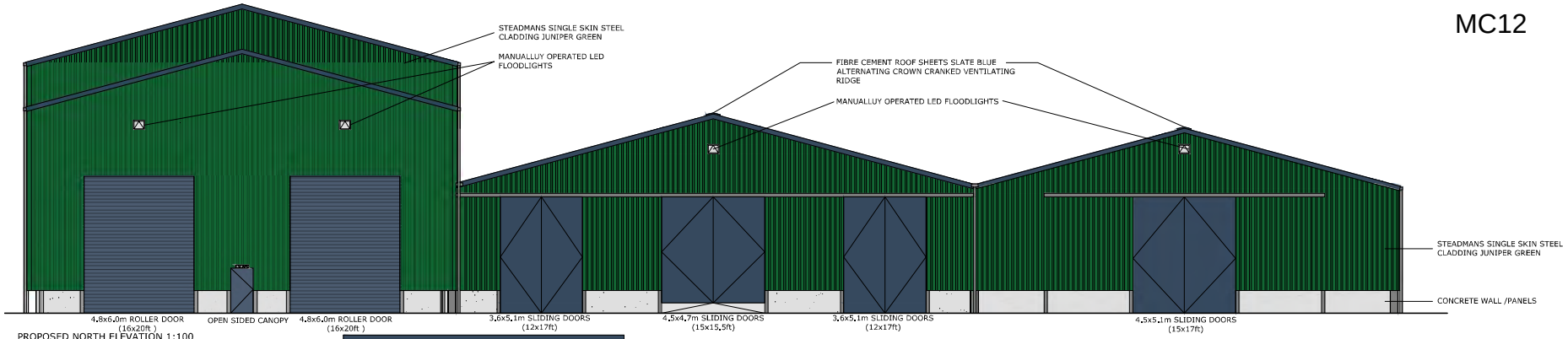
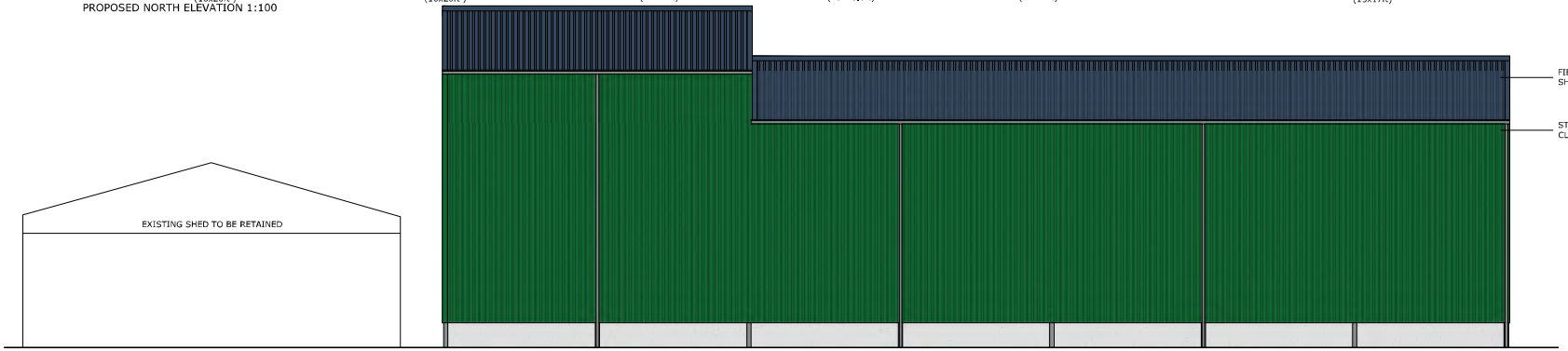
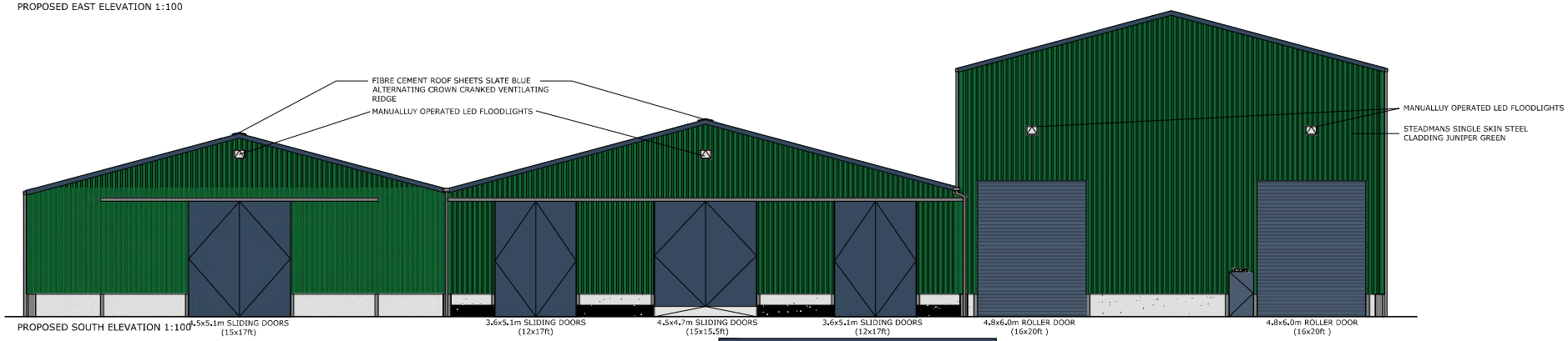
MC12



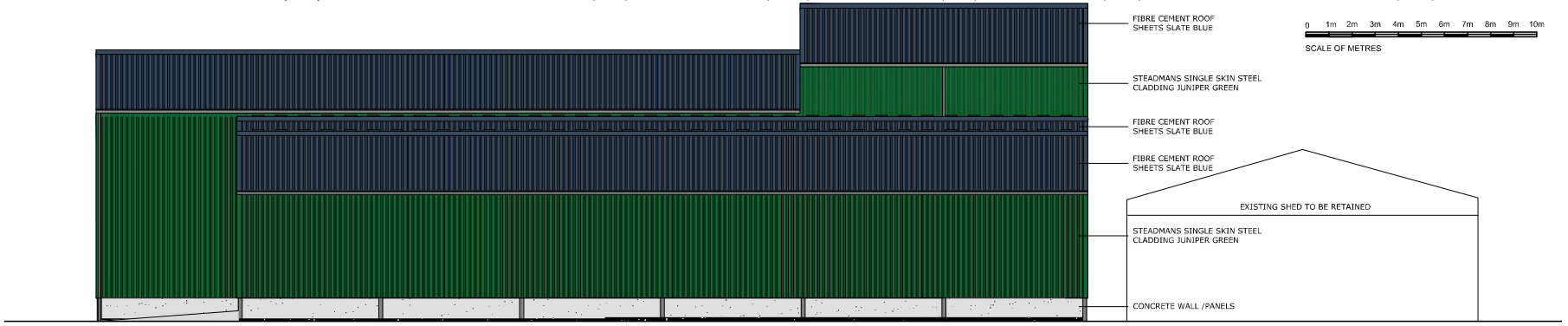
PROPOSED NORTH ELEVATION 1:100



PROPOSED EAST ELEVATION 1:100



PROPOSED SOUTH ELEVATION 1:100



PROPOSED WEST ELEVATION 1:100

0 1m 2m 3m 4m 5m 6m 7m 8m 9m 10m

SCALE OF METRES

NOTES

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REVISIONS

REV	NOTE / DRAWN BY	DATE

SPECIFICATION
Steel Portal frame, foundations and all structures to be designed by structural engineer.

Roof:
Marley Eternit P6 Fibre cement sheets in Slate Blue. Falling to galvanised steel box gutters and downpipes, new surface drainage to new SUDs System.

Walls:
Juniper Green Steadmans AS35 single skin cladding.

Floors & Aprons:
150mm RC35 concrete slab incorporating A252mesh on. 1200gauge DPM on 50mm sand blinding on well consolidated 150mm type 1 sub base layers as required.

External Doors: Grainstore
2No. 4.8m wide 6.0m tall roller shutter doors in slate blue.
2No. 1.0m steel panel pedestrian doors in slate blue.

External Doors: Cattle Building
4No. 2.4m wide 4.8m tall sliding doors in slate blue, fitted with non lockable slip bolts and be capable of being opened internally.

External Doors: General Purpose Building
4No. 2.4m wide 4.8m tall sliding doors in slate blue, fitted with non lockable slip bolts and be capable of being opened internally.

Electrics:
Grain Store
4No. External LED Floor lights on manual switches over roller shutter doors.
4No. LED flood lights internal.

General Purpose Agricultural Building
2No. External LED Floor lights on PIR's over roller shutter doors, 1 per gable.
10No. LED Strip lights internally as indicated.

Escape
Emergency exit lighting to be fitted over all pedestrian doors, lighting to be on protected circuit with battery back up.

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PROJECT TITLE
FARM RATIONLISATION
METHVEN CASTLE FARM, METHVEN
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CLIENT
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DRAWING TITLE
PROPOSED ELEVATIONS

SCALE	PAPER SIZE	DRAWING NUMBER	REVISION
1:100	@A1	DHBU393113-06	--

DRAWING STATUS
PLANNING

DRAWN BY	CHECKED BY	DATE
CR		01-05-23

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PROPOSED BLOCK PLAN 1:500 A3

NOTES

REVISIONS

REV	NOTE / DRAWN BY	DATE
REV:A:	NON DEVELOPMENT SITE ACCESS ADDED	14-06-23

- GRAINSTORE
- CATTLE BUILDING
- GENERAL PURPOSE BUILDING
- CONCRETE HARDSTANDING
- NON DEVELOPMENT SITE ACCESS

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PROJECT TITLE
FARM RATIONALISATION
METHVEN CASTLE FARM, METHVEN
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DRAWING TITLE
PROPOSED BLOCK PLAN

SCALES @ A3	PROJECT / DWG / REV NO.
1:500	DHBU393113-04 A

DRAWING STATUS
PLANNING

DRAWN BY	CHECKED BY	DATE
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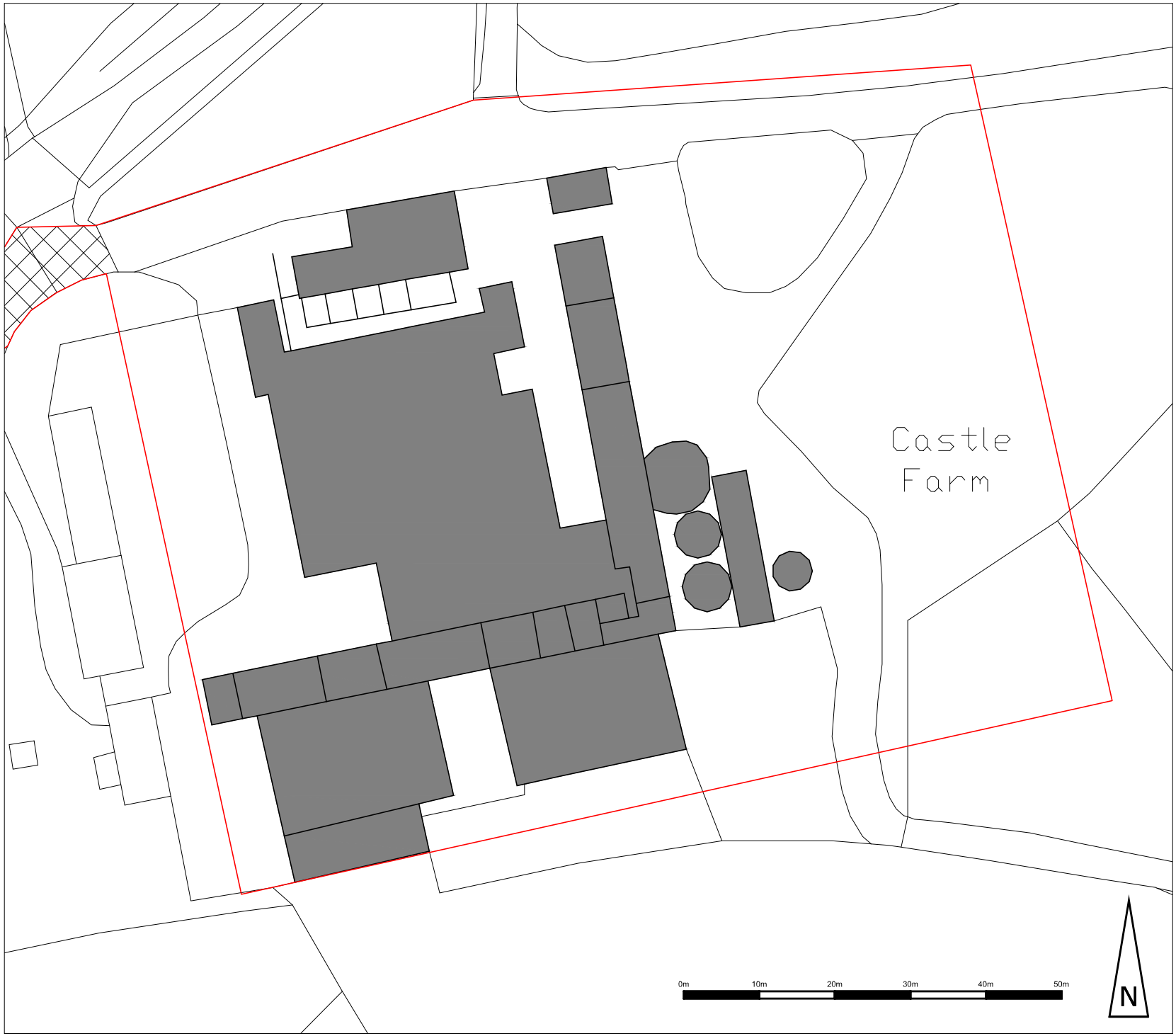

BLOCK PLAN 1:500 A3

NOTES

REVISIONS

REV	NOTE / DRAWN BY	DATE
REV:A:	NON DEVELOPMENT SITE ACCESS ADDED	14-06-23

NON DEVELOPMENT SITE ACCESS

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PROJECT TITLE
FARM RATIONALISATION
METHVEN CASTLE FARM, METHVEN
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DRAWING TITLE
EXISTING BLOCK PLAN

SCALES @ A3	PROJECT / DWG / REV NO.
1:500	DHBU393113-02 A

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Revisions

REV	NOTE / DRAWN BY	DATE
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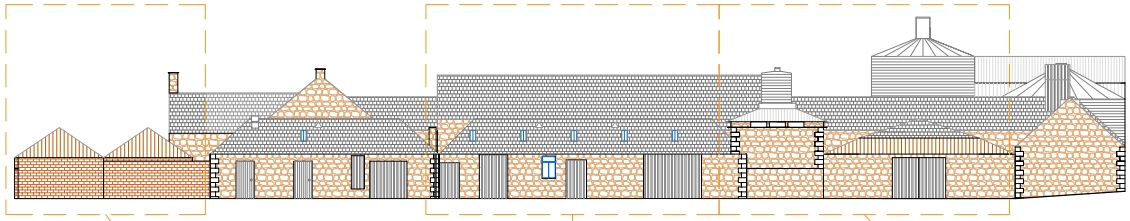
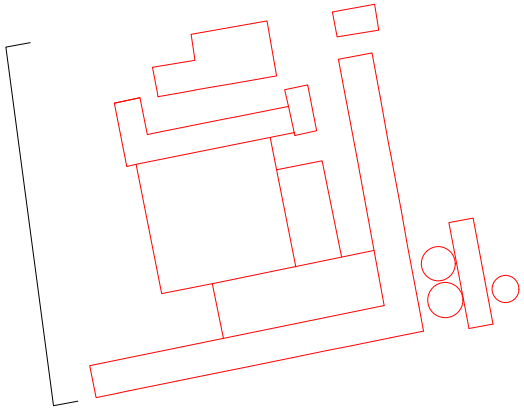


Existing West Elevation
1:150 @ A1

0 20 40



PROJECT TITLE
Methven Steading, Methven Castle, Perth, PH1 3SU

CLIENT
Perth & Kinross Council

DRAWING TITLE
Existing West Elevation

SCALE	PAPER SIZE	DRAWING NUMBER	
1:150	@A1	646572/03	
DRAWING STATUS			REVISION
Planning			-
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Revisions

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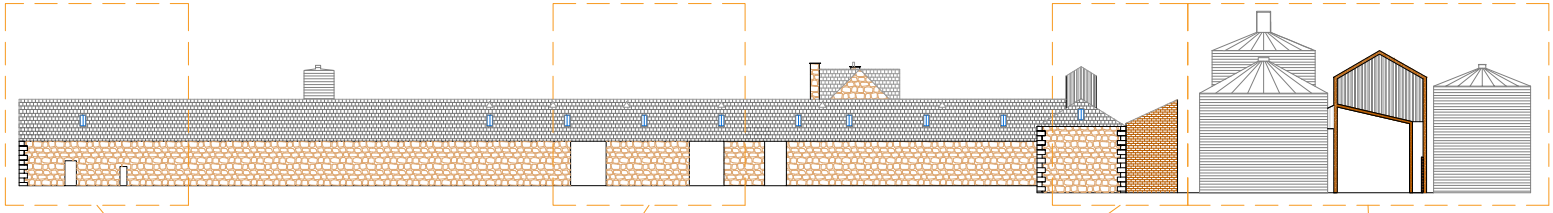
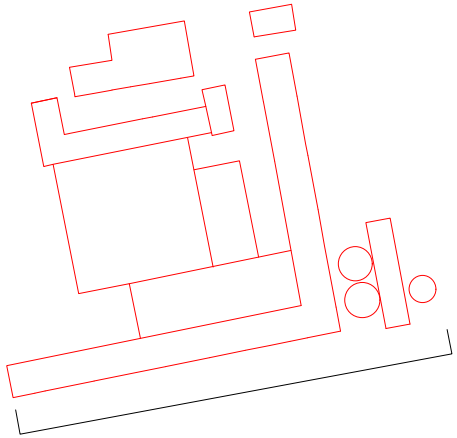


Existing South Elevation
1:150 @ A1

0 20 40



PROJECT TITLE
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CLIENT
Perth & Kinross Council

DRAWING TITLE
Existing South Elevation

SCALE	PAPER SIZE	DRAWING NUMBER	REVISION
1:150	@A1	646572/04	-

DRAWING STATUS		
Planning		
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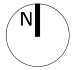

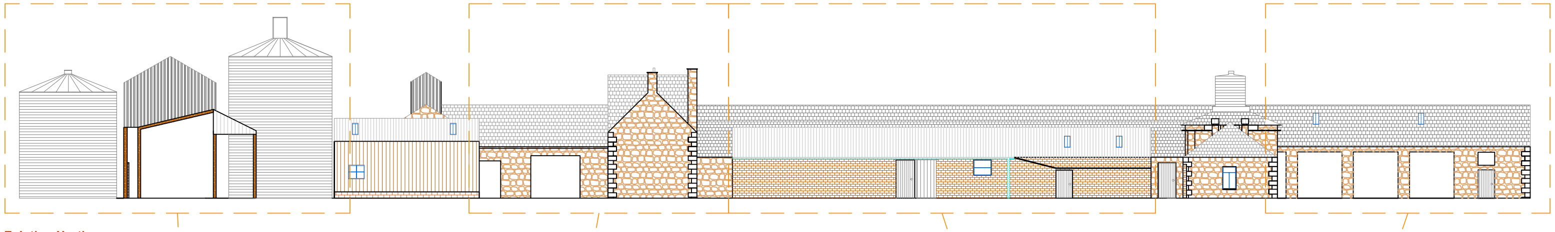

Existing North Elevation
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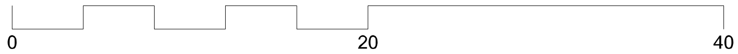

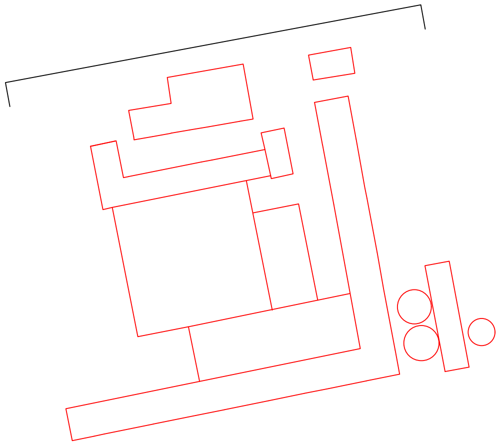

PROJECT TITLE
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CLIENT
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DRAWING TITLE
Existing North Elevation

SCALE	PAPER SIZE	DRAWING NUMBER
1:150	@A1	646572/02

DRAWING STATUS	REVISION
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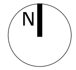
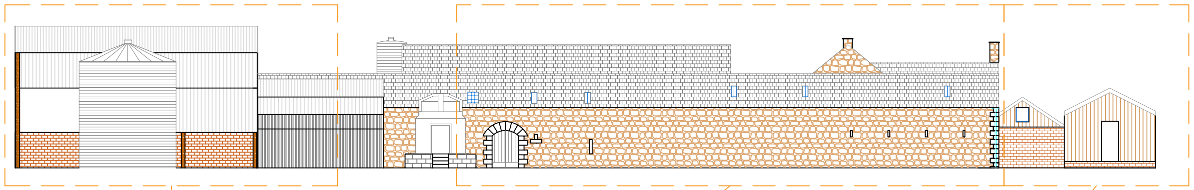
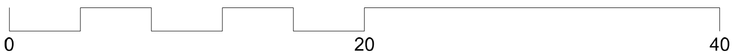
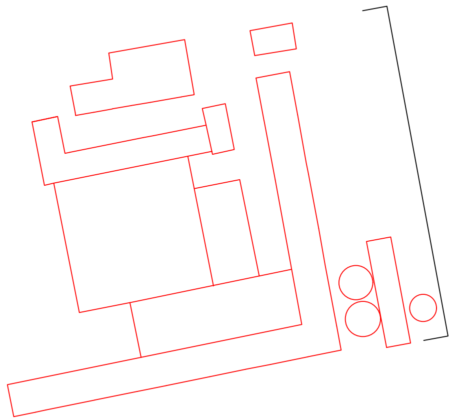




Existing East Elevation
1:150 @ A1





PROJECT TITLE	Methven Steading, Methven Castle, Perth, PH1 3SU
CLIENT	Perth & Kinross Council
DRAWING TITLE	Existing East Elevation
SCALE	1:150
PAPER SIZE	@A1
DRAWING NUMBER	646572/01
DRAWING STATUS	Planning
REVISION	-
DRAWN BY	AC
CHECKED BY	RT
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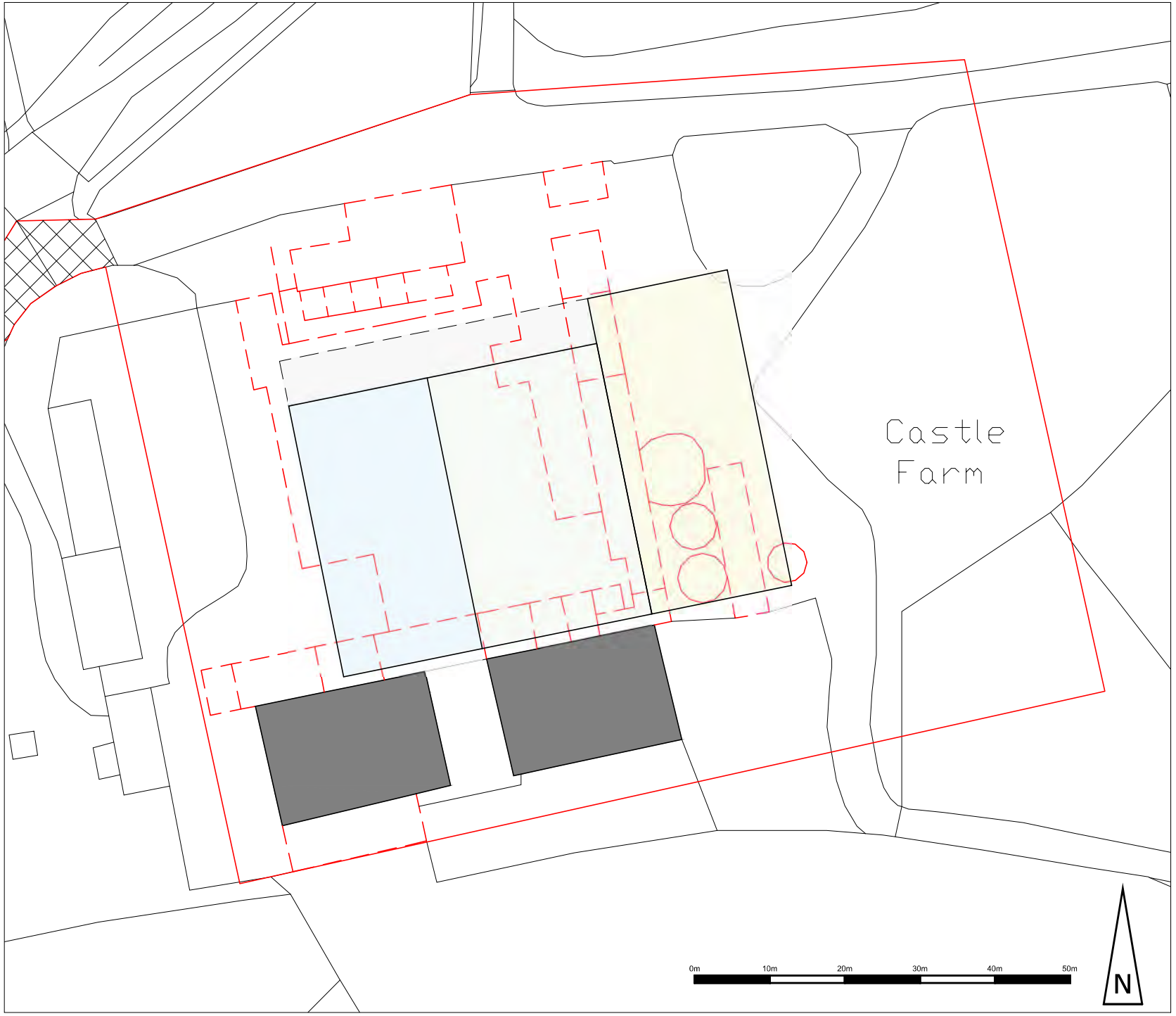

PROPOSED DEMOLITION PLAN 1:500 A3

NOTES

REVISIONS

REV	NOTE / DRAWN BY	DATE
REV:A	NON DEVELOPMENT SITE ACCESS ADDED	14-06-23

NON DEVELOPMENT SITE ACCESS

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PROJECT TITLE
FARM RATIONALISATION
METHVEN CASTLE FARM, METHVEN
PERTH, PH1 3SU

CLIENT
PILKINGTON TRUST

DRAWING TITLE
PROPOSED DEMOLITION PLAN

SCALES @ A3	PROJECT / DWG / REV NO.
1:500	DHBU393113-03 A

DRAWING STATUS
PLANNING

DRAWN BY	CHECKED BY	DATE
CR	-	01-05-23

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Demolition Schedule

Farm Buildings at The Castle Farm, Methven

October 2023

Surveyor's Notes:

1. *Existing services to be made safe and isolated from source before demolition.*
2. *Protective works: All works to be fenced off using Herras fencing to prevent public access and carried out in compliance with Regulation 13.*
3. *Security of Site: During demolition works the site will be secured at all times with the use of secure Herras fencing.*
4. *Health & Safety: All works to be carried out in accordance with 'The Construction (Design and Management) Regulations 2015 Regulation 20.*
5. *Contractor to liaise with Utility providers for location of current services and to design distribution to specified incoming locations.*
6. *Co-ordination with other services/Contractors: The main contractor shall ensure that all sub-contractors liaise and co-ordinate their works in a timeous manner to avoid clashes and abortive work.*

Demolition Schedule to be read in conjunction with:

1. *Drawings:*

   646572 01- Existing East Elevation

   646572 02 – Existing North Elevation

   646572 03 – Existing West Elevation

   646572 04 – Existing South Elevation

   646572 05 – Landscape Plan

   646572 06 – Photographic Schedule

2. *Reports:*

   Building Surveyor's Report – Structural Condition Assessment – Methven Castle Steading, dated 08 December 2021

Schedule of Works

Demolition to be carried out by a certified contractor .Full risk assessment, material testing (where required) and demolition method statement to be carried out prior to the demolition of the existing structure.

All works/buildings/site to comply with Regulation 10 of the Building (Scotland) Regulation 2004 (as amended).

1. Every building to be demolished must be demolished in such a way that all service connections to the building are properly closed off and any neighbouring buildings are left stable and watertight.

2. When demolition work has been completed, and where no further work is to commence immediately, the person who carried out the work shall ensure that the site is: immediately graded and cleared, or provided with such fences, protective barriers or hoardings as will prevent access thereto.

All the prescribed works are to comply with the following:-

1. The Health and Safety at Work Act 1974.
2. The Construction Design & Management Regulation 2015.
3. BS 6187:2011.
4. The Control of Asbestos Regulations 2012.
5. The Building Operation (Scotland) Act.

Demolition of the existing buildings will be carried out as follows:

All services to the existing buildings to be disconnected and made safe where required prior to the works commencing.

All existing drainage lines to be cut, capped and grubbed out where required.

Protection to the public and workmen to be in accordance with the above Act(s) during demolition works.

Where next to or near to adjacent boundaries or structures, hand demolition to take place.

All works to be planned and carried out in such an order to ensure that any debris will fall inwards within the existing demolition footprint.

Where areas are opened and can accommodate safe use of plant a front loader/wheeled excavator will be used.

The site will be levelled using a wheeled excavator or similar.

The cladding to roofs to be stripped and removed by use of a forklift and man basket. All good quality slates to be set aside on pallets and transported to estate storage facilities. All roof workers to use safety harnesses.

Any block/brickwork/steelwork/timber to be dismantled from truss level down. Any steelwork/timber requiring to be gassed/cut should be supported by slings from a forklift and guy ropes. Any salvageable good quality stone to be identified and set aside for conservation and repair use elsewhere on the estate. Identified materials to be transported to estate storage facilities.

Any material found to contain asbestos during the works on site will require a water supply for fine mist spray to minimise dust and asbestos particle contamination.

Asbestos containing materials must be placed in a sealed containers or within sealed sheeting. Asbestos and any other contaminants are to be removed in sealed containers by a certified contractor and to appropriate registered landfill site.

All foundations and under building to be fully grubbed out with all debris removed from the site.

All waste/non-recyclable materials are to be safely placed in skips and disposed of at a registered landfill site.

All recyclable materials are to be removed and recycled as appropriate.

Appropriate PPE must be worn throughout the duration of the footprint of the proposed works.

The site is to be levelled with all surfaces made good upon completion of the works.

Any materials which may contain asbestos are to be removed in accordance with the Control of Asbestos Regulations 2012.

For further details please refer to www.hse.gov.uk

Safety During Demolition

Demolition operational area to be fenced off (byway of Herras fencing) in such a way to protect the public in accordance with regulation 13 of the Current Edition of The Building (Scotland) Regulations 2004 Technical Handbook; Non-Domestic which states the following.

1. No person shall conduct work unless the following provisions of this regulation are complied with.

2. Subject to paragraph (3), where work is to be carried out on any building site or building which is within 3.6m of any part of a road or other place to which members of the public have access whether or not on payment of a fee or there shall, prior to commencement of the work, be erected protective works so as to separate the building site or building or that part of the building site or building on which work is to be carried out from that road or other place.

3. Nothing in paragraph (2) shall require the provision of protective works in any case where the local authority is satisfied that no danger to the public is caused, or likely to be caused, by the work.

4. The protective works referred to in the preceding paragraphs are all or any of:

   a. providing hoarding's, barriers, or fences.

   b. subject to paragraph (5), where necessary to prevent danger, providing footpaths outside such hoarding's, barriers or fences with safe and convenient platforms, handrails, steps or ramps, and substantial overhead coverings.

   c. any such protective works which in the opinion of the local authority are necessary to ensure the safety of the public, all of such description, material, and dimensions and in such position as the local authority may direct.

5. Nothing in paragraph (4)(b) shall require the provision of a platform, handrail, step, or ramp:

a. where no part of the existing footpath is occupied by the protective works or in connection with the work, or

b. where that part of an existing footpath remaining unoccupied affords a safe means of passage for people and is of a width of not less than 1.2m of such greater width as the local authority may direct.

6. Any protective works shall be so erected as to cause no danger to the public and shall be maintained to the satisfaction of the local authority.

7. Subject to paragraph (8), any protective works shall be removed:

a.in the case of a building which has been constructed by virtue of a warrant, not more than 14 days or such longer period as the local authority may direct from the date of acceptance of the certificate of completion, and

b. in any other case, on completion of the work.

8. Nothing in paragraphs (1) to (7) of this regulation shall prohibit the removal of the protective works or any part thereof prior to the completion of the work where the local authority is satisfied that no danger to the public is caused or is likely to be caused as a result of their removal.

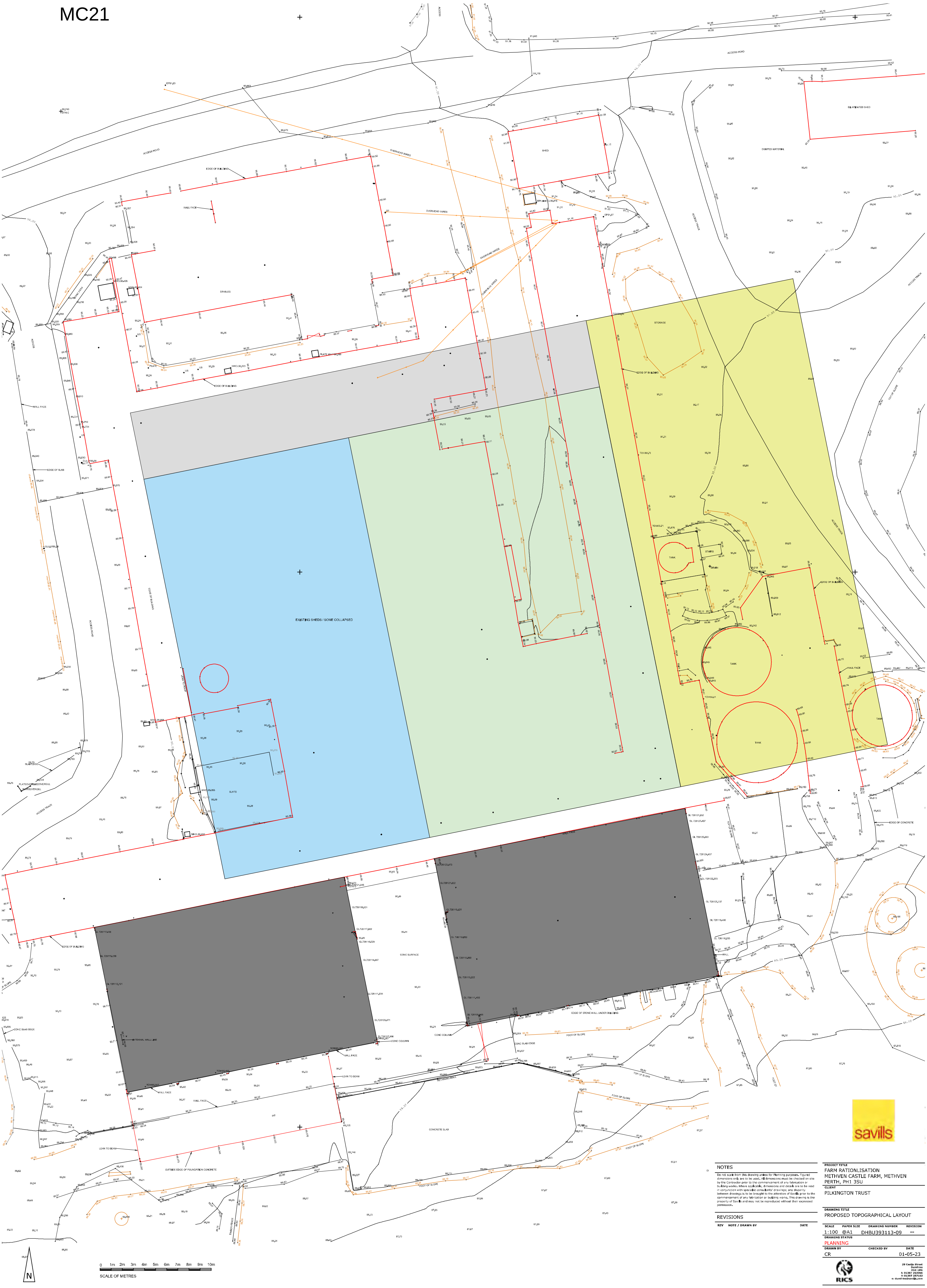
9. Any protective works shall be illuminated, and any such works which project on to or over that part of a road which is not a pavement or footpath shall be provided with such markings, as in the opinion of the local authority are necessary to secure the safety of the public.

10. Where work has been carried out without the provision of protective works, or where work on a building site has stopped or a building site has been abandoned, a local authority may require the site owner to carry out protective works.

Any neighbouring footpaths to be regularly cleaned and kept free of building debris and related materials in accordance with regulation 14 of the current edition of The Building (Scotland) Regulations 2004 Technical Handbook. Unfinished or partially complete works will be kept safe and secure in accordance with regulation 15 of the current edition of The Building (Scotland) Regulations 2004 Technical Handbook.

(End)

MC21



NOTES

Do not scale from this drawing unless for Planning purposes. Figured dimensions only are to be used. All dimensions must be checked on site by the Contractor prior to the commencement of any fabrication or building works. Where applicable, dimensions and details are to be read in conjunction with specialist consultants' drawings; any disparity between drawings is to be brought to the attention of Savills prior to the commencement of any fabrication or building works. This drawing is the property of Savills and may not be reproduced without their expressed permission.

REVISIONS

REV	NOTE / DRAWN BY	DATE

PROJECT TITLE
FARM RATIONLISATION
METHVEN CASTLE FARM, METHVEN
PERTH, PH1 3SU

CLIENT
PILKINGTON TRUST

DRAWING TITLE
PROPOSED TOPOGRAPHICAL LAYOUT

SCALE	PAPER SIZE	DRAWING NUMBER	REVISION
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DRAWN BY	CHECKED BY	DATE
CR		01-05-23

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MC22

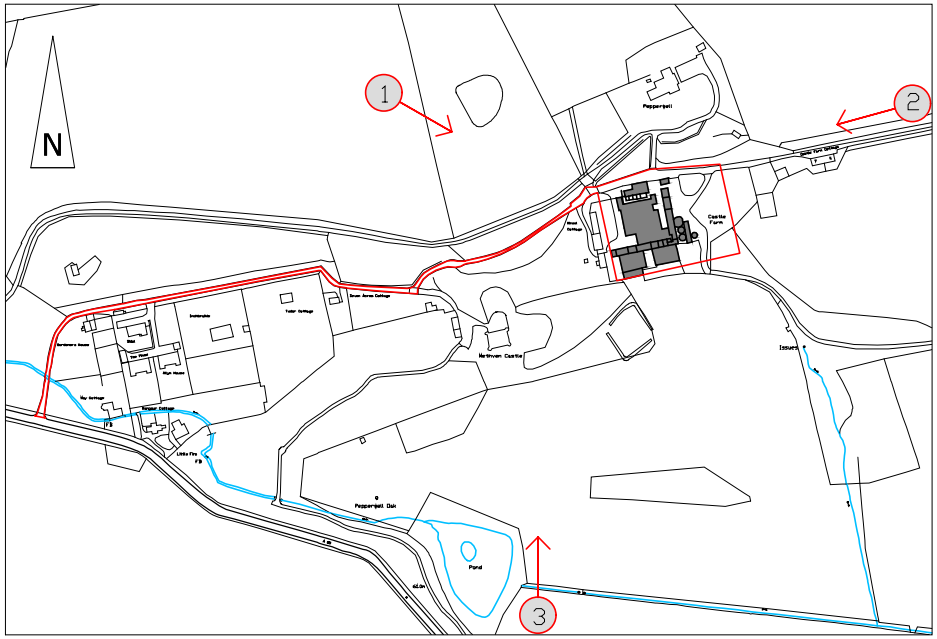
PHOTO 1 - VIEW WEST TOWARDS SITE

PHOTO 2 - VIEW SOUTH EAST TOWARDS SITE

NOTES

REVISIONS

PHOTO 3 - VIEW NORTH FROM A85 TOWARDS SITE



Location Plan 1:5000 A3

APPLICANT OWNERSHIP BLUE EXTENTS

0 80 160 240 320 400

savills

PROJECT TITLE
FARM RATIONALISATION
METHVEN CASTLE FARM, METHVEN
PERTH, PH1 3SU

CLIENT
PILKINGTON TRUST

DRAWING TITLE
LOCATION PLAN

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1:5000 / NTS	DHBU393113-08

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Odour Impact Assessment

August 2023

Move Forward with Confidence

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Document Control Sheet

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Document Title	Methven Castle Steading, Perth, PH1 3QE
Bureau Veritas Ref No.	AIR15827612

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Configuration				
Version	**Date**	**Author**	**Reason for Issue/Summary of Changes**	**Status**
01	20/10/22	V Patel	Draft for comment	Draft
02	30/08/23	C Danby	Remodelled following design changes	Final

	Name	Job Title	Signature
Prepared By	C Danby	Graduate Air Quality Consultant	[redacted]
Approved By	D Clampin	Senior Consultant	

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Executive Summary

Purpose of Report

Bureau Veritas UK Ltd has been commissioned by Savills on behalf of Pilkington Trust ("the Client") to undertake an odour impact assessment in support of a planning application at Methven Castle Steading, Perth, PH1 3QE for the following:

Demolition of steading and erection of replacement agricultural building at 2 Castle Farm Cottage, Methven, Perth, PH1 3SU.

A pre-application consultation was undertaken with Perth & Kinross Council with regards to the planning application and the following was stated with regard to odour.

"Noise and odour from livestock is also a potential concern and the submission appears to suggest that the existing buildings do not currently accommodate livestock as these are kept on permanent pasture. The submission should therefore also include detailed information on:

an odour impact assessment to identify and quantify the sources of emissions from the operation
an odour management plan to demonstrate how odour would be controlled and managed on site including a complaint investigation procedure"

This assessment presents the methodology and findings of the odour impact assessment, which assesses the potential odour impacts associated with the erection and housing of 180 cattle throughout the year on the amenity of existing residential dwellings in the area. Information has been provided by Savills and consultation with the Environmental Health Officer at Perth & Kinross Council has been undertaken.

This report is an update of the odour assessment originally completed in October 2022. Since the previous issue, the design of the proposed development has changed. Primarily, this includes a change to the doors on the cattle building, which act as a point of extraction for odour, as well as a slight change to the overall positioning of the proposed development on the land. Therefore, this report provides the findings of the updated odour assessment that accounts for these design changes.

Summary of Conclusions

The detailed odour impact assessment has included the following aspects:

An odour dispersion modelling assessment has been carried out, using worst case assumptions (where required) including assuming that all 180 cows are 600 kg in mass. This demonstrates a worst case since a higher mass of cow results in a higher resultant emission rate.

Odour emission rates have been sourced from a similar application and assessment for a cattle shed on the Perk & Kinross planning portal. This assessment includes consultation with Perth & Kinross council with regard to odour emission rates. These odour emission rates are considered worst-case as they are derived from studies for dairy cattle with slatted floors and slurry pits.

Modelling has considered all nearby surrounding sensitive receptors, assessing meteorological years 2017 – 2021 and has used complex terrain data to represent real world conditions.

The results illustrated that there are no significant difference between 2017 – 2021, and that all but two of the surrounding sensitive receptors will be below the 3 OU_E/m^3 criterion detailed within the assessment. The two receptors where the criterion is exceeded (Receptors 40 – 3.17 OU_E/m^3 and 41 – 3.54 OU_E/m^3) are located to the west of the site. However, the model is a worst-case scenario as it does not consider the effect the buildings will have on the odour as they are unable to be implemented into the model. As such, it is likely that the building (to west of the source) will reduce the odour impact at these receptors.

Based on the findings of this assessment, the following recommendations are made:

No additional mitigation measures are required to ensure that surrounding sensitive receptors are not exposed to odour emissions above 3 OU_E/m^3.

1 Introduction

Bureau Veritas UK Ltd has been commissioned by Savills on behalf of Pilkington Trust ("the Client") to undertake an odour impact assessment in support of a planning application at Methven Castle Steading, Perth, PH1 3QE for the following:

Demolition of steading and erection of replacement agricultural building at 2 Castle Farm Cottage, Methven, Perth, PH1 3SU.

A pre-application consultation was undertaken with Perth & Kinross council with regard to the planning application and the following was stated with regard to odour.

"Noise and odour from livestock is also a potential concern and the submission appears to suggest that the existing buildings do not currently accommodate livestock as these are kept on permanent pasture. The submission should therefore also include detailed information on:

an odour impact assessment to identify and quantify the sources of emissions from the operation
an odour management plan to demonstrate how odour would be controlled and managed on site including a complaint investigation procedure"

Following pre-application consultation with Perth & Kinross council, an odour impact assessment of the potential impacts associated with the development, particularly the housing of cattle, was requested.

This assessment presents the methodology and findings of the odour impact assessment undertaken to satisfy this request. It assesses the potential odour impacts associated with the erection and housing of 180 cattle throughout the year on the amenity of existing residential dwellings in the area. Information has been provided by Savills and consultation with the Environmental Health Officer at Perth & Kinross Council has been undertaken.

This report is an update on the odour assessment originally completed in October 2022. However, since then, the design of the proposed development has changed. Primarily, this include a change to the doors on the cattle building, which act as a point of extraction for odour, as well as a slight change to the overall positioning of the proposed development on the land. Therefore, this report provides the findings of the updated odour assessment that accounts for these design changes.

1.1 Scope of Assessment

A detailed odour assessment, using dispersion modelling, has been undertaken to determine the potential odour impact from the proposed development. Information provided by Savills including the Agricultural Justification Statement[1] and drawings of the site and layouts allowed an understanding of proposed site conditions and justification for odour emission rates.

The assessment was undertaken using specialist dispersion modelling software, ADMS 6, and literature was reviewed to help determine appropriate odour emission rates. A review was undertaken of an odour modelling assessment from 2016 which was completed for Perth & Kinross at a cattle unit at Millhouse Farm. This included a review of the consultations with Perth & Kinross Council, both prior to submission and post submission of the assessment. This consultation indicated the council's preferred options for calculating odour emissions from cattle.

[1] Agricultural Justification Statement – Demolition of steading and erection of new agricultural buildings, Undertaken by Savill on behalf of Pilkington Trust, dated March 2022

The aim of this assessment is to evaluate the magnitude of predicted odour emissions from the cattle and to understand the extent of which these impacts may encroach on the surrounding existing residential areas.

The approach adopted in this assessment to assess the impact of odour was based on Institute of Air Quality Management (IAQM) guidance for the consideration of odour for planning[2] the Environment Agency's H4 odour guidance[3], and the Scottish Environmental Protection Agency (SEPA) Guidance on odour assessments[4].

1.2 Site Description

The proposed development site is located on a redundant farm steading at Methven Castle, approximately 1.5 km from the centre of Methven. The site is bounded by three residential properties to the north, east and west, with open land and woodland to the south. Further west is Methven Castle and further residential properties, including the town of Methven. The closest residential receptor to the proposed development site boundary is located 25 m to the west of the site. Due to the proximity of proposed future site activities with odour potential relative to the locations of existing residential properties, there is the potential for odour impacts to impact nearby receptors.

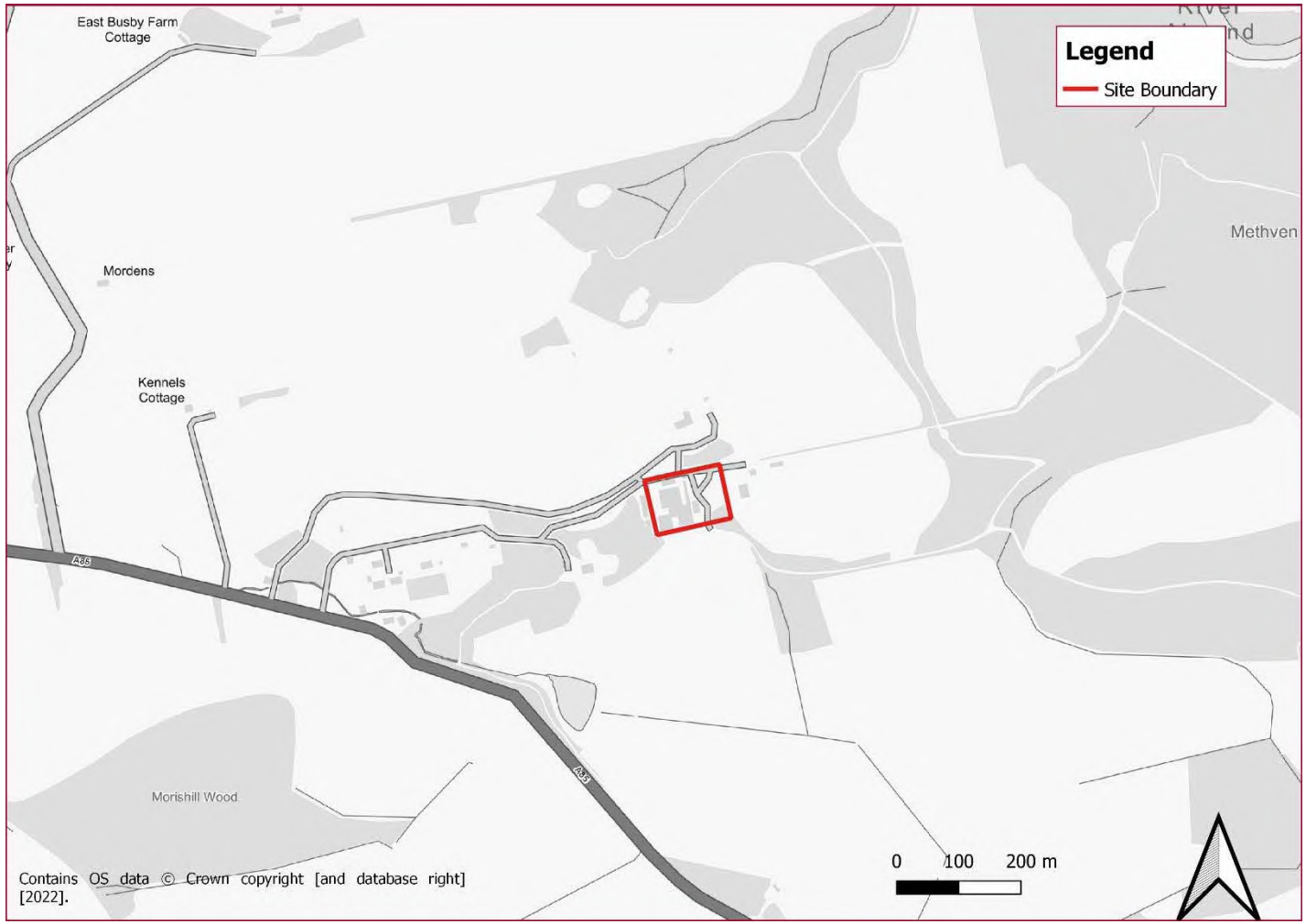
The development site location is presented in Figure 1.1.

[2] http://www.iaqm.co.uk/text/guidance/odour-guidance-2014.pdf

[3] https://www.gov.uk/government/publications/environmental-permitting-h4-odour-management

[4] https://www.sepa.org.uk/media/154129/odour_guidance.pdf

Figure 1-1 – Site Location



2 Odour – Legislative Context

2.1 Scottish National Planning Policy

The Scottish Planning Policy[5] was published in June 2014. This sets out the national planning policies which reflect Scottish Ministers priorities on the operation of the planning system and for the development and appropriate use of land. The Scottish Planning Policy promotes consistency in the application of policy across Scotland whilst allowing sufficient flexibility to reflect local circumstances.

With regard to odour, the Scottish Planning Policy states the following;

"Paragraph 28 – The planning system should support economically, environmentally and socially sustainable places by enabling development that balances the costs and benefits of a proposal over the longer term. The aim is to achieve the right development in the right place; it is not to allow development at any cost.

Paragraph 29 - This means that policies and decisions should be guided by the following principles:

…

avoiding over-development, protecting the amenity of new and existing development and considering the implications of development for water, air and soil quality

Paragraph 252 - Applications should be supported, where necessary, by sufficient information to demonstrate:

operational arrangements (including noise, light, access, waste and odour) are satisfactory and sufficient mitigation plans are in place"

2.2 Environmental Protection Act

The Environmental Protection Act 1990[6] sets out provisions for the regulation of statutory nuisance caused by odours. Section 79 (1)(d) sets out this statutory nuisance as *"any dust, steam, smell or other effluvia arising on industrial, trade or business premises and being prejudicial to health or a nuisance"*.

Section 79 requires that, where a complaint of a statutory nuisance is made to it by a person living within its area, a Local Authority must take steps as are reasonably practicable to investigate the complaint and decide whether the odour is prejudicial to health or a nuisance.

2.3 Scottish Environmental Protection Agency (SEPA) Guidance

The Scottish Environmental Protection Agency (SEPA) published a guidance on odour assessments[4]. The guidance aims to provide a practical guidance on how and why odours occur, how they can be investigated and how they can be mitigated. Although this guidance has been designed for processes that are subject to the Pollution Prevention and Control Regulations[7] (PCC)

5https://www.gov.scot/binaries/content/documents/govscot/publications/advice-and-guidance/2020/12/scottish-planning-policy/documents/scottish-planning-policy/scottish-planning-policy/govscot%3Adocument/scottish-planning-policy.pdf

[6] The Environmental Protection Act 1990 Available at http://www.legislation.gov.uk/ukpga/1990/43/contents

[7] https://www.legislation.gov.uk/ssi/2012/360/made/data.pdf

which does not explicitly apply to this development and assessment, the methodology and criteria stated within the SEPA Odour Assessment Guidance provides a useful framework.

SEPA's Odour criteria are based on the 98th percentile of hourly averages in a typical year. SEPA's odour guidance states that more offensive odour operations such as processes involving animal or fish remains, creamery's, wastewater treatment etc should be required to achieve less than 1.5 OU_E/m^3 1-hour 98th percentile at sensitive receptors. Odour from livestock, as proposed in this assessment, is assessed against a criterion of 3 OU_E/m^3 1-hour 98th percentile at sensitive receptors.

Table 2-1 – SEPA Industrial Activity and Indicative Criterion of Significant Pollution

Relative Offensiveness of Odour	Indicative Criterion of Significant Pollution (98th Percentile)
More offensive odours: Activities involving putrescible wastes, Processes involving animal or fish remains, Brickworks, Creamery, Fat & Grease Processing, Waste water treatment, Oil refining, Livestock feed Factory	1.5 OU_E/m^3
Odours which do not obviously fall within a high or low category: Intensive Livestock rearing, Fat Frying (food processing), Sugar Beet Processing	3.0 OU_E/m^3
Less offensive odours (but not inoffensive): Chocolate Manufacture, Brewery, Confectionary, Fragrance and Flavourings, Coffee Roasting, Bakery	6.0 OU_E/m^3

SEPA's odour criterion of 3.0 OU_E/m^3 has been used to advise the assessment.

2.4 Institute of Air Quality Management Odour Guidance

The Institute of Air Quality Management (IAQM) has prepared a guidance document to assist practitioners involved in the assessment of odour for planning[2]. The IAQM guidance is not intended to replace existing guidance published as part of Environmental Permitting or statutory nuisance investigations, etc., or specific odour guidance from the Environment Agency (EA)[8], Scottish Environmental Protection Agency (SEPA)[9] and Defra[10, 11,12].

The IAQM odour guidance provides suitable methods for assessing odour impacts when considering a planning application for an activity that may release odours or when a sensitive use is being proposed near to an existing odorous process (known as 'encroachment'). This guidance has been followed where relevant to the assessment of potential odour effects on the existing residential dwellings.

2.5 Defra Odour Guidance for Local Authorities

Defra's Odour Guidance for Local Authorities[11] (March 2010) is designed primarily for use by Environmental Health Practitioners. However, it is also intended to be useful to other Local Authority professionals, regulators and industry professionals who are engaged in the following activities: preventing, investigating and managing odours.

With regard to proposed sensitive development, the guidance states that:

[8] Environment Agency (March 2011). H4 Odour Management.

[9] SEPA (January 2010). Odour Guidance.

[10] Defra (March 2009). Good Practice and Regulatory Guidance on Composting and Odour Control for Local Authorities.

[11] Defra (March 2010), Odour Guidance for Local Authorities.

[12] Defra (January 2005). Guidance on the Control of odour and Noise from Commercial Kitchen Exhaust Systems.

> *"Careful consideration needs to be given to the location of new odour sensitive developments such as residential developments, schools and hospitals near to existing odour sources. Encroachment of odour sensitive development around such sites may lead to problems with the site becoming the subject of complaint, essentially creating a problem where there was not one before."*

The guidance provides methodologies for various odour assessment techniques, including the sensory "sniff" test field assessment. This guidance has been applied to this assessment, where relevant.

2.6 Environment Agency H4 Odour Management

The Environment Agency's H4 Odour Management guidance[8], published in March 2011, is designed to provide guidance on Environmental Permitting for holders and potential holders of permit. However, it provides useful guidance on various techniques for assessing the level of odour pollution and appropriate control measures. Again, this guidance has been applied to this assessment, where relevant.

3 Assessment Methodology

3.1 The Dispersion Model

ADMS 6 has been used for the dispersion modelling of emissions from the cattle to be housed at the proposed development. ADMS 6 is an advanced atmospheric dispersion model that has been developed and validated by Cambridge Environmental Research Consultants (CERC). The model has been used extensively throughout the UK for regulatory compliance purposes and is accepted as an appropriate modelling tool by the Environment Agency and local authorities.

ADMS 6 parameterises stability and turbulence in the atmospheric boundary layer (ABL) by the Monin-Obukhov length and the boundary layer depth. This approach allows the vertical structure of the ABL to be more accurately defined than by the stability classification methods of earlier dispersion models such as R91 or ISCST3. In ADMS, the concentration distribution follows a symmetrical Gaussian profile in the vertical and crosswind directions in neutral and stable conditions. However, the vertical profile in convective conditions follows a skewed Gaussian distribution to take account of the inhomogeneous nature of the vertical velocity distribution in the Convective Boundary Layer (CBL).

A range of input parameters is required including, among others, data describing the local area, meteorological measurements and emissions data. The data used in modelling the emissions are given in the following sections of this chapter.

3.2 Assessment Criteria

As discussed previously, SEPA's Odour Guidance details that 3.0 OU_E/m^3 is considered an appropriate assessment criterion for livestock rearing, this can be confirmed by reviewing the IAQM Guidance on the Assessment of Odour for Planning, which also indicates that for "Moderately Offensive" odours, values below 3.0 OU_E/m^3 can be considered negligible. It should also be noted that Perth & Kinross Council have suggested an odour emission benchmark of 3.0 OU_E/m^3 for an odour modelling assessment of similar nature discussed in more detailed below.

3.3 Process Emissions

The Agricultural Justification Statement[1] and discussions with the client have been undertaken to understand the proposed operations on site to determine the appropriate emissions rates for the assessment.

There is a requirement for the proposed site to house cattle during the wintering months and also calving time. There are proposed to be;

70 Cows (600 kg with calf housed on straw).

70 Store Cattle.

3 Bulls.

In total when considering the number of calves, there is proposed to be a total of 180 cattle to be housed, in an area of 800 m^2. Figure 3-1 below indicates the proposed block plan for the development, with the central unit to be the "Cattle Building".

It is understood that the building will be naturally ventilated, through a ventilating ridge that runs along the roof which allows air flow, as well as the three sets of sliding doors on both the north and south facades of the building. In total this results in seven areas for natural ventilation (i.e., passive).

As a worst-case assessment, a total of 180 cows all of 600 kg has been considered when determining odour emissions rates and throughout the assessment.

Sources of odour include:

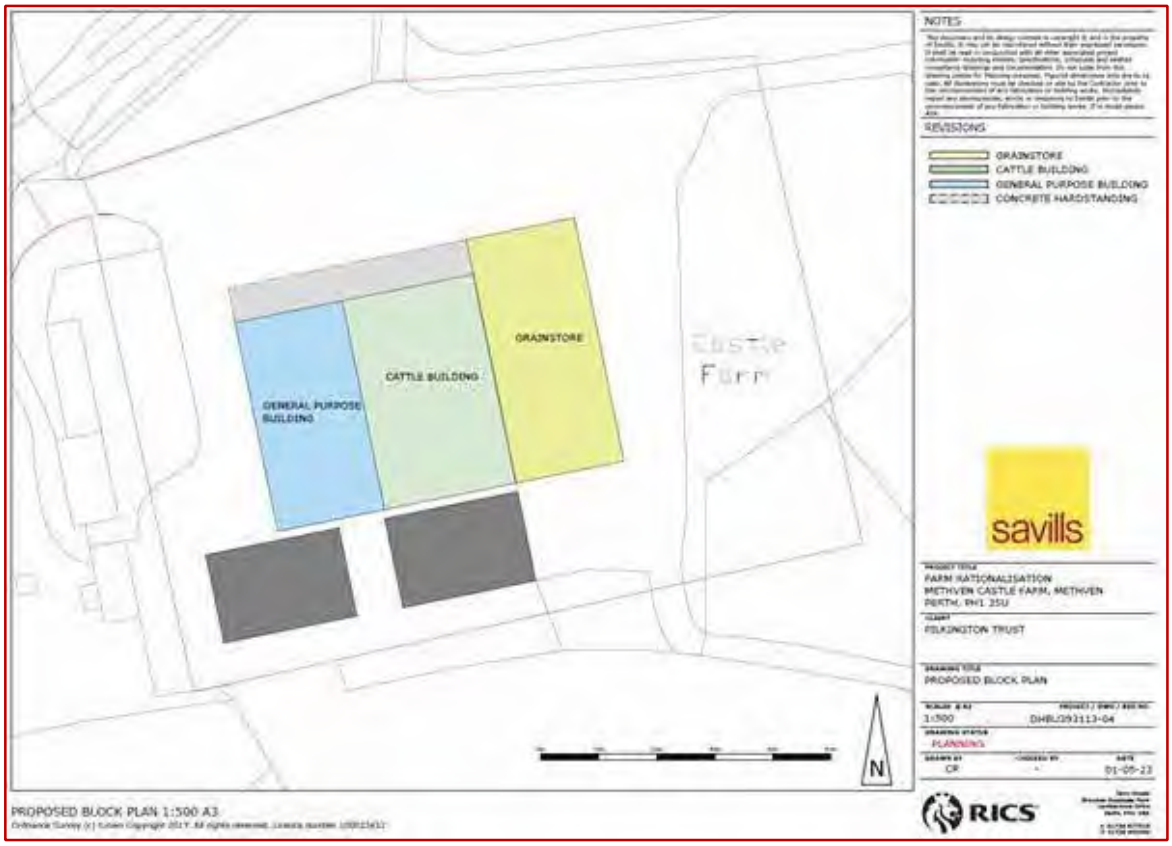
Odour from the cattle if allowed to become coated in manure.

Odour from straw bedding if layer is allowed to become wet or agitated.

The proposed site does not include effluent storage, slatted floors or an underlying slurry pit.

There will be little effluent arising from the proposed installation provided the straw bed is maintained in good condition and replenished on a regular basis

Figure 3-1 – Proposed Block Plan



3.3.1 Odour Emissions Factors

A review of current literature and odour assessments undertaken in the area of a similar nature have been reviewed to help determine the appropriate odour emission factor to be applied in the assessment.

Overall, there is limited published odour emission factors for cattle units on straw bedding, with the majority of published literature based on odour from dairy cattle, on slatted floors and underlying slurry pits which are not representative of the conditions at the proposed development.

Initially a review of the Simple Calculation of Atmospheric Impact Limits from Agricultural Sources (SCAIL-Agriculture)[13] was undertaken. This is a screening tool for primarily assessing the impacts of pig and poultry farms on human health, however it is also able to determine odour emissions from cattle. A further review of the data source for the SCAIL-Agriculture database for cattle determined that the odour emissions were only based off a single study undertaken in Nebraska in the USA and was as such not considered appropriate to be used in the assessment.

An odour modelling assessment undertaken within Perth & Kinross Council in 2016 at Millhouse Farm[14] was also reviewed. This odour modelling assessment was for a proposed cattle unit which was to be naturally ventilated for 180 cows, similar to the proposed development. Consultation with Perth & Kinross Council was undertaken to determine the assessment methodology and the appropriate emission rates to be used in the assessment.

On the 3rd March 2016, Ricardo Energy and Environment, on behalf of Perth & Kinross Council provided comments on the scope and methodology of the odour modelling assessment for Millhouse Farm and provided appropriate odour emission rates to be used. This is based on a Dutch study[15] which assumes 109 OU_E/s per cow for the winter period and 46 OU_E/s per cow for the summer period. Following a review of this study and the discussion within the odour assessment for Millhouse Farm, it was considered that although the odour emission rates from the Dutch study are based on dairy cows on a slatted floor with slurry pits, they are considered worst case for this assessment at Methven Castle.

The modelling assessment has considered the different emissions rates for the time of the year by adjusting emission rates for both the summer and winter months, using a time varying emissions file within the model. This aligns with those stated in the document from March 2016 referred to above.

[13] https://www.scail.ceh.ac.uk/cgi-bin/agriculture/input.pl

[14] Odour Impact Assessment for Proposed Cattle Unit, Millhouse Farm, Undertaken by The Airshed, April 2016

[15] J. Mosquera *, J.M.G. Hol, G.J. Monteny "Gaseous emissions from a deep litter farming system for dairy cattle" International Congress Series 1293 (2006) 291– 294

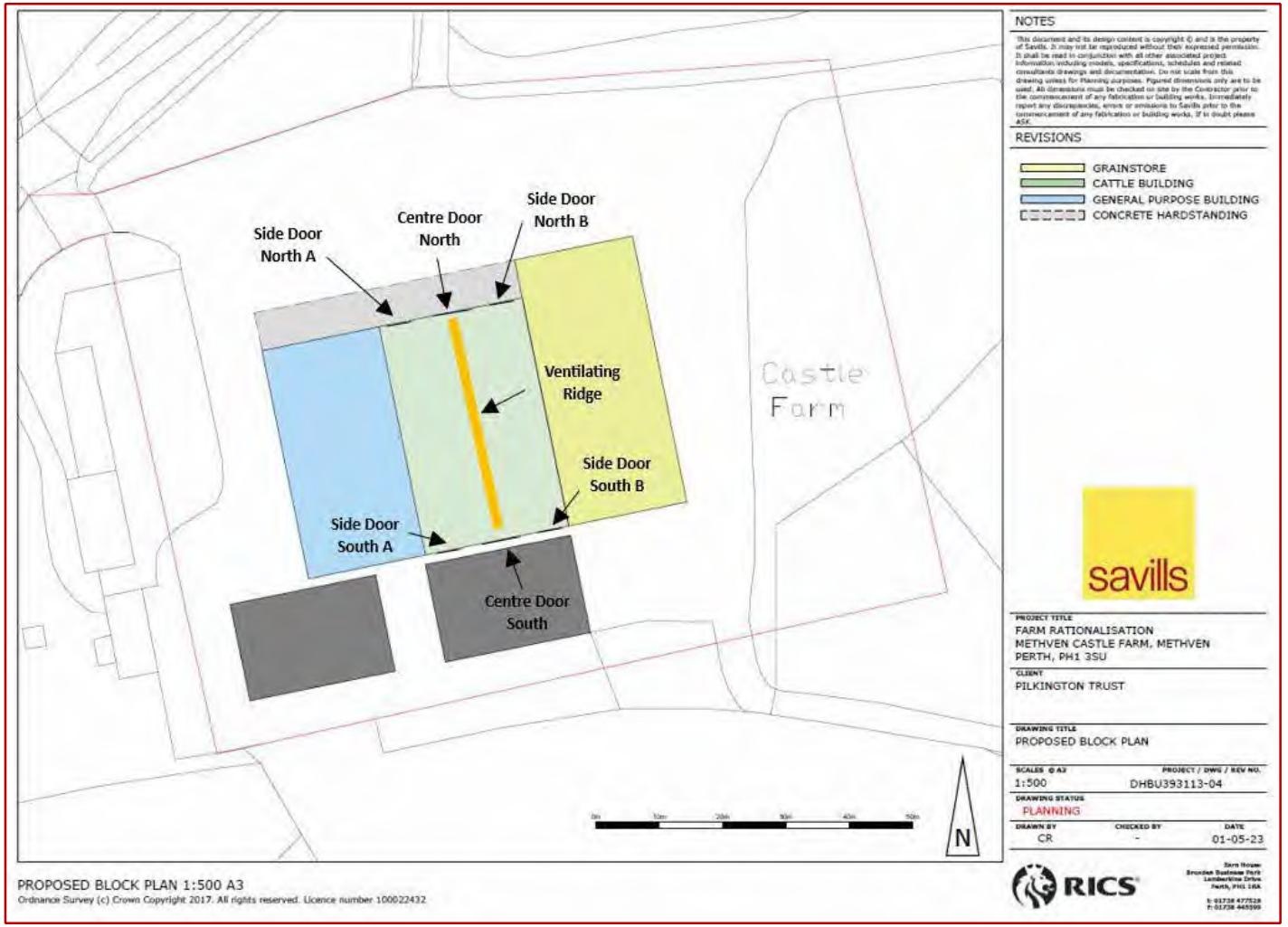
Table 3-1 – Modelled Sources

Source	Height (m)	Length/Diameter (m)	Width (m)	Additional Comments / Assumptions
Ventilation Ridge	8.85 (roof)	38	0.5	Modelled as an area source
Side Door North A	5.1 (door)	5.1	1	Modelled as a volume source.
Side Door North B	5.1 (door)	5.1	1	Modelled as a volume source.
Centre Door North	5.1 (door)	5.1	1	Modelled as a volume source.
Side Door South A	5.1 (door)	5.1	1	Modelled as a volume source.
Side Door South B	5.1 (door)	5.1	1	Modelled as a volume source.
Centre Door South	5.1 (door)	5.1	1	Modelled as a volume source.

Table 3-2 – Modelled Emission Rates

Time Period	Odour Emission Factor (OU_E/s/cow)	Number of Cattle	Odour Emission Rate (OU_E/s/total cattle)	Housing Area (m^2)	Modelled Odour Emission Rate ($OU_E/s/m^2$)
Summer	46	180	8280	800	10.35
Winter	109	180	19,620	800	24.53

Figure 3-2 – Modelled Emission Sources



3.4 Model Domain

A 2 km x 2 km grid, centred on the proposed development site, was modelled with a resolution of 8 m, such that the spatial extent of odour impacts can be visualised. The modelled grid was used for producing concentration isopleths (contour maps) of odour concentrations surrounding the site.

3.5 Human Receptors

In addition to the gridded receptors, several discrete receptor points have been considered in the assessment of odour emissions, in order to predict impacts at specific locations. The discrete receptor locations have been assessed at 1.5m height, to represent average breathing zone and comprise of points surrounding the proposed development site.

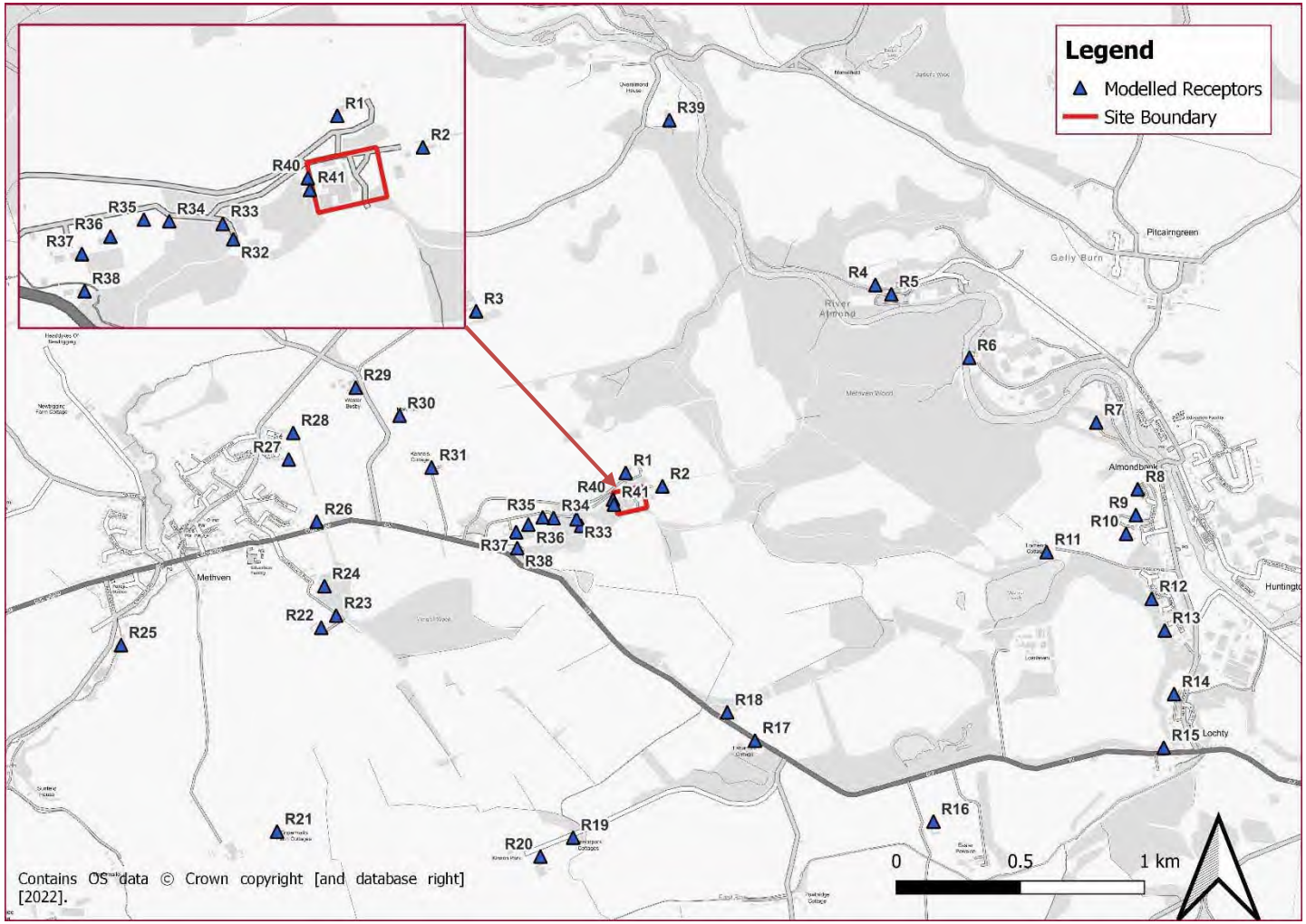
These are detailed in Table 3-3 and their locations are illustrated in Figure 3-3.

Table 3-3 – Receptor Locations

Receptor ID	Description	Coordinates		Height (m)
		X	Y	
R1	Residential Receptor	304312	726262	1.5
R2	Residential Receptor	304460	726208	1.5
R3	Residential Receptor	303709	726913	1.5
R4	Residential Receptor	305318	727018	1.5
R5	Residential Receptor	305382	726981	1.5
R6	Residential Receptor	305697	726725	1.5
R7	Residential Receptor	306208	726464	1.5
R8	Residential Receptor	306375	726196	1.5
R9	Residential Receptor	306368	726091	1.5
R10	Residential Receptor	306329	726016	1.5
R11	Residential Receptor	306008	725943	1.5
R12	Residential Receptor	306431	725754	1.5
R13	Residential Receptor	306484	725627	1.5
R14	Residential Receptor	306522	725371	1.5
R15	Residential Receptor	306480	725155	1.5
R16	Residential Receptor	305552	724857	1.5
R17	Residential Receptor	304833	725183	1.5
R18	Residential Receptor	304721	725297	1.5
R19	Residential Receptor	304100	724792	1.5
R20	Residential Receptor	303968	724716	1.5
R21	Residential Receptor	302907	724817	1.5
R22	Residential Receptor	303085	725638	1.5
R23	Residential Receptor	303145	725687	1.5
R24	Residential Receptor	303098	725805	1.5
R25	Residential Receptor	302279	725568	1.5
R26	Residential Receptor	303067	726065	1.5
R27	Residential Receptor	302954	726315	1.5
R28	Residential Receptor	302972	726423	1.5
R29	Residential Receptor	303224	726605	1.5
R30	Residential Receptor	303401	726492	1.5
R31	Residential Receptor	303530	726283	1.5
R32	Residential Receptor	304132	726049	1.5
R33	Residential Receptor	304114	726075	1.5
R34	Residential Receptor	304022	726080	1.5
R35	Residential Receptor	303978	726083	1.5

Receptor ID	Description	Coordinates		Height (m)
		X	Y	
R36	Residential Receptor	303920	726053	1.5
R37	Residential Receptor	303871	726023	1.5
R38	Residential Receptor	303875	725959	1.5
R39	Residential Receptor	304488	727682	1.5
R40	Residential Receptor	304261	726155	1.5
R41	Residential Receptor	304265	726134	1.5

Figure 3-3 – Receptor Locations



3.6 Meteorological Data

For meteorological data to be suitable for dispersion modelling purposes, a number of meteorological parameters need to be measured on an hourly basis. These parameters include wind speed, wind direction, cloud cover, relative humidity and temperature. There are only a limited number of sites where the required meteorological measurements are made. The year of meteorological data that is used for a modelling assessment can also have a significant effect on ground level concentrations.

Meteorological data was selected from Strathallan for use within the modelling assessment. The wind roses, showing the frequency and speeds of different wind directions, are provided in Figure 3-4 - Figure 3-8.

Figure 3-4 – Strathallan 2017 Wind Rose

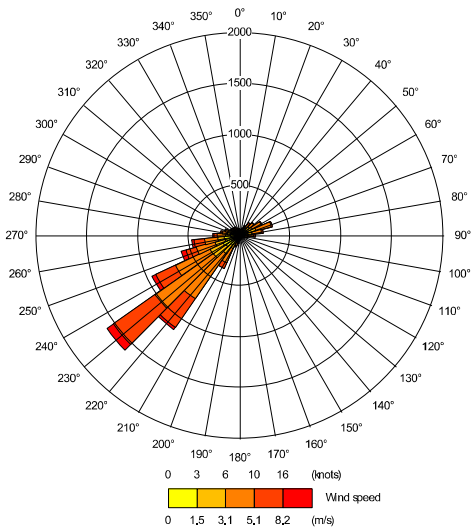


Figure 3-5 – Strathallan 2018 Wind Rose

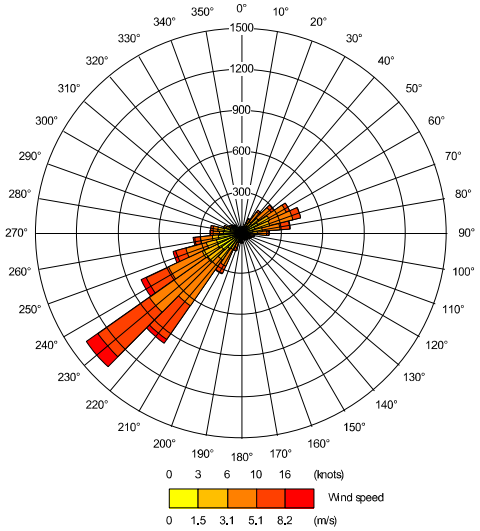


Figure 3-6 – Strathallan 2019 Wind Rose

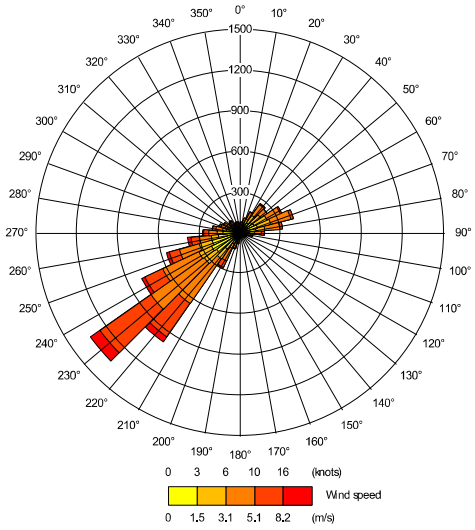


Figure 3-7 – Strathallan 2020 Wind Rose

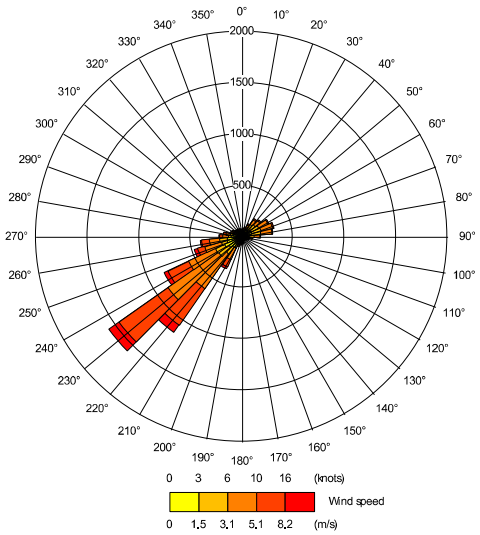
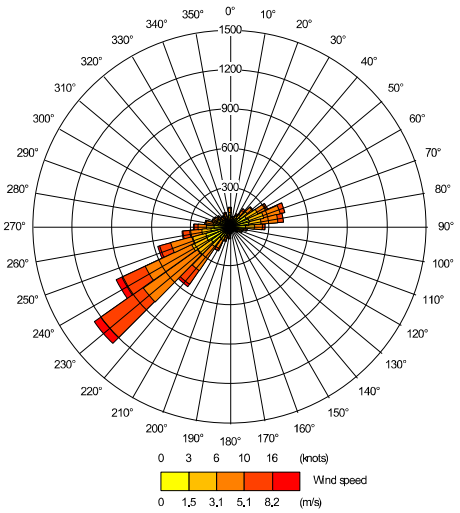


Figure 3-8 – Strathallan 2021 Wind Rose



3.7 Surface Characteristics

The predominant surface characteristics and land use in a model domain have an important influence in determining turbulent fluxes and, hence, the stability of the boundary layer and atmospheric dispersion. Factors pertinent to this determination are detailed below.

3.7.1 Surface Roughness

Roughness length, z_0, represents the aerodynamic effects of surface friction and is physically defined as the height at which the extrapolated surface layer wind profile tends to zero. This value is an important parameter used by meteorological pre-processors to interpret the vertical profile of wind speed and estimate friction velocities which are, in turn, used to define heat and momentum fluxes and, consequently, the degree of turbulent mixing.

The surface roughness length is related to the height of surface elements; typically, the surface roughness length is approximately 10% of the height of the main surface features. Thus, it follows that surface roughness is higher in urban and congested areas than in rural and open areas. Oke (1987) and CERC (2003) suggest typical roughness lengths for various land use categories (Table 3-4).

Table 3-4 – Typical Surface Roughness Lengths for Various Land Use Categories

Type of Surface	z_0 (m)
Ice	0.00001
Smooth snow	0.00005
Smooth sea	0.0002
Lawn grass	0.01
Pasture	0.2
Isolated settlement (farms, trees, hedges)	0.4
Parkland, woodlands, villages, open suburbia	0.5-1.0
Forests/cities/industrialised areas	1.0-1.5
Heavily industrialised areas	1.5-2.0

Increasing surface roughness increases turbulent mixing in the lower boundary layer. This can often have conflicting impacts in terms of ground level concentrations:

The increased mixing can bring portions of an elevated plume down towards ground level, resulting in increased ground level concentrations closer to the emission source; and

The increased mixing increases entrainment of ambient air into the plume and dilutes plume concentrations, resulting in reduced ground level concentrations further downwind from an emission source.

The overall impact on ground level concentration is, therefore, strongly correlated to the distance and orientation of a receptor from the emission source.

3.7.2 Surface Energy Budget

One of the key factors governing the generation of convective turbulence is the magnitude of the surface sensible heat flux. This, in turn, is a factor of the incoming solar radiation. However, not all solar radiation arriving at the Earth's surface is available to be emitted back to atmosphere in the form of sensible heat. By adopting a surface energy budget approach, it can be identified that, for fixed values of incoming short and long wave solar radiation, the surface sensible heat flux is inversely proportional to the surface albedo and latent heat flux.

The surface albedo is a measure of the fraction of incoming short-wave solar radiation reflected by the Earth's surface. This parameter is dependent upon surface characteristics and varies throughout the year. Oke (1987) recommends average surface albedo values of 0.6 for snow covered ground and 0.23 for non-snow covered ground, respectively.

The latent heat flux is dependent upon the amount of moisture present at the surface. The Priestly-Taylor parameter can be used to represent the amount of moisture available for evaporation:

$$\alpha = \frac{1}{S(B+1)}$$

Where:

α = Priestly-Taylor parameter (dimensionless)

$$S = \frac{s}{s+\gamma}$$

$$s = \frac{de}{dT}$$

e_s = Saturation specific humidity (kg H_2O / kg dry air)

T = Temperature (K)

$$\gamma = \frac{c_{pw}}{\lambda}$$

c_{pw} = Specific heat capacity of water (kJ kg^{-1} K^{-1})

λ = Specific latent heat of vaporisation of water (kJ kg^{-1})

B = Bowen ratio (dimensionless)

Areas where moisture availability is greater will experience a greater proportion of incoming solar radiation released back to atmosphere in the form of latent heat, leaving less available in the form of sensible heat and, thus, decreasing convective turbulence. Holstag and van Ulden (1983) suggest values of 0.45 and 1.0 for dry grassland and moist grassland respectively.

3.7.3 Selection of Appropriate Surface Characteristic Parameters for the Site

A detailed analysis of the effects of surface characteristics on ground level concentrations by Auld et al. (2002) led them to conclude that, with respect to uncertainty in model predictions:

> *"…the energy budget calculations had relatively little impact on the overall uncertainty"*

In this regard, it is not considered necessary to vary the surface energy budget parameters spatially or temporally, and annual averaged values have been adopted throughout the model domain for this assessment.

As snow covered ground is only likely to be present for a small fraction of the year, the surface albedo of 0.23 for non-snow covered ground advocated by Oke (1987) has been used whilst the model default α value of 1.0 has also been retained.

From examination of base maps, it can be seen that within the immediate vicinity of the site, land use is predominately open, residential areas at a greater distance. As such, surface roughness length of 0.3 m has been used in the assessment, representative of the open land surrounding the modelled sources.

3.8 Buildings

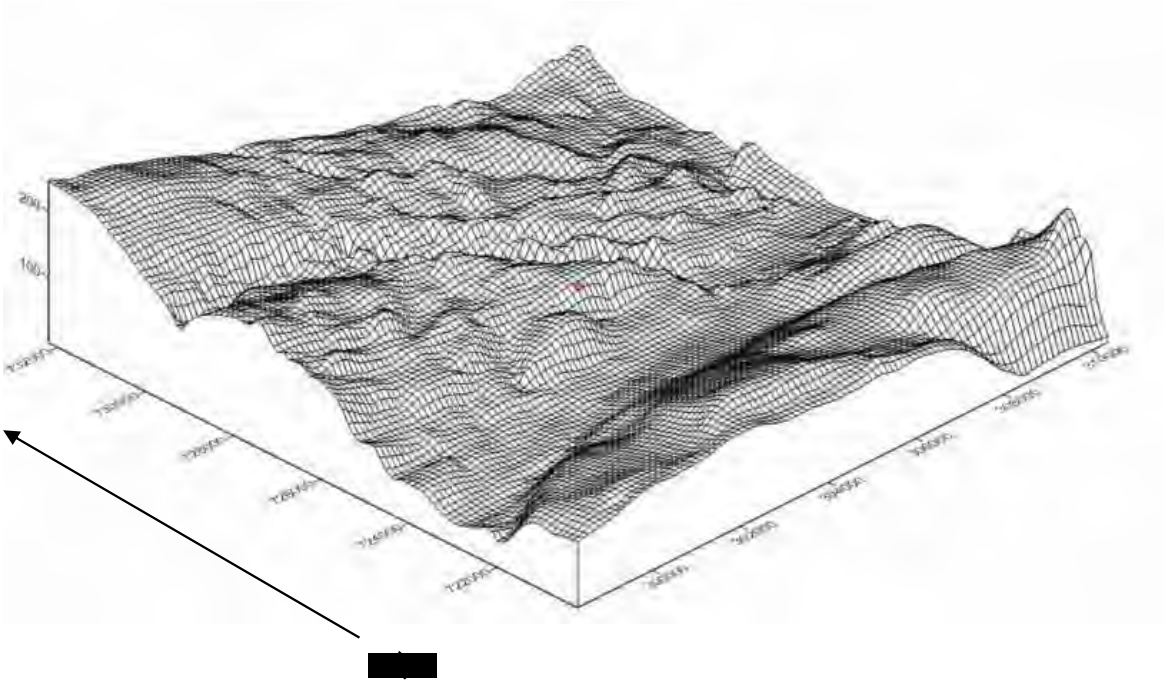
Any large, sharp-edged object has an impact on atmospheric flow and air turbulence within the locality of the object. This can result in maximum ground level concentrations that are significantly different (generally higher) from those encountered in the absence of buildings. The building 'zone of influence' is generally regarded as extending a distance of 5L (where L is the lesser of the building height or width) from the foot of the building in the horizontal plane and three times the height of the building in the vertical plane.

The ADMS model software is unable to run the buildings module when area sources are modelled, such as within this assessment. As such, buildings have not been included in the model. As stated within the ADMS user guide, The effect of buildings on dispersion can only be modelled for point sources. Area, line or volume sources may be included in the modelling run, but the effect of the buildings on dispersion from these sources will not be modelled.

3.9 Terrain

The concentrations of an emitted pollutant found in elevated, complex terrain differ from those found in simple level terrain. These effects are most pronounced when the terrain gradients exceed 1 in 10, i.e. a 100 m change in elevation per 1 km step in the horizontal plane. There are gradients within the model domain that exceed this criterion and, consequently, terrain data has been included in the ADMS model. Panorama digital terrain mapping for the site from OS Open Data was used to create a terrain file as illustrated in Figure 3-9 below. The terrain file used a 6 x 6 km grid, with a grid resolution of 64 x 64 points.

Figure 3-9 – Terrain Map



Note: z-axis exaggerated relative to scale of x- and y-axes. Red dot indicates the proposed development site.

3.10 Odour Baseline

The Environmental Health team at Perth & Kinross has been contacted with regards to the provision of odour complaint history, in order to inform the existing odour 'baseline' in the area.

Following confirmation from the Environmental Health Technical Officer - Air Quality and Planning Environmental Health team at Perth & Kinross Council, there have been no odour complaints in the last 5 years within a 1 km radius of the site. The closest odour complaint was 2 km east of the site at Almond Bank, due to the storage of agricultural dung. However, it should be noted that Loanleven Farm is located 600 m west of Almond Bank which is likely to be the source of the odour complaint.

4 Assessment Criteria

When emissions containing odorants are released to the atmosphere, they can have an impact on the environment. Under some circumstances this could also include an impact on the ecosystem or on human health due to their chemical nature (e.g. the toxicity of the release), in addition to its odorous nature. By convention, the term 'odour impact' is restricted to the negative appraisal by a human receptor of the odour exposure. Given the proximity of the proposed development site to residential receptors, there is the potential for odour impacts at these receptors.

Most odours are caused by mixtures of many chemicals that interact to produce what we detect as a smell. Detection and perception of odour, i.e., whether it is found to be acceptable, objectionable or offensive - are partly innate and hard-wired, and partly determined through life experiences. Hence, perception and detection by an individual is highly variable and depends upon several factors, including:

The chemical(s) involved;

The concentration;

The individual (genetics, state of health, etc.);

Environmental conditions (temperature, humidity);

Psychological effects (others reporting smelling an odour for example);

The length of time and frequency of exposure; and

Inherent variability.

4.1 Dispersion Modelling Criteria

Odour concentration is expressed as European odour units per cubic metre at standard conditions for olfactometry ($OU_e\ m^{-3}$) as compared to a European reference concentration of a known standard odorant in air (n-butanol). The odour concentration, in simple terms, is the number of times an odorous sample of air has to be diluted with odour free air to reach its odour threshold. Exposure is usually quantified in terms of a frequency of occurrence over a year of hourly average concentrations above a certain odour concentration.

An olfactory response to an odorant will typically occur due to transient peaks or fluctuations in concentrations over very short periods of time, typically in the order of 1 minute or less. However, the Environment Agency's Odour Guidance provides odour benchmarks based on achievement of a 1 hour mean concentration, not to be exceeded for more than 2% of a year (i.e., a 98th percentile 1-hour mean value). These odour benchmarks can be considered to represent a criterion for no reasonable cause for annoyance, rather than a benchmark representative of detection.

Odour generating processes are grouped into three categories dependent upon their perceived offensiveness:

Highly offensive - processes involving animal or fish remains, brickworks, creamery, fat and grease processing, wastewater treatment, oil refining, livestock feed factory;

Moderately offensive - intensive livestock rearing, fat frying (food processing), sugar beet processing, these are odours which do not obviously fall within the high or low categories; and

Less offensive - chocolate manufacture, brewery, confectionery, fragrance and flavourings, coffee roasting, bakery.

Annoyance thresholds are then prescribed based on the 98th percentile of hourly averaged odour concentrations during the year and dependent upon the offensiveness of the process. Following a review of SEPA Odour Guidance and review of consultation undertaken for developments of a similar nature with Perth & Kinross Council, the following criterion has been assessed;

3 OU_e/m^3 as a 98th percentile 1-hour mean odour concentration at the nearest sensitive receptors.

5 Assessment Results

The following section details the modelled results.

5.1.1 Results at Discrete Receptors

This section sets out the results of the dispersion modelling and compares predicted concentrations against the odour criterion of 3 OU_e/m^3 as a 98th percentile of 1-hour mean odour concentrations.

Results are presented for the five meteorological years modelled (2017 - 2021), showing the minimum, maximum (worst-case) and average concentration through the years. The utilisation of 5 meteorological years allows the variability of different weather conditions to be accounted for and assessed within the modelling.

The predicted results, which are inclusive of all sources, at the discrete receptors modelled, are shown in Table 5-1. Overall R40 and R41, two residential receptors located directly west of the proposed development approximately 100 m from the cattle shed, observe the highest maximum odour emissions of 3.17 OU_E/m^3 and 3.54 OU_E/m^3 respectively. However, despite exceeding the threshold of 3 OU_E/m^3, it is important to note that the model is a worst-case scenario as it does not consider the effect the buildings will have on the odour as they are unable to be implemented into the model. As such, it is likely that the building (to the west of the source) will reduce the odour impact at these receptors. It should also be noted that several worst case assumptions with regards to the size and number of cattle and maintenance and cleaning regime at the site have been used to inform the odour modelling, in practice it is expected that the odour impact will be less than is modelled.

For the remaining 39 sensitive receptors included in the model, the predicted 98th percentile 1-hour mean odour concentrations were all below the 3 OU_e/m^3 odour criterion. This indicates that all of the remaining existing surrounding residential properties are not likely to experience odour impacts greater than 3 OU_e/m^3, and the impact from the proposed development will likely result in no reasonable cause for annoyance.

Table 5-1 – 98th Percentile 1-hour Mean Odour Concentrations

Receptor	Odour Criterion (OU_e/m^3)	Modelled Odour Concentration (OU_e/m^3)					Minimum Odour Concentration (OU_e/m^3)	Maximum Odour Concentration (OU_e/m^3)	Average Odour Concentration (OU_e/m^3)
		2017	2018	2019	2020	2021			
R1	3	0.39	0.40	0.36	0.65	0.53	0.36	0.65	0.47
R2	3	1.76	2.15	2.15	2.15	1.79	1.76	2.15	2.00
R3	3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
R4	3	0.06	0.07	0.07	0.07	0.06	0.06	0.07	0.06
R5	3	0.07	0.08	0.08	0.07	0.07	0.07	0.08	0.07
R6	3	0.05	0.09	0.09	0.06	0.05	0.05	0.09	0.07
R7	3	0.03	0.04	0.04	0.04	0.04	0.03	0.04	0.04
R8	3	0.02	0.04	0.03	0.02	0.02	0.02	0.04	0.03
R9	3	0.02	0.03	0.03	0.02	0.02	0.02	0.03	0.02
R10	3	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
R11	3	0.03	0.03	0.03	0.02	0.03	0.02	0.03	0.03
R12	3	0.01	0.02	0.01	0.01	0.02	0.01	0.02	0.02
R13	3	0.01	0.02	0.02	0.02	0.02	0.01	0.02	0.02
R14	3	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
R15	3	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
R16	3	0.00	0.00	0.01	0.01	0.01	0.00	0.01	0.01
R17	3	0.01	0.00	0.01	0.01	0.02	0.00	0.02	0.01
R18	3	0.01	0.00	0.01	0.01	0.02	0.00	0.02	0.01

Receptor	Odour Criterion (OU_e/m^3)	Modelled Odour Concentration (OU_e/m^3)					Minimum Odour Concentration (OU_e/m^3)	Maximum Odour Concentration (OU_e/m^3)	Average Odour Concentration (OU_e/m^3)
		2017	2018	2019	2020	2021			
R19	3	0.00	0.00	0.01	0.01	0.01	0.00	0.01	0.01
R20	3	0.01	0.00	0.01	0.01	0.01	0.00	0.01	0.01
R21	3	0.01	0.02	0.03	0.02	0.02	0.01	0.03	0.02
R22	3	0.03	0.04	0.06	0.03	0.05	0.03	0.06	0.04
R23	3	0.03	0.05	0.07	0.03	0.06	0.03	0.07	0.05
R24	3	0.03	0.04	0.05	0.03	0.05	0.03	0.05	0.04
R25	3	0.01	0.02	0.02	0.02	0.02	0.01	0.02	0.02
R26	3	0.02	0.03	0.03	0.03	0.05	0.02	0.05	0.03
R27	3	0.01	0.02	0.02	0.02	0.03	0.01	0.03	0.02
R28	3	0.00	0.01	0.01	0.01	0.02	0.00	0.02	0.01
R29	3	0.00	0.01	0.00	0.01	0.01	0.00	0.01	0.01
R30	3	0.01	0.02	0.01	0.01	0.01	0.01	0.02	0.01
R31	3	0.02	0.05	0.03	0.04	0.07	0.02	0.07	0.04
R32	3	0.73	0.84	0.86	0.78	0.84	0.73	0.86	0.81
R33	3	0.61	0.73	0.90	0.68	0.85	0.61	0.90	0.75
R34	3	0.30	0.40	0.45	0.32	0.49	0.30	0.49	0.39
R35	3	0.22	0.31	0.33	0.27	0.41	0.22	0.41	0.31
R36	3	0.17	0.26	0.28	0.21	0.33	0.17	0.33	0.25
R37	3	0.16	0.23	0.26	0.19	0.26	0.16	0.26	0.22

Receptor	Odour Criterion (OU_e/m^3)	Modelled Odour Concentration (OU_e/m^3)					Minimum Odour Concentration (OU_e/m^3)	Maximum Odour Concentration (OU_e/m^3)	Average Odour Concentration (OU_e/m^3)
		2017	2018	2019	2020	2021			
R38	3	0.15	0.23	0.31	0.18	0.26	0.15	0.31	0.23
R39	3	0.00	0.01	0.00	0.01	0.01	0.00	0.01	0.01
R40	3	2.14	2.90	2.85	2.67	3.17	2.14	3.17	2.75
R41	3	2.46	3.13	3.54	2.51	3.54	2.46	3.54	3.04

5.1.2 Results at Gridded Receptors

The model was run with gridded receptors in order to illustrate the spatial extent of odour impacts using a contour plot. The contour plots of 98th percentile 1-hour mean odour concentration are shown in Figure 5-1 to Figure 5-5. They present data from all five meteorological years modelled.

Each contour plot shows that emissions disperse in a northeast, southwest direction from the cattle building; which is mainly contained within the proposed site, with some overlap into neighbouring sensitive receptors. The contour plots indicate that all receptors (except two) will observe an odour concentration below the 3 OU_E/m^3 criterion, for the five meteorological years modelled. It is however important to note that for the two receptors where this threshold is exceeded (Receptor 40; 2021 and Receptor 41; 2018, 2019, 2021 – as shown in Table 5-1), the effect of buildings are unable to be implemented into the model. As a result it is likely that the building (to left of the source) will reduce the odour impact at these two receptors.

Figure 5-1 – Contour Plot of 98th Percentile 1-hour mean Odour Concentration 2017

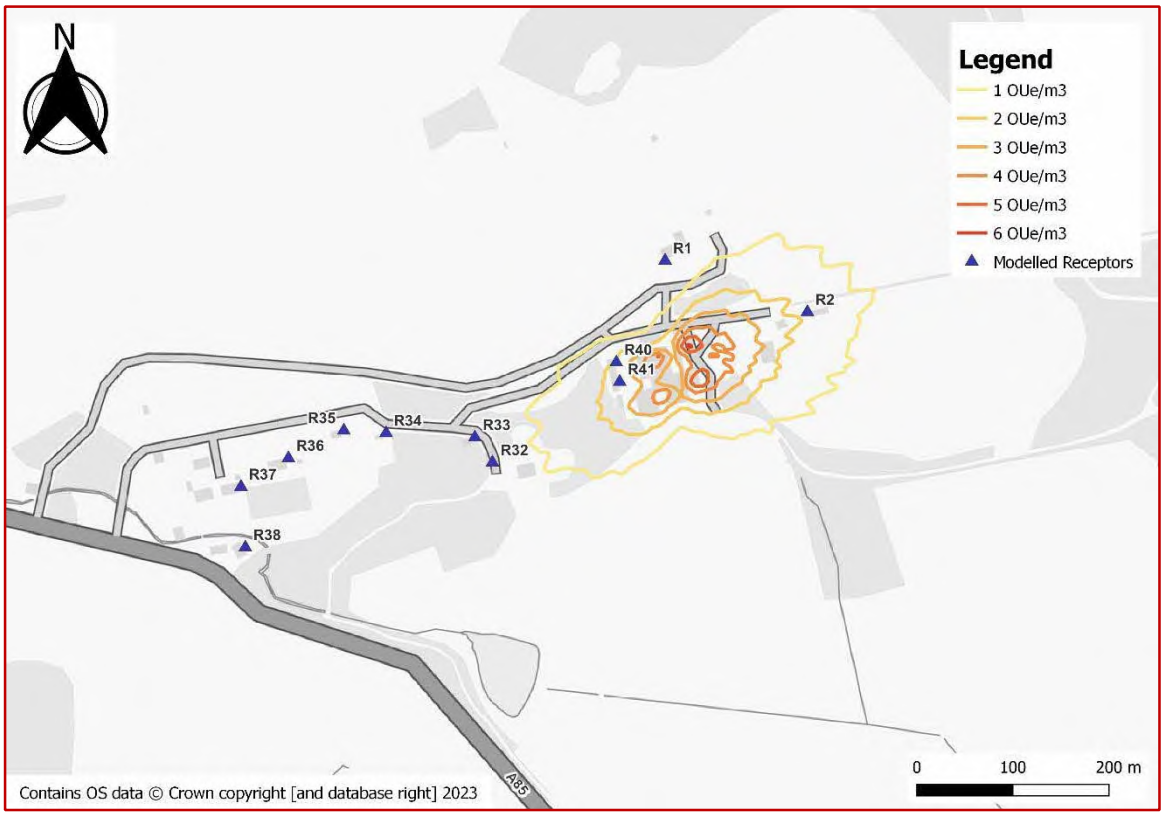


Figure 5-2 – Contour Plot of 98th Percentile 1-hour mean Odour Concentration 2018

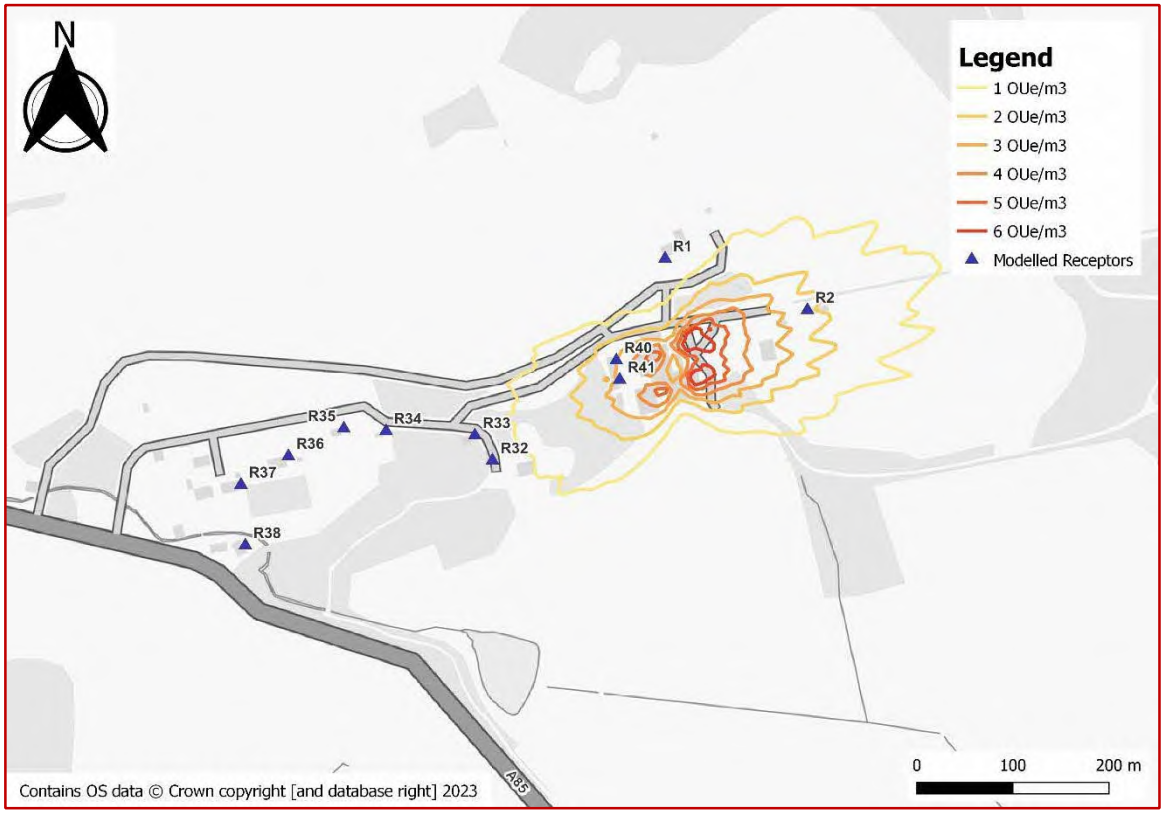


Figure 5-3 – Contour Plot of 98th Percentile 1-hour mean Odour Concentration 2019

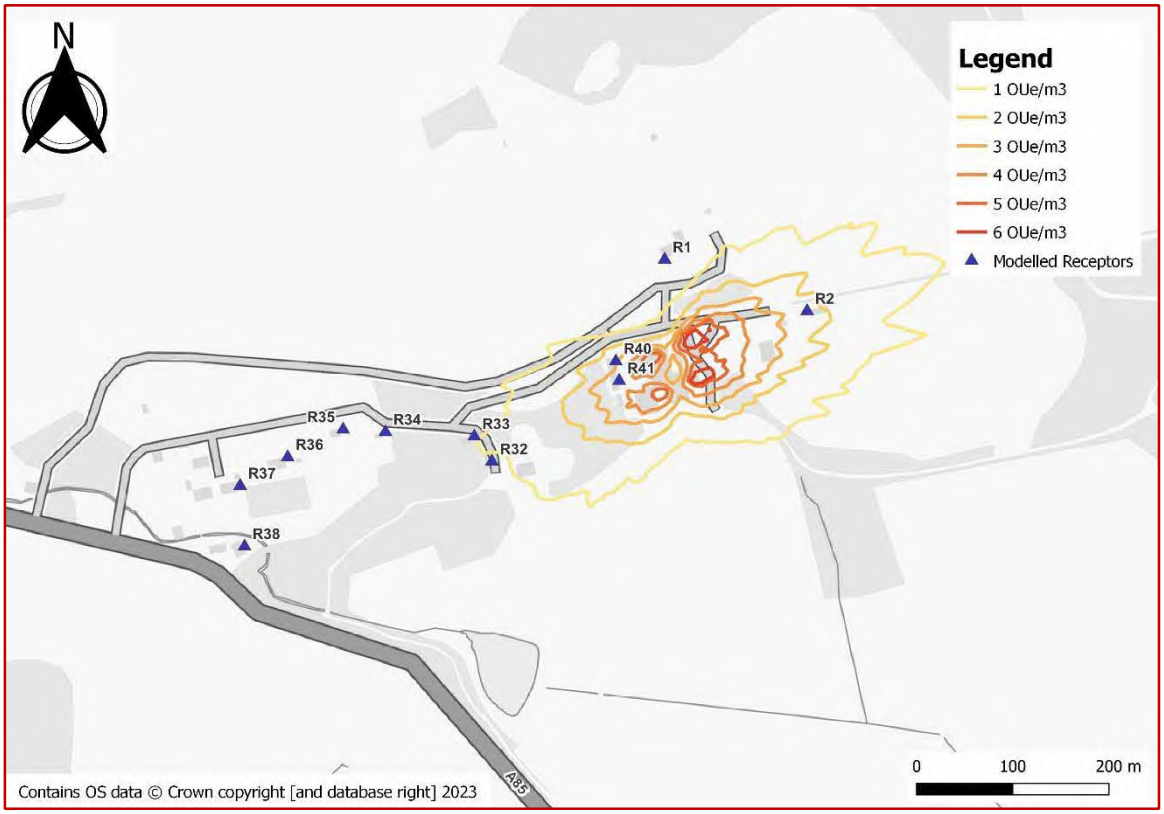


Figure 5-4 – Contour Plot of 98th Percentile 1-hour mean Odour Concentration 2020

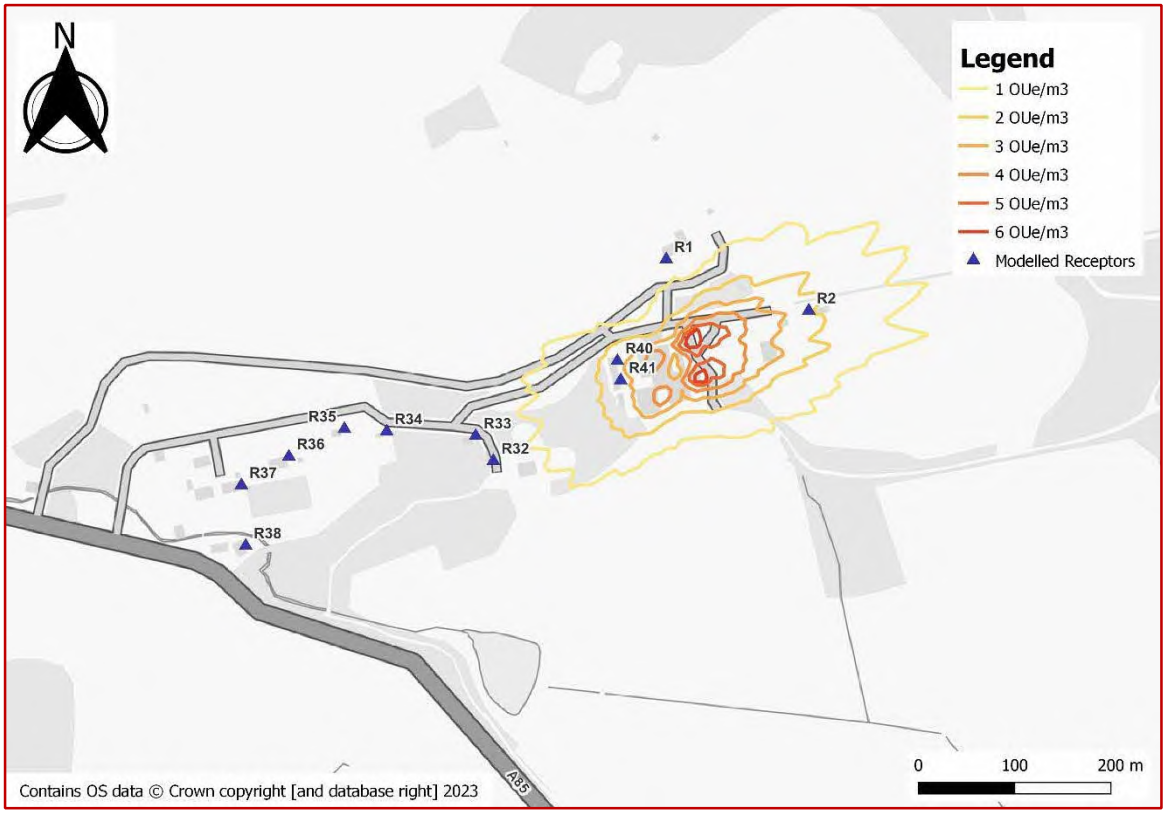
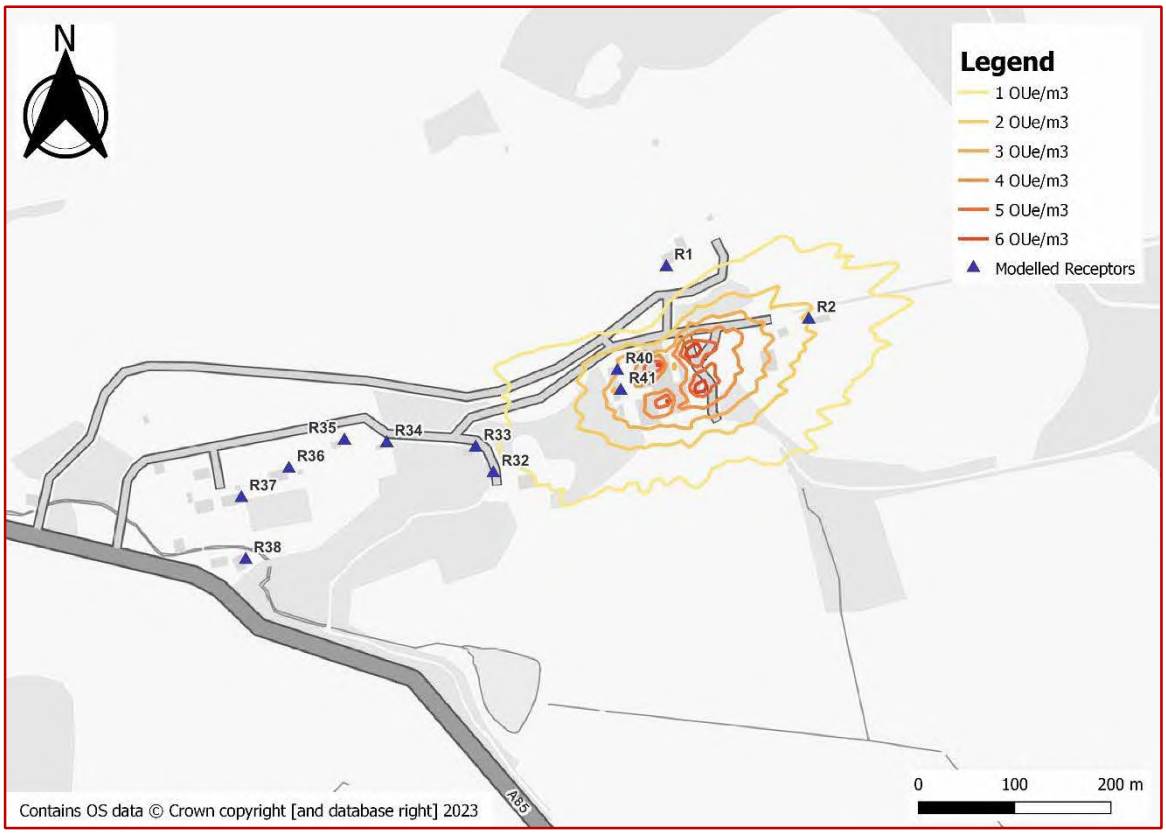


Figure 5-5 – Contour Plot of 98th Percentile 1-hour mean Odour Concentration 2021



6 Conclusions and Recommendations

Bureau Veritas UK Ltd has been commissioned by Savills on behalf of Pilkington Trust ("the Client") undertake an odour impact assessment in support of a planning application at Methven Castle Steading, Perth. The planning application involves the demolition of steading and erection of replacement agricultural building at 2 Castle Farm Cottage, Methven, Perth, PH1 3SU. The proposed development is located near highly sensitive residential receptors, hence the requirement for odour impacts to be assessed from the proposed development.

An odour impact assessment was required following the pre-application consultation comments from Perth & Kinross Council. Following a review of odour assessment previously completed for the site, the decision was taken to undertake an odour modelling assessment with site-specific emission rates. The emission rates were calculated in accordance with the council's stated preferred methodology based on a similar assessment undertaken for a separate site in 2016.

The detailed odour impact assessment has included the following aspects:

An odour dispersion modelling assessment has been carried out, using worst case assumptions (where required) including assuming that all 180 cows are 600 kg in mass. This demonstrates a worst case since a higher mass of cow results in a higher resultant emission rate.

Odour emission rates have been gathered from a similar report prepared for Perth & Kinross Council, following consultation on a similar site in 2016. These odour emission rates are considered worst-case as they are derived from studies for dairy cattle with slatted floors and slurry pits.

Modelling has considered all nearby surrounding sensitive receptors, assessing meteorological years 2017 – 2021 and has used complex terrain data to represent real world conditions.

The results illustrated that there are no significant difference between 2017 – 2021, and that all but two of the surrounding sensitive receptors will be below the 3 OU_E/m^3 criterion detailed within the assessment. The two receptors where the criterion is exceeded (Receptors 40 – 3.17 OU_E/m^3 and 41 – 3.54 OU_E/m^3) are located to the west of the site. However, the model is a worst-case scenario based on the assumptions used and as it does not consider the effect the buildings will have on the odour as they are unable to be implemented into the model. As such, it is likely that the building (to west of the source) will reduce the odour impact at these receptors.

Based on the findings of this assessment, the following recommendations are made:

No additional mitigation measures are required to ensure that surrounding sensitive receptors are not exposed to significant odour emissions given assumptions made regarding the two residential receptors around the site which are modelled to experience 3 OU_E/m^3 in a worst case scenario.

Pilkington Trust c/o Savills

Noise Impact Assessment

Methven Castle Farm, Methven, Perth

15827056/rmg/R1/V2 – 16th August 2023

Move Forward with Confidence

Document Control Sheet

Identification	
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v1	28/09/22	Rocco Giudice		Superseded
V2	16/08/23	Adil Hussain	CadnaA model update	FINAL

	Name	Job Title	Signature
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Appendices

1. Introduction

1.1 Bureau Veritas was instructed by Savills on behalf of Pilkington Trust to undertake a noise impact assessment in relation to the proposed demolition of Methven Castle Steadings and replacement with agricultural sheds. It is proposed the agricultural sheds will comprise one grain store, one cattle shed and one general purpose building.

1.2 This assessment looks to establish the following:

Daytime and night-time background noise levels at the nearest sensitive receptors
Current impact of the grain dryer and associated extract system
Predicted impact of the new grain dryer and associated extract system
Precited impact of new cattle building

1.3 The noise impact assessment was facilitated by preparing a noise model using the CadnaA noise mapping software.

1.4 A glossary of acoustic terminology is included as Appendix A. The assessment criteria applicable to this site are reproduced in Section 3.

1.5 Scaled site plans of the proposed development were prepared by Savills. A copy of the proposed site plan can be found in Appendix C.

2. Description of Site and Noise Sources

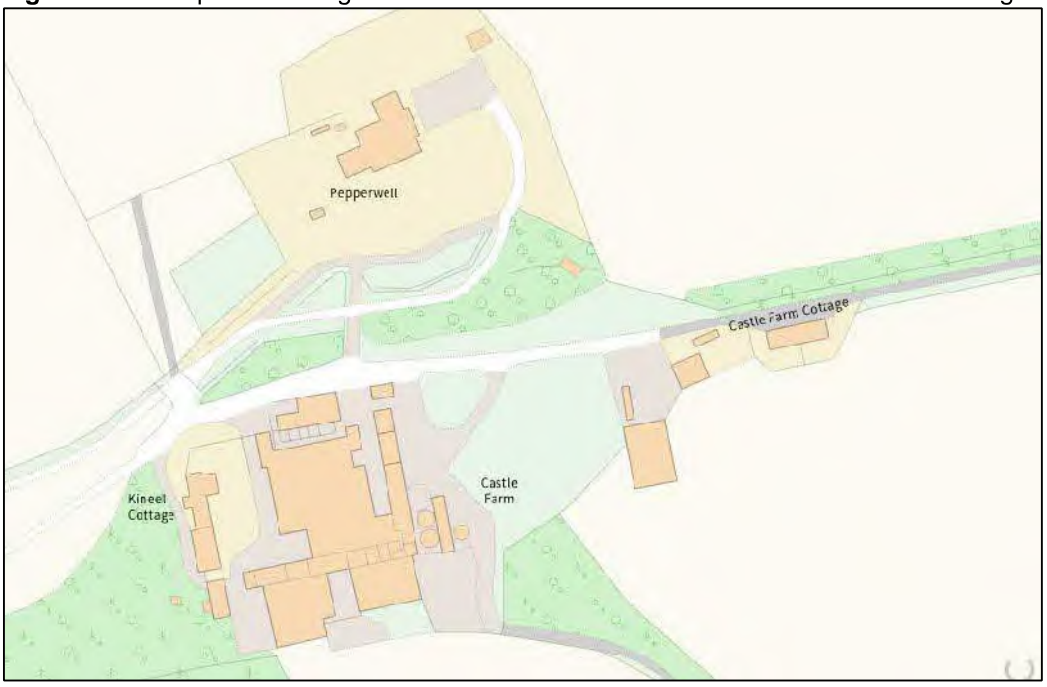
2.1 It is understood the proposed development site is located within the grounds of Methven Castle Historic Garden and Designed Landscape and approximately 100 metres from the category A listed Methven Castle. This is located within the village of Methven near Perth.

2.2 Methven Castle Farm is historic and is well established as a fully functioning farm with significant agricultural use. It is understood there are proposals to demolition of steadings and replace these with agricultural sheds which will comprise of one grain store, one cattle shed and one general purpose building. It is also proposed that the existing old grain dryer is replaced with a new machine.

2.3 The closest noise sensitive receptors are understood to be to be residential dwellings as follows;

Kineel Cottage – adjacently west of Castle Farm. The property is owned by castle farm and is occupied by the farmer tenant's parents.
Pepperwell - approximately 80m north of Castle Farm. The property is understood to be owned by Castle Farm and is occupied by the farm tenant.
Castle Farm Cottage – approximately 135m east of Castle Farm. The property is understood to be owned by Castle Farm and is rented out.

Figure 2.1: Site plan showing location of Castle Farm and nearest residential dwelling.



2.4 It is understood the new grain dryer will be silenced and the new system will be fully enclosed meaning the level of dust is greatly reduced. The current grain dryer is old and due to the large amounts of dust generated there were large extract fans installed. These were found to be the current dominant noise source, however, the new system will utilise much less powerful fans and should in theory be less noisy.

2.5 Existing ambient noise levels were measured at the nearest sensitive receptors in order to establish typical background noise levels. During our site visit it was noted that the noise is dominated by distant road traffic noise and bird song.

2.6 The grain dryer was switched on for the purpose of the noise assessment and it was found that the extract fans where the dominant noise source.

3. Criteria for Noise Assessment

3.1. Bureau Veritas have been commissioned to undertake a noise impact assessment with a view to establishing whether the proposed development is likely to affect the amenity of the nearby residential dwellings. The assessment is written with a view of meeting likely planning conditions that imposed by Perth & Kinross Council.

3.2. Based on previous experience it is considered that the assessment would need to conform to the following Guidance and Standards;

Planning Advice Note, PAN 1/2011 Technical Advice Note
BS 4142:2014+A1:2019, *"Methods for rating and assessing industrial and commercial sound"*
BS 8233:2014, *"Guidance on sound insulation and noise reduction for buildings"*
Compliance of Noise Rating Curves

PAN 1/2011 Technical Advice Note

3.3. In order to assess the impact of the grain dryer system, a noise impact assessment was carried out in accordance with the guidance set out in PAN 1/2011. The Technical Advice Note (TAN), Assessment of Noise, addendum to PAN 1/2011 describes the five stage assessment methodology required for a proposed noise sensitive development. The stages are as follows;

Stage 1, Initial Process: Identification of all noise sensitive receptors and assign a level of sensitivity.
Stage 2, Quantitative Assessment: Determine the magnitude of impact on the noise sensitive development.
Stage 3, Qualitative Assessment: Allows additional factors to be included in the assessment to supplement the quantitative assessment, such as adding specific criteria to assess the development.
Stage 4, Level of Significance: This is defined as the relationship of the receptor's sensitivity to noise and the magnitude of the noise impact.
Stage 5, The Decision Process: A summary informing the decision process when applying for planning permissions. This includes a summary of the number of noise sensitive receptors within each level of significance.

3.4. The evaluation of significance is based on a combination of magnitude of effect and sensitivity of the receptor.

Sensitivity

3.5. Residential properties are assessed as being noise sensitive. For this assessment, the noise-sensitive receptors are existing residential dwellings at Kineel Cottage, Pepperwell and Castle Farm Cottage.

3.6. In accordance with PAN 1/2011, the level of sensitivity associated with residential receptors is considered to be 'High', i.e. "Receptors where people or operations are particularly susceptible to noise." The sensitivity scale shown in Table 3.1 is taken from the PAN 1/2011.

Table 3.1: Classification of Sensitivity of Noise Impacts

Sensitivity		
High	Receptors where people or operations are particularly susceptible to noise	• Residential, including private gardens where appropriate. • Quiet outdoor areas used for recreation • Conference facilities • Theatres/Auditoria/Studios • Schools during the daytime • Hospitals/residential care homes • Places of worship
Medium	Receptors moderately sensitive to noise, where it may cause some distraction or disturbance	• Offices • Bars/Cafes/Restaurants where external noise may be intrusive. • Sports grounds when spectator noise is not a normal part of the event and where quiet conditions are necessary (e.g. tennis, golf, bowls)
Low	Receptors where distraction or disturbance from noise is minimal	• Buildings not occupied during working hours • Factories and working environments with existing high noise levels • Sports grounds when spectator noise is a normal part of the event • Night Clubs

Magnitude of Impact

3.7. The assessment criteria is based on an estimate of the change in noise level, $L_{Aeq,t}$ after the new grain dryer is operational relative to the existing noise level over the same area. TAN provides example methods for identifying magnitudes of effect for new sources within a residential area. This is considered appropriate to define the magnitude of impact of the Proposed Development upon existing receptors. Table 3.2 shows the criteria used to define magnitude of noise impacts for the grain dryer noise:

Table 3.2: Magnitude of Grain Dryer Noise

Magnitude	Change in Ambient Noise Level, $L_{Aeq,\ 16h}$ dB (After – Existing)
Major	≥5
Moderate	3 to 4.9
Minor	1 to 2.9
Negligible	0.1 to 0.9
No Change	0

Significance of Effect

3.8. A combination of receptor sensitivity and magnitude of impact before and after mitigation was used to determine the overall significance of the effect, as shown in Table 3.3. Moderate and large effects are considered to be significant.

Table 3.3: Significance of Effects

Magnitude of Impact	Level of Significance Relative to Sensitivity of Receptor		
	Low	Medium	Large
Major	Slight/Moderate	Moderate/Large	Large/Very Large
Moderate	Slight	Moderate	Moderate/Large
Minor	Neutral/Slight	Slight	Slight/Moderate
Negligible	Neutral/Slight	Neutral/Slight	Slight
No Change	Neutral	Neutral	Neutral

BS 8233:2014

3.9. BS 8233:2014 *"Guidance on sound insulation and noise reduction for buildings,"* provides recommendations for the control of noise in and around dwellings.

3.10. BS 8233:2014 suggests that an internal noise level of 30 dB $L_{Aeq,T}$ within bedrooms is desirable for the night-time (23:00 and 07:00). For living rooms and dining rooms, a design target of 35 dB and 40 dB $L_{Aeq,T}$ respectively is desired for the daytime (07:00 and 23:00). The criteria are summarised below.

Table 3.4: BS 8233:2014 Criteria

Location	Activity	Daytime (07:00 to 23:00)	Night-time (23:00 to 07:00)
Living Room	Resting	35 dB $L_{Aeq,16hr}$	-
Dining Room/area	Dining	40 dB $L_{Aeq,16hr}$	-
Bedroom	Sleeping (daytime resting)	35 dB $L_{Aeq,16hr}$	30 dB $L_{Aeq,8hr}$
Gardens	-	50-55 dB $L_{Aeq,16hr}$	-

3.11. BS 8233 further states that gardens should not exceed an upper limit of 55 dB L_{Aeq} with a noise level of 50 dB L_{Aeq} or less desirable. These limits only apply to daytime noise levels.

3.12. The now surpassed, BS 8233:1999 stated that a partially open window, which allows ventilation provides approximately 10 – 15 dB(A) attenuation, for the purposes of this assessment we have assumed 13 dB(A) attenuation.

BS 4142:2014

3.13. BS 4142 sets out a method for assessing the likelihood of complaint from industrial noise. It compares the Rating Level of the noise source under investigation with the Background Sound Level. The Rating Level is obtained by measuring or predicting the Specific Noise Level from the source, in terms of $L_{Aeq,T}$, and applying a correction factor to account for the acoustic character of the noise.

3.14. The standard states that certain acoustic features can increase the significance of impact and hence a correction should be applied if the noise in question contains any tonality, impulsivity intermittency or has any other specific sound characteristics. The Background Sound Level is the $L_{A90,T}$ measured in the absence of the source.

3.15. The Background Sound Level ($L_{A90,T}$) is then arithmetically subtracted from the Specific Noise Level. The difference between the two is considered to reflect the likelihood of complaints. The standard states the following:

"*a) Typically, the greater this difference, the greater the magnitude of the impact.*

b) A difference of around +10 dB or more is likely to be an indication of a significant adverse impact, depending on the context.

c) A difference of around +5 dB is likely to be an indication of an adverse impact, depending on the context.

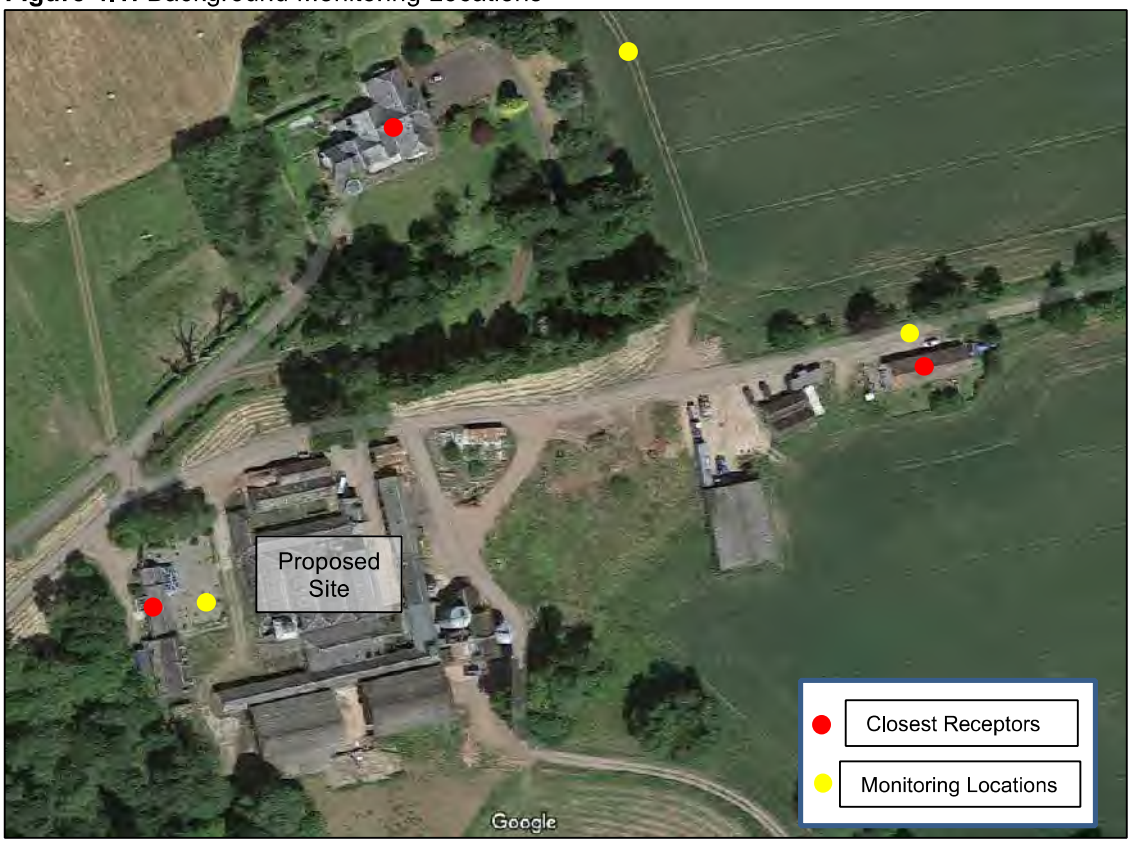
d) The lower the rating level is relative to the measured background sound level, the less likely it is that the specific sound source will have an adverse impact or a significant adverse impact. Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context."

4. Noise Survey

Background Noise Survey

4.1 Attended background noise measurements were taken on the 25th August 2022 at locations close to the close to the nearest identified residential receptors. Furthermore, longer term unattended background noise monitoring was undertaken close to Pepperwell between the 25th and 26th August 2022. The locations can be seen below along with the closest identified sensitive receptors.

Figure 4.1: Background Monitoring Locations



4.2 Measurements were undertaken in free-field conditions with the sound level meter mounted 1.5m above local ground level. The weather was dry and clear with a no wind and considered conducive to environmental noise monitoring. Protective windshields were also fitted to the microphones.

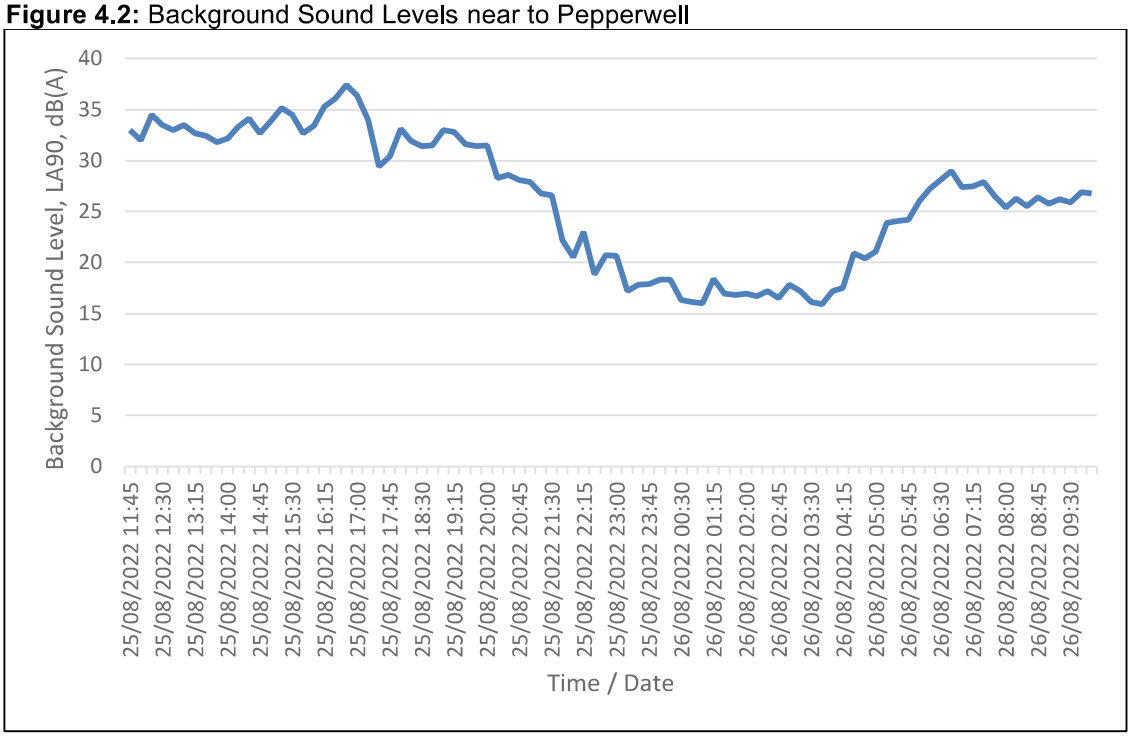
4.3 The noise monitoring equipment was calibrated before and after the measurement surveys using an acoustic calibrator, which had itself been calibrated against a reference set traceable to National and International Standards. It is considered that no unusual events occurred during the survey periods and the measurement data are considered to be a true and a fair representation of the industrial and background noise levels. No significant drift in calibration level was observed.

4.4 The sound level meters were set to record interval values for the measurement period, for the L_{A90}, L_{Aeq} and L_{Amax} indices.

4.5 It was noted while on site that the ambient noise climate around the proposed development site is dominated by distant road traffic noise.

4.6 The results of the unattended daytime and night-time background sound monitoring are detailed in Figure 4.2.

Figure 4.2: Background Sound Levels near to Pepperwell



4.7 A statistical analysis was carried out in order to determine the typical background noise level (L_{A90}) during the daytime (07:00 to 23:00) and night-time (23:00 to 07:00) when the grain dryer is expected to be operational. The mode as described in BS 4142 was calculated during these times. The results can be seen below.

Table 4.1: Background Noise Measurement

Location	Time	Duration	L_{Aeq} (dB)	L_{A90} (dB)	Notes
Pepperwell	Daytime	1h	37.0	33.0	Noise during the daytime dominated by distant road traffic. At night the background was exceptionally low.
	Night-time	15min	24.9	17.2	
Castle Farm Cottage	Daytime	1h	38.7	33.2	Noise during the daytime dominated by distant road traffic and bird song.
	Night-time*	15min	24.9	17.2	
Kineel Cottage	Daytime	1h	37.6	30.8	Noise during the daytime dominated by distant road traffic and bird song.
	Night-time*	15min	24.9	17.2	

*The night-time noise levels obtained for Pepperwell are considered representative of Castle Farm Cottage and Kineel Cottage

Industrial Noise Survey

4.8 Industrial noise levels of the Castle Farm existing grain dryer were also taken. The results can be seen in Table 4.2.

Table 4.2: Grain Dryer Noise Measurements

Time	Duration	L_{Aeq} (dB)	L_{A90} (dB)	L_{AFmax} (dB)	Notes
11:10	19s	86.1	85.6	86.9	Inside barn containing Grain Dryer, at 1.5 m form dryer. Noise stable and continuous.
11:11	23s	95.6	95	97	Outside by extract fans with barn door open, at 2.5m from wall. Noise from fans are stable and continuous. This is considered to be the dominant noise source outside.
11:12	29s	96.1	94.8	98.6	Outside by extract fans with barn door open, at 2.5m from wall. Noise from fans are stable and continuous. This is considered to be the dominant noise source outside.
11:13	20s	88.7	88.2	89.4	Outside by extract fans with barn door open, at 5m. Noise from fans are stable and continuous.
11:14	18s	86.7	86.2	87.6	Outside by fans with barn door open, at 10m. Noise from fans are stable and continuous.

5. Noise Model

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5.1 An acoustic model has been created showing the impact of the proposed new grain dryer and cow shed using CadnaA noise mapping software Version 2022. The software calculates the contribution from sources, input as a point, line or area source at defined locations.

5.2 The model predicts noise levels based on hemispherical propagation, atmospheric absorption, ground effects, in plant reflections, screening and directivity based on the procedure detailed in ISO 9613-2, *"Acoustics -- Attenuation of sound during propagation outdoors -- Part 2: General method of calculation".*

5.3 The model has been run using a receiver height of 1.5 metres above grade, equivalent to ear level at standing height. The model accounts for equal sound radiation of noise sources in all directions.

5.4 ISO 9613-2 gives the estimated accuracy of the noise model as ±3 dB, for the calculation of broadband A-weighted sound levels, for receiver distances of up 1 km. The standard also states that errors in the calculation of individual octave bands may be somewhat larger than the estimated errors given for broadband A-weighted sound levels.

Acoustic Model Inputs

5.5 The noise from the new grain dryer has been inputted into the model using the acoustic data provided by the manufacturer. It is understood the dominant noise sources (i.e. the fans) will be replaced with 2no. Elta Fans (fan model DENP+SC100T4-A6/30+1DENP). This data is detailed in Figure 5.1.

Figure 5.1: Elta Fan sound pressure levels

Spectrum (Hz):	63	125	250	500	1K	2K	4K	8K	dBW	dB(A) @ 3m
Inlet (dB) with 1DENP:	101	97	90	83	83	86	82	79	103	71
Outlet (dB) with 1DENP:	101	95	91	83	84	86	83	81	103	71

Sound levels are quoted as in-duct values, dB(A) values are average spherical free-field for comparative use only.

5.6 We were unable to obtain noise data for the new grain dryer unit itself and although it is understood to be quieter, we have utilised the noise levels measured for the existing dryer i.e. 86.5 dB at 1.5m.

5.7 Bureau Veritas have used library data to assess the impact of the cow shed. The noise levels used for the noise model are shown in Table 5.1 below.

Table 5.1: Cattle Noise Data

Location	Source Height	L_W (dBA)
Cattle Husbandry	2m	89.9

5.8 We have assumed that internal noise levels within the new cow shed will be at most, as detailed in Table 5.1. However, the new agricultural building is likely to mitigate noise levels by at least 20 dB, therefore this has been factored into the model.

Assumptions and Limitations

5.9 In terms of ground effect, a low ground absorption will be used, i.e. hard terrain. Conservative climatic conditions, favourable to noise propagation were selected i.e. downwind conditions. It

is envisaged however that due to the short propagation distance with which the receptors lie, atmospheric conditions will have very little impact of projected noise levels.

6. Assessment

New Grain Dryer

6.1 The results of the CadnaA noise model have been used to generate colour contour noise maps (see Appendix D) which are able to help assess the impact of the new grain dryer and associated fans.

6.2 It is understood the grain dryer only operates once a year for a period of up to 14 days and the noise impact is confined to the summer when this machinery becomes active after harvest of the crop. As the machinery is replacing an existing noise source, it was consider to assess this in line with PAN 1/2011 to show the magnitude of impact based on the change in noise levels that will be experience within the area.

6.3 The results of the noise modelling have shown that the impact of the grain dryer system will be highest for the dwelling at Pepperwell which be exposed to a noise level of $L_{Aeq,16h}$ 39 dB during the daytime.

6.4 Table 6.1 below shows the significance of effect for noise arising from the new proposed grain dryer system at the most exposed dwellings.

Table 6.1: Grain Dryer PAN 1/2011 Assessment

Receptor	Baseline with Old Grain Dryer $L_{Aeq,16h}$ dB	Future with new Grain Dryer $L_{Aeq,16h}$ dB	Change in dB	Magnitude of Impact	Significance of Effect
Kineel Cottage	42	31	-11	No Change	Neutral
Pepperwell	59	39	-20	No Change	Neutral
Castle Farm Cottage	56	35	-21	No Change	Neutral

6.5 The table above shows that the closest residential receptors are likely to experience an amelioration of noise levels as they are predicted to decrease due to the procurement of quieter equipment (specifically the quieter fans).

6.6 The significance of impact was therefore found to be Neutral for the closest identified dwellings and it is likely that existing residents will perceive a reduction in noise levels if when the grain dryer is active.

BS 4142 Assessment – Cattle Shed

6.7 An updated assessment has been taken in accordance with the newly updated drawing by CR dated 01/05/2023 ref no. DHBU393113-04 and can be found in Appendix C.

6.8 Table 6.2 below shows the results of a daytime BS 4142 assessment for noise arising from the proposed cattle shed at the nearest receptors. It should be noted that BS 4142 is not intended to be used for the assessment of domestic animals, however, the procedure of comparing the Rating Level to the background is useful for context. The assessment for the daytime can be seen in below.

Table 6.2: Daytime BS 4142 assessment

Results	Kineel Cottage	Pepperwell	Castle Farm Cottage	Notes
Specific Sound Level (L_{Aeq})	27	27	4	Specific sound level calculated from the CadnaA noise model (see Appendix D)
Character Correction	0	0	0	The setting is agricultural and there are already grazing animals within the surrounding fields, so no character correction is considered necessary.
Rating Level (L_{ArT})	27	27	4	
Background Sound Level (L_{A90})	31	33	33	Daytime background taken from Table 4.1
Excess of rating over background sound level	-4	-6	-29	Low Impact

6.9 The assessment within Table 6.2 above shows that the Rating Level is predicted to be below the Background. BS 4142 stipulates that, *"The lower the rating level is relative to the measured background sound level, the less likely it is that the specific sound source will have an adverse impact or a significant adverse impact. Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context."*

6.10 As the setting is agricultural and the receptors are all within the grounds of a working farm, with livestock in the surrounding fields, it is considered that housing cattle within a dedicated building will not significantly impact residents during the daytime as the nature of noise will be similar and is likely to be below background sound levels. Given the context, the impact is considered to be low.

6.11 Table 6.3 below shows the results of a night-time BS 4142 assessment for noise arising from the store proposed cattle shed at the nearest receptors.

Table 6.3: Night-time BS 4142 assessment

Results	Kineel Cottage	Pepperwell	Castle Farm Cottage	Notes
Specific Sound Level (L_{Aeq})	28	28	4	Specific sound level calculated from the CadnaA noise model (see Appendix D)
Character Correction	0	0	0	The setting is agricultural and there are already grazing animals within the surrounding fields, so no character correction is considered necessary.
Rating Level (L_{ArT})	28	28	4	
Background Sound Level (L_{A90})	17	17	17	Daytime background taken from Table 4.1
Excess of rating over background sound level	+11	+11	-13	Low Impact given context as per paragraphs below.

6.12 It can be seen from the results above that during the night-time, noise levels from the cattle shed are likely to exceed background sound levels by +11 dB at Pepperwell and Kineel Cottage.

6.13 Due to the very low background sound levels established, extra care must be taken to not over predict the impact of the cow shed at night. It is to be noted that the dwellings are located in an agricultural area i.e. on a working farm, surrounded by fields with existing livestock. It is also considered that the cows are not likely to produce high levels of noise at night and the assessment assumes the same noise levels as during the daytime. Because the external rating levels have been calculated to be low the impact in considered to be low given the context. It is considered more appropriate to assess the noise levels with respect to internal noise criteria, as during the night, the receptor will be indoors. This assessment can be seen below.

6.14 Noise levels from the cow shed have been predicted to be 4-28 dB, assuming a partially open window provides -13 dB of attenuation on average, internal noise levels within the nearest residential properties are predicted to be as low as 0-15 dB. It is therefore likely that noise from the cow shed will be significantly below night-time internal noise limits (i.e. 30 dB as quoted in BS 8233).

Cow Shed Internal Noise Levels

6.15 The BS 4142 assessment described above only assesses external noise impacts, therefore an assessment of internal noise levels has also been undertaken and the levels benchmarked against the night-time BS 8233 criteria. The results of the cow shed impact on internal spaces are shown in the Table 6.4 below.

Table 6.4: Calculated Internal Noise Levels

	Kineel Cottage	Pepperwell	Castle Farm Cottage
Highest Façade Level, $L_{Aeq,t}$ dB	28	28	4
Open Window Attenuation dB	-13	-13	-13
Internal Level $L_{Aeq,t}$ dB	**15**	**15**	**-9**
BS 8233 Night-time Criteria $L_{Aeq,t}$ dB	30	30	30
Criteria Met?			

6.16 It can be seen from the table above that internal noise levels can be comfortably met for the night-time with windows partially open. The impact of the cow shed is therefore considered to be low.

7. Conclusions

7.1 Bureau Veritas have undertaken a noise impact assessment for a proposed demolition of Methven Castle Steadings and replacement with agricultural sheds. It is proposed the agricultural sheds will comprise one grain store, one cattle shed and one general purpose building. In light of the new cattle shed and the redeployment and replacement of an old grain dryer

7.2 A daytime and night-time site visit to the proposed development site was undertaken between the 25th and 26th August 2022 in order to measure the existing grain dryer and background sound levels. During our noise surveys it was found that background sound levels were very low due to the rural location and noise was dominated by distant road traffic noise and bird song.

7.3 A noise model was prepared using the modelling software CadnaA, in order to predict the impact of the new grain dryer and cow shed. The noise model inputs were based on manufacturers data for the new fans, existing data for the dryer and library data for the cattle shed. Furthermore, the model was updated to include the latest design changes to the farm house.

7.4 The noise model predicted noise levels at the nearest identified receptors which were found to be Kineel Cottage, Pepperwell and Castle Farm Cottage. It is understood all these properties are owned by Castle Farm.

7.5 Using the results of the noise modelling study, the significance of impact of the new grain dryer and associated fans was carried out in accordance with the guidance set out in PAN 1/2011. The assessment showed that the impact will be '"no change", and the significance of the impact will be "neutral" due to noise levels from the grain dryer predicted to be lower than the existing machinery. Therefore, the existing residents will perceive an amelioration in noise levels and are likely to fall by as much as -21 dB.

7.6 A BS 4142 assessment was undertaken to assess the impact of new cow shed during the daytime and night-time. The assessment showed that the impact of the cow shed was between -4 dB and -29 dB below Background during the daytime, at nearest residential receptors. This is considered to have a low impact given the context.

7.7 During the night-time, it was predicted that the cow shed would likely exceed background sound levels by +11 dB at Kineel Cottage Pepperwell. Noise levels at Castle Farm were calculated to be -13 dB below the background and therefore considered to be low risk. Additionally, due to the context the impact is predicted to be low at night at Kineel Cottage and Pepperwell. This is because the background sound levels at night are incredibly low, thus the difference between the Rating Level and Background is potentially skewed. It is therefore of more importance to assess the impact of the cow shed at night against internal criteria, as the receptor will be indoor at night. The results indicate that internal levels, with open windows, would be as low as 15 dB. It is therefore likely that noise from the cow shed will be significantly below night-time internal noise limits (i.e. 30 dB as quoted in BS 8233). In light of the context and the fact that the dwellings are located in an agricultural area, on a working farm, surrounded by fields with livestock, the impact is considered to be low at night. It is also considered that the cows are not likely to produce high levels of noise at night and the assessment assumes the same noise levels as during the daytime.

7.8 To conclude, the replacement of the old grain dryer with the new system is likely to see a drop in noise levels by approximately 20 dB, indicating an amelioration of noise levels. Furthermore, the impact of the cow shed in line with BS 4142 is likely to be low for the daytime and night-time periods.

Appendix A

Glossary of Acoustic Terminology

"A" Weighting (dB(A))	The human ear does not respond uniformly to different frequencies. "A" weighting is commonly used to simulate the frequency response of the ear. It is used in the assessment of the risk of damage to hearing due to noise.
Decibel (dB)	The range of audible sound pressures is approximately 2 x 10^{-5} Pa to 200 Pa. Using decibel notation presents this range in a more manageable form, 0 dB to 140 dB. Mathematically: Sound Pressure Level (dB) = 20 log {p(t) / P_o} where P_o = 2 x 10^{-5} Pa
Frequency (Hz)	The number of cycles per second, for sound this is subjectively perceived as pitch.
Frequency Spectrum	Analysis of the relative contributions of different frequencies that make up a noise.
L_{eq}(T)	The equivalent continuous sound level. It is that steady sound level which would produce the same energy over a given time period T as a specified time varying sound.
L_{Amax}(T)	The maximum RMS A-weighted sound pressure level occurring within a specified time period.
L_{AE} or SEL	A measure of A-weighted sound energy used to describe noise events such as the passing of a train or aircraft; it is the A-weighted sound pressure level which, if occurring over a period of one second, would contain the same amount of A-weighted sound energy as the event. The relationship between $L_{Aeq,(T)}$ and SEL is as follows: $L_{Aeq,(T)}$ = 10 log [$\underline{antilog\ SEL_1/10 + antilog\ SEL_2/10 + ...}$ Total time period in seconds where SEL_n is the measured single event level for a given event
$L_{A10,T}$	Road traffic noise level. The A-weighted sound pressure level of the residual noise in decibels exceeded for 10% of a given time interval.
$L_{A90,T}$	Background noise level. The A-weighted sound pressure level of the residual noise in decibels exceeded for 90% of a given time interval.
Noise	Unwanted sound.
Octave Band	A range of frequencies defined by an upper limit which is twice the lower limit. Octave bands are identified by their centre frequency.
R_{TRA} (dB)	The Traffic Noise Reduction Sound Insulation is derived by taking into account a typical spectrum of road traffic in town and city centres
R_W (dB)	The weighted sound reduction incorporates a correction for the ear's response and has been derived in accordance with BS 5821:1984.

Specific Noise	The equivalent continuous A-weighted sound pressure level at the assessment position produced by the specific noise source over a given reference time interval.
Rating Level, $L_{Ar,T}$	The specific noise level plus any adjustment for the character of the noise.
Ambient Noise	Totally encompassing sound in a given situation at any given time composed of noise from many sources, near and far.
Residual Noise	The ambient noise remaining at a given position in a given situation when the specific noise source is suppressed to a degree such that it does not contribute to the ambient noise.

Appendix B

Schedule of Monitoring Equipment

Rion NL-52 Sound Analyser	Serial Number 01054193
Rion UC-59 Microphone	Serial Number 54266
Brüel and Kjær Sound Analyser Type 2260	Serial Number 2124597
Brüel and Kjær Microphone Type 4189	Serial Number 2625098
Brüel and Kjær Sound Level Calibrator Type 4231	Serial Number 2122928

Brüel and Kjær Sound Analysis Software BZ 7202 (version 2)

Appendix C
Site Plan (not to scale)

PROPOSED BLOCK PLAN 1:500 A3

Appendix D

Noise Model Results

0 <= ... < 35	
35 <= ... < 40	
40 <= ... < 45	
45 <= ... < 50	
50 <= ... < 55	
55 <= ... < 60	
60 <= ... < 65	
65 <= ... < 70	
70 <= ... < 75	
75 <= ... < 80	
80 <= ...	

Project:	15827056 - Methven Castle Farm
Description:	Noise Impact Assessment.
Condition:	Current Conditions
Modelled:	N MacDonald
Reviewed:	R Giudice
Date:	27.09.22

BUREAU VERITAS 1828

BUREAU VERITAS

0 <= ... < 35	
35 <= ... < 40	
40 <= ... < 45	
45 <= ... < 50	
50 <= ... < 55	
55 <= ... < 60	
60 <= ... < 65	
65 <= ... < 70	
70 <= ... < 75	
75 <= ... < 80	
80 <= ...	

Project:	15827056 - Methven Castle Farm Noise Assessment V2
Description:	New Grain Dryer - Day
Condition:	Proposed Dryer
Modelled:	A Hussain
Reviewed:	N MacDonald
Date:	16.08.23

BUREAU VERITAS

0 <= ... < 35	
35 <= ... < 40	
40 <= ... < 45	
45 <= ... < 50	
50 <= ... < 55	
55 <= ... < 60	
60 <= ... < 65	
65 <= ... < 70	
70 <= ... < 75	
75 <= ... < 80	
80 <= ...	

Project:	15827056 - Methven Castle Farm Noise Assessment V2
Description:	New Grain Dryer - Day
Condition:	Proposed Cattle Shed
Modelled:	A Hussain
Reviewed:	N MacDonald
Date:	16.08.23

BUREAU VERITAS 1828
BUREAU VERITAS

Methven Castle Farm Steading, Methven, Perth

Ecological Impact Assessment

Tuesday 10th January 2023

Author Emma O'Shea BSc, PG Dip Env Mgmt.

Ecological Consultant, Tay Ecology Ltd

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CONTENTS

EXECUTIVE SUMMARY

Tay Ecology was commissioned to undertake an ecological impact assessment for the demolition of the steading buildings and the erection of replacement agricultural buildings at Methven Castle Farm Steading. Bat surveys were undertaken by Neo Environmental and took place between April-August 2022. Field surveys were carried out in October and November 2022 to assess habitat, tree, bats, badger, red squirrels, pine martens, otters, and reptiles. The likelihood of specially protected, sensitive, or very, rare, species of birds and of any other protected or local biodiversity action plan species of flora and fauna was assessed. The Ancient Woodland Inventory indicates that there is a strip of ancient woodland to the south-east of the farm steadings. All trees will be retained at and adjacent to the site and it is recommended that root protection areas of individual trees and tree groups are suitably protected. There are no statutory designated sites within 800m of the proposed development and there will be negligible impact to the SSSIs and SACs in the local area. However, it is essential that best practice working methods and pollution prevention and control measures are adhered to during construction to safeguard retained adjacent habitats.

The predominantly stone-built structures provide suitable roosting sites for bats and birds. The existing buildings will be demolished as part of works. It is recommended that alternative roosting and nesting locations are incorporated into the new structures and by installing bat and bird boxes on retained trees. There is good quality mature woodland in the immediate vicinity of the steading, and it is proposed to retain all the existing trees and woodland and incorporate a SUDS basin as part of the proposed works. Planting native trees, and shrubs and connecting the habitat to the wider environment such as by planting hedgerows is highly recommended. It is recommended that retained grassland areas and grass verges are seeded with a wildflower seed mix to further enhance local biodiversity.

The bat activity surveys indicated that Common pipistrelles and Soprano pipistrelles were recorded roosting at the steading buildings. Twenty-four non-breeding pipistrelle roosts were recorded with a maximum of 10 Common pipistrelles and 14 Soprano pipistrelles recorded at a single survey. The maximum roost sizes were five Common pipistrelles and four Soprano pipistrelles. In accordance with the Bat Mitigation Guidelines small non-breeding roosts of common species are of low conservation significance. Pipistrelle bats are UK Biodiversity Action Plan species and all bats, and their roosts are protected under UK and EU legislation. A Nature Scot bat licence will be required before work commences to permit the destruction of the roosts with appropriate mitigation and compensation in place. It is recommended that alternative bat roosts are provided during works and replacement roosts are created as part of works to replace the existing roosts. No evidence of a roost in use by Brown long-eared bats was found either during the surveys. It is believed, given the time passed, the BLE roost in Building 8 from 2017 is no longer in use by the species. Six bat species were recorded foraging in the local area. These are Daubenton's, Natterer's, Nathusius' pipistrelle, Common pipistrelle, Soprano pipistrelle and Brown long-eared bat.

There is a negligible to low potential that bat tree roosts may be present in the majority of trees at the site. Two trees with moderate bat roost potential were inspected and no bat roosts were identified at the time of the surveys, though if tree-work is proposed to either tree in the future further survey is recommended before tree-work takes place. There is capacity to enhance the habitat for bats by planting bat friendly trees, shrubs, and plants and to install bat boxes in retained trees and as part of the new buildings using external

wall bat boxes to increase the number of local roosting opportunities. The impact on the bat population is assessed as low.

The denser woodland to the south-west of the site provides the most favourable habitat for badgers. No badger setts or other signs of badger were recorded. It is not anticipated that there will be any detrimental impact to badgers from the proposed development though a pre-construction survey is recommended to ensure that no badger setts are located within 30 metres of the site. There was evidence of red squirrels in the adjacent area. It is anticipated that the proposed development will not impact red squirrel mortality or breeding at a scale which would affect the viability of the population. A pre-construction survey is recommended to identify any dreys which may have become active within 50m of the boundary of the development. There was no evidence of pine martens recorded though there is favourable habitat, and a pre-construction survey is recommended to check for any new dens which may have become active within 100m of the development boundary. Pine martens are tolerant of most forms of human disturbance, and the development is unlikely to have a long-lasting adverse impact on any pine marten potentially moving closer to the site.

No signs of otters or water voles were recorded, and it is not anticipated that the proposed development would have any impact to these species. There is potential for reptiles adjacent to the site though it is not anticipated that the proposed development would negatively impact reptiles for the long-term as the adjacent wooded areas will not be impacted. There was no evidence of any other rare or protected species such as amphibians and invertebrates. It is expected that common frogs, toads, and a range of common invertebrates use the site. The basin creation will provide a favourable habitat for amphibians and invertebrates. It is likely that hedgehogs are found in the area, and it is recommended that the site is checked for hedgehogs before any ground vegetation clearance takes place.

There was no evidence of Schedule 1 bird species recorded at the time of the surveys, though there is potential for species such as barn owl to be located in the surrounding area. Migratory and common breeding birds were recorded in the buildings and there is cover, food, and nesting sites for a variety of birds. All birds are protected, and it is an offence to intentionally or recklessly kill, injure or take a wild bird, or to take, damage or destroy its nest or eggs. It is recommended that demolition is undertaken out-with the breeding bird season. However, if such work should be undertaken during the breeding season, then the buildings must be checked for active nests before work commences. Amber species of conservation concern were recorded on the site including dunnock, wren and song thrush and provision of nest boxes for a range of bird species and planting of hedges, shrubs and trees is recommended as part of works.

In summary although demolishing the existing buildings will result in a loss of existing bat roost and bird nesting locations the buildings are in a poor state of repair, dangerous in places, and will continue to decline. There is capacity to provide replacement roosting and nesting locations both as part of the new development and in the adjacent retained habitats and to enhance the existing habitat with new planting of trees, shrubs, hedgerows, and a wildflower meadow. This will ultimately enhance the local biodiversity at the site and ensure that there isn't a negative impact to wildlife from the proposed development.

1.0 INTRODUCTION

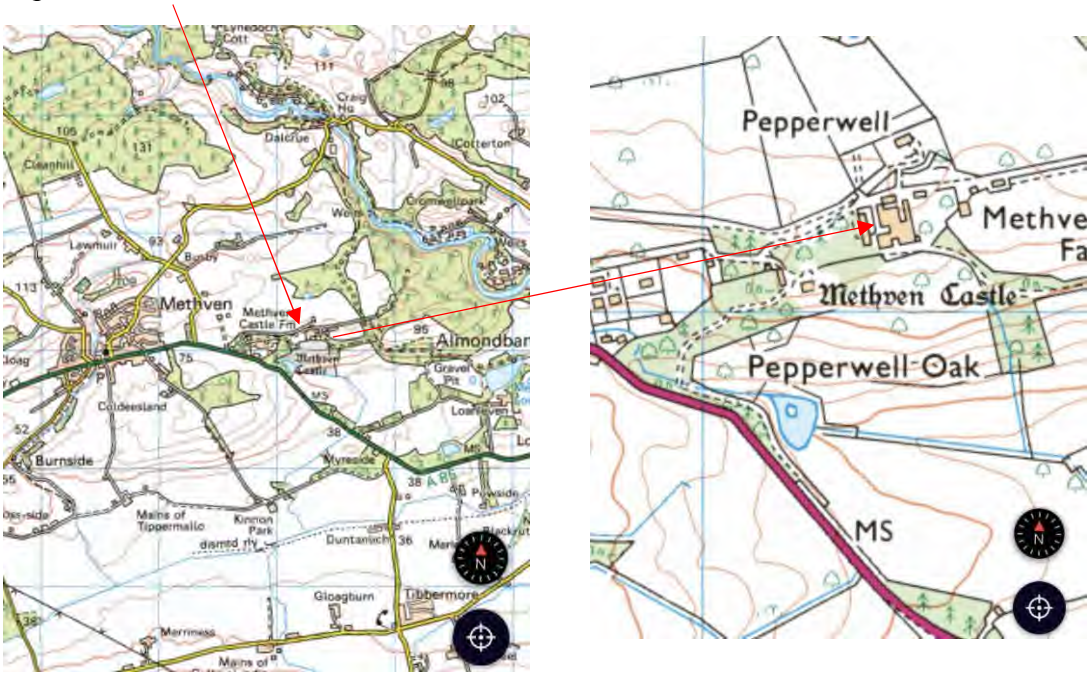
1.1 Brief from Client

Tay Ecology was commissioned to undertake an ecological impact assessment for the demolition of the steading buildings and the erection of replacement agricultural buildings at 2 Castle Farm Cottage Methven Perth PH1 3SU.

1.2 Site location

The site is located to the north of the A85 Perth to Crieff Road, approximately 10.5km west of Perth and 2km to the east of Methven. It is accessed by a private estate track which is north of the A85 which passes Methven Castle, the farm steading is to the south of the private estate track east of the castle. Figure 1 Site Location and Figure 2 Location Plan

Figure 1 Site Location



1.3 Site description

Methven Castle Farm Steading comprises a complex of several interconnected agricultural buildings within the Methven Castle Estate. The buildings are shown in Figure 3 Existing Site Plan and Figure 4 Aerial View. The buildings have been numbered 1-16 and include 14 buildings which are to be demolished or have collapsed, and 2 buildings to be retained. The majority of the buildings are traditional stone-built steading with slate rooves on timber sarking. There are 3 timber/part-timber structures to the north and 2 open barns to the south.

1.4 Proposed works

It is proposed to demolish the traditional buildings and timber or part-timber structures to the north and retain the 2 open barns to the south. Buildings which are proposed to be demolished are 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13 and building 14 which has collapsed. Buildings which it is proposed to retain are 15 and 16. It is proposed to construct replacement agricultural buildings at the site. Figure 5 Proposed Demolition Plan, Figure 6 Proposed Site Plan and Figure 7 Proposed Elevations

Figure 2 Location Plan

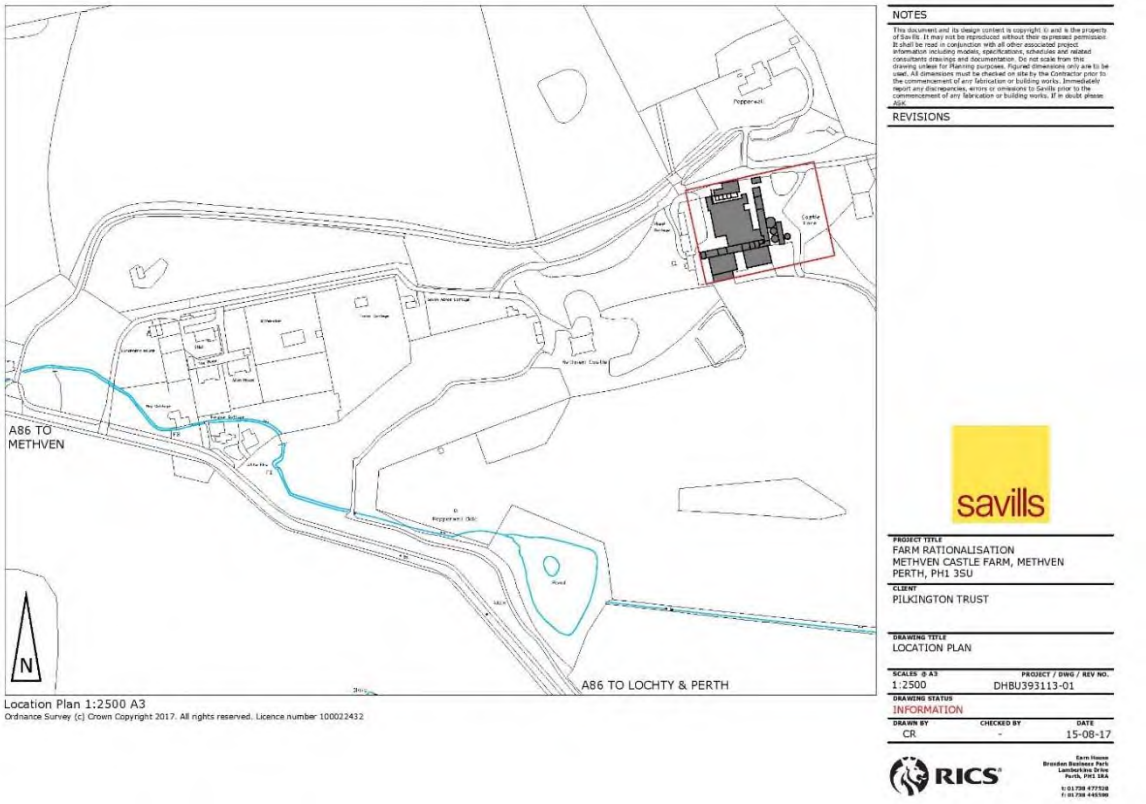


Figure 3 Existing Site Plan

Figure 4 Aerial View showing Buildings 1-16

Figure 5 Proposed Demolition Plan

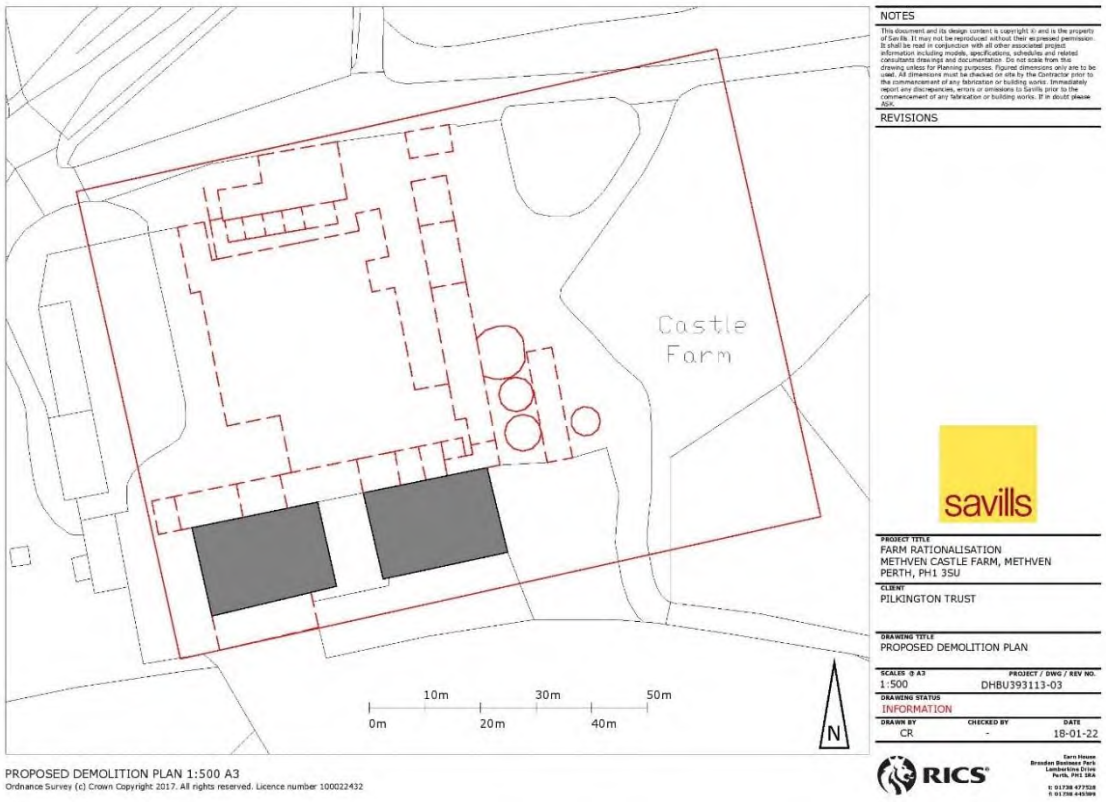


Figure 6 Proposed Site Plan

Figure 7 Proposed Elevations

2. SURVEY AND SITE ASSESSMENT

2.1 Objectives

The site was surveyed by a visual ground survey and extended phase 1 habitat and protected species surveys undertaken to inform the ecological impact assessment. Field surveys were carried out to assess the existing habitat; potential of bat roosts; presence/absence of badgers and their setts; red squirrels and their dreys; pine martens and their dens; assess for the presence of otters and water voles. The presence/absence of specially protected, sensitive, or very, rare, species of birds was assessed. The presence/absence of any other protected or local biodiversity action plan species of flora and fauna was surveyed for, and existing habitat assessed. The survey area included the proposed site and up to 200m in the surrounding area.

2.2 Methods

2.2.1 Existing Data Sources

Web-based sources of information were examined, principally the National Biodiversity Network (NBN) Gateway (http://data.nbn.org.uk/) where a radius of 5km from the centre of the proposed development was searched to provide suitable coverage of the area. Nature designation classifications were obtained from NatureScot Site Link (https://sitelink.nature.scot/home).

The UK Biodiversity Action Plan (https://jncc.gov.uk/our-work/uk-bap-priority-species/); Scottish Biodiversity List (https://www.nature.scot/scottish-biodiversity-list); and Tayside Local Biodiversity Action Plan (https://www.taysidebiodiversity.co.uk/contact/) were examined.

Other websites searched include Bat Conservation Trust (http://www.bats.org.uk/); Scottish Squirrel Survey (http://www.scottishsquirrelsurvey.co.uk/); and The British Trust for Ornithology (http://www.bto.org/). Positive records for species present in the survey area can be used to inform the assessment of biodiversity on the site but the lack of records clearly cannot be taken to imply that the species in question is absent.

2.2.2 Survey methodology

A site visit was carried out after receiving project information from Hannah Belford, Senior Planning, Planning, Savills. A walk over survey was carried out and an overall habitat assessment was made.

2.2.2.1 The main habitats present were surveyed according to the methodology of the Joint Nature Conservation Committee's 'Phase 1 Habitat Survey' (JNCC, 2010). Classification was given to each area according to JNCC (2010). Ground vegetation was then surveyed for the presence of any other rare or protected species by walk-over surveys. Target notes describe the habitats found and any protected or otherwise notable wildlife and any suitable habitats for these species. Nomenclature for higher plants follows Stace (2019) and for mosses and liverworts British Bryological Society (2010). Species abundance is described using DAFOR scale (D – Dominant, A – Abundant, F – Frequent, O – Occasional, R – Rare, where rare refers to local abundance not national scarcity.

2.2.2.2 Bat roost potential was assessed for trees within/adjacent to the proposed site using methodology to identify the possible presence of bats, and potential for bat roosts from Collins, J (2016) 'Bat Surveys for Professional Ecologists: Good Practice Guidelines' Bat Conservation Trust (3rd edition), Cowan, H (2004) 'Looking out for bats. They could be anywhere!' and NatureScot (2023a) 'Standing Advice for Planning Consultations: Bats'.

2.2.2.3 Emergence (dusk) and re-entrant (dawn) bat activity surveys were carried out following the format identified in Collins, J (2016) 'Bat Surveys for Professional Ecologists: Good Practice Guidelines' Bat Conservation Trust (3rd edition). These were undertaken by Neo Environmental and took place between June-August 2022. The results are summarised in this report with full details in Appendix 1 Bat Survey Report Neo Environmental.

2.2.2.4 Evidence of badgers was surveyed for using information from Scottish Badgers (2022), 'Badger surveying' and 'Standing Advice for Planning Consultations: Badgers' (NatureScot, 2023b). The survey was based on the interpretation of field signs (footprints, foraging holes, latrines, and setts or potential setts) and assessment of suitable habitat rather than direct observation of the animals themselves.

2.2.2.5 The potential presence of red squirrels and red squirrel dreys was surveyed using the Forestry Commission Scotland (FCS, 2006a) 'FCS Guidance Note 33: Forest operations and Red squirrels', NatureScot (2023c) 'Standing Advice for Planning Consultations: red squirrels', and UK BAP Mammals:' Interim Guidance for Survey Methodologies, Impact Assessment and Mitigation' (The Mammal Society, 2012, pp. 13-16). The survey was based

on the interpretation of any field signs (feeding signs and dreys) and assessment of suitable habitat.

2.2.2.6 Evidence of pine marten presence was surveyed for using UK BAP Mammals: 'Interim Guidance for Survey Methodologies, Impact Assessment and Mitigation' (The Mammal Society 2012, pp.71-76) and 'Standing Advice for Planning Consultations: Pine Marten' (NatureScot, 2023d). The survey was based on the interpretation of field signs (scats, footprints, and dens or potential dens) and assessment of suitable habitat rather than direct observation of the animals themselves.

2.2.2.7 An otter survey was carried out following the standard otter survey methodology as set out in the 'New Rivers and Wildlife Handbook' (Holmes, Ward and Jose, 2001) and NatureScot (2023e) 'Standing Advice for Planning Consultations: Otters'. The survey was based on the interpretation of any field signs (spraints, footprints, tracks, slides, couches and holts or potential holts) and assessment of suitable habitat rather than direct observation of the animals themselves.

2.2.2.8 Evidence of water vole was surveyed for using information from NatureScot (2023f) 'Water vole survey methods' and Standing Advice for Planning Consultations: Water vole'. The survey was based on the interpretation of field signs (burrows, runs, tracks, feeding stations, droppings, and latrines) and assessment of suitable habitat rather than direct observation of the animals themselves.

2.2.2.9 A reptile survey was carried out following guidelines adapted from Froglife (2013) and NatureScot (2023g) 'Standing Advice for Planning Consultations: reptiles'. The survey focused on searching for basking animals on banks, piles of wood and edges of woodland. An assessment of suitable habitat was made.

2.2.2.10 The site was surveyed for the presence of any other rare or protected species, guidelines from FCS (2007) FCS Guidance Note 34: Forest operations and European protected species in Scottish forests.

2.2.2.11 The presence of potential Schedule 1 birds was adapted from BTO (2022), 'Methodology and survey design for bird surveys' and NatureScot (2022h) 'Protected species: birds.'

2.2.3 Survey area

The survey area was based on the red-line boundary of the existing site plan and up to 250m in the surrounding area.

2.2.4 Timings, types, and weather conditions of field Surveys

The site was surveyed by walk-over and protected species surveys carried out in October and November 2022 by Tay Ecology. A preliminary bat roost assessment, bat and bird activity surveys were undertaken by Neo Environmental and the dates of these surveys was between April and August 2022. The main habitats present were surveyed according to the methodology of the Joint Nature Conservation Committee's Phase 1 Habitat Survey (JNCC 1993). Signs of the presence of protected species were sought and habitats were assessed for their potential to host protected species.

24/10/2022 12 degrees Celsius; wind speed 5mph; cloud cover 25-100%; no precipitation.
08/11/2022 10 degrees Celsius; wind speed 5mph; cloud cover 50%; no precipitation.
24/11/2022 6 degrees Celsius; wind speed 2mph; cloud cover 100%; showers.

2.2.5 Limitations

Survey data is accurate when the surveys took place. The curtilage of private property was not entered. It was a ground survey, with no tree climbing element, the surveyor was able to see to the tops of the trees.

2.2.6 Personnel

Emma O'Shea, Ecological Consultant and Licensed Bat and Otter Surveyor, Tay Ecology. Emma has worked in the environmental sector for eighteen years, during which time she has gained a wealth of experience and expertise. During the last eight years she has worked as an ecological consultant for Tay Ecology with lead responsibility for development projects requiring protected species surveys, species licensing, habitat and tree surveys. Emma is a Nature Scot licensed bat surveyor and trained under Neil Middleton of Echoes Ecology for her bat licence on the Bat Skills Development Programme. Emma is a licensed otter surveyor and has thirteen years of experience surveying breeding birds, she is a qualified tree inspector with a background in tree regeneration monitoring and habitat surveys. Emma has worked as an Ecological Clerk of Works on a range of projects, and she has a Postgraduate Diploma in Environmental Management from the Open University and is a member of the Arboricultural Association and Institute of Environmental Assessment and Management.

3.0 LEGISLATION AND POLICY GUIDANCE

3.1 Wildlife and Countryside Act, 1981, as amended (WCA)

The WCA sets out the protection offered to various species of plants, birds and animals in England and Wales. Bird species listed in Schedule 1, animal species listed in Schedule 5 and plant species listed in Schedule 8 of the WCA are protected. Under section 14(2) of the WCA it is an offence to "plant or otherwise cause to grow in the wild" any plant listed in Schedule 9, Part II of the Act. Japanese knotweed (Fallopia japonica) is a Schedule 9, Part III species. The WCA has since been strengthened and updated by subsequent UK and Scottish legislation (see below).

3.1.1 The Conservation (Natural Habitats &c.) Regulations 1994, as amended (Habitat Regulations)

The provisions of the Habitats Directive were transposed into UK law by the Habitat Regulations. Schedule 2 of the Habitat Regulations lists the European protected species of animals whilst Schedule 4 lists the European protected species of plants. Under the Habitat Regulations, it is illegal to deliberately capture, kill, disturb, or trade in the animals listed in Schedule 2, or pick, collect, cut, uproot, destroy, or trade in the plants listed in Schedule 4 without a licence granted by the appropriate authority. Licences can only be granted for certain purposes and if a set of conditions have been met.

3.2 Nature Conservation (Scotland) Act 2004

Deals with conserving biodiversity by introducing a duty on all public bodies to further the conservation of biodiversity and requires under Section 2(4) publication of a list of habitats and species for conservation action. Amends the 1981 Wildlife & Countryside Act in respect

of protecting Sites of Special Scientific Interest, and similarly strengthens protection of certain birds, animals, and plants. Updates the 1992 Protection of Badgers Act.

The Conservation (Natural Habitats, &c.) Amendment (Scotland) Regulations 2004 Amends 1994/ Habitats Regulations to bring provision for protection of European 'Natura 2000' sites into line with the protection regime set out in the Nature Conservation (Scotland) Act 2004 and affords protection to European candidate sites. It gives further protection to European protected species, introducing a new offence of 'reckless disturbance' in respect of European sites and species.

The Conservation (Natural Habitats, &c.) Amendment (Scotland) Regulations 2007 Significantly strengthened the regulations relating to European Protected Species of animals and enacting the requirement to assess developments plans (structure and local plans) with regard to effects on Natura 2000 (EC Directive) sites.

3.3 Wildlife Legislation

3.3.1 Bat

Bats and their roosts are legally protected, whether bats are occupying the roost or not. It is illegal to disturb a bat(s) in their roosts; damage or destroy a bat roosting place, even if there are no bats present at the time; and obstruct access to a bat roost. It is illegal to capture, injure or kill a bat or possess, advertise, sell, or exchange a bat dead or alive.

3.3.2 Badger

Protection of Badgers Act 1992 - offences under the Act include: taking, injuring, or killing badgers; cruelty to badgers; interference with badger setts; selling and possession of live badgers and marking and ringing. Exceptions and licences can apply.

3.3.3 Red Squirrel

The red squirrel is protected under schedules 5 and 6 of the Wildlife and Countryside Act 1981 (as amended) and the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended). Under this legislation it is illegal to intentionally kill, injure or take or damage, destroy, or obstruct access to any structure or place used for shelter or protection, or to disturb any animal while it is in a drey.

3.3.4 Pine Marten

Pine martens are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended). It is an offence to intentionally, or recklessly: kill, injure, or take a wild pine marten; damage, destroy or obstruct access to any structure or place which such an animal uses for shelter or protection (den); and to disturb such an animal when it is occupying a place for that purpose.

3.3.5 Otter

Otters are legally protected in Scotland by the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) - "the Habitats Regulations". It is illegal to deliberately or recklessly kill, injure or take (capture) an otter; deliberately or recklessly disturb or harass an otter; damage, destroy or obstruct access to a breeding site or resting place of an otter (ie. an otter shelter). Otter shelters are legally protected whether, or not an otter is present.

3.3.6 Water vole

The water vole receives partial protection under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended). It is an offence to intentionally or recklessly: damage, destroy or obstruct access to any structure or place that water voles use for shelter or protection; disturb a water vole while it is using any such place of shelter or protection.

3.3.7 Breeding birds

The main legislation Wildlife and Countryside Act 1981, as amended by the Nature Conservation (Scotland) Act 2004 make it an offence to intentionally or recklessly kill, injure or take any wild bird, or take, damage, destroy, obstruct, or interfere with any wild birds' nest, whilst being built or in use, or their eggs or young.

4.0 RESULTS

4.1 Existing data search

4.1.1 Nature designations

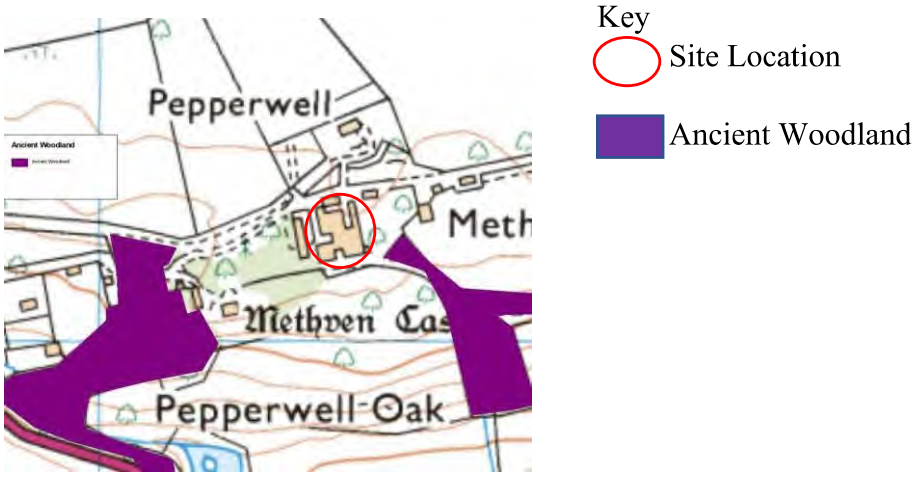
Nature Scot statutory national nature designations within 1km of the boundary of the site:

1. Methven Woods Special Site of Scientific Interest (SSSI) is located approximately 800m to the east of the site. Methven Woods is important for its lowland mixed broadleaved woodland which consists of stands of oak, ash and alder dominated woodland, and its species-rich invertebrate assemblage.
2. The River Tay Special Area of Conservation (SAC) is located within 1km to the east and south of the site. The River Tay is designated for its River lamprey, Brook lamprey, Otter, Sea lamprey and Atlantic salmon.
3. Methven Moss SAC and Methven Moss SSSI are located approximately 3km to the south-west of the site. Methven Moss lies on the watershed between the River Almond and the River Earn and is an example of a lowland raised bog. Figure 8 Nature Designations shows the locations.

Figure 8 Nature Designations and Site Location

The Ancient Woodland Inventory (NatureScot, 2023i) indicates that there is a strip of ancient woodland to the south-east of the farm steadings. Figure 9 shows the area of ancient woodland. Although legislation does not specifically protect ancient woodland, the Scottish Government (NatureScot, 2023i) states that "ancient and semi-natural woodland is an important and irreplaceable national resource that should be protected and enhanced". There is a strong presumption in favour of protecting Scotland's woodland resources and for developments proposing minimal woodland removal.

Figure 9 Ancient Woodland



Perth and Kinross Tree Preservation Orders (TPO) (2023) confirmed that there are no TPOs on or adjacent to the site.

4.2.2 Protected Species

The National Biodiversity Network confirmed presence of the following protected/vulnerable species within 5km radius: Water Vole *Arvicola amphibius* (5); Beaver *Castor fiber* (212); Hedgehog *Erinaceus europaeus* (146); Otter *Lutra lutra* (20); Pine marten *Martes martes* (6); Badger *Meles meles* (4); Daubenton's bat *Myotis daubentonii* (2); Natterer's bat *Myotis nattereri* (3); Nathusius's pipistrelle *Pipistrellus nathusii* (1); Common pipistrelle *Pipistrellus pipistrellus* (8); Soprano pipistrelle *Pipistrellus pygmaeus* (2); Brown Long-eared bat *Plecotus auritus* (11); and Red squirrel *Sciurus vulgaris* (449).

Within 2km water vole (1); beaver (36); hedgehog (43); otter (7); pine marten (4); badger (1); red squirrel (177); and 5 species of bat Daubenton's (1), Natterer's (1), Nathusius's pipistrelle (1), Common pipistrelle (1), Brown Long-eared (4) have been recorded. Within 1km there are 13 West European hedgehog; and 28 red squirrel records.

National Biodiversity Network confirmed presence of the following Schedule 1 birds within 5km: Kingfisher *Alecdo atthis* (13); Corncrake *Crex crex* (1); Merlin *Falco columbarius* (2); Peregrine *Falco peregrinus* (13); Hobby *Falco subbuteo* (1); Brambling *Fringilla montifringilla* (17); Crossbill *Loxia curvirostra* (2); Capercaillie *Tetrao urogallus* (29); Redwing *Turdus iliacus* (60); Fieldfare *Turdus pilarus* (68) and Barn owl *Tyto alba* (23).

Within 2km kingfisher (3), merlin (2), peregrine (13), hobby (1), brambling (8), crossbill (1), capercaillie (5), redwing (3), fieldfare (2) and barn owl (7) have been recorded.

Within 1km there are no Schedule 1 bird records.

4.2 Habitat description

The predominantly stone-built structures with slate rooves on timber sarking provide suitable roosting sites for bats. There are a number of gaps under the roof ridges, gaps under and between slates, gaps at the wall heads, and gaps in the stonework across multiple buildings which all provide potential roost locations for bats. All the potential roost locations for each building are detailed in Appendix 1. The buildings also provide nesting opportunities for a variety of bird species with feral pigeon *Columba livia domestica*, swallows *Hirundo rustica*, blackbird *Turdus merula* evident nesting.

There is good quality mature woodland in the immediate vicinity of the steading. The largest area of woodland is to the south-west of the site and includes sycamore *Acer pseudoplatanus*, beech *Fagus sylvatica* and holly *Ilex aquifolium*. The ancient woodland to the south-east of the steading comprises large mature trees of sycamore, horse chestnut *Aesculus hippocastanum*, ash *Fraxinus excelsior* and oak *Quercus robur*. There is a row of Norway spruce *Picea abies* which is to the north-east of the steadings. The woodland and trees provide habitat for species such as bats, red squirrels, and nesting birds. In the wider area the ponds, small lochans and riparian woodland along the River Almond approximately 800m to the northeast provides good habitat for wildlife.

Phase 1 Habitat Classification includes:
A1.1.1 Broad-leaved semi-natural woodland; A1.2.2 Coniferous plantation woodland; J1.2 Amenity grassland; J3.6 Buildings; J4 Bare ground.

4.2.1 Site Photographs

a. Building 1 East elevation

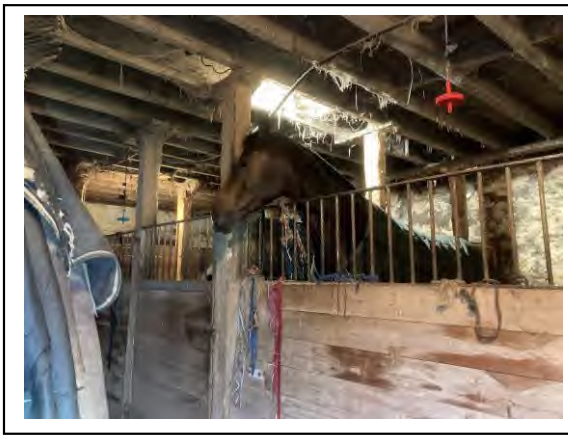
b. Building 1 North and west elevations

c. Building 2 East elevation

d. Buildings 3 and 8 West elevations

e. Building 4 East and north elevations

f. Building 4 Internal



g. Building 6 Internal

h. Building 6 Internal

i. Building 7 Internal

j. Building 9 West elevation

k. Building 9 Internal

l. Building 10 North and west elevations

m. Building 10 West and south elevations

n. Building 10 Internal

o. Building 11 North and west elevations

p. Building 11 East and north elevations

q. Building 12 north elevation

r. Building 13 east elevation

s. Building 15 west elevation

t. Building 16 east elevation

u. Mature broadleaved trees to north

v. Row of conifers to north-east

w. Mature broadleaved trees to south-east

x. Mature broadleaved trees to south-east

y. Woodland to south-west

z. Woodland to south-west

4.3 Protected species
4.3.1 Bat survey
4.3.1.1 Bat Activity Surveys
2017 Survey Results

In 2017 Neo Environmental identified three Brown Long-eared bat roost locations each containing one Brown Long-eared bat were identified. These are shown on the plan below in Buildings 6, 7 and 8. Two Soprano pipistrelle roost locations containing a total of 6 Soprano pipistrelles were identified. These are shown on the plan below in Buildings 4 and 10.

Figure 10 2017 Bat Roost Locations

2022 Survey Results

Emergence (dusk), and re-entrant (dawn) activity surveys were carried out between June to August 2022 by Neo Environmental. Figure 11 below shows the 2022 Bat roost locations.

Twenty-four bat roost locations were identified, referenced A to X. The maximum number of bats recorded across a single set of surveys was in August when 10 Common Pipistrelles and 14 Soprano Pipistrelles were recorded utilising 10 bat roost locations. The maximum number of bats from one roost, was 4 Soprano pipistrelles which were recorded on 23th August from both roosts P and Q. In July a total of 8 Common pipistrelles and 9 Soprano pipistrelles were recorded using 14 bat roost locations. In June a total of 8 Common pipistrelles and 1 Soprano pipistrelle were recorded using 4 roost locations. The maximum number of bats from one roost, G was 5 Common pipistrelles which was record on 27th June. No Brown Long-eared bats were recorded roosting in 2022. Full results are in Appendix A Neo Environmental Bat Survey Report Methven Castle Farm Steading.

Figure 11 2022 Bat Roost Locations

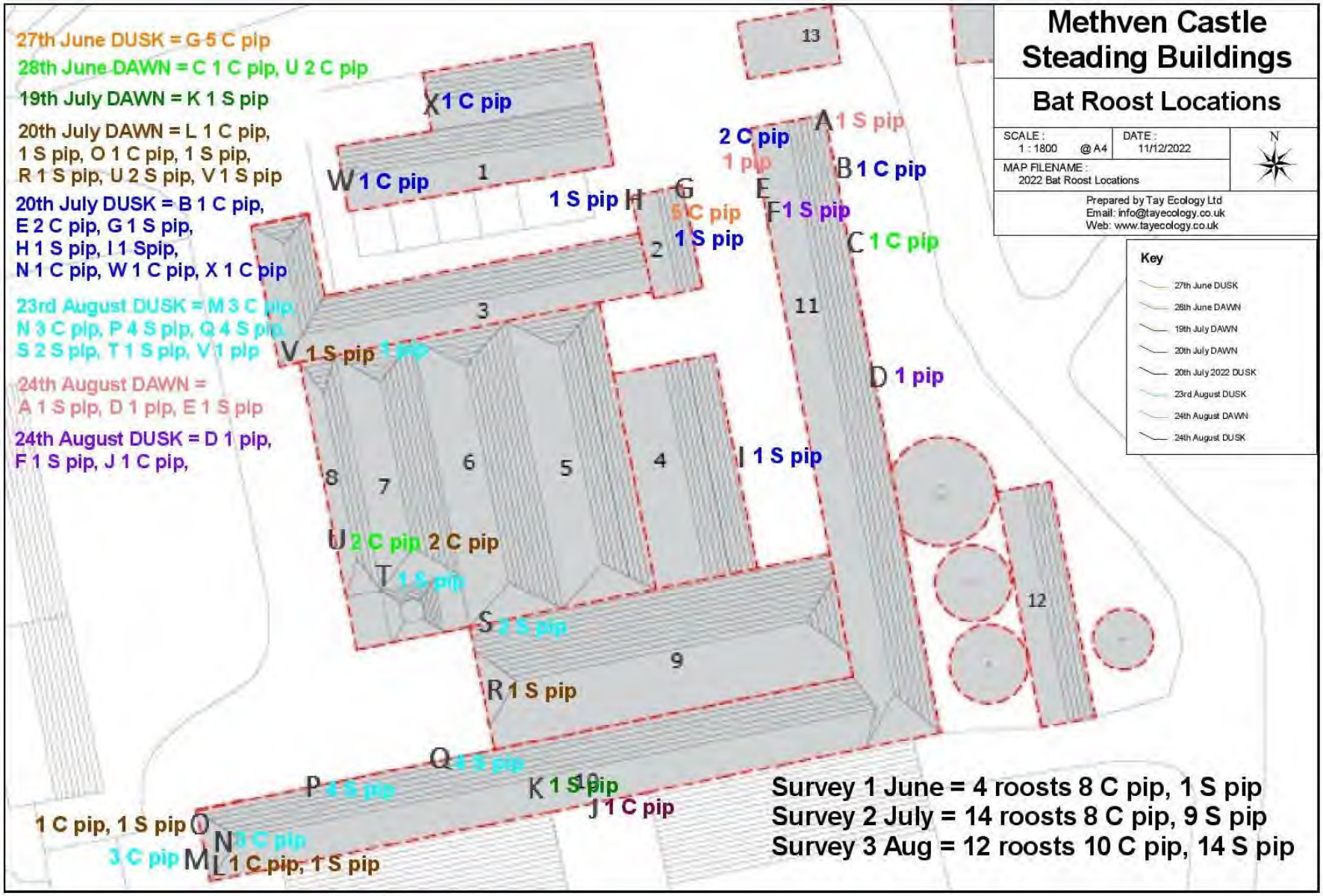

27th June DUSK = G 5 C pip
28th June DAWN = C 1 C pip, U 2 C pip
19th July DAWN = K 1 S pip
20th July DAWN = L 1 C pip, 1 S pip, O 1 C pip, 1 S pip, R 1 S pip, U 2 S pip, V 1 S pip
20th July DUSK = B 1 C pip, E 2 C pip, G 1 S pip, H 1 S pip, I 1 Spip, N 1 C pip, W 1 C pip, X 1 C pip
23rd August DUSK = M 3 C pip, N 3 C pip, P 4 S pip, Q 4 S pip, S 2 S pip, T 1 S pip, V 1 pip
24th August DAWN = A 1 S pip, D 1 pip, E 1 S pip
24th August DUSK = D 1 pip, F 1 S pip, J 1 C pip,
Methven Castle Steading Buildings
Bat Roost Locations
SCALE : 1 : 1800 @ A4
DATE : 11/12/2022
MAP FILENAME : 2022 Bat Roost Locations
Prepared by Tay Ecology Ltd
Email: info@tayecology.co.uk
Web: www.tayecology.co.uk
N
Key
27th June DUSK
28th June DAWN
19th July DAWN
20th July DAWN
20th July 2022 DUSK
23rd August DUSK
24th August DAWN
24th August DUSK
X 1 C pip
W 1 C pip
1 S pip H
G 5 C pip
1 S pip
2 C pip
1 pip
A 1 S pip
B 1 C pip
E
F 1 S pip
C 1 C pip
D 1 pip
I 1 S pip
V 1 S pip
1 pip
U 2 C pip 2 C pip
T 1 S pip
S 2 S pip
R 1 S pip
Q 4 S pip
P 4 S pip
K 1 S pip
J 1 C pip
1 C pip, 1 S pip O
N 3 C pip
3 C pip M
L 1 C pip, 1 S pip
1
2
3
4
5
6
7
8
9
10
11
12
13
Survey 1 June = 4 roosts 8 C pip, 1 S pip
Survey 2 July = 14 roosts 8 C pip, 9 S pip
Survey 3 Aug = 12 roosts 10 C pip, 14 S pip

Table 1 2022 Bat Roost Locations
From Appendix A Neo Environmental Bat Survey Report Methven Castle Farm Steading.

Bat Roost	Date	Dawn/ Dusk	Building	Location	Number of Bats
A	24/08/22	Dawn	11	Eaves of building below soffit.	1 Soprano pip
B	20/07/22	Dusk	11	Rightmost window on east side of building.	1 Common pip
C	28/06/22	Dawn	11	Collapsed roof tiling to left of broken window.	1 Common pip
D	24/08/22	Dusk	11	Emergence from broken window (top left panel).	1 Unknown
E	20/07/22 24/08/22	Dusk Dawn	11	Leftmost door of west side of building.	2 Common pip 1 pip sp.
F	24/08/22	Dusk	11	Gap below gutter.	1 Soprano pip
G	27/06/22 20/07/22	Dusk Dusk	2	Gap below tiling just below soffit at building eaves.	5 Common pip 1 Soprano pip
H	20/07/22	Dusk	2	Gap below tiling just below soffit at building eaves.	1 Soprano pip
I	20/07/22	Dusk	4	Apex of gable end.	1 Soprano pip
J	24/08/22	Dusk	10	Broken window in roof.	1 Common pip
K	19/07/22	Dusk	10	Gap in tiles 80% of way up to roof apex.	1 Common pip
L	20/07/22	Dawn	10	Gap between barge board and tiling, halfway to gable apex.	1 Common pip 1 Soprano pip
M	23/08/22	Dusk	10	Emergence via gap next to blue door.	3 Common pip
N	23/08/22	Dusk	10	Multiple gaps around gable apex.	3 Common pip
O	20/07/22	Dawn	10	Gap between barge board and tiling, halfway to gable apex.	1 Common pip 1 Soprano pip
P	23/08/22	Dusk	10	Location unknown. Dropped down from inside building.	4 Soprano pip
Q	23/08/22	Dusk	10	Location unknown. Dropped down from inside building.	4 Soprano pip
R	20/07/22	Dawn	9	Location unknown. Dropped down from inside building.	1 Soprano pip
S	23/08/22	Dusk	9	Emergence from broken tile area below soffit.	2 Soprano pip
T	23/08/22	Dusk	7	Appeared to fly out of gap in tiles between Building 7 and 8.	1 Soprano pip
U	28/06/22 20/07/22	Dusk Dawn	8	Below soffit and above top of left sliding barn door. Second entrance below drainage pipe 4 foot to the left.	2 Common pip
V	20/07/22 23/08/22	Dawn Dusk	3	Eave of building around roof drainage apex.	1 Soprano pip 1 Unknown
W	20/07/22	Dusk	1	Gaps in boards around apex.	1 Common pip
X	20/07/22	Dusk	1	Emergence from right side behind blue board.	1 Common pip

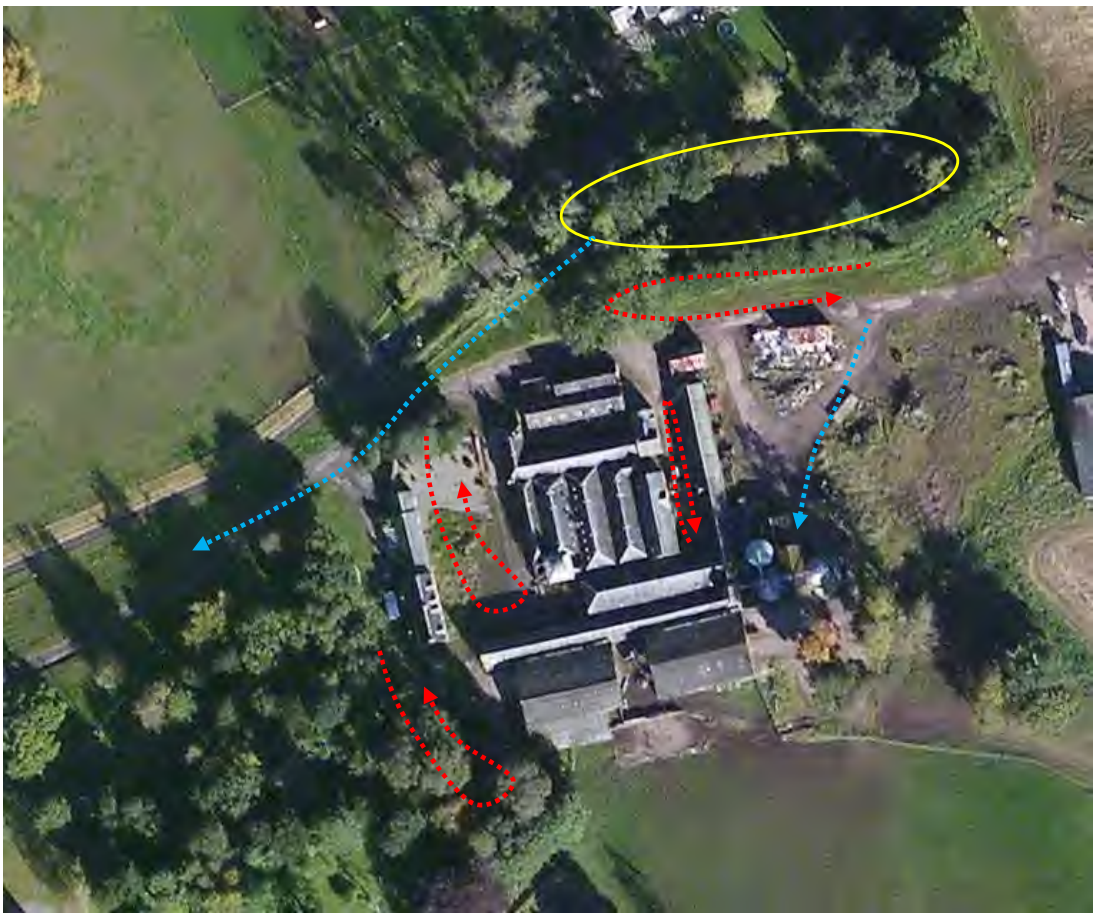
Table 1 shows that Building 10 has the highest number of bat roost locations identified with 8 roosts and 10 Common pipistrelles and 10 Soprano pipistrelles recorded. Building 11 has 6 roost locations with 6 Common pipistrelles and 2 Soprano pipistrelles recorded. Buildings 1, 2, 9 each have 2 roosts, and Buildings 3, 4, 7, 8 each have 1 roost. No roosts were recorded in buildings 5, 6, 12, 13, (14), 15 and 16.

Six bat species were recorded foraging in the local area. These are Daubenton's bat *Myotis daubentonii*, Natterer's bat *Myotis nattereri*, Nathusius' pipistrelle *Pipistrellus nathusii*, Common pipistrelle *Pipistrellus pipistrellus*, Soprano pipistrelle *Pipistrellus pygmaeus*, and Brown long eared bat *Plecotus auritus*. Figure 12 shows the observed foraging and commuting flight paths.

Figure 12 Observed Foraging and Commuting Flight Paths

Soprano Pipistrelle Foraging Route

Common pipistrelle commuting route



Area of noted myotis species activity

4.3.1.2 Preliminary Tree Bat Roost Assessment

A tree preliminary bat roost assessment was carried out to assess for the likelihood of the trees in the area to have bat roosts. The assessment indicated that the majority of trees have negligible or low bat roost potential. Negligible bat roost potential is 'negligible habitat features likely to be used by roosting bats' (Collins, 2016, p.35). These trees do not display any cracks, crevices, ivy cover, deadwood in canopy or stem or decay cavities or hollows in stem (Andrews & Gardner, 2016). No further surveys are required for trees with negligible bat roost potential (Collins, 2016, p.52). Low bat roost potential is 'a tree of sufficient size and age to contain potential roosting features (PRFs) but with none seen from the ground or features with only very, limited roosting potential' (Collins, 2016, p.35). No further surveys are required for trees with low bat roost potential (Collins, 2016, p.52).

Two of the large mature and over-mature trees have moderate bat roost potential with cavities identified which have potential to be used by bats. These include the dead ash 01870 to the north of the steadings at NO 04296 26216 which has a cavity on the south-west side 4m up the tree; the sycamore to the south-east of the steadings at NO 04355 26117 which has a cavity on the south-east side 4m up the tree. Accessible cavities were examined with an endoscope and no sign of bats was recorded. It is proposed to retain all the trees at the site and no further bat tree surveys are recommended at this time. However, if tree-work is proposed in the future a re-inspection of any cavities and bat activity surveys are recommended before any tree-work or felling is carried out.

4.3.2 Badger survey

Badger activity and badger signs were surveyed for. The denser, wooded area to the south-west of the steadings provides the most favourable habitat for badgers.
Species recorded No badgers recorded.
Signs recorded No badger signs such as setts, latrines, hair, foraging or pathways.

4.3.3 Red Squirrel Survey

Red squirrel activity and red squirrel signs were surveyed for. The woodland to the south-west and the Norway spruce trees to the north-east provide favourable habitat for red squirrels. Red squirrels are known to be in the local area.
Species recorded No red squirrels recorded.
Signs recorded Multiple feeding signs of chewed cones in Norway spruce trees. No dreys visible within trees within and adjacent to the site boundary.

4.3.4 Pine marten survey

Pine marten activity and pine marten signs were surveyed for. The woodlands around the site provide a favourable habitat for pine marten.
Species recorded No pine martens recorded.
Signs recorded No pine marten dens or scats recorded.

4.3.5 Otter Survey

There are no watercourses within 200m of the site and the habitat is limited for otters. In the wider area the ponds, small lochans and River Almond provide favourable habitat for otters.
Species recorded No otters recorded.
Signs recorded No holts, spraints, footprints, tracks, and slides, recorded.

4.3.6 Water vole survey

There are no waterbodies within 200m of the site and the habitat is limited for water voles. In the wider area the pond, small lochans and River Almond provide favourable habitat for water voles.
Species recorded No water voles recorded.
Signs recorded No water vole signs i.e., burrows, runs, tracks, feeding stations, droppings, and latrines recorded.

4.3.7 Reptile survey

The woodlands provide a favourable habitat for reptiles.
Species recorded No reptiles recorded.
Signs recorded No reptile signs recorded.

4.3.8 Other protected and other species survey

Other species activity and signs were surveyed for on each of the survey. Species included amphibians, invertebrates, and small mammals.

Species recorded No other protected species were recorded.

Signs recorded No other protected species signs were recorded.

4.3.9 Schedule 1 and Bird Activity Survey

Schedule 1 and bird activity surveys were carried out. No specially protected, sensitive, or very, rare, species of bird was recorded at the site.

4.3.9.1 Building Bird Nests

Swallows *Hirundo rustica*, blackbird *Turdus merula* and feral pigeon *Columba livia domestica* nests are abundant throughout the steadings. Locations of nests are indicated below.

Figure 13 Building Bird nest locations

S = Swallow **B** = Blackbird **WP** = Feral pigeon

4.3.9.2 Woodland and Tree Bird Activity

Common bird species were identified either by visual sighting or by bird call in the woodland. Bird activity was concentrated in the woodland to the south-west of the site. Species include blackbird, blue tit, chaffinch, coal tit, great tit, song thrush, pied wagtail, robin, treecreeper, woodpigeon, and wren. The trees and woodland provide good cover, food, and nesting sites for a variety of birds.

Table 4.3 Bird Records

Common Name	***Latin Name***	**Common Name**	***Latin Name***
Goldfinch	*Carduelis carduelis*	Coal tit	*Periparus ater*
Treecreeper	*Certhia familiaris*	Pheasant	*Phasianus colchicus*
Jackdaw	*Coloeus monedula*	Dunnock	*Prunella modularis*
Woodpigeon	*Columba palumbus*	Siskin	*Spinus spinus*
Blue tit	*Cyanistes caeruleus*	Collared dove	*Streptopelia decaocto*
Robin	*Erithacus rebecula*	Tawny owl	*Strix aluco*
Chaffinch	*Fringilla coelebs*	Starling	*Sturnus vulgaris*
Pied wagtail	*Motacilla alba yarrellii*	Wren	*Troglodytes troglodytes*
Great tit	*Parus major*	Blackbird	*Turdus merula*
House sparrow	*Passer domesticus*	Song thrush	*Turdus philomelus*

4.4 Summary

The predominantly stone-built structures with slate rooves on timber sarking provide suitable roosting sites for bats. The buildings also provide nesting opportunities for a variety of bird species with feral pigeon *Columba livia domestica*, swallows *Hirundo rustica*, blackbird *Turdus merula* evident nesting. There is good quality mature woodland in the immediate vicinity of the steading. The largest area of woodland is to the south-west of the site and there is ancient woodland to the south-east of the steading. There is a row of Norway spruce which is to the north-east of the steadings. The woodland and trees provide habitat for species such as bats, red squirrels and nesting birds.

Roosting Common and Soprano pipistrelles recorded with 24 roosts identified. The maximum number of bats recorded across a single set of surveys was in August when 10 Common Pipistrelles and 14 Soprano Pipistrelles were recorded utilising 10 bat roost locations. The maximum number of bats from one roost, G was 5 Common pipistrelles which was record on 27th June. No Brown Long-eared bats were recorded roosting in 2022. The greatest number of roosts in Building 10 with 8 roosts and 10 Common pipistrelles and 10 Soprano pipistrelles recorded. Building 11 has 6 roost locations, buildings 1, 2, 9 each have 2 roosts, and Buildings 3, 4, 7, 8 each have 1 roost. No roosts were recorded in buildings 5, 6, 12, 13, (14), 15 and 16. Six bat species were recorded foraging in the local area. These are Daubenton's bat *Myotis daubentonii*, Natterer's bat *Myotis nattereri*, Nathusius' pipistrelle *Pipistrellus nathusii*, Common pipistrelle *Pipistrellus pipistrellus*, Soprano pipistrelle *Pipistrellus pygmaeus*, and Brown long eared bat *Plecotus auritus*.

Moderate tree bat roost potential in a number of mature trees which are to be retained. Red squirrel signs in conifers with multiple feeding signs, potential for dreys in local area. No signs of badgers or pine martens though potential in woodland. No otter or water vole signs with limited habitat. Woodland is favourable for reptiles and amphibians. Bird activity in woodlands includes range of species. Species include blackbird, blue tit, coal tit, great tit, song thrush, robin, teal, treecreeper, and wren. The woodland and trees provide good cover, food, and nesting sites for a variety of birds.

5.0 ASSESSMENT

5.1 Limitations

Survey data is accurate when the surveys took place. The curtilage of private property was not entered. It was a ground survey, with no tree climbing element, the surveyor was able to see to the tops of the trees.

5.2 Habitat

5.2.1 Designated Sites

There are no statutory designated sites within 800m of the proposed development and there will be negligible impact to the SSSIs and SACs in the local area. No further survey is recommended with regards statutory designated sites. However, it is essential that best practice working methods and pollution prevention and control measures are adhered to during construction to safeguard retained adjacent habitats.

The Ancient Woodland Inventory indicates that there is a strip of ancient woodland to the south-east of the farm steadings. Although legislation does not specifically protect ancient woodland, the Scottish Government states that "ancient and semi-natural woodland is an important and irreplaceable national resource that should be protected and enhanced". All trees will be retained at and adjacent to the site and it is recommended that root protection areas of individual trees and tree groups are suitably protected.

5.2.2 Habitats

The predominantly stone-built structures with slate rooves on timber sarking provide suitable roosting sites for bats including pipistrelle species and Brown Long-eared bats, and for migratory birds such as swallows and common birds such as blackbirds. The existing buildings will be demolished as part of works. It is recommended that alternative roosting locations for bats and nesting locations for birds are incorporated into the new structures in appropriate places and by installing bat and bird boxes on retained trees.

There is good quality mature woodland in the immediate vicinity of the steading. The largest area of predominantly broadleaved woodland is to the south-west of the site, there is a strip of ancient woodland to the south-east of the steading and a row of Norway spruce to the north-east. The woodland and trees provide habitat for species such as bats, red squirrels and nesting birds. In the wider area the ponds, small lochans and riparian woodland along the River Almond further to the northeast provides good habitat for wildlife. It is proposed to retain all the existing trees and woodland around the site and incorporate a basin as part of the proposed works.

Planting native trees, and shrubs and connecting the habitat to the wider environment such as by planting hedgerows is highly recommended. Tree species such as hazel, holly, Scots pine, wild cherry, oak, and rowan; shrubs such as dogwood; and hedgerows with hawthorn, blackthorn, hazel, holly and guelder rose would enhance the biodiversity. Where any hedgerows are planted, they can be seeded with a hedgerow seed mix to increase biodiversity. It is recommended that retained grassland areas and grass verges are seeded with a wildflower seed mix to further enhance local biodiversity.

5.3 Protected species

5.3.1 Bat surveys

The bat activity surveys indicated that Common pipistrelles and Soprano pipistrelles were recorded roosting at the steading buildings. Twenty-four non-breeding pipistrelle roosts were located across nine of the sixteen buildings with a maximum of 10 Common pipistrelles and 14 Soprano pipistrelles recorded on the August surveys. The maximum roost sizes were five Common pipistrelles and four Soprano pipistrelles. In accordance with the Bat Mitigation Guidelines small non-breeding roosts of common species are of low conservation significance. However, pipistrelle bats are UK Biodiversity Action Plan species and all bats, and their roosts are protected under UK and EU legislation. A Nature Scot bat licence will be required before work commences to permit the destruction of the roosts with appropriate mitigation and compensation in place. Further information about licensing is in Appendix 4. It is recommended that alternative bat roosts are provided during works and replacement roosts are created as part of works to replace the roosts which will be lost during demolition.

Despite the historic roost noted in 2017, no evidence of a roost in use by Brown long-eared bats was found either during the building inspection, or the emergence and re-entry surveys. It is believed, given the time passed, the roost in Building 8 is no longer in use by the species. Six bat species were recorded foraging in the local area. These are Daubenton's, Natterer's, Nathusius' pipistrelle, Common pipistrelle, Soprano pipistrelle and Brown long-eared bat.

There is a negligible to low potential that bat tree roosts may be present in the majority of trees at the site. Two trees with moderate bat roost potential were inspected and no bat roosts were identified at the time of the surveys, though if tree-work is proposed to either tree in the future further survey is recommended before tree-work takes place. There is capacity to enhance the habitat for bats by planting bat friendly trees, shrubs, and plants and to install bat boxes in retained trees and as part of the new buildings using external wall bat boxes to increase the number of local roosting opportunities. The impact on the bat population is assessed as low as bats will continue to be able to forage and commute across the site. A species protection plan for bats is presented in Appendix 5.

5.3.2 Badger surveys

The denser woodland to the south-west of the site provides the most favourable habitat for badgers. No badger setts or other signs of badger were recorded. It is not anticipated that there will be any detrimental impact to badgers from the proposed development though a pre-construction survey is recommended to ensure that no badger setts are located within 30 metres of the site before works starts.

5.3.3 Red squirrel surveys

There was evidence of red squirrels recorded during the surveys and red squirrels are known to be active in the area. The woodlands and Norway spruce trees around the site provide suitable habitat for red squirrels. There is potential for red squirrel dreys to be located within proximity to the proposed development though no dreys were identified within trees within or adjacent to the site boundary during the surveys. As dreys can be built within a few days it is recommended that trees are surveyed for dreys before construction commences. Where work takes place during the breeding season (February to September) a 50m buffer is required around any breeding drey. Where work takes place during the non-breeding season (October to January) a 5m buffer is required around a drey tree. Where exclusion zones of the required distance are not possible a licence from Nature Scot is required.

It is anticipated that the proposed development will not have a negative impact on red squirrels, as it will not impact red squirrel mortality or breeding at a scale which would affect the viability of the population. The development will not fragment the red squirrel population and it will not lead to an increased risk of local extinction or increased mortality as a result of forced dispersal over unsuitable habitat or areas with no or limited cover (Mammal Society, 2012, pp. 16-19). A dependable long-term food supply from a mixture of deciduous and coniferous trees will remain in the wider area.

5.3.4 Pine marten surveys

There was no evidence of pine martens recorded during the survey. The woodland areas around and adjacent to the site provide a favourable habitat for pine marten. Nature Scot requires an exclusion zone of 30m around a non-breeding den and 100m around a breeding den where March to June is classed as the breeding the season. Where exclusion zones of the required size aren't possible, works will require a licence from NatureScot before they can proceed. Therefore, it is recommended that a pre-construction survey is carried out to confirm that no new den sites become established between the time of this survey and when development commences. Pine martens are tolerant of most forms of human disturbance (Mammal Society 2012, p.76-77), and the development is unlikely to have a long-lasting adverse impact on any pine marten potentially moving closer to the site.

5.3.5 Otter surveys

No signs of otters or otter holts were recorded during the survey and there is limited habitat on site for otters. It is not anticipated that there will be any detrimental impact to otters.

5.3.6 Water vole surveys

No signs of water voles were recorded during the survey and there is limited habitat on site for water voles. It is not anticipated that there will be any detrimental impact to otters.

5.3.7 Reptile surveys

There is potential for reptiles on the site in the adjacent woodland. It is not anticipated that the proposed development would negatively impact reptiles for the long-term as the woodland habitats will be retained.

5.3.8 Other protected species surveys

There was no evidence of any other rare or protected species such as amphibians and invertebrates. It is expected that common frogs, toads, and a range of common invertebrates use the woodland areas. Incorporating a basin will provide a favourable habitat for amphibians and invertebrates. It is likely that hedgehogs are found in the area and there is potential for hedgehogs to utilise the vegetation cover adjacent to the site. Hedgehogs are classed as a vulnerable species; and it is recommended that the site is checked for hedgehogs before any ground vegetation clearance takes place.

5.3.9 Schedule 1 and breeding bird surveys

There were no Schedule 1 bird species recorded at the time of the surveys, though there is potential that Schedule 1 birds such as barn owl are located in the surrounding area, though no evidence was found at the site.

Swallows, blackbird, and feral pigeon nests are abundant throughout the steadings. All species of bird are protected when nesting under the Wildlife and Countryside Act 1981, as amended. Therefore, mitigation is required to maintain local numbers of these species and to avoid damage or other adverse impacts on active nests. All birds are protected, and it is an offence to intentionally or recklessly kill, injure or take a wild bird, or to take, damage or destroy its nest or eggs. It is recommended that where buildings are demolished that this is undertaken out-with the breeding bird season. However, if such work should be undertaken during the breeding season (March to August inclusive), then the buildings should be checked for active nests before work commences. If found, work in the vicinity of a nest should cease until young birds have fledged. A species protection plan for breeding birds is presented in Appendix 6.

Amber species of conservation concern were recorded on the site including dunnock, wren and song thrush and provision of nest boxes for a range of bird species and planting of hedges, shrubs and trees is recommended as part of works.

5.4 Conclusion

Tay Ecology was commissioned to undertake an ecological impact assessment for the demolition of the steading buildings and the erection of replacement agricultural buildings at Methven Castle Farm Steading. Bat surveys were undertaken by Neo Environmental and took place between April-August 2022. Field surveys were carried out in October and November 2022 to assess habitat, tree, bats, badger, red squirrels, pine martens, otters, and reptiles. The likelihood of specially protected, sensitive, or very, rare, species of birds and of any other protected or local biodiversity action plan species of flora and fauna was assessed. The Ancient Woodland Inventory indicates that there is a strip of ancient woodland to the south-east of the farm steadings. All trees will be retained at and adjacent to the site and it is recommended that root protection areas of individual trees and tree groups are suitably protected. There are no statutory designated sites within 800m of the proposed development and there will be negligible impact to the SSSIs and SACs in the local area. However, it is essential that best practice working methods and pollution prevention and control measures are adhered to during construction to safeguard retained adjacent habitats.

The predominantly stone-built structures provide suitable roosting sites for bats and birds. The existing buildings will be demolished as part of works. It is recommended that alternative roosting and nesting locations are incorporated into the new structures and by installing bat and bird boxes on retained trees. There is good quality mature woodland in the immediate vicinity of the steading, and it is proposed to retain all the existing trees and woodland and incorporate a basin as part of the proposed works. Planting native trees, and shrubs and connecting the habitat to the wider environment such as by planting hedgerows is highly recommended. It is recommended that retained grassland areas and grass verges are seeded with a wildflower seed mix to further enhance local biodiversity.

The bat activity surveys indicated that Common pipistrelles and Soprano pipistrelles were recorded roosting at the steading buildings. Twenty-four non-breeding pipistrelle roosts were recorded with a maximum of 10 Common pipistrelles and 14 Soprano pipistrelles recorded on a single survey. The maximum roost sizes were five Common pipistrelles and four Soprano pipistrelles. In accordance with the Bat Mitigation Guidelines small non-breeding roosts of common species are of low conservation significance. Pipistrelle bats are UK

Biodiversity Action Plan species and all bats, and their roosts are protected under UK and EU legislation. A Nature Scot bat licence will be required before work commences to permit the destruction of the roosts with appropriate mitigation and compensation in place. It is recommended that alternative bat roosts are provided during works and replacement roosts are created as part of works to replace the existing roosts. No evidence of a roost in use by Brown long-eared bats was found either during the surveys. It is believed, given the time passed, the BLE roost in Building 8 from 2017 is no longer in use by the species. Six bat species were recorded foraging in the local area. These are Daubenton's, Natterer's, Nathusius' pipistrelle, Common pipistrelle, Soprano pipistrelle and Brown long-eared bat.

There is a negligible to low potential that bat tree roosts may be present in the majority of trees at the site. Two trees with moderate bat roost potential were inspected and no bat roosts were identified at the time of the surveys, though if tree-work is proposed to either tree in the future further survey is recommended before tree-work takes place. There is capacity to enhance the habitat for bats by planting bat friendly trees, shrubs, and plants and to install bat boxes in retained trees and as part of the new buildings using external wall bat boxes to increase the number of local roosting opportunities. The impact on the bat population is assessed as low.

The denser woodland to the south-west of the site provides the most favourable habitat for badgers. No badger setts or other signs of badger were recorded. It is not anticipated that there will be any detrimental impact to badgers from the proposed development though a pre-construction survey is recommended to ensure that no badger setts are located within 30 metres of the site. There was evidence of red squirrels in the adjacent area. It is anticipated that the proposed development will not impact red squirrel mortality or breeding at a scale which would affect the viability of the population. A pre-construction survey is recommended to identify any dreys which may have become active within 50m of the boundary of the development. There was no evidence of pine martens recorded though there is favourable habitat, and a pre-construction survey is recommended to check for any new dens which may have become active within 100m of the development boundary. Pine martens are tolerant of most forms of human disturbance, and the development is unlikely to have a long-lasting adverse impact on any pine marten potentially moving closer to the site.

No signs of otters or water voles were recorded, and it is not anticipated that the proposed development would have any impact to these species. There is potential for reptiles adjacent to the site though it is not anticipated that the proposed development would negatively impact reptiles for the long-term as the adjacent wooded areas will not be impacted. There was no evidence of any other rare or protected species such as amphibians and invertebrates. It is expected that common frogs, toads, and a range of common invertebrates use the site. The basin creation will provide a favourable habitat for amphibians and invertebrates. It is likely that hedgehogs are found in the area, and it is recommended that the site is checked for hedgehogs before any ground vegetation clearance takes place.

There was no evidence of Schedule 1 bird species recorded at the time of the surveys, though there is potential for species such as barn owl to be located in the surrounding area. Migratory and common breeding birds were recorded in the buildings and there is cover, food, and nesting sites for a variety of birds. All birds are protected, and it is an offence to intentionally or recklessly kill, injure or take a wild bird, or to take, damage or destroy its

nest or eggs. It is recommended that demolition is undertaken out-with the breeding bird season. However, if such work should be undertaken during the breeding season, then the buildings must be checked for active nests before work commences. Amber species of conservation concern were recorded on the site including dunnock, wren and song thrush and provision of nest boxes for a range of bird species and planting of hedges, shrubs and trees is recommended as part of works.

In summary although demolishing the existing buildings will result in a loss of existing bat roost and bird nesting locations the buildings are in a very poor state of repair, dangerous in places, and will continue to decline. There is capacity to provide replacement roosting and nesting locations both as part of the new development and in the adjacent retained habitats and to enhance the existing habitat with new planting of trees, shrubs, hedgerows, and a wildflower meadow. This will ultimately enhance the local biodiversity at the site and ensure that there isn't a negative impact to wildlife from the proposed development.

6.0 RECOMMENDATIONS and MITIGATION

To minimize impact to habitat it is recommended that:

6.1 Trees, woodland, and hedgerows

• Existing trees and woodland are retained as part of the proposed development.
• Retained trees and woodland, including tree root systems are protected during construction.
• Native trees planted on the site as part of landscaping to increase tree cover and provide habitat connectivity. Planting to include species such as alder, bird cherry, common lime, goat willow, hazel, holly, rowan, Scots pine, sessile oak, pedunculate oak, silver birch, and wild cherry of a local provenance will benefit local biodiversity.
• Native hedging planted as part of landscaping. Species such as hawthorn, blackthorn, buckthorn, dogwood, holly, dog rose, hazel, guelder rose and spindle of a local provenance will benefit local biodiversity.

6.2 Grassland

• Create species-rich wildflower meadows or grass verges at appropriate locations, with species including corn poppy, yellow rattle, wild carrot, viper's bugloss, yarrow, field scabious, rough hawkbit, ox-eye daisy, selfheal, dandelion, sweet vernal grass, common bent and chewings fescue.
• Add additional grassland species to any new hedgerows, such as a hedgerow meadow mix of local provenance. Including a tall mix of perennial, biennial, and annual wildflowers to maintain and enhance existing grassland species such as wood cranesbill, field scabious, Ox eye daisy, yellow rattle, red campion, hedge woundwort, greater stitchwort, wood sage, bush vetch, common bent, crested dog's tail, wood meadow grass.
• Scotia seed meadow mixes or similar can be utilised to enhance the grassland. For example, the Mavisbank Meadow Mix (SCM1) with 17 wildflower & 6 grass species; and the Hedgerow Meadow Mix (SCM4) with 18 wildflower & 5 grass species.

To minimise disturbance or damage to protected species prior to work starting on site and to increase biodiversity, in addition to native planting described above, it is recommended that:

6.3 Bats

• A Nature Scot bat licence must be in place before work commences to permit the destruction of the existing bat roosts.

• There are no timing restrictions on when non-breeding roosts are destroyed. However, when working in the winter months from 1st November to 31st March care must taken in the event any hibernating bat(s) is discovered. Where there is capacity to demolish buildings out with the mid-winter period (December to February), as this is when bats are that there most vulnerable, that is recommended.

• Prior to the start of works a total of six bat boxes will be erected on mature trees within 100m of the original roost sites. Recommended bat boxes include 4 Improved Crevice, and 2 Improved Cavity bat boxes. This will ensure that there is a safe location away from the ongoing works to move any bats to that are discovered during the works. These bat boxes will remain in situ after work is completed to provide additional compensation for the loss of roost sites within the steading.

• A pre-demolition survey by a licensed bat surveyor to confirm that no bats are present in each building before demolition work commences is required.

• A licensed bat surveyor on site when the bat roosts are destroyed until satisfied that no bats remain at the site.

• Replacement roosts to be provided by the installation of 4 Schwelger 2F bat boxes with double front panel and 2 Schwelger 1FF bat boxes. These boxes will be erected on mature trees in adjacent woodland. Boxes will be erected at a height of 3-5m and each box will face different directions to provide a range of temperature conditions.

• Replacement roosts to include 2 Beaumaris external wall bat boxes on easterly and westerly aspects.

• Workers to be fully briefed regarding the possibility of bats on site, their legal status and that of their roosts. Discovery of a suspected bat roost should be reported immediately to the Site Manager and ECoW.

Figure 14 Bat Boxes

Improved crevice

Improved cavity

Schwelger 2F

Schwelger 1FF

Beaumaris Woodstone

Figure 15 Area for Location of Tree Bat Boxes

Figure 16 Area for Location of External Wall Bat Boxes

6.4. Badgers

• Pre-construction survey within 30m of the site boundary for badgers. Where any new setts are recorded within 30m NatureScot species licensing should be contacted, and a licence obtained before work commences.

• Workers to be fully briefed regarding the possibility of badger on site, the legal status of the animal and their setts. Any sightings of badger or discovery of a sett on site should be reported immediately to the Site Manager and ECoW.

6.5 Red squirrels

• Pre-construction survey for red squirrel dreys within 50m of site boundary when work is proposed to commence during the red squirrel breeding season, between February to September inclusive. Out with this period a 5m protection zone applies for dreys.

• Workers to be fully briefed regarding the possibility of red squirrels on site, the legal status of the animal and their dreys. Any sightings of red squirrel or discovery of a drey should be reported immediately to the Site Manager.

6.6 Pine martens

• Pre-construction survey for pine marten dens within 100m of site boundary when construction is proposed within pine marten breeding season, between March to June inclusive. Out with this period a 30m protection zone applies for dens.

• Workers to be fully briefed regarding the possibility of pine marten on site, the legal status of the animal, their dens, and resting places. Any sightings of pine marten or discovery of a den or resting place should be reported immediately to the Site Manager.

6.7 Otters

• Workers to be fully briefed regarding the possibility of otter on the site, the legal status of the animal, their shelters, and resting places. Any sightings of otter or discovery of a new resting place should be reported immediately to the Site Manager and appropriate action taken.

6.8 Amphibians and Reptiles

• Where any amphibians or reptiles are found, they should be carefully moved to a similar habitat in a safe location out-with the development footprint.

6.9 Small mammals

• Workers to be fully briefed regarding the possibility of small mammals on the site, the legal status of the animal, their shelters, and resting places. Any sightings of small mammals such as hedgehogs should be reported immediately to the Site Manager and appropriate action taken.

6.10 Breeding birds

• Where buildings are demolished, it is recommended that this is carried out prior to the start or after the end of the bird breeding season (September to February inclusive). Any building works during the bird breeding season (March to August inclusive) will require a pre-operational survey by a suitably qualified ecologist. If no nests are present, buildings should be demolished as soon as possible following the survey. N.B. Swallows do not return until April.

• There is no NatureScot licence available to demolish buildings containing active bird nests or ground nesting birds, work must be delayed until chicks have fledged.

• Incorporate bird boxes into new structures such as house sparrow, swift and barn owl boxes. Boxes must be fitted either on a shady building aspect, or under an overhang to give protection from heat, but not over windows or near to vents, at least 5 metres above ground, with clear airspace for access. Position bird nest cups under eaves to attract house martins and swallows.

• Proposed boxes are 1 x Schwelger 1SP Sparrow Terrace; 2 x Schwelger Swift Nest box No.18; 1 x indoor barn owl nest box; 2 x Eco Swallow Nest Bowl; 2 x Eco House martin nest box. Position near completion of construction.

• Bird boxes must not be located in any area to be used by the horses as the bird excrement damages the horses' hair.

• Provide nest boxes for smaller woodland birds on trees. Bird boxes to include a range of entrance hole sizes: 25 mm for blue and coal tits; 28 mm for great tits; 32 mm for house sparrows; 45 mm for starlings; a 100 mm high open front for robins; 140 mm high front panel for wrens; owl box for tawny owls. Position of bird boxes 3-4m up a tree, utilise nearby trees for shade and tilt box slightly forward.

• Proposed boxes are 4 x woodstone Seville nest box, 2 x woodstone Barcelona open fronted nest box, 1 x Vivara pro woodstone Starling nest box, 1 x Vivara pro woodstone Tawny owl box. Position on trees before work commences.

Figure 17 Building Bird Boxes

Sparrow Terrace

Swift Nest Box

Swallow nest cup

House martin nest cup

Barn owl nest box

Figure 18 Tree Bird Boxes

Seville

Barcelona

Vivara Pro Starling

Vivara Pro Tawny Owl

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8.0 APPENDICES

Appendix 2 Bat Friendly Plants

From BCT (2015) Encouraging bats - A guide for bat-friendly planting. Planting a mixture of flowering plants, trees and shrubs will attract a range of insects which in turn will attract different bat species.

1. Flowers

Aubretia	Night-scented stock
Bluebell	Ox-eye daisy
Candytuft	Phacelia
Cherry pie	Poached egg plant
Corncockle	Primrose
Cornflower	Red campion
Corn marigold	Red valerian
Corn poppy	Scabious
Echinacea	St John's wort
Field poppies	Sweet William
Honesty	Tobacco plant
Ice plant "Pink lady"	Verbana
Knapweed	Wallflowers
Mallow	Wood forget-me-not
Mexican aster	Yarrow
Michaelmas daisy	Night-scented stock

2. Herbs

Angelica	Hyssop
Bergamot	Lavenders
Borage	Lemon balm
Coriander	Marjoram
English marigolds	Rosemary
Fennel	Sweet Cicely
Feverfew	Thyme

3. Trees, shrubs, and climbers

Bramble	Hawthorn
Buddleia	Hazel
Common alder	Honeysuckle
Dog rose	Hornbeam
Elder	Ivy
English oak	Jasmine
Gorse	Pussy willow
Guelder rose	Rowan

4. Wildflowers for basin edges and marshy areas

Bog bean	Marsh marigold
Bugle	Marsh woundwort
Creeping jenny	Meadowsweet
Flag iris	Purple loosestrife
Hemp agrimony	Water avens
Lady's smock	Water forget-me-not
Marsh mallow	Water mint

Appendix 3 Tayside Local Biodiversity Action Plan Priority Species

This is a working document - please also refer to Appendices 4 & 5 of the 1st Edition LBAP http://www.taysidebiodiversity.co.uk/action-plan/action-plan-appendices/ and the Scottish Biodiversity List http://www.gov.scot/Topics/Environment/Wildlife-Habitats/16118/Biodiversitylist/SBL

Tayside Biodiversity Partnership

BIODIVERSITY
THE VARIETY OF LIFE

Tayside Species List

LBAP Protected Species List.
(* = non-native invasive species)

Family	Common Name	Latin Name
Mammals	Common Seal	*Phoca vitulina*
	Otter	*Lutra lutra*
	Brown long-eared bat	*Plecotus auritus*
	Natterer's bat	*Myotis nattereri*
	Daubenton's bat	*Myotis daubentoni*
	Stoat	*Mustela erminae*
	Weasel	*Mustela nivalis*
	Common shrew	*Sorex araneaus*
	Water vole	*Arvicola terrestris*
	Mountain hare	*Lepus timidus*
	Wild cat	*Felis silvestris*
	Pipistrelle Bat	*Pipistrellus pipistrellus and Pipistrellus pygmeus*
	Hedgehog	*Erinaceus europeus*
	Roe Deer	*Capreolus capreolus*
	Badger	*Meles meles*
	Fox	*Vulpes vulpes*
	Red Squirrel	*Sciurus vulgaris*
	Pine marten	*Martes martes*
Birds	Ringed plover	*Charadrius hiaticula*
	Golden plover	*Pluvialis apricaria*
	Golden eagle	*Aquila chrysaetos*
	Dotterel	*Charadrius morinellus*
	Ptarmigan	*Lagopus mutus*
	Black grouse	*Tetrao tetrix*
	Red grouse	*Lagopus lagopus*
	Hen harrier	*Circus cyaneus*
	Merlin	*Falco columbarius*
	Ring ouzel	*Turdus torquatus*
	Twite	*Carduelis flavirostris*
	Curlew	*Numenius arquata*
	Short-eared owl	*Asio flammeus*
	Peregrine falcon	*Falco peregrinus*
	Stonechat	*Saxicola torquata*
	Song Thrush	*Turdis phelomelos*
	House Sparrow	*Passer domesticus*
	House Martin	*Delichan urbica*

	Sand Martin	*Riparia riparia*
	Swift	*Apus apus*
	Swallow	*Hirundo rustica*
	Moorhen	*Gallinula chloropus*
	Heron	*Ardea cinerea*
	Tawny Owl	*Strix aluco*
	Barn Owl	*Tyto alba*
	Kestrel	*Falco tinnulculus*
	Buzzard	*Buteo buteo*
	Osprey	*Pandion haliaetus*
	Sparrowhawk	*Accipiter nisus*
	Capercaillie	*Tetrao urogallus*
	Oystercatcher	*Haematopus ostralegus*
	Yellowhammer	*Emberiza citronella*
	Fieldfare	*Turdis pilaris*
	Redwing	*Turdis iliacus*
	Goldfinch	*Carduelis carduelis*
	Common scoter	*Melanitta nigra*
	Black-necked grebe	*Podiceps nigricollis*
	Whooper swan	*Cygnus cygnus*
	Kingfisher	*Alcedo atthis*
	Pochard	*Aythya farina*
	Black-throated diver	*Gavia arctica*
	Little tern	*Sterna albifrons*
	Arctic tern	*Sterna paradisaea*
	Common tern	*Sterna hirundo*
	Shelduck	*Tadorna tadorna*
	Red-breasted merganser	*Mergus serator*
	Goosander	*Mergus merganser*
	Pink-footed goose	*Ancer brachyrhynchus*
	Bar-tailed godwit	*Limosa lapponica*
	Eider	*Somateria mollissima*
	Mute swan	*Cygnus olor*
	Pintail	*Anas acuta*
	Goldeneye	*Becephala clangula*
	Water rail	*Rallus aquaticus*
	Marsh harrier	*Circus aeruginosus*
	Bearded tit	*Panurus biarmicus*
	Reed bunting	*Emberiza scheoniclus*
	Greylag goose	*Anser anser*
	Shag	*Phalacrocorax aristotelis*
	Herring gull	*Larus argentatus*
	Turnstone	*Arenaria interpres*
	Purple sandpiper	*Calidris maritima*
	Kittiwake	*Rissa tridactyla*
	Fulmar	*Fulmarus glacialis*
	Razorbill	*Alca torda*
	Puffin	*Fratercula arctica*
	Guillemot	*Uria aalge*
	Grey partridge	*Perdix perdix*

	Bullfinch	*Acanthis cannabina*
	Linnet	*Pyrrhula pyrrhula*
	Tree sparrow	*Passer montanus*
	Wheatear	*Oenanthe oenanthe*
	Whinchat	*Saxicola rubetra*
	Redshank	*Tringa totanus*
	Lapwing	*Vanellus vanellus*
	Snipe	*Gallinago gallinago*
	Wigeon	*Anas penelope*
	Teal	*Anas crecca*
	Skylark	*Alauda arvensis*
	Redstart	*Phoenicurus phoenicurus*
	Great spotted woodpecker	*Dendrocopus major*
	Scottish crossbill	*Loxia scotica*
	Spotted flycatcher	*Muscicapa striata*
	Wood warbler	*Phylloscopus sibilatrix*
Fish	Atlantic salmon	*Salmo salar*
	River lamprey	*Lampetra fluviatilis*
	Sparling/smelt	*Osmerus eperlanus*
	Twaite shad	*Alosa fallax*
	Brown Trout	*Salmo trutta*
	Allis shad	*Alosa alosa*
	Arctic charr	*Salvelinus alpinus*
	Brook lamprey	*Lampetra planeri*
	Sea lamprey	*Petromyzon marinus*
Amphibians and Reptiles	Adder	*Vipera berus*
	Smooth newt	*Triturus vulgaris*
	Slow-worm	*Anguis fragilis*
	Common Frog	*Rana temporaria*
	Common Toad	*Bufo bufo*
	Common Lizard	*Lacerta vivipera*
	Palmate Newt	*Triturus helveticus*
	Great crested newt	*Triturus cristatus*
Invertebrates	Small blue butterfly	*Cupido minimus*
	Small pearl-bordered fritillary	*Boloria selene*
	Sword Grass moth	*Xylena exsoleta*
	Northern brown argus	*Aricia artaxerxes*
	Ringlet butterfly	*Aphantopus hyperantus*
	mason bee	*Osmia parietina*
	Bumble bees	*Bombus spp*
	Damselfly spp.	
	Grasshopper spp.	
	Hoverfly spp.	
	Mountain ringlet	*Erebia epiphron*
	Northern dart	*Xestia alpicola alpina*
	Broad-bordered white	*Anarta melanopa*

	underwing	
	a money spider	*Rhaebothorax paetulus*
	a mason bee	*Osmia inermis*
	Pearl-bordered fritillary	*Boloria euphrosyne*
	Grey scalloped bar	*Dyscia fagaria*
	Northern arches	*Apamea zeta*
	Rannoch brindled beauty	*Lycia lapponaria*
	Slender striped rufous	*Coenocalpe lapidata*
	Broom-tip moth	*Chesias rufata*
	Small dark yellow underwing	*Anarta cordigera*
	Large heath	*Coenonympha tullia*
	Narrow-headed wood ant	*Formica exsecta*
	Meadow Brown Butterfly	*Maniola jurtina*
	Red Admiral Butterfly	*Vanessa atalanta*
	Peacock Butterfly	*Inachis Io*
	Painted Lady Butterfly	*Vanessa cardui*
	Orange Tip Butterfly	*Anthocaris cardamines*
	Small Tortoiseshell Butterfly	*Aglais urticae*
	Garden Tiger Moth	*Artica caja*
	Common Blue Damselfly	*Enallagama cyathigerium*
	New Zealand Flatworm	*Artioposthia triangulate**
	a cranefly	*Rhabdomastrix laeta*
	a stiletto fly	*Spiriverpa lunulata*
	a stonefly	*Brachyptera putata*
	Northern damselfly	*Coenagrion hastulatum*
	a diving beetle	*Hydroporus rufifrons*
	Freshwater pearl mussel	*Margaritifera margaritifera*
	Shining guest ant	*Formicoxenus nitidulus*
	Scottish wood ant	*Formica aquilonia*
	Caledonian sac spider	*Clubiona subsultans*
	a spider	*Diploena torva*
	a spider	*Haplodrassus soerenseni*
	a spider	*Robertus scoticus*
	Cuckoo wasp	*Chrysura hirsute*
	Cousin German moth	*Paradiarsia sobrina*
	Hairy wood ant (Northern)	*Formica lugubris*
Plants	Oak	*Quercus robur*
	Wild hyacinth	*Hyacinthoides non-scripta*
	Juniper	*Juniperus communis*
	Small cow-wheat	*Melampyrum sylvaticum*
	Twinflower	*Linnaea borealis*
	Wilson's Filmy Fern	*Hymenophyllum wilsonii*
	Ash	*Fraxinus excelsio*
	Hawthorn	*Crataegus monogyna*
	Blackthorn	*Prunus spinosa*
	Common knapweed	*Centaurea nigra*
	Saxifrage spp.	*Saxifraga spp*
	Maidenhair spleenwort	*Asplenium trichomanes*
	Common reed	*Phragmites australis*

	Narrow-leaved eelgrass	*Zostera angustifolia*
	Dwarf eelgrass	*Zostera noltii*
	Marine eelgrass	*Zostera marina*
	Kidney vetch	*Anthyllis vulneraria*
	Pellitory-of-the-wall	*Parietaria judaica*
	Maiden pink	*Dianthus deltoides*
	Nottingham Catchfly	*Silene nutans*
	Greater yellow rattle	*Rhinanthus angustifolia*
	Coralroot orchid	*Corallorhiza trifida*
	Rush-leaved fescue	*Festuca arenaria*
	Baltic rush	*Juncus balticus*
	Sea pea	*Lathyrus japonicus*
	Woolly willow	*Salix lanata*
	Alpine sow-thistle	*Cicerbita alpina*
	Alpine forget-me-not	*Myosotis alpestris*
	Mountain scurvy-grass	*Cochlearia micacea*
	Alpine catchfly	*Lychnis alpina*
	Alpine gentian	*Gentiana nivalis*
	Alpine fleabane	*Erigeron borealis*
	Alpine pearlwort	*Sagina saginoides*
	Rock speedwell	*Veronica fruticans*
	Dwarf birch	*Betula nana*
	Close-headed alpine sedge	*Carex norvegica*
	Newman's lady-fern	*Athyrium flexile*
	Oblong woodsia	*Woodsia ilvensis*
	Ox Eye Daisy	*Leucanthemum vulgare*
	Northern Marsh Orchid	*Dactylorhiza purpurella*
	Wall Rue	*Asplenium ruta-muraria*
	Rosebay Wilowherb	*Chamerion angustfolium*
	Giant Hogweed	*Heracleum mantegazzianum**
	Japanese Knotweed	*Fallopian japonica**
	Willow	*Salix spp*
	Scots Pine	*Pinus sylvestris*
	Cowslip	*Primula veris*
	Ragged robin	*Lychnis flos-cuculi*
	Hazel	*Corylus avellana*
	Nettle	*Urtica dioica*
	White Clover	*Trifolium repens*
	Valerian	*Valeriana officinalis*
	Red Campion	*Silene dioica*
	Ballerina Waxcap	*Hygrocybe calyptriformis*
	Slender naiad	*Najas flexilis*
	Slender stonewort	*Nitella gracilis*
	Hooker's liverwort	*Haplomitrium hookeri*
	River water-crowfoot	*Ranunculus fluitans*
Fungi and Lichen	a lichen	*Cladonia uncialis ssp unciali*
	a lichen	*Cladonia mitis*
	Sea bryum	*Bryum warneum*
	Matted bryum	*Bryum calophyllum*

	Brackish water-crowfoot	*Ranunculus baudotii*
	Pillwort	*Pilularia globulifera*
	Selfheal	*Prunella vulgaris*
	Yellow rattle	*Rhianthus minor*
	Greater Birdsfoot trefoil	*Lotus uliginosis*
	Globe flower	*Trollius europeaeus*
	Jointed Rush	*Juncus articulatus*
	Heath cudweed	*Gnaphalium sylvaticum*
	Marsh clubmoss	*Lycopodiella inundata*
	Issleri's clubmoss	*Diphasiastrum issleri*
	Blue dew-moss	*Saelania glaucescens*
	Turgid scorpion-moss	*Scorpidium turgescens*
	Vaucher's plait-moss	*Hypnum vaucheri*
	Stabler's rustwort	*Marsupella stableri*
	Rusty alpine psora lichen	*Psora rubiformis*
	Snow caloplaca lichen	*Caloplaca nivalis*
	a lichen	*Psora globifera*
	a lichen	*Halecania rhypodiza*
	River jelly lichen	*Collema dichotomum*
	Ear-lobed dog-lichen	*Peltigera lepidophora*
	Spruce's bristle moss	*Orthotrichum spruce*
	Blue corky spine fungus	*Hydnellum caeruleum*
	Brown corky spine fungus	*Hydnellum peckii*
	Drab tooth fungus	*Bankera fuligineoalba*
	Globe scented pine fungus	*Phellodon tomentosus*
	Stump lichen	*Caldonia botrytis*

Appendix 4 Bat Licensing

LEGISLATION

All species of bats and their breeding sites or resting places (roosts) are protected under regulation 39 of the Conservation (Natural Habitats) regulations 1994 (amended 2007 and 2009) and section 9 of the Wildlife and Countryside Act 1981.

It is an offence to –

Deliberately capture, injure or kill a bat.

Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats.

Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time).

Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat.

Intentionally or recklessly obstruct access to a bat roost.

The conservation (natural habitats) Regulations 1994 amendment of 2007/2009 clarifies 'disturbance' of bats as any activity that will impair their ability:

To survive, breed, or rear or nurture their young.

In the case of animals of a hibernating or migratory species, to hibernate or migrate.

To affect significantly the local distribution or abundance of the species to which they belong

If a known bat roost is to be disturbed, obstructed, damaged or destroyed for reasons of development, a European protected species licence must be obtained from Nature Scot Licensing Team before demolition of the buildings may proceed. Nature Scot requires approximately 4 weeks to process the licence application - the exact length of time depends on the complexity of the individual case, and the provision of comprehensive information in the application. The application can only be granted once detailed planning consent has been obtained, however, it can be applied for before planning permission is granted. European protected species licences may be issued for the purposes of:

Preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment.

And in every case, a licence cannot be granted unless:

There is no satisfactory alternative.

The action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.

Favourable conservation status' is defined in the Habitats and Species Directive as:

The sum of the influences acting on the species concerned that may affect the long-term distribution and abundance of its population within the territory.

It is assessed as favourable when:

Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and:

There is, or will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

Appendix 5 Bat Species Protection Plan

Bat mitigation strategy

In order to maintain the favourable conservation status of the local bat population it is proposed that mitigation is provided in the form of careful timing, supervision of the works, and retention/re-creation of all roost sites and access points. The following mitigation strategy accords with current best practice and legislation.

The implementation of this approach is dependent upon two key points:

- The provision of alternative roosting habitat commensurate with that which will be lost.
- All works that directly impact roost sites and access points will avoid taking place during mid-winter December to February when bats are hibernating and more vulnerable to disturbance.

Personnel

All works where ecological supervision is required (as identified below) should be supervised by a Nature Scot licensed bat worker. All contractors attending the site should be briefed by the bat worker to highlight the potential presence of bats and to emphasise the importance of following the agreed working methods.

Timing

All works that directly impact roost sites and access points will avoid taking place during mid-winter December to February when bats are hibernating and more vulnerable to disturbance.

Prior to the start of works a total of six bat boxes (four Improved Crevice and two Improved Cavity bat boxes) will be erected on mature trees within 100m of the original roost sites. This will ensure that there is a safe location away from the ongoing works to move any bats to that are discovered during the works. These bat boxes will remain on site for the long-term to provide additional compensation for the loss of potential roost sites within the steading.

A pre-works inspection will be carried out by the named ecologist to determine whether bats are still present within the buildings.

Prior to the start of works, the contractors will be briefed on the presence of bats, their legal status and the methodology to be followed within this method statement. A copy of this method statement together with the licence will be always available on site.

Any roost destruction will be carried out under supervision by the named ecologist and a thorough inspection will be undertaken of the wall plates and any cavities that are exposed. Roof removal will take place carefully to avoid crushing any bats which could be sheltering beneath. The removal of roofing materials will be closely supervised by a licensed bat ecologist working alongside the roofing contractors. Any bats found during the inspection will be captured by the named ecologist using thin-

gloved hands or a hand net, placed in a draw-string cloth bag and re-located to one of the pre-installed bat boxes.

The licensed bat worked will remain on site until satisfied that the risk of bats being present within the buildings is nil or has been reduced to a negligible level.

Security lighting will not be installed near to or overhanging roost access points

Replacement Roosts

To compensate for the loss of 24 non-breeding Common and Soprano pipistrelle roosts four Schwegler 2F Bat Boxes with double fronted panel, and two Schwelger 1FF Bat Boxes will be erected on mature trees in adjacent woodland. Boxes will be erected on mature trees at a height of approximately 3-5m and each box will face different directions to provide a range of temperature conditions.

Appendix 5 Breeding Bird Species Protection Plan

LEGISLATION

The Wildlife and Countryside Act 1981 (WCA) provides protection for all birds whilst nesting. There is also enhanced statutory protection to all breeding birds listed under Schedule 1. Recent and significant changes have been made to the protection of wild birds in Scotland by The Nature Conservation (Scotland) Act 2004.

It is an offence to intentionally or recklessly (reckless acts would include disregard of mitigation aimed at protecting birds, resulting in killing, injury, and/or disturbance of any bird or bird resting place) disturb any wild bird listed on Schedule 1 while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird.

It is an offence to:

- kill or injure any wild bird;
- capture or keep [alive or dead] any wild bird;
- destroy or take the egg of any wild bird;
- sell or advertise for sale any wild bird or its eggs;
- destroy, damage, interfere with, take or obstruct the use of the nest of any wild bird while it is in use or being built.

Further advice is available on the Nature Scot website - https://www.nature.scot/professional-advice/safeguarding-protected-areas-and-species/protected-species/protected-species-z-guide/protected-species-birds

This Species Protection Plan (SPP) for Breeding Birds includes mitigation to achieve the above aims.

MITIGATION PLAN

Commencing demolition outside the breeding bird season ensures that the whole site can be actively worked on from the start. The core nesting season is from the beginning of March to the end of July; however, some birds may not cease activity at nests until late August or even into September. If works have to commence during the nesting season, preventative measures and pre-construction monitoring will be required to ensure compliance with the Wildlife and Countryside Act. N.B Swallows do not return until April.

To prevent active/occupied nests from being damaged or otherwise disrupted:

- All site workers should be informed of their responsibilities relating to the act and they should be instructed to immediately report any suspected nesting birds within the site boundary.

- Construction activities should be planned to avoid dismantling or other physical disruption to the building fabric during the breeding bird season. The core season is March to July inclusive, but birds can also breed in August/September.

- Entry points to the buildings must not be blocked during the bird breeding season. It is acceptable to block nesting habitat out of the breeding season if surveys have shown that no active nests are present within the site.

- If any works have to proceed unforeseen during the breeding season, adequate checks by an experienced ecologist should precede works to ensure no nesting birds are present. Such checks should be considered valid for 48 hours. If active nests are present, then a suitable buffer area will be taped off as an exclusion zone around the nesting area by the ecologist. This exclusion area will then remain intact until the nesting bird vacates the territory.

- It should also be noted that even if all potential points have been blocked construction activities may inadvertently create habitat suitable for nesting birds. Grey wagtails frequently nest in stored materials and sand martins may move into any piles of aggregate. If nesting birds are found anywhere within the construction site, a suitably experienced ecologist should be called in for advice.

REPLACEMENT NEST BOXES

• Incorporate bird boxes into new structures such as house sparrow, swift and barn owl boxes. Boxes must be fitted either on a shady building aspect, or under an overhang to give protection from heat, but not over windows or near to vents, at least 5 metres above ground, with clear airspace for access. Position bird nest cups under eaves to attract house martins and swallows.

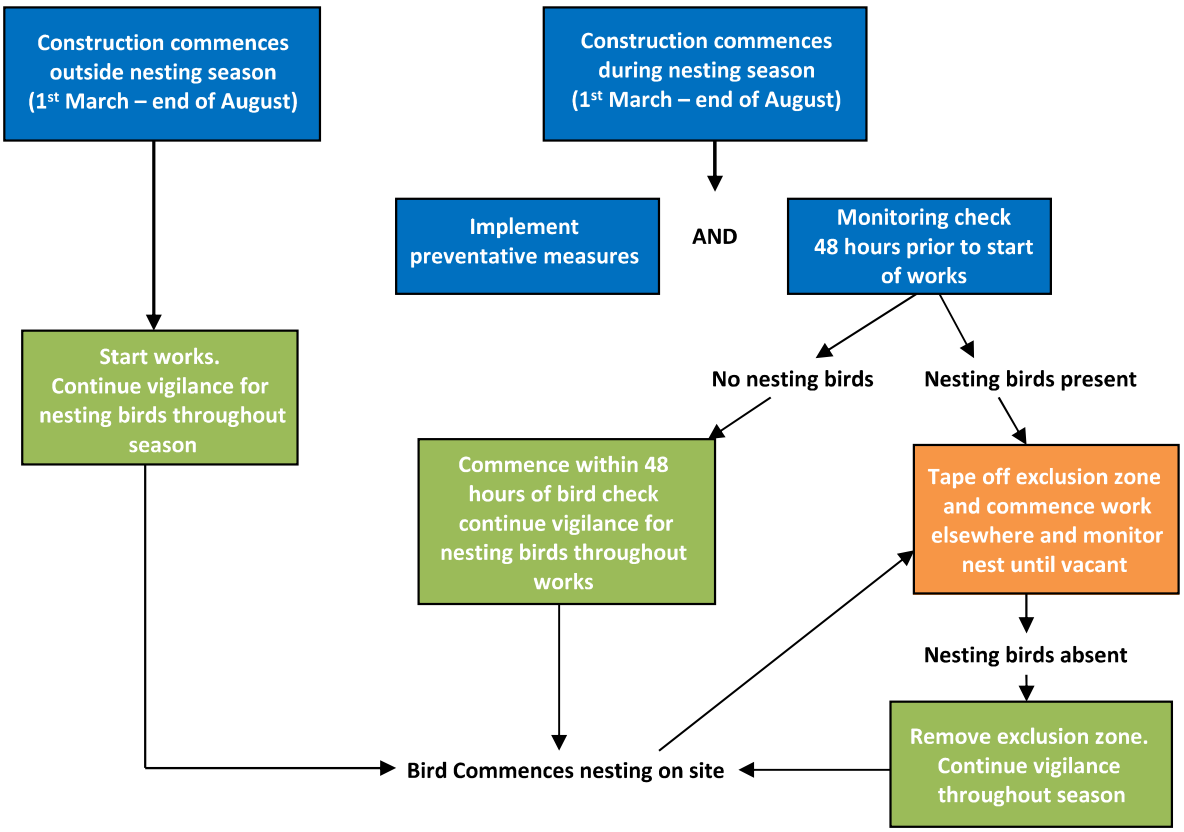
• Proposed boxes are 1 x Schwelger 1SP Sparrow Terrace; 2 x Schwelger Swift Nest box No.18; 1 x indoor barn owl nest box; 2 x Eco Swallow Nest Bowl; 2 x Eco House martin nest box. Position near completion of construction.

• Bird boxes must not be located in any area to be used by the horses as the bird excrement damages the horses' hair.

• Provide nest boxes for smaller woodland birds on trees. Bird boxes to include a range of entrance hole sizes: 25 mm for blue and coal tits; 28 mm for great tits; 32 mm for house sparrows; 45 mm for starlings; a 100 mm high open front for robins; 140 mm high front panel for wrens; owl box for tawny owls. Position of bird boxes 3-4m up a tree, utilise nearby trees for shade and tilt box slightly forward.

• Proposed boxes are 4 x woodstone Seville nest box, 2 x woodstone Barcelona open fronted nest box, 1 x Vivara pro woodstone Starling nest box, 1 x Vivara pro woodstone Tawny owl box. Position on trees before work commences.

SUMMARY OF BREEDING BIRD MITIGATION PLAN



Design Statement

Demolition of steading and erection of new agricultural buildings, Methven Castle Steading

Background Information

Please find a supporting design statement in relation to the planning application submitted by Savills, on behalf of Pilkington Trust, for the demolition and replacement of agricultural buildings at Methven Castle Steading.

The request for this design statement is as a result of the proposal being located within the Methven Castle Historic Garden and Designed Landscape (HGDL).

Specific consideration has been made to the following documents:

- Planning Advice Note 68: Design Statements
- Perth and Kinross Local Development Plan 2 (LDP2) (2019)
- Perth and Kinross Supplementary Guidance – Placemaking (2020)
- National Planning Framework 4 (NPF4)

We believe the proposals comply with this guidance and hope you will support this application.

Proposal Site

Proposal Site in Wider Context

As mentioned in our Planning Statement, the current planning application concerns the replacement of Methven Castle Steading with new agricultural buildings, including a grain store, cattle shed and general purpose building. These sheds are required to meet operational needs of the farm tenant. The aerial shot above shows Methven Castle Steading being located 1.19km to the east of Methven. It can be accessed via a private agricultural track off the A85, the main road between Perth and Crieff.

Garden and Designed Landscape (shown shaded green)

The proposal site within the Methven Castle Historic Garden and Designed Landscape (HGDL). We consider that our proposal causes no detriment to the character of this designation as it is replacing steading buildings which are in a state of disrepair and are a health & safety risk.

Photographs of the site

Aerial view of the steading in it’s current state

Photographs of the site

Photographs of the site

Site Characteristics

Methven Castle Steading sits in a group of buildings and woodland, which can be accessed via a private track from the A85. There are a small number of residential properties, Methven Castle and the steading itself within the building group.

Views

The area is predominantly rural in nature where long-distance views are largely characterised by rolling flat farmland with the A85 road running from Perth to Crieff. Almondbank is located 2.24km to the west and Perth is located 4.65k further east. The proposal is not expected to have any significant impact on the long distance views.

The medium distance views include Methven Village 1km west of the proposal site. Areas of mature woodland are located to the south and north-east along the River Almond. Due to the rural nature of the proposal site, there are limited receptors in the medium distance that would be affected by the proposal.

The short distance views form the site include Methven Castle, a handful of residential properties and farmland. The A85 runs south of the site. The topography of the land and vegetation coverage means that the new sheds are only visible from the A85 at sporadic points along the road, where there are gaps in the treeline.

Siting of Development

The proposal has been sited on a brownfield site, on the footprint of the existing buildings that are to be demolished. The land is relatively flat and gradually slopes downwards from north to south. As mentioned, access to the steading is via a private track off the A85, which enters the steading complex on the western side.

Woodlands and Hedgerows

Surrounding tree coverage restricts views of the proposal from any prominent viewpoints, such as the A85 and core path to the west.

Plan showing woodland and tree line along A86. Core Path is shown running through the steading.

View of Proposal from Core Path (3D visualisation)

View of Proposal from Access Track (3D visualisation)

View of Proposal from A85 (3D visualisation)

Design

The proposed grain store is approximately 36m x 19m, the proposed cattle shed is approximately 36m x 23m and the proposed general purpose shed is approximately 36m x 18m.

Specification:

Roof – Marley Etermit P6 Fibre ement sheets in Slate Blue. Falling to galvanised steel box gutters and new downpipes, new surface drainage to new SUDs system.

Walls – Juniper Green Steadmans AS35 single skin cladding.

Floors and Aprons – 150mm RC35 concrete slab incorporating A252mesh on, 1200gauge DPM on 50mm sand blinding on well consolidated 150mm type 1 sub base layers as required.

External Doors: Grainstore - 2No. 4.8m wide 6.0m tall roller shutter doors in slate blue. 2No. 1.0m steel panel pedestrian doors in slate blue.

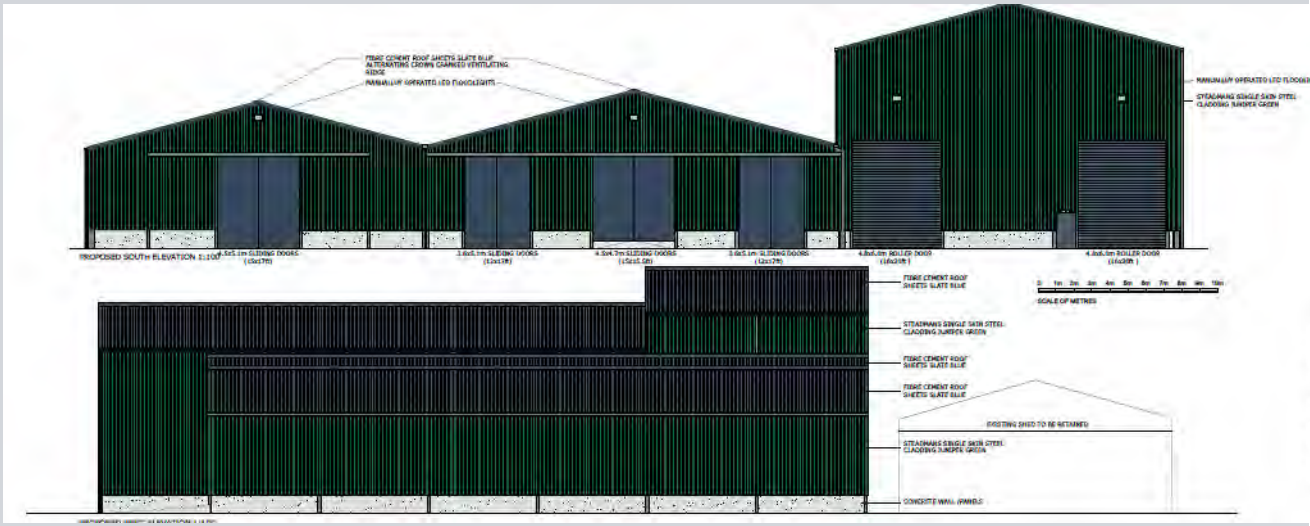
External Doors: Cattle Building: 4No. 2.4m wide 4.8m tall sliding doors in slate blue, fitted with non lockable slip bolts and be capable of being opened internally.

External Doors: General Purpose Building: 4No. 2.4m wide 4.8m tall sliding doors in slate blue, fitted with non lockable slip bolts and be capable of being opened internally.

Electrics: Grain Store: 4No. External LED Floor lights on manual switches over roller shutter doors. 4No. LED flood lights internal.

Electrics: General Purpose Building: 2No. External LED Floor lights on PIR's over roller shutter doors, 1 per gable. 10 No. LED Strip Lights internally as indicated.

Escape: Emergency exit lighting to be fitter over all pedestrian doors, lighting to be on protected circuit with battery back up.



Design

Access and Servicing

There is an adequate existing access track to the site and no modifications to this are proposed. There is also adequate parking areas at the steading, with no change or addition to parking areas proposed.

The image shows the proposed layout of the new sheds, including the grainstore (yellow), cattle building (green) and general purpose building (blue). The two grey buildings to the south are existing sheds to be retained.

The new sheds will connect into the existing water and electricity supply.

Design Principles and Policy Context

National Planning Framework 4 (NPF4) – Policy 14: Design, Quality and Place

The National Planning Framework 4 (NPF4) was approved by ministers on 13 February 2023 and is a material consideration as it now forms part of the Development Plan. NPF4 has three key focus areas which aim to create Sustainable Places, Liveable Places and Productive Places. Each focus area has a number of policies and spatial principles which are designed to achieve the expected outcomes.

Policy 14 'Design, Quality and Place' encourages, promotes and facilitates well-designed development that makes successful places by taking a design-led approach and applying the Place Principle.

Part b) of Policy 14 ensures development proposals are consistent with the six qualities of successful places:

Healthy – the removal of the existing dilapidated buildings and replacement with modern and secure buildings will present a safer and tidier farm complex which can help improve physical and mental health for those working there or for those making use of the core path.

Pleasant – The proposal will result in a tidier and more organised farm complex, creating a more attractive area overall. The general purpose shed will allow farm machinery and equipment to be stored inside instead of being left outside of the buildings.

Connected – The proposal will be accessed via an existing access track. The core path that runs to the north of the proposed buildings is not affected by the proposal.

Distinctive – The development creates a distinctive place by providing a new organised farm complex that replaces an existing derelict steading. The new buildings are of modern design and fit in well with the surrounding area due to the materials and colour.

Sustainable - the buildings will be constructed using sustainable material and the site will incorporate the relevant biodiversity enhancement.

Adaptable – It is likely that the sheds will be used for the farming operations only due to its specific location requirement. However, there may be opportunities to change what is stored in the sheds.

Design Principles and Policy Context

Perth and Kinross Local Development Plan (LDP) – Policy 1: Placemaking and Placemaking Supplementary Guidance (2020)

The overarching design and placemaking policy and criteria for Perth and Kinross Council is Policy 1 ‘Placemaking’ within their Local Development Plan 2019 and the Placemaking Supplementary Guidance adopted by Perth and Kinross in 2020. This ensures that development contributes positively to the quality of the surrounding built and natural environment. The policy also states that:

“The design, density and siting of development should respect the character and amenity of the place, and should create and improve links within and, where practical, beyond the site. Proposals should also incorporate new landscape and planting works appropriate to the local context and the scale and nature of the development” (pg 20 PKC LDP).

We assess our proposal against the placemaking policy and criteria on the next page.

Policy 1 - Placemaking	Fit with Policy
(a) Create a sense of identity by developing a coherent structure of streets, spaces, and buildings, safely accessible from its surroundings	The sheds will replace a redundant steading complex that poses a health and safety risk. The principle of locating farming operations in this location has already been established through it's historic use. The core path running through the site will be retained and the access track will not be modified.
(b) Consider and respect site topography and any surrounding important landmarks, views or skylines, as well as the wider landscape character of the area.	The surrounding landform and natural features, such as woodland, results in the proposal being barely visible from any public viewpoints and therefore is sensitive in it's setting within the landscape and the listed building. Similarly, the proposal does not negatively affect the Gardens and Designed Landscapes designation as it is replacing dilapidated buildings with new sheds designed sensitively and in line with the operational requirements for the farm.
(c) The design and density should complement its surroundings in terms of appearance, height, scale, massing, materials, finishes and colours.	In terms of shed design, the proposed grain store is approximately 36m x 19m, the proposed cattle shed is approximately 36m x 23m and the proposed general purpose shed is approximately 36m x 18m. Materials consist of 'juniper green' cladding and 'slate blue' doors and roofs which integrates with the existing landscape character.
d) Respect an existing building line where appropriate, or establish one where none exists. Access, uses, and orientation of principal elevations should reinforce the street or open space.	The sheds create a new formed building line that is more regular that what is existing.
(e) All buildings, streets, and spaces (including green spaces) should create safe, accessible, inclusive places for people, which are easily navigable, particularly on foot, bicycle and public transport.	The proposal site can be accessed by car, bike or walking. There is also adequate parking areas provided.
(f) Buildings and spaces should be designed with future adaptability, climate change and resource efficiency in mind wherever possible.	The sheds would be designed to a sustainable standard and sustainable methods of construction will be undertaken.
(g) Existing buildings, structures and natural features that contribute to the local townscape should be retained and sensitively integrated into proposals.	Not applicable.
(h) Incorporate green infrastructure into new developments to promote active travel and make connections where possible to blue and green networks.	The Applicant will integrate natural screening mechanisms and planting to enhance the amenity and visual appearance of the proposal. This will also contribute to biodiversity enhancement.
(i) Provision of satisfactory arrangements for the storage and collection of refuse and recyclable materials (with consideration of communal facilities for major developments).	The farm has the required refuse arrangements in place. For further information on Waste, refer to the Waste Management Plan at Appendix 1 of the Agricultural Justification Statement.
(j) Sustainable design and construction.	The proposal is designed using sustainable building materials.

Impact on the Garden and Designed Landscape

As discussed, the land is located within The Methven Palace Garden and Designed Landscape designation.

We consider that our proposal has no impact on the designation as it replaces derelict buildings that are unsafe and unsightly within the designation. The replacement sheds will revitalise and enhance the overall visual amenity of the area at the farm, which contributes to the overall value and appearance of the Garden and Designed Landscape area.

It has been demonstrated that the proposal is required on an operational basis and the size of sheds proposed will allow efficient farming operations to take place.

The 3D visualisations submitted with the proposal demonstrate that the majority of the sheds are hidden from three public viewpoints due to landform, topography and existing natural features, such as trees. Those passing on the A85 will only have a very small and quick view of the buildings.

We hope the Council can support this proposal in-line with our design justifications set out above. It will ensure that Methven Castle Farm can operate efficiently.

Bat Survey Report

Methven Castle Farm Steading

16/01/2023

Disclaimer

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Thomas Hill

	Name	Date
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	Name	**Signature**
Approved By	Paul Neary	[redacted]

Contents

1. EXECUTIVE SUMMARY

This document describes the results of bat surveys undertaken in June, July, and August 2022 at Methven Castle Farm Steading, approximately 2km east of the village of Methven in Perthshire. Prior to the demolition of the existing buildings on site, it is necessary to identify the potential for the proposed works to impact upon any bat or bird species that may be present within the site. The surveys included a full daylight inspection of all buildings to be impacted by the proposed development in conjunction with dusk emergence and dawn swarming surveys.

The results of the current surveys have established the presence of 24 non-breeding roost sites for common pipistrelle and soprano pipistrelle within Methven Castle Farm Steading. Following a total of two dusk emergence surveys and one dawn swarming survey the largest number of bats recorded roosting within a single roost site was five. In accordance with the Bat Mitigation Guidelines (Mitchell-Jones 2004) small non-breeding roosts of common species are of low conservation significance.

The proposed works will require the demolition of the existing buildings and will invariably result in the destruction of these roost sites. Therefore, it will be necessary to obtain a European Protected Species Licence from the Scottish Natural Heritage Species Licensing Team before the planned renovation works can take place. Licences can take 6-8 weeks to be issued, so application should be made in good time to allow for this.

A mitigation plan is presented that will compensate for the loss of roost sites within the steading and allow continued use of the site by bats.

Active nests for swallows and feral pigeons were identified within the site. All species of bird are protected when nesting under the Wildlife and Countryside Act 1981, as amended. A full species protection plan for breeding birds is presented in Appendix 8.

2. INTRODUCTION

BACKGROUND

This document describes the results of a bat surveys undertaken in April, June, July, and August 2022 at Methven Castle Farm Steading, approximately 2km east of the village of Methven in Perthshire. Prior to the demolition of the existing buildings (Outlined in Figure 3) on site, it is necessary to identify the potential for the proposed works to impact upon any bat or bird species that may be present within the site. A preliminary roost assessment, undertaken in April 2022, identified numerous locations across the external fabric of the buildings that could provide potential roost sites for bat species.

The surveys included a full daylight inspection of all buildings to be impacted by the proposed development (see Figures 1-3) in conjunction with two dusk emergence surveys and one dawn re-entry survey.

The primary aims of the survey were:

To assess the potential use of the buildings by bats and birds.

To indicate any further survey requirements.

To provide guidance in relation to protected species and the proposed development.

Statement of Authority

Work has been carried out in line with the relevant professional guidance: CIEEM's Guidelines for Ecological Impact Assessment ("EcIA") in the UK and Ireland.

Thomas Hill, who wrote the majority of the report and performed much of the survey work, has five years of experience as an ecologist in a mixture of field and office-based work. Thomas has experience in many surveys and assessments including Phase 1 habitat surveys, bat, badger, otter and water vole alongside other protected species surveys. He has worked on projects of varying scales, from simple residential extension developments up to national scale transport infrastructure projects. Thomas is currently working towards CIEEM membership.

Daniel Flenley, who performed the building assessment and some of the reporting, has 16 years of ecology experience including undertaking surveys and writing associated reports. A full member of the Chartered Institute of Ecology and Environmental Management ("CIEEM") and Association of Environmental Clerks of Works ("AECoW"), he has experience in undertaking and managing a range of surveys and assessments including Ecological Impacts Assessments ("EcIAs"), and ornithological and protected species surveys, for over 550 projects. These include a variety of development types such as energy, commercial, industrial and transport

infrastructure. Daniel holds a great crested newt ("GCN") class licence and has worked as an accredited agent under bat and amphibian mitigation and reptile survey licences.

3. METHODOLOGY

These survey efforts were required to update the survey findings from 2017, which found four roosts of common pipistrelle, soprano pipistrelle, and brown long-eared bat. Due to the time elapsed, these results are no longer valid, but the buildings are to be surveyed on three occasions due to the confirmed presence of historic roosts. Please see Appendix 1 in regard to relevant bat legislation which is pertinent to this document and project.

TIMING

The updated building inspection was performed by Daniel Flenley MCIEEM. Alison Hannah (License number: 200939), Thomas Hill, Jenny Paterson, and Rory Thiel performed the emergence and re-entry surveys. Timing of surveys and weather conditions are shown in Table 1.

Table 1. Timing and weather conditions for surveys at Methven Castle Farm.

Survey	Date	Sunset/Sunrise	Weather	Surveyor(s)
Building Inspection	13/04/2022 14/04/2022	n/a	Fine and dry	Daniel Flenley
Visit 1 Emergence Survey of Locations 9, 1, and 2	27/06/22	22:07	Light - moderate wind, no precipitation 80% cloud cover	Alison Hannah Thomas Hill Jenny Paterson
Visit 1 Re-Entry Survey of Locations 3, 4, and 5	28/06/22	04:27	Moderate wind, no precipitation, 100% cloud cover	Alison Hannah Thomas Hill Jenny Paterson
Visit 1 Emergence Survey of Locations 6, 7, and 8	28/06/22	22:08	Moderate wind, no precipitation, 30% cloud cover	Alison Hannah Thomas Hill Jenny Paterson
Visit 2 Emergence Survey of Locations 3, 4, and 5	19/07/22	21:47	No wind, no precipitation, 90% cloud cover	Alison Hannah Thomas Hill Jenny Paterson

Visit 2 Re-Entry Survey of Locations 6, 7, and 8	20/07/22	04:54	Very light wind, no precipitation, 100% cloud cover	Alison Hannah Thomas Hill Jenny Paterson
Visit 2 Emergence Survey of Locations 9, 1, and 2	20/07/22	21:46	Light wind, no precipitation, 10% cloud cover	Alison Hannah Thomas Hill Jenny Paterson
Visit 3 Emergence Survey of Locations 6, 7 and 8	23/08/22	20:33	Light wind, no precipitation, 80% cloud cover	Alison Hannah Thomas Hill Rory Thiel
Visit 3 Re-Entry Survey of Locations 9, 1 and 2	24/08/22	06:02	No wind, no precipitation until 6am, at which point very heavy rain leading to early cessation of survey, 100% cloud cover	Alison Hannah Thomas Hill Rory Thiel
Visit 3 Emergence Survey of Locations 3, 4, and 5	24/08/22	20:31	Moderate wind, no precipitation, 60% cloud cover	Alison Hannah Thomas Hill Rory Thiel

Survey Methodology

All bat survey methodology is followed as set out in Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd edition

Building Inspection

All buildings were examined externally using close-focusing binoculars and a high-powered torch where necessary. Signs of bats commonly found during an external search are:

Droppings – typically found on the ground beneath roof exits, adhered to walls or on flat surfaces such as windows.

Urine spots on window glass and other smooth surfaces.

Fur oil stains, indicating a roost entrance.

The buildings were also examined with respect to features that have the potential to be used as roosts or access points into the building. Such features include:

Holes in walls, pipes, gaps behind window frames, lintels and doorways.

Cracks and crevices in stonework and brickwork.

Gaps between ridge tiles and ridge and roof tiles, usually where the mortar has fallen out.

Gaps between lintels above doors and windows.

Broken or lifted roof tiles.

Lifted lead flashing around chimneys, dormer windows, roof valleys and ridges and hips or where lead flashing replaces tiles.

Gaps between the eaves, soffit board and outside walls.

Gaps behind weatherboarding, hanging tiles and fascia boarding.

Suitable entry and exit points around the eaves, soffits, fascia and barge boarding and under tiles.

The presence of cavity walls and rubble-filled walls.

Bat droppings on the ground, ledges, windows, sills or urine on window-sills.

Access was available to the interior of most of the buildings and roof voids. Therefore, a thorough interior search was carried out where possible using a high-powered torch where necessary. Within the roof voids particular attention was paid to:

All beams for free-hanging bats.

Droppings beneath the ridge and hip beams of the roof and junctions between the two.

Droppings, urine staining on and at the base of dividing walls, gable end walls and around chimney breasts.

Droppings, urine staining and corpses on, under or in materials or boxes stored in the roof.

Corpses in uncovered water and header tanks or other containers in the roof.

Scratch marks and characteristic staining from fur oil on timber and walls.

Access to cavity or rubble-filled walls.

Cool areas suitable for torpor or hibernation.

In areas where dropping samples are possible to be collected, they were sent securely to Surescreen Scientific for DNA analysis to determine the species of origin.

DUSK EMERGENCE AND DAWN RE-ENTRY SURVEYS

Due to the size of the Application Site, and the sites history of confirmed roosts from the survey effort in 2017, all buildings were surveyed three times each, with two dusk emergence and one dawn re-entry survey being performed at each surveyor location (outlined in Appendix 2).

Dusk emergence surveys were conducted from a quarter of an hour prior to sunset to one and a half hours after sunset, at which point, light levels prevented accurate assessment of emergence behaviour. Dawn re-entry surveys were conducted from one and a half hours prior to dawn to a quarter of an hour after sunrise. The time of contact, direction of flight and behaviour of all bats was recorded as outlined in the Bat Conservation Trust's Good Practice Guidelines[1].

Throughout the survey, bats were identified in flight using a frequency division bat detector Echo Meter Touch 2 Pro bat detectors, with post-visit analysis of sound files captured by recorded to allow species level identification using Kaleidoscope Pro, with identifications confirmed by a second suitably qualified ecologist who did not perform the survey.

Breeding Birds

Active nests were recorded when the daytime inspection was undertaken. Active nests were discerned from old nests by the presence of breeding birds and/or evidence such as droppings and feathers.

Survey Limitations

Whilst some droppings were found during the internal building inspection survey, upon testing, these droppings were unidentifiable to a species level, due to a mixture of contamination and age.

Certain areas were unable to be surveyed due to safety concerns regarding the structural integrity of buildings. Given the historic results and the survey effort conducted, this is not believed to be a significant limitation overall.

Due to size, and surveyor availability, it was not possible to complete all surveyor location within a single night. However, surveys were conducted on at consecutive opportunities (dusk, dawn, and a second dusk conducted over two days) as recommended by Bat Survey Guidelines using a rotating starting point to ensure all points were surveyed twice at dusk and once at dawn. As

[1] Available at: https://www.bats.org.uk/resources/guidance-for-professionals/bat-surveys-for-professional-ecologists-good-practice-guidelines-3rd-edition

result of these measures, it is not believed likely any significant or notable bat activity and behaviours have been missed due to this.

One survey (visit 3 dawn re-entry) was cut short at 06:05 (intended survey finish 06:17) due to a sudden onset of heavy rain, which persisted until intended survey finish time. Given the strong adverse weather conditions, it is unlikely any significant or notable bat activity or behaviours have been missed due to this.

Technical issues with the recording instrumentation caused loss of soundwave files on two occasions (Visit One Surveyor Location Nine and Visit Two Surveyor Location Six). This prevented post-visit analysis on for the respective locations. However, this did not impact the notes taken during the survey itself, and as such, is not believed to be a significant limitation given the proximity of surveyor locations and scale of the Proposed Development.

4. RESULTS

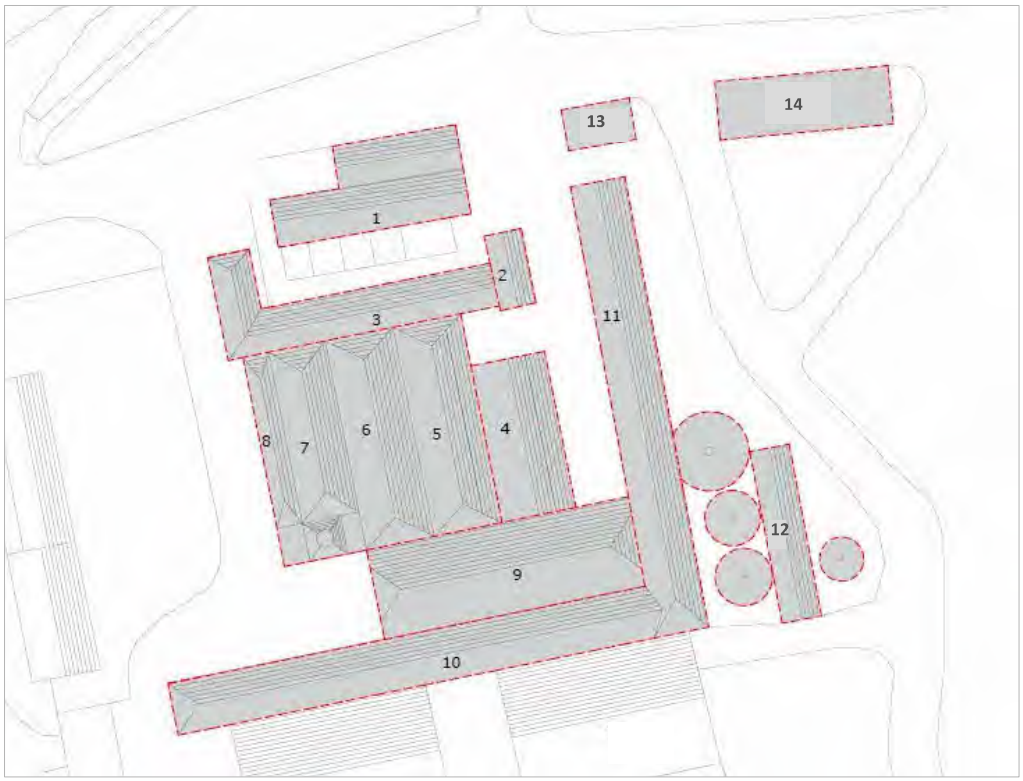
SITE DESCRIPTION

Methven Castle Farm Steading comprises a complex of several interconnected agricultural buildings within the Methven Castle Estate (see Figures 1-3). The Estate is located approximately 10.5km west of Perth and just over 2km east of Methven village. It is bounded to the south by the main A85 to Perth, and to the north and east by the steep valley of the River Almond. The abundance of mature broadleaved woodland in the immediate vicinity of the steading offers excellent foraging and commuting habitat for bat species (particularly obligate edge foragers such as *Pipistrelle spp*). In particular the riparian woodland along Methven Loch and the River Almond (approximately 700m to the east and 800m to the northeast respectively) offers ideal foraging habitat for bats. Riparian woodland is typically replete with insects and as such is a key habitat for many bat species. *Pipistrellus pipistrellus, Pipistrellus pygmaeus* and *Myotis daubentonii* show a clear preference for this type of foraging habitat and the mixture of water, woodland, open areas and edge habitat, in the immediate vicinity of the proposed development site offers ideal foraging habitat for all of Scotland's resident bat species.

Figure 1. Aerial photograph of Methven Castle Farm Steading and wider environs. The developmental boundary is outlined in red and the site is shown in more detail in Figure 3.

Figure 2. Aerial photograph of Methven Castle Farm Steading. A developmental boundary for indicative purposes only is outlined in red. The buildings scheduled to be demolished have been labelled 1-14 in Figure 3.

Figure 3. Rough schematic showing the relative location of all buildings scheduled to be demolished. To facilitate interpretation of the results buildings have been numbered 1-14.



BUILDING INSPECTION

All of the buildings scheduled to be demolished have been numbered 1-14 in Figure 3 and will be treated separately to facilitate interpretation of the results. See Appendix 3 for an overview of bat evidence and limitations.

Building 1

Building one is a single storied, red brick shed with a pitched roof lined with corrugated asbestos roofing sheets (Figure 4). The building is in poor to reasonable condition and is currently being used for storage. The southern section is a disused stable block. Gaps are present around eaves, but the roof leaks and sunlight can enter the stable area. Extensive cobwebs throughout. The red brick exterior and the roofing sheets are loosely fitted around the eaves leaving no crevice habitat that could provide potential roost sites. Buildings lined with this type of asbestos cement roofing sheets typically provide suboptimal roosting habitat for bat species and despite a thorough inspection there was no evidence that bats have ever occupied this building.

Figure 4. Building 1 – northern elevation.

Building 2

Building two is a large, two storied, stone-built structure with coursed rubble walls and dressed stone around doors and windows (Figure 5). The northern section of the roof is pitched and lined

with grey slate with corrugated asbestos on the southern section. The building is in poor condition and the slate roof on the northern end has collapsed into the interior. As would be expected in a building of this type there are numerous potential roost sites on the external fabric of the building including:

- An abundance of cracks and crevices on the external stonework.
- Washed out mortar along the eaves providing access to the space above the wallhead.
- Large gaps beneath the flashing along the ridge and the uncapped gable ends.
- Numerous openings across the roof providing access to the space between slates and sarking.

Despite the presence of potential roost sites there was no evidence to indicate that bats have ever occupied this building, with many features being cobwebbed over. However, despite the lack of evidence the possibility of small numbers of crevice dwelling bat species roosting beneath the roof coverings cannot be ruled out.

Figure 5. Building 2 – eastern elevation.

Building 3

Building three is a stone built (random rubble) structure with a pitched roof lined with grey slate (Figure 6). The majority of the building is single storied comprising open sheds used to house cattle. However, there is a small two storied section on the western elevation that could not be

accessed during the current survey (see APPENDIX 3 for location) due to health and safety concerns. The building is in reasonable condition; however, potential roost sites were identified where washed-out mortar has resulted in crevice habitat along the eaves and there are numerous areas of the roof where raised flashing and missing slates provide access to potential roost sites. Internally the building is open to the roof, collar beamed and lined with wooden sarking. Within the building, several nests belonging to swallows and wasps and a feral pigeon roost were noted. Despite a thorough inspection, with the aid of a flexible endoscope, there was no evidence either internally or externally to indicate that bats have ever been in occupation.

Figure 6. Building 3 – northern elevation.

Building 4

Building four is a large, two storied, stone-built structure with coursed rubble walls and dressed stone around doors and windows (Figure 7). The roof is pitched and lined with grey slate. The building is in poor condition and large cracks in the external stonework, uncapped flashing and missing slates all provide potential roost sites. Internally the ground floor currently functions as a stable with heavy cobwebbing on the ceiling. The first floor is open to the roof internally collar beamed and lined with wooden sarking (Figure 8), but safety concerns prevented an inspection to the level it was performed in 2017. However, no evidence was found either internally or externally that would indicate the presence of bats.

Figure 7. Building 4 – eastern elevation.

Figure 8. Building 4 shows heavy cobwebbing on vast majority of the ceiling.

Buildings 5-8

Buildings 5-8 comprise four large barns of similar construction. These are all old milking barns which are single storied, stone built barns with pitched roofs lined with grey slate (see Figure 9 for example). Building 5 has completely collapsed (Figure 10) but all other buildings are intact. As with the other buildings within the steading there are an abundance of potential roost sites on the external fabric of the building with numerous large openings along the eaves and an abundance of gaps beneath slates and flashing. Internally the barns are open to the roof and lined with wooden sarking (Figure 11. Following a thorough inspection, a small pile of droppings were found on the floor on the southern end of building 6. It is possible that these droppings are from previously identified roosts in 2017. In addition, approximately 8 droppings were found on wall below unpolished rafters on the northern end of building 6 (Figure 12). The shiny and granulated appearance of the droppings were indicative of brown long eared bats. However, the vast majority of the droppings were old and discoloured (<2yrs old) and the number and condition of the droppings is typical of a roost site used by small numbers or solitary bats over a long period of time. Due to dropping location, it was not possible to collect a sample safely without compromising the quality of the sample. Furthermore, a rafter on the northern end of building 7 contains one polished area (Figure 13).

The buildings were fully inspected on two separate occasions due to the historic presence of roosts in these buildings (see Table 1 for timing) and on each occasion no bats were present in any building.

Figure 9. Building 8 – western elevation.

Figure 10. Building five has completely collapsed and no safe access was possible.

Figure 11. Buildings 5-8 comprise large milking barns in varying states of disrepair.

Figure 12. Droppings found on wall of Building 6 potentially indicative of brown long eared bat presence.

Figure 13. Polished area of rafters in Building 7.

Building 9

Building nine is a large single storied stone barn with a pitched roof lined with grey slate. There are small gaps in the lead flashing which could be used as roost features. The building is in extremely poor condition and the eastern section is in a state of partial collapse (Figure 14). There was no evidence to indicate that bats have ever roosted within this building.

Figure 14. Building 9 – eastern elevation.

Building 10

Building 10 comprises a number of discrete rooms forming the southern range of the steading. The entire structure is stone built (random rubble) with a pitched roof lined with grey slate. The vast majority of the building is single storied and open to the roof internally. However, there is a small two storied section on the very western end of the building. The two storied section is in extremely poor condition with a collapsed ceiling and a roof that appears extremely unstable. Therefore, it was not possible to enter this area safely. There are an abundance of potential roost sites across the building including

An abundance of cracks and crevices on the external stonework.

Washed out mortar along the eaves providing access to the space above the wallhead.

Large gaps beneath the flashing along the ridge and the uncapped gable ends.

Numerous openings across the roof providing access to the space between slates and sarking.

However, despite the presence of potential roost sites there was no evidence to indicate that bats have ever roosted within this building.

Figure 15. Building 10 – northern elevation.

Building 11

Building eleven is a long stone building that forms the eastern range of the steading. The entire structure is stone built (random rubble) with a pitched roof lined with grey slate with pitched corrugated sheeting on the southern end. Although a large section of the building is two storied there was no safe access to the first floor and therefore these areas could not be surveyed. As with the other buildings within the steading there are a wealth of potential roost sites across the external fabric of the building but despite a thorough inspection there was no evidence to indicate that bats have ever been present within this building. Whilst droppings were found within the building, these were determined via lab analysis not to be from bats.

Figure 16. Building 11 – eastern elevation.

Building 12

Building twelve comprises a large single skinned pole barn lined with corrugated metal sheets and four large metallic grain bins. Neither the barn nor the bins present any potential roost sites for bat species, and all are considered wholly unsuitable for roosting bats.

Figure 17. Building 12 – northern elevation.

Building 13

Building thirteen is a small single skinned wooden shed with a pitched roof lined with corrugated metal roofing sheets. The single skinned wooden walls and metal roof leaves no crevice habitat that could be exploited by bats. However, crevices in roof beams provide a low level of bat roost potential (see figure 20).

Figure 18. Building 13 – northeast elevation

Building 14

Building fourteen was a single skinned pole barn lined with corrugated metal sheets. However, the building has completely collapsed and now comprises of rubble recognizing and bare ground, and short ruderal to semi-improved grassland with no bat roost potential.

Figure 19. Prior site of Building 14.

DUSK EMERGENCE AND DAWN SWARMING SURVEYS

Throughout all activity surveys a total 5,589 recordings were collected from the three survey visits of nine locations. A total of six species of bat were recorded within the immediate vicinity of the site, comprising: daubenton's bat (*Myotis daubentonii*), natterer's bat (*Myotis nattereri*), Nathusius' pipistrelle (*Pipistrellus nathusii*), soprano pipistrelle (*Pipistrellus pygmaeus*), common pipistrelle (*Pipistrellus pipistrellus*), and brown long eared bat (*Plecotus auritus*). In addition, the automatic detection on survey noted additional species well outside their known geographical ranges, namely, the western barbastelle bat (*Barbastella barstellus*), noctule bat (*Nyctalus noctula*) and Leisler's bat (*Nyctalus leisleri*).

Of the species recorded, only common pipistrelle and soprano pipistrelle were recorded showing evidence of roosting behaviours and only in small numbers (comparative to overall activity levels). It is estimated that no more than four or five bats were ever present in one roosting location at one time.

A total of 27 locations were noted with emergence or re-entry behaviours, a further three were noted but have since been discounted due to exposure of proposed location. Roosting behaviours were most frequent relating to Building 10 and Building 11 (14/25 locations). The

location of all roosts identified during the activity surveys is shown in Appendix 4 and the most commonly observed foraging and commuting routes are shown in Appendix 5.

POST-VISIT SOUNDWAVE ANALYSIS

A total of 5,589 files were recorded from the emergence and re-entry surveys. This was analysed using a combination of automated and manual identification using Kaleidoscope Pro software. A sample of files from each automatically identified species (around 10%) are manually verified to ensure the software's accuracy, a sample (or specific more complex files) of those manually analysed are then vetted by a second ecologist trained in sound wave analysis for quality assurance purposes.

The automated identification classified a number of species which are either rare, important in local historic context, outside their known geographical range or a combination of these. In those cases, all files were analysed instead of the usual 10%.

The results of manual verification show high automatic ID accuracy outside the misidentified species (based on geographical range). As false negatives outweighed false positives in the Echo Meter test, surveys may underestimate bat abundance by around 1%. In the Kaleidoscope Pro test, all possible false positives were sampled, and there were no false positives.

5. CONCLUSIONS, IMPACTS, AND RECOMMENDATIONS

Pipistrelle bats

The results of the building inspection in conjunction with dusk emergence and dawn swarming surveys have established the presence of over twenty non-breeding roost sites for common pipistrelle and soprano pipistrelle bats within Methven Castle Farm Steading. Following a total of two dusk emergence surveys and one dawn swarming survey the largest number of bats recorded roosting within the site was five. The mean colony size for soprano pipistrelle bats in Scotland is 237[2]. Therefore, the low number of bats within the roost provides a strong indication that these are bachelor roosts occupied solely by male bats. Male pipistrelle bats often show a high fidelity to their bachelor roosts with individuals returning to the same site each year. However, the composition of the roost will change frequently throughout the summer with individual bats roosting in a myriad of alternative roost sites in close proximity to the main roost. In accordance with the Bat Mitigation Guidelines[3] small non-breeding roosts of common species are of low conservation significance.

Pipistrelle bats:

Conservation status – worldwide:

Lower Risk: Least Concern.

Conservation status in UK:

Not Threatened. Pipistrelles are the most common and widespread species throughout the UK. There is some evidence from the Annual Bat Colony Survey that their numbers may have declined nationally in the last 50 years, but this is not the case in Scotland.

Brown Long Eared Bats

Despite the historic roost noted in 2017, no evidence of a roost in use by brown long eared bats was found either during the building inspection, or the emergence and re-entry surveys. It is believed, given the time passed, the roost in Building 8 is no longer in use by the species.

Brown Long Eared bats:

[2] Bat Conservation Trust, Racey et al. 2004, available at: https://cdn.bats.org.uk/uploads/pdf/About%20Bats/sopranopipistrelle_11.02.13.pdf?v=1541085183

[3] English Nature, Michell-Jones 2004, Available at: https://www.warksbats.co.uk/pdf/Batmitigationguide.pdf

Conservation status – worldwide:

Lower Risk: Least Concern.

Conservation status in UK:

Not Threatened. This is generally considered to be the third commonest bat in Britain after the two widespread pipistrelle species. However, its abundance in relation to species which make less use of houses (such as Daubenton's bat) may well have been overestimated – P. auritus almost always roost in roof apices and is therefore easily visible to householders and likely to be reported to conservation organisations.

Proposed Works and Predicted Impacts

The proposed works will involve the demolition of the buildings where roost sites were identified and therefore without mitigation the proposed works will invariably result in the destruction of roost sites for common pipistrelle and soprano pipistrelle. Therefore, it will be necessary to obtain a European Protected Species Licence from the Scottish Natural Heritage Species Licensing Team before the planned works can take place. Currently, licences take 6-8 weeks to be issued, so application should be made in good time.

A licence application will be considered on three criteria:

That there is a licensable purpose for which licenses can be granted. A licence may be granted 'to preserve public health or public safety or for other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment'.

That there is no satisfactory alternative to the granting of a licence; and

That the action authorised will not be detrimental to the maintenance of the population of the EPS concerned at a favourable conservation status in their natural range.

Breeding Birds

Swallows (*Hirundo rustica*), blackbird (*Turdus merula*) and feral pigeon (*Columba livia domestica*) nests are historically abundant throughout the steading. Whilst only swallow and feral pigeon were noted during the 2022 surveys, multiple areas were unable to be surveyed due to safety concerns, as such, it should be expected roosts may exist in these areas without confirmation otherwise. All species of bird are protected when nesting under the Wildlife and Countryside Act 1981, as amended. Therefore, mitigation is required to maintain local numbers of these species and to avoid damage or other adverse impacts on active nests. A full species protection plan for breeding birds is presented in Appendix 8.

6. APPENDIX 1

Relevant legislation of target species: bats

All species of bats and their breeding sites or resting places (roosts) are protected under regulation 39 of the Conservation (Natural Habitats) regulations 1994 (amended 2007 and 2009) and section 9 of the Wildlife and Countryside Act 1981.

It is an offence to –

Deliberately capture, injure or kill a bat.

Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats.

Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time).

Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat.

Intentionally or recklessly obstruct access to a bat roost.

The conservation (natural habitats) Regulations 1994 amendment of 2007/2009 clarifies 'disturbance' of bats as any activity that will impair their ability:

To survive, breed, or rear or nurture their young.

In the case of animals of a hibernating or migratory species, to hibernate or migrate.

To affect significantly the local distribution or abundance of the species to which they belong

If a known bat roost is to be disturbed or damaged for reasons of development, a European protected species licence must be obtained from Scottish Natural Heritage Licensing Team Landscapes before demolition of the buildings may proceed. Scottish Natural Heritage requires approximately 6-8 weeks to process the licence application - the exact length of time depends on the complexity of the individual case, and the provision of comprehensive information in the application. The application can only be made once detailed planning consent has been obtained. European protected species licences may be issued for the purposes of:

Preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment.

And in every case, a licence cannot be granted unless:

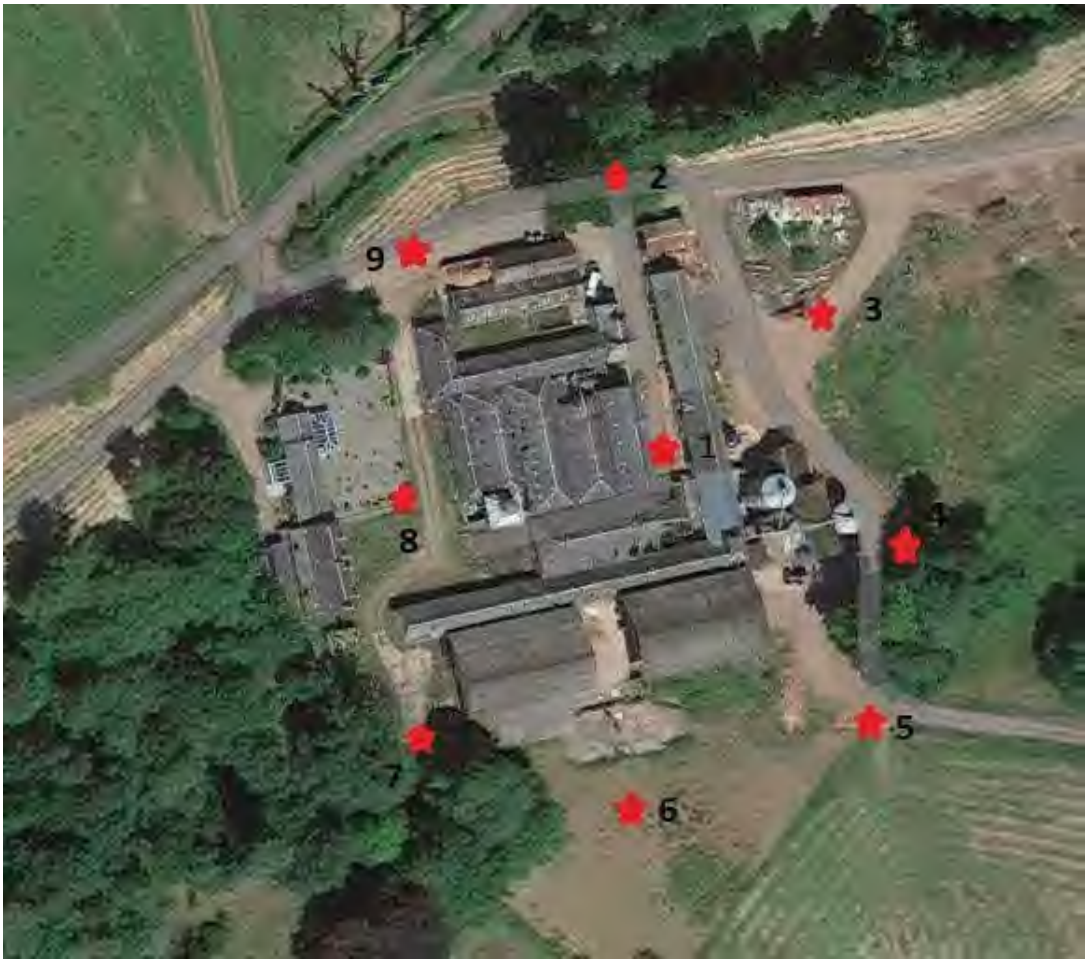
> There is no satisfactory alternative.
>
> The action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.
>
> Favourable conservation status' is defined in the Habitats and Species Directive as:
>
> The sum of the influences acting on the species concerned that may affect the long-term distribution and abundance of its population within the territory.

It is assessed as favourable when:

> Population dynamics data on the species concerned indicate that it is maintaining itself on a long term basis as a viable component of its natural habitats, and the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and:
>
> There is, or will probably continue to be, a sufficiently large habitat to maintain its populations on a long term basis.

7. APPENIDX 2

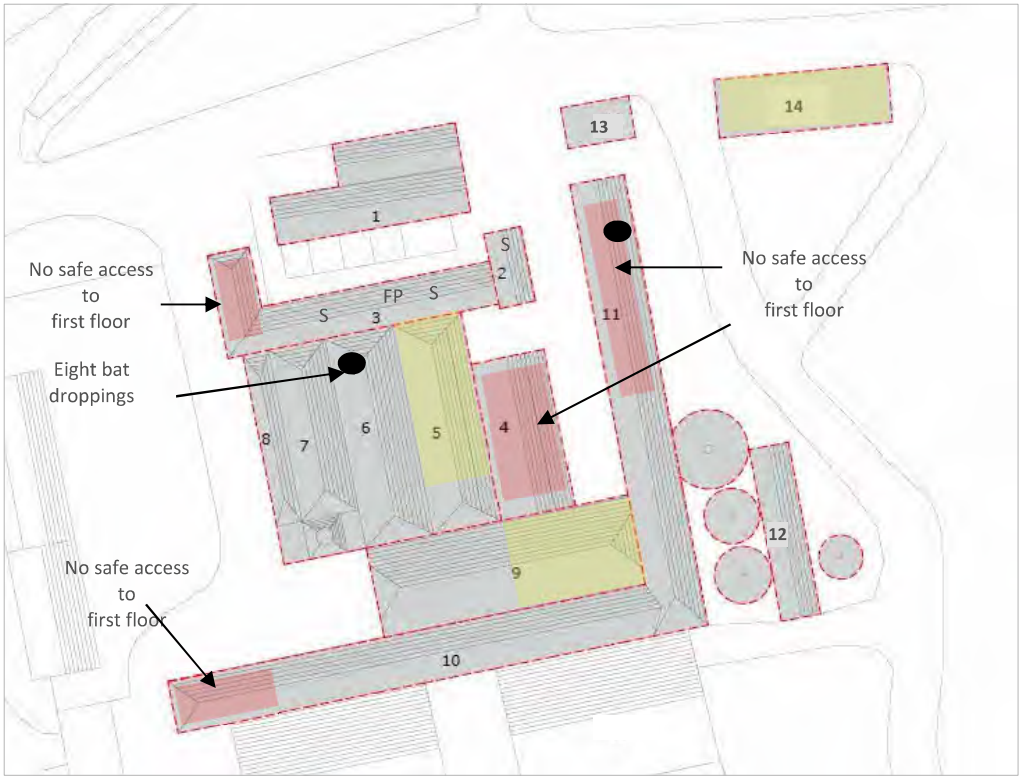
Surveyor locations during emergence and re-entry survey



Surveyor location

8. APPENDIX 3

location of all evidence of Protected Species from Building Assessment:



Enclosed Roof Void

Building Collapsed

Bat droppings

S Swallows' Nest

FP Feral Pigeons Nest

9. APPENDIX 4

Location of all Bat Roosts:

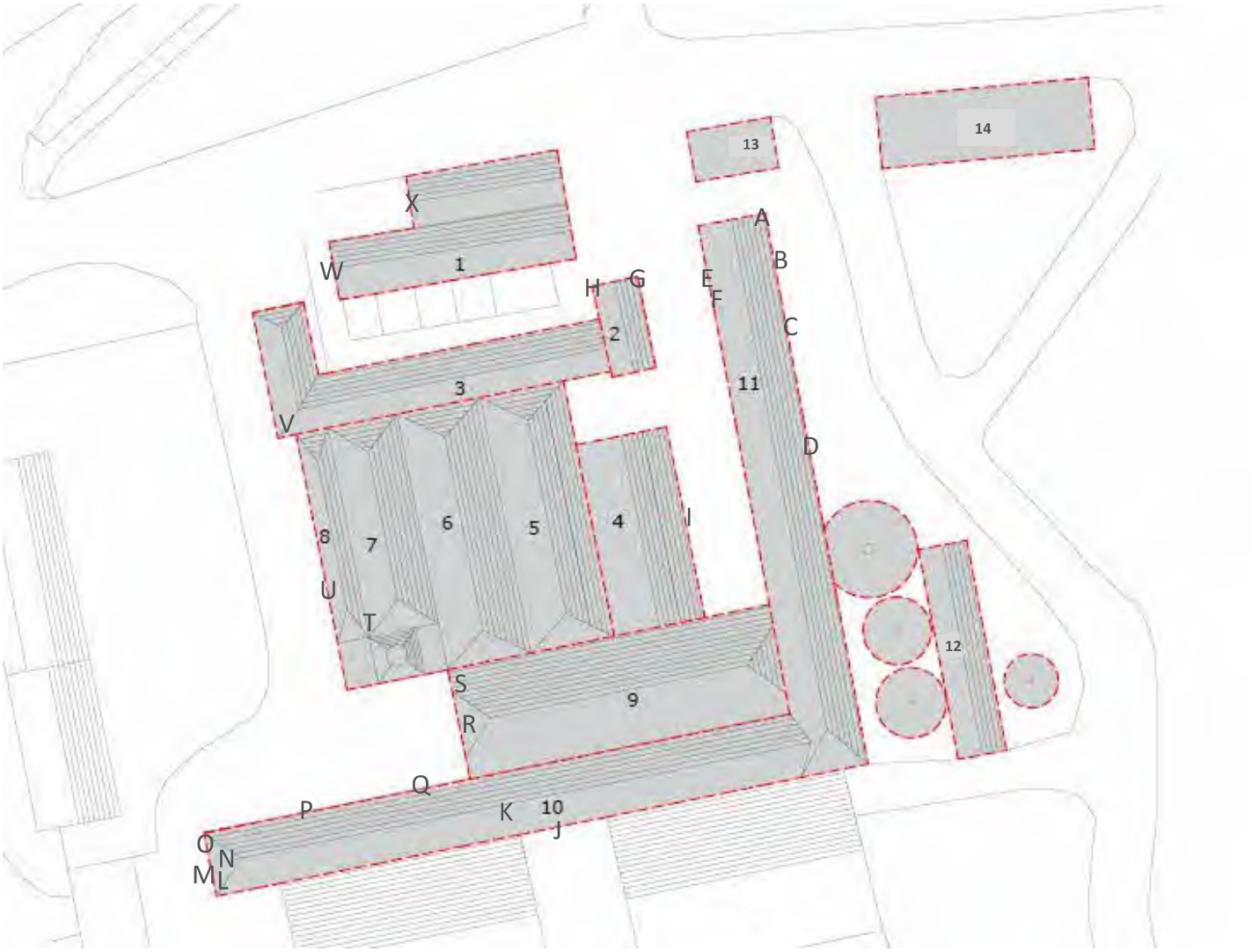


Table 2. Roost Information

Bat Roost	Date	Dawn/Dusk	Location	Total Number of Bats
A	24/08/2022	Dawn	Eaves of building below soffit.	1 Soprano Pipistrelle (Entry at 05:25)
B	20/07/2022	Dusk	Emergence from rightmost window on east side of building.	1 Common Pipistrelle (Emergence at 22:12)
C	28/06/2022	Dawn	Collapsed roof tiling to left of broken window.	1 Common Pipistrelle (Entry at 04:21)
D	24/08/2022	Dusk	Emergence from broken window (top left panel).	Unknown Species (No Call) (Emergence at 20:55)
E	20/07/2022 24/08/2022	Dusk Dawn	Leftmost door of west side of building.	2 Common Pipistrelle (Emergence at 22:08 and 22:10) 1 Pipistrelle Sp. (Entry at 05:22)
F	24/08/2022	Dawn	Gap below gutter.	1 Soprano Pipistrelle (Entry at 05:52)
G	27/06/2022 20/07/2022	Dusk Dusk	Gap below tiling just below soffit at buildings eaves.	4 Common Pipistrelle (Emergence at 22:13, 22:31, 22:34 (2 bats)) 2 Soprano Pipistrelle (Emergence at 22:21 27/06/22, 22:07 20/07/22)

H	20/07/2022	Dusk	Gap below tiling just below soffit at buildings eaves.	1 Soprano Pipistrelle (Emergence at 22:13)
I	20/07/2022	Dusk	Apex of gable end.	1 Common Pipistrelle (Emergence at 22:02)
J	24/08/2022	Dusk	Broken window in roof.	1 Common Pipistrelle (Emergence at 21:05)
K	19/07/2022	Dusk	Gap in tiles 80% of the way up roof to apex.	1 Soprano Pipistrelle (Emergence at 22:08)
L	20/07/2022	Dawn	Gap between barge board and tiling, halfway to gable apex.	1 Common Pipistrelle (Entry 04:33) 1 Soprano Pipistrelle (Entry 04:49)
M	23/08/2022	Dusk	Emergence via gap next to blue door.	3 Common Pipistrelle (Emergence at 21:04 (2 bats), 21:12)
N	23/08/2022	Dusk	Multiple gaps around gable apex.	4 Common Pipistrelle (Emergence at 21:07, 21:13, 21:24 (2 bats))
O	20/07/2022	Dawn	Gap between barge board and tiling, halfway to gable apex.	1 Soprano Pipistrelle (Entry 04:35)
P	23/08/2022	Dusk	Location unknown, dropped down from inside building.	4 Soprano Pipistrelle (Emergence 21:05)
Q	23/08/2022	Dusk	Location unknown, dropped down from inside building.	4 Soprano Pipistrelle

				Emergence at (20:59)
R	20/07/2022	Dawn	Location unknown, flew up inside building.	1 Soprano Pipistrelle (Entry 04:36)
S	23/08/2022	Dusk	Emergence from broken tile area below soffit.	2 Soprano Pipistrelle (Emergence 20:41)
T	23/08/2022	Dusk	Appeared to fly out of gap in tiles between Building 7 and Building 8.	1 Soprano Pipistrelle (Emergence 20:36)
U	28/06/2022 20/07/2022	Dusk Dawn	Below soffit and above top of left sliding barn door. Second entrance below drainage pipe 4 foot to the left.	2 Common Pipistrelle (Emergence at 22:20 28/06/22, Entry at 04:30 20/07/22)
V	20/07/2022 23/08/2022	Dawn Dusk	Eave of building around roof drainage pipe.	1 Soprano Pipistrelle (Entry at 04:36) 1 Unknown Bat (No Call) (Emergence 20:45)
W	20/07/2022	Dusk	Gap in boards around apex.	1 Common Pipistrelle (Emergence 22:10)
X	20/07/2022	Dusk	Emergence from right side behind blue board.	1 Common Pipistrelle (Emergence 22:12)

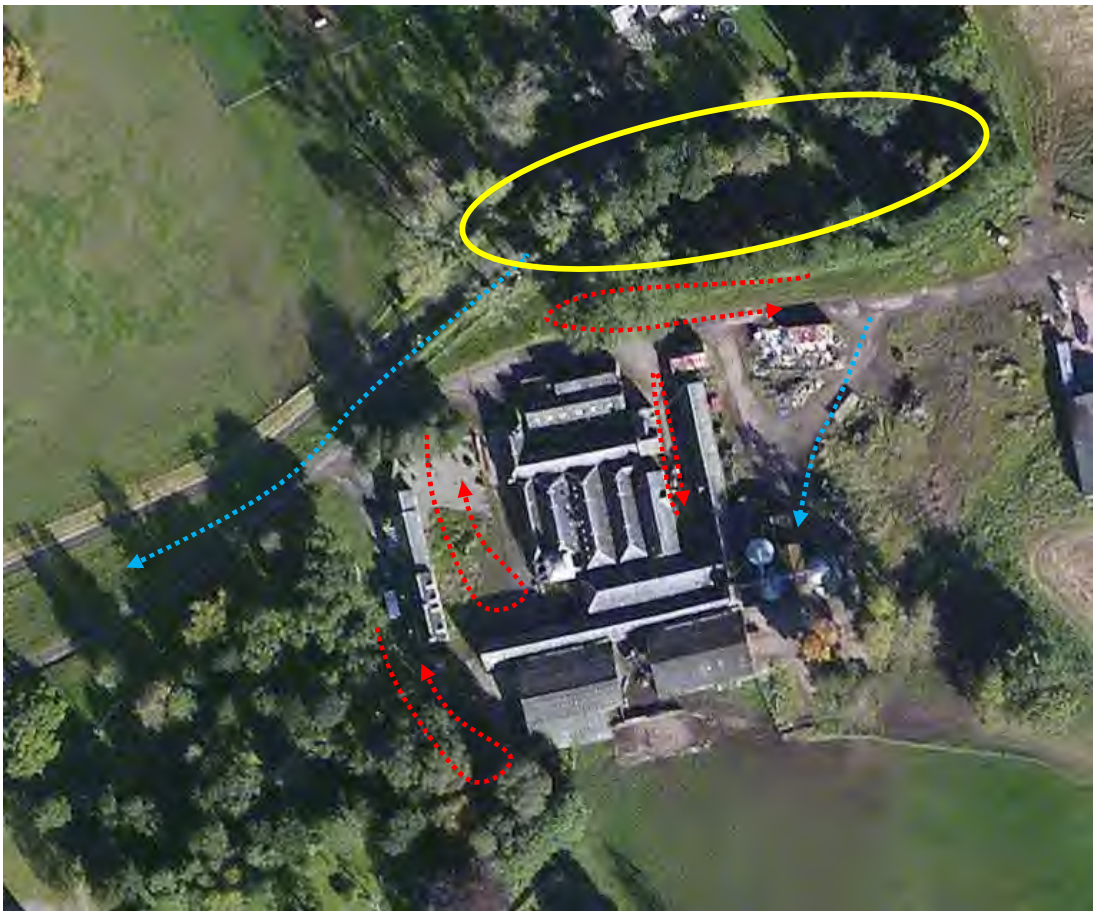
10. APPENDIX 5

Most commonly observed foraging and commuting routes:

Frequent Foraging Routes

Frequent commuting route

Area of noted myotis sp. activity



11. APPENDIX 6

Summary of bat mitigation strategy

In order to maintain the favourable conservation status of the local bat population it is proposed that mitigation is provided in the form of careful timing, supervision of the works, and retention/re-creation of all roost sites and access points. The following mitigation strategy accords with current best practice and legislation.

The implementation of this approach is dependent upon two key points:

The provision of alternative roosting habitat commensurate with that which will be lost.

All works that directly impact roost sites and access points will be carried out with pre-works building inspection to confirm bats are no longer in occupation.

Personnel

All works where ecological supervision is required (as identified below) should be supervised by a SNH licensed bat worker. All contractors attending the site should be briefed by the ecologist to highlight the potential presence of bats and to emphasise the importance of following the agreed working methods.

Timing

All works on the roofs and stonework where bat roosts have been identified should be undertaken following a pre-works building inspection to confirm that bats are no longer in occupation.

Prior to the start of works a site visit should be carried out by a licensed bat ecologist alongside the architect/contractor to identify roost sites and discuss the implementation of access points where identified.

Prior to the start of works a total of six bat boxes (four Improved Crevice and two Improved Cavity bat boxes) will be erected on mature trees within 100m of the original roost sites. This will ensure that there is a safe location away from the ongoing works to move any bats to that are discovered during the works. These bat boxes will remain on site in perpetuity to provide additional compensation for the loss of potential roost sites within the steading.

A pre-works inspection will be carried out by the named ecologist to determine whether bats are still present within the buildings. The proposed works will only commence once the supervising

ecologist is completely satisfied that the risk of bats being present within the buildings is nil or has been reduced to a negligible level.

Prior to the start of works, the contractors will be briefed on the presence of bats, their legal status and the methodology to be followed within this method statement. A copy of this method statement together with the licence will be available on site at all times.

Any works on the roofs or on stonework in the vicinity of identified roost sites will be carried out under supervision by the named ecologist and a thorough inspection will be undertaken of the wall plates and any cavities that are exposed. If the proposed works require the temporary or permanent removal of any roofing materials then this will be done carefully by to avoid crushing any bats that could be sheltering beneath. The removal of roofing materials will be closely supervised by a licensed bat ecologist working alongside the roofing contractors. Any bats found during the inspection will be captured by the named ecologist using thin-gloved hands or a hand net, placed in a draw-string cloth bag and re-located to one of the pre-installed bat boxes.

Over 20 small non-breeding roosts for soprano pipistrelle bats were identified within the steading buildings scheduled to be demolished. The maximum number of bats recorded roosting within a single roost on the site was five. In accordance with the bat mitigation guidelines (Mitchell-Jones 2004) a small non-maternity summer roost of a common species is of low conservation significance and the following recommendation is given for proportionate mitigation:

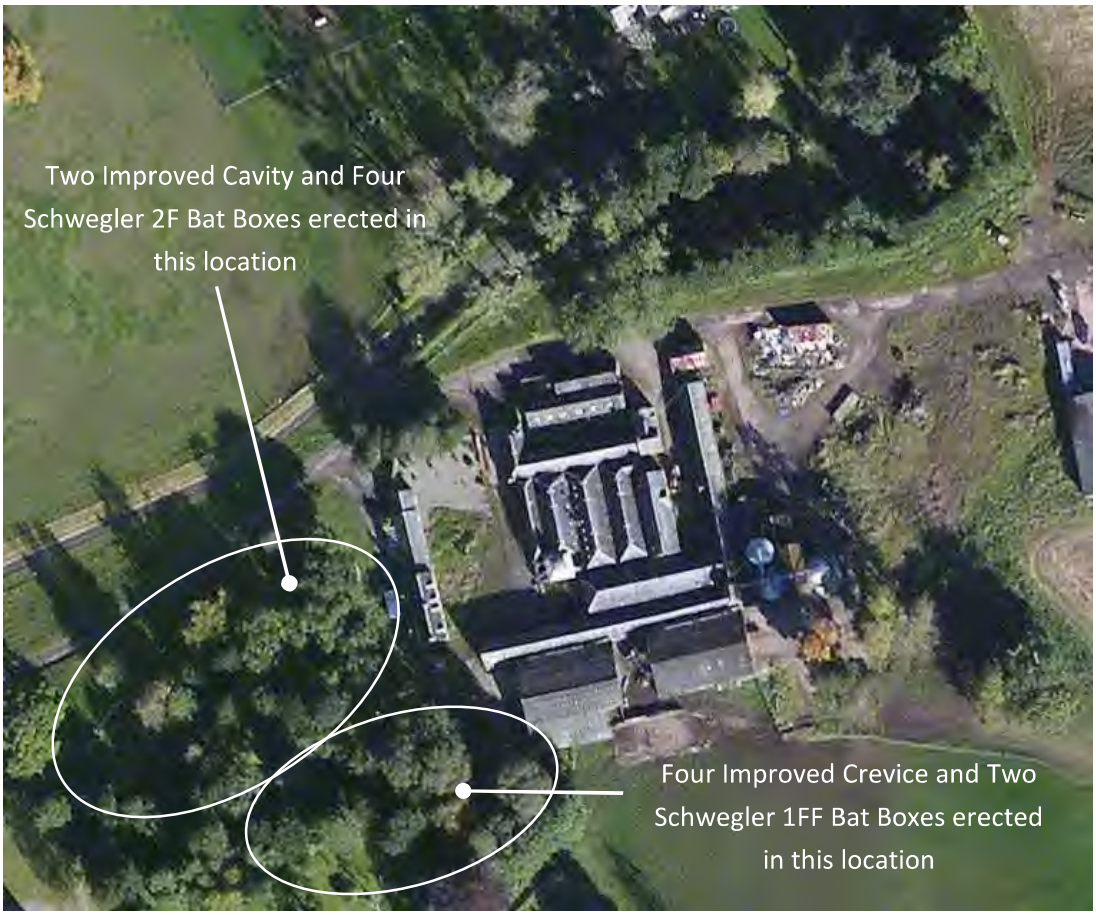
> *"Flexibility over provision of bat boxes, access to new buildings etc. No conditions about timing or monitoring."*

To compensate for the loss of these roost sites six Schwegler 1FF Bat Boxes will be erected on mature trees approximately 50m to the southwest of the existing roost sites (proposed location of bat boxes is shown in APPENDIX 7). During activity surveys common and soprano pipistrelle bats were recorded foraging in this area. Therefore, the erection of bat boxes in this area offers the highest chance of discovery and occupation. Boxes will be erected on six mature trees (one box per tree) at a height of approximately 5m and each box will face different directions to provide a range of temperature conditions. As each box has the capability to house up to 15 bats each, six boxes (alongside the crevice and cavity bat boxes) will be sufficient to support the bats impacted by the Proposed Development.

Security lighting will not be installed near to or overhanging roost access points

12. APPENDIX 7

Site layout as proposed showing location of Mitigation:



13. APPENDIX 8

Breeding birds – species protection plan:

LEGISLATION

The Wildlife and Countryside Act 1981 (WCA) provides protection for all birds

whilst nesting. There is also enhanced statutory protection to all breeding birds listed under Schedule 1. Recent and significant changes have been made to the protection of wild birds in Scotland by The Nature Conservation (Scotland) Act 2004.

It is an offence to intentionally or recklessly (reckless acts would include disregard of mitigation aimed at protecting birds, resulting in killing, injury, and/or disturbance of any bird or bird resting place) disturb any wild bird listed on Schedule 1 while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird.

It is an offence to:

kill or injure any wild bird;

capture or keep [alive or dead] any wild bird;

destroy or take the egg of any wild bird;

sell or advertise for sale any wild bird or its eggs;

destroy, damage, interfere with, take or obstruct the use of the nest of any wild bird while it is in use or being built.

Further advice is available on the SNH website (http://www.snh.gov.uk/protecting-scotlandsnature/protected-species/which-and-how/birds/).

This Species Protection Plan (SPP) for Breeding Birds includes mitigation to achieve the above aims.

MITIGATION PLAN

Commencing construction outside the breeding bird season ensures that the whole site can be actively worked on from the start. The core nesting season is from the beginning of March to the end of July; however, some birds may not cease activity at nests until late August or even into September. If works have to commence during the nesting season, preventative measures and pre-construction monitoring will be required to ensure compliance with the Wildlife and Countryside Act.

To prevent active/occupied nests from being damaged or otherwise disrupted:

All site workers should be informed of their responsibilities relating to the act and they should be instructed to immediately report any suspected nesting birds within the developmental boundary.

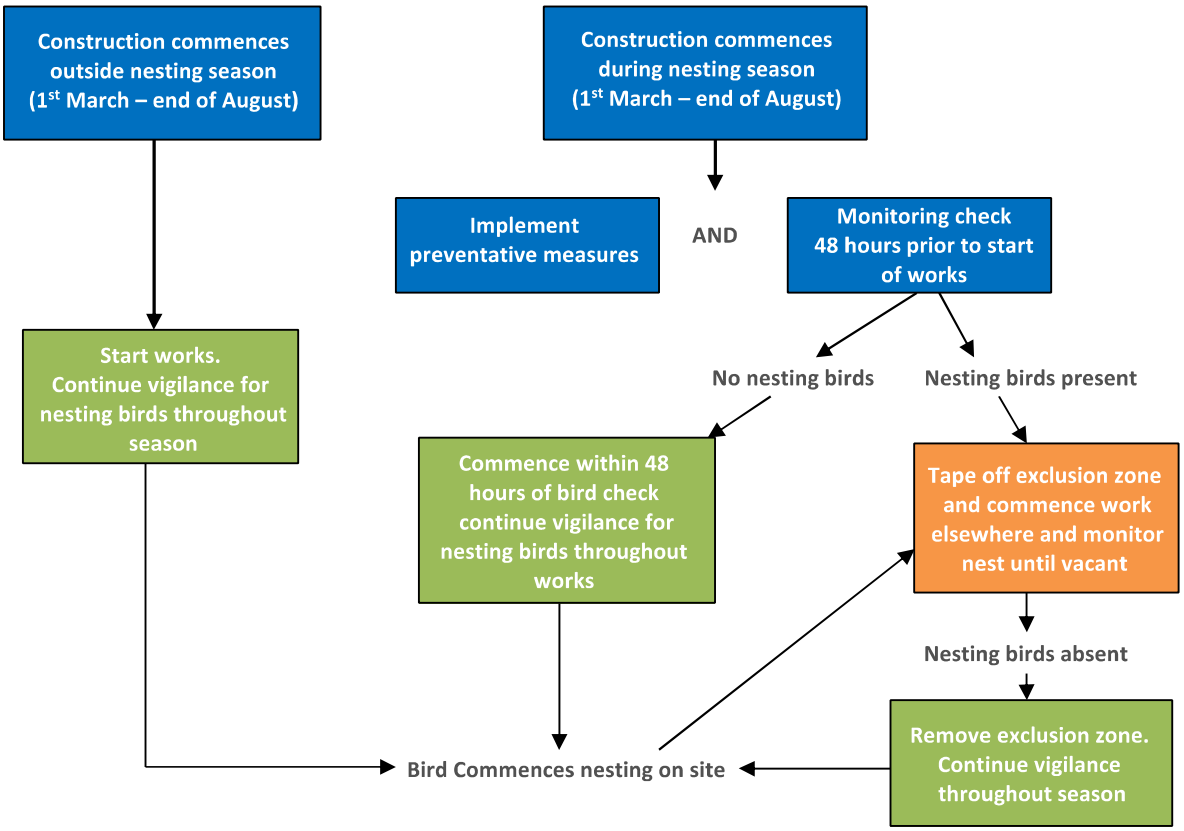
Construction activities should be planned to avoid dismantling or other physical disruption to the building fabric during the breeding bird season. The core season is March to July inclusive, but birds can also breed in August/September.

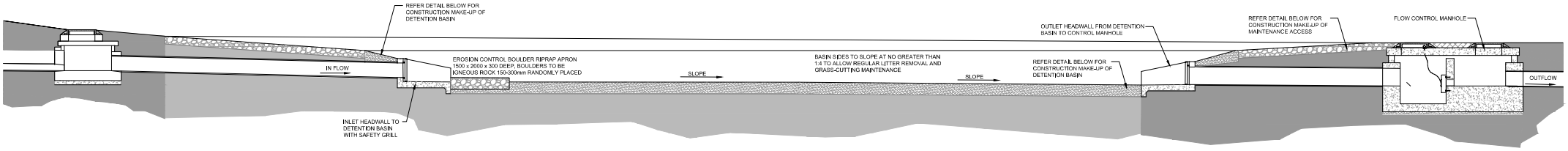
Entry points to the buildings must not be blocked during the bird breeding season. It is acceptable to block nesting habitat out of the breeding season provided that surveys have shown that no active nests are present within the site.

If any works have to proceed unforeseen during the breeding season, adequate checks by an experienced ecologist should precede works to ensure no nesting birds are present. Such checks should be considered valid for 48 hours. If active nests are present, then a suitable buffer area will be taped off as an exclusion zone around the nesting area by the ecologist. This exclusion area will then remain intact until the nesting bird vacates the territory.

It should also be noted that even if all potential points have been blocked construction activities may inadvertently create habitat suitable for nesting birds. Grey wagtails frequently nest in stored materials and sand martens may move into any piles of aggregate. If nesting birds are found anywhere within the construction site, a suitably experienced ecologist should be called in for advice.

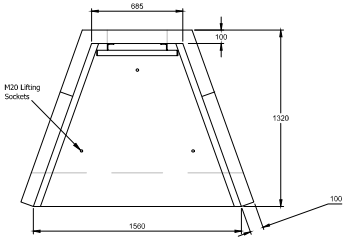
SUMMARY OF BREEDING BIRD MITIGATION PLAN



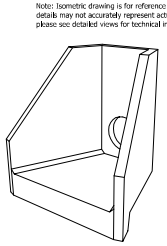


TYPICAL SECTION THROUGH DETENTION BASIN
SCALE 1:50

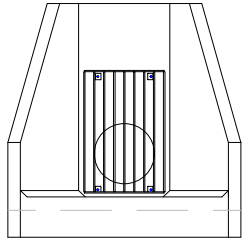
ALTHON H6CA HEADWALL
SCALE 1:20



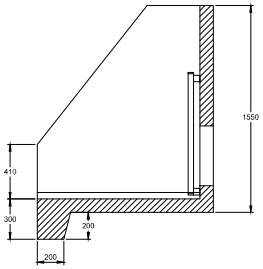
PLAN



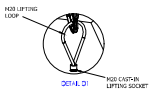
ISOMETRIC



FRONT ELEVATION



TYPICAL SECTION

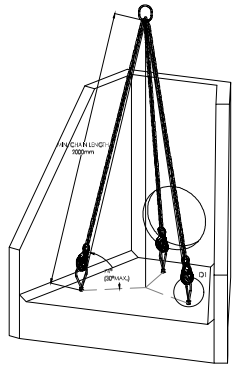


M20 Threaded Lifting Loop
Safe Working Load: 7000kg each

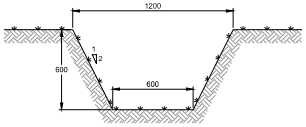
Manufactured from zinc plated steel wire rope with a precision forged steel threaded portion. Threaded lifting loops are ideally suited to small lifting procedures but can be used up to and including angled lifts of 30 degrees.

Use and Operation:

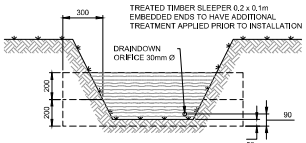
The threaded lifting loop must be fully threaded into the lifting socket prior to commencing a lifting operation. It is imperative that the two mating surfaces are parallel to each other.



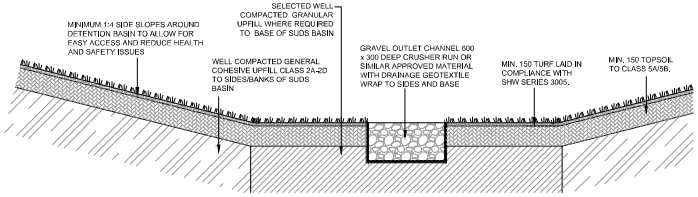
ALTHON H6CA HEADWALL LIFTING PROVISION
SCALE 1:20



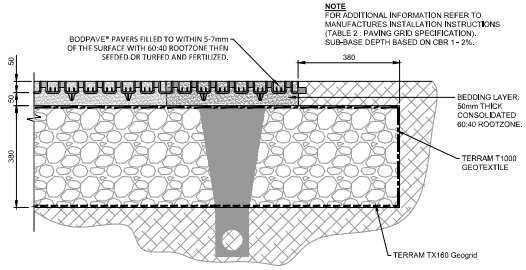
SECTION THROUGH GRASS SWALE
SCALE 1:20



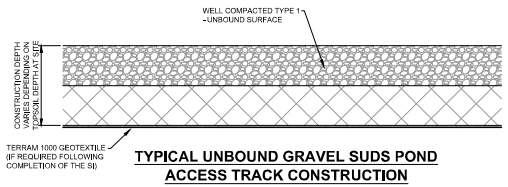
SECTION THROUGH GRASS SWALE CHECK DAM
SCALE 1:20



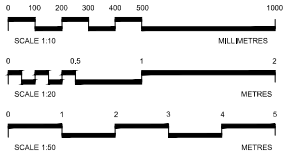
TYPICAL CROSS SECTION THROUGH GRAVEL OUTLET CHANNEL
NOT TO SCALE



MAINTENANCE ACCESS BODPAVE 85 GRASSED SURFACE TYPICAL CONSTRUCTION DETAIL
NOT TO SCALE



TYPICAL UNBOUND GRAVEL SUDS POND ACCESS TRACK CONSTRUCTION
SCALE 1 TO 10



NOTES

REV	DESCRIPTION	DRAWN	CHK'D	APPR'D	DATE
0A	FIRST ISSUE	EH	AGC	AGC	06/03/24

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CLIENT: SAVILLS

PROJECT: METHVEN CASTLE STEADING

TITLE: SUDS BASIN AND SWALE GENERAL DETAILS

SCALES	AT SHEET SIZE
AS SHOWN	A1

STATUS: **FOR PLANNING**

DRAWN	CHECKED	APPROVED
EH	AGC	AGC
DATE	DATE	DATE
06/03/2024	06/03/2024	06/03/2024

DRAWING No.: **603513-DRG-0006-0A**

Subject: P23/01610/FLL

AECOM Drainage and Flooding Review

PKC Project Number 60711860

AG Project Number 603513-XXX-0001-01

Item 1.3 – Please refer to drawings 603513-DRG-0003 & 0004 for pre and post topographic surveys.

Item 2.3 – Please refer to drawings 603513-DRG-0005 for general long and cross sections and drawing 603513-DRG-0006 for SUDS basin and swale construction details. The proposed length of swale has been shown on drawing 603513-DRG-0002.

Item 2.4 - Overland flow paths pre & post development are presented on drawings 603513-DRG-0003 & 603513-DRG-0004.

Item 2.5 – A statement regarding the post development percentage impermeable is provided in report 603514-REP-0001 section 6.1. See comment in report.

Item 2.6 – Report 603514-REP-0001 updated with the addition of section 6.7, Urban creep factor has not been included in the surface water design calculations due to the nature of the development being agricultural within a rural setting. Current guidance[1] for the addition of the urban creep factor is specified for residential development only.

Item 2.8 – Section 4.4 updated to the correct climate change allowance of 39%.

Item 2.11 – Calculation updated accordingly and includes the swale element 603513-CAL-0005-01.

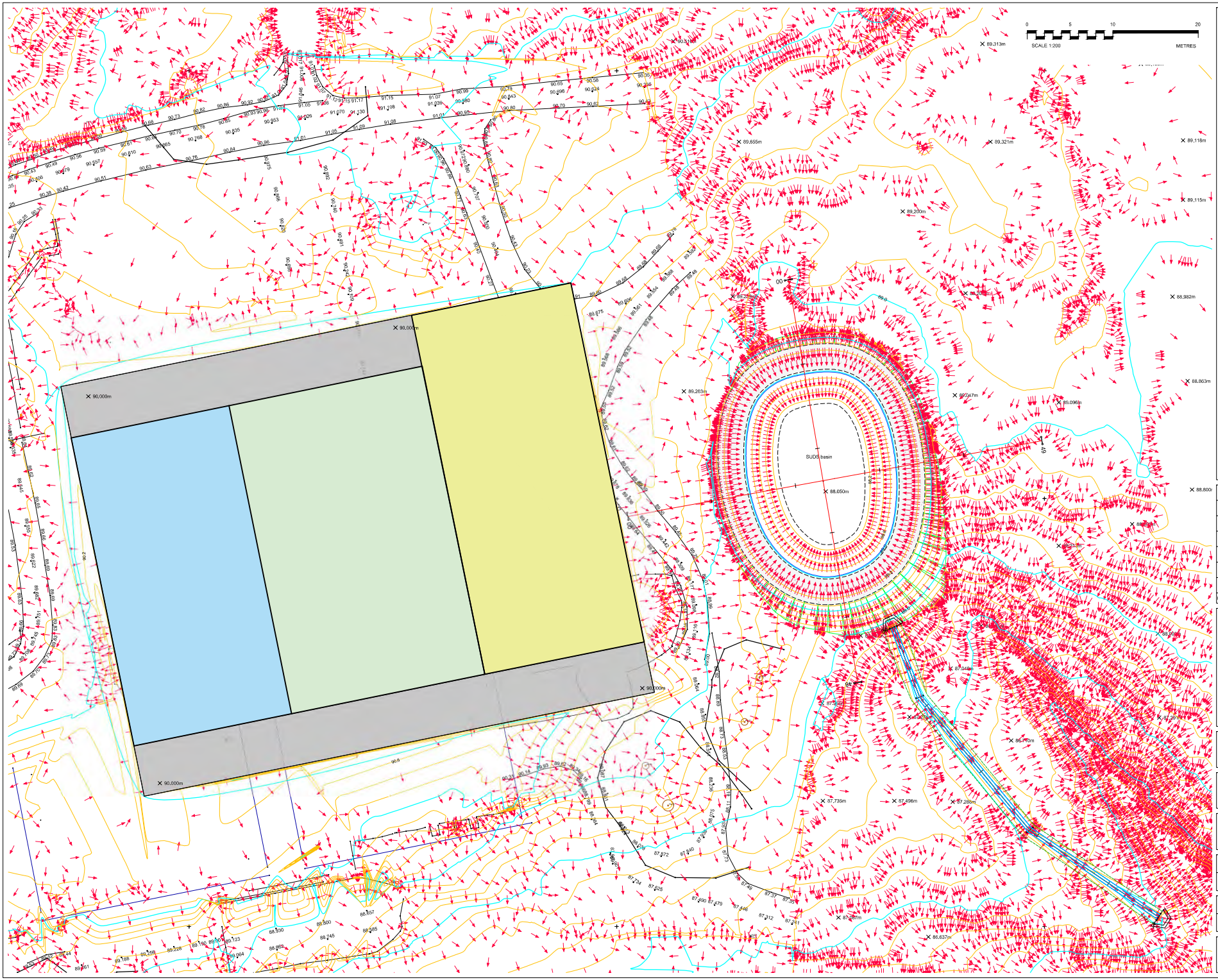
Item 2.12 – The receiving water body is a drainage ditch within the applicant's ownership. SEPA's SIA will be used to ensure adequate treatment of runoff prior to discharge.

Item 2.14 –The glacial till likely to be encountered on site will offer little or no infiltration. An assumption of zero infiltration is considered appropriate for the following reasons:

- Any infiltration will be very slow and likely to occur only in periods of prolonged dry weather.
- Current SuDS design standards require infiltration components to drain down within a period of 24 hours after a storm. This is unlikely to be achieved.
- The basin and swale will capture silts. Therefore, any limited infiltration is likely to decrease over time as soil pores become blocked.

[1] https://www.susdrain.org/files/resources/other-guidance/lasoo_non_statutory_suds_technical_standards_guidance_2016_.pdf

MC28(3)



REV	DESCRIPTION	DRAWN	CHK'D	APPR'D	DATE
0A	ISSUED FOR PLANNING	EH	AGC	GD	01/03/24

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CLIENT: SAVILLS

PROJECT: METHVEN CASTLE STEADING

TITLE: PROPOSED SUDS SITE CONTOUR MODEL

SCALES	AT SHEET SIZE
1:200	A1

STATUS: **FOR PLANNING**

DRAWN	CHECKED	APPROVED
EH	AGC	GD
DATE 28/02/2024	DATE 28/02/2024	DATE 28/02/2024

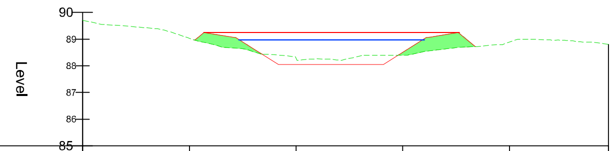
DRAWING No.: **603513-DRG-0004-0A**

MC28(4)

SCALE 1:250 — 0 5 10 15 20 METRES

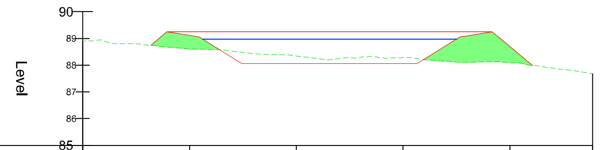
SCALE 1:100 — 0 5 10 METRES

SUDS CROSS SECTION



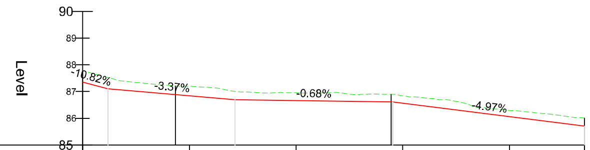
Chainage		10.000	20.000	30.000	40.000	49.268
Existing Levels	89.695	89.031	88.289	88.400	88.888	88.807
Proposed Levels			88.050	88.501		

SUDS LONG SECTION



Chainage	0.000	10.000	20.000	30.000	40.000	47.772
Existing Levels	88.898	88.601	88.342	88.280	88.096	87.692
Proposed Levels		89.110	88.050	88.050	88.695	

SWALE LONGSECTION



Chainage	0.000	10.000	20.000	30.000	40.000	47.039
Existing Levels	87.784	87.194	86.954	86.843	86.293	86.006

REV	DESCRIPTION	DRAWN	CHK'D	APPR'D	DATE
0A	ISSUED FOR PLANNING	EH	AGC	GD	01/03/24

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CLIENT
SAVILLS

PROJECT
METHVEN CASTLE STEADING

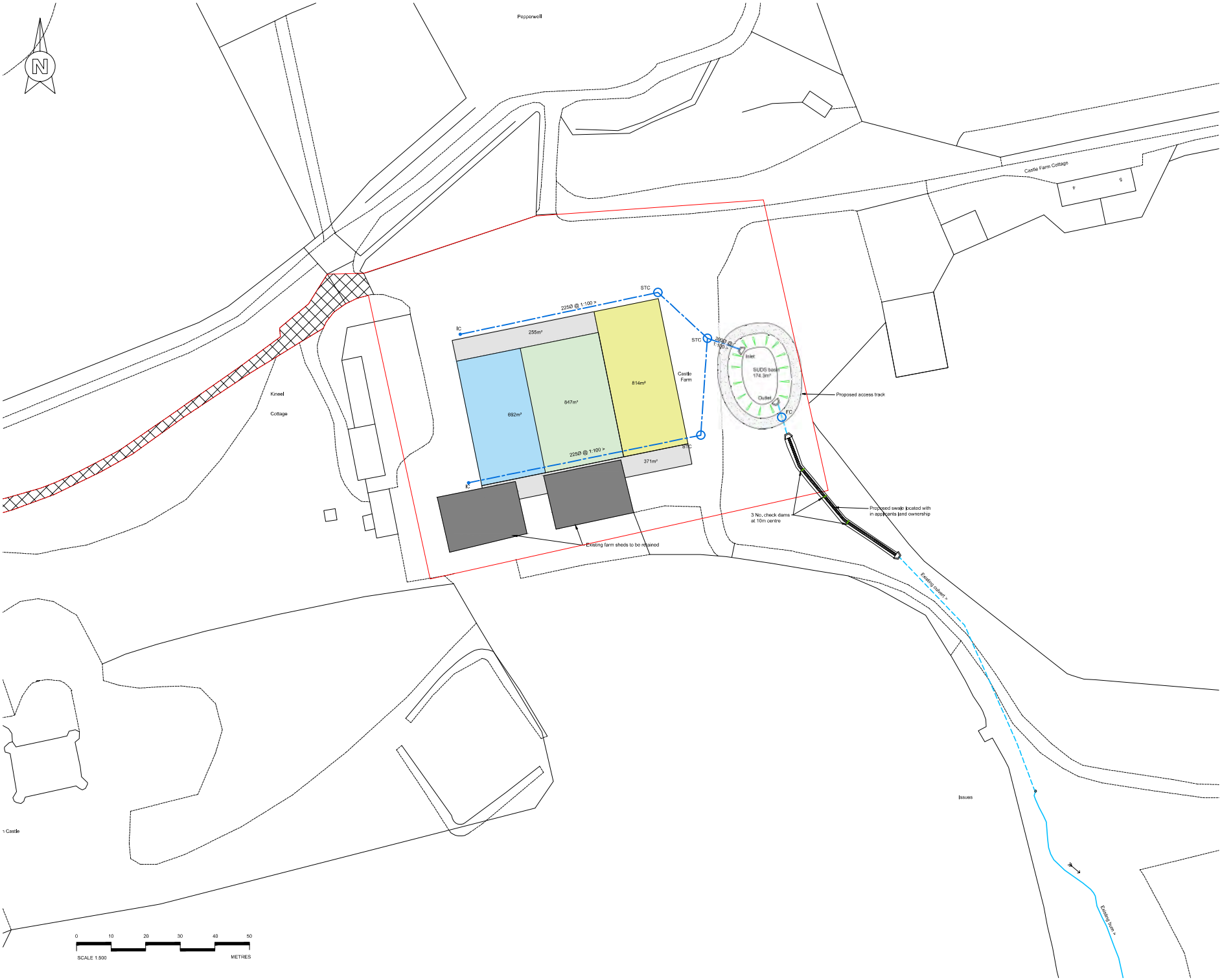
TITLE
PROPOSED SUDS BASIN & SWALE SECTIONS

SCALES 1:250 HOR & 1:100 VERT — AT SHEET SIZE A1

STATUS
FOR PLANNING

DRAWN	CHECKED	APPROVED
EH	AGC	GD
DATE 28/02/2024	DATE 28/02/2024	DATE 28/02/2024

DRAWING No.
603513-DRG-0005-0A



KEY

STC SILT TRAP CHAMBER
IC INSPECTION CHAMBER
FC FLOW CONTROL CHAMBER

MC28(5)

REV	DESCRIPTION	DRAWN	CHK'D	APPR'D	DATE
00	SWALE ADDED	EH	AGC	GD	06.03.24
00	BUILDING FOOTPRINT MOVED	EH	AGC	GD	31.10.23
0A	ISSUED FOR PLANNING	EH	AGC	GD	17.01.23

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CLIENT
SAVILLS

PROJECT
METHVEN CASTLE STEADING

TITLE
PROPOSED SUDS ARRANGEMENT

SCALES 1:500
AT SHEET SIZE A1

STATUS
FOR PLANNING

DRAWN	CHECKED	APPROVED
EH	AGC	GD
DATE 20/09/2022	DATE 16/01/2023	DATE 17/01/2023

DRAWING No.
603513-DRG-0002-0C

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
1	0.087	5.00	90.117	1200	304289.744	726121.989	0.917
2	0.039	5.00	89.301	1200	304356.930	726135.767	0.787
8	0.087	5.00	90.137	1200	304287.326	726164.906	0.937
9	0.039	5.00	90.064	1200	304344.516	726177.039	1.449
3			89.255	1200	304358.863	726163.787	1.378
4 Basin inlet			88.600	1200	304368.123	726160.551	0.821
5 FC			88.600	1200	304379.188	726144.673	0.950
6			87.855		304381.794	726136.178	0.673
7 Outfall			85.948		304414.306	726100.576	0.695

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.000	1	2	68.584	0.600	89.200	88.514	0.686	100.0	225	5.87	50.0
1.001	2	3	28.087	0.600	88.514	87.952	0.562	50.0	225	6.13	50.0
2.000	8	9	58.463	0.600	89.200	88.615	0.585	100.0	225	5.75	50.0
2.001	9	3	19.531	0.600	88.615	87.952	0.663	29.5	225	5.88	50.0
1.002	3	4 Basin inlet	9.809	0.600	87.877	87.779	0.098	100.0	300	6.23	50.0
1.003 Basin	4 Basin inlet	5 FC	19.353	0.600	87.779	87.650	0.129	150.0	300	6.48	50.0
1.004	5 FC	6	8.886	0.600	87.650	87.206	0.444	20.0	225	6.53	50.0
1.005 Swale	6	7 Outfall	48.213	0.030	87.182	85.253	1.929	25.0	600	6.79	50.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.000	1.307	52.0	11.8	0.692	0.562	0.087	0.0	73	1.061
1.001	1.854	73.7	17.1	0.562	1.078	0.126	0.0	73	1.515
2.000	1.307	52.0	11.8	0.712	1.224	0.087	0.0	73	1.061
2.001	2.419	96.2	17.1	1.224	1.078	0.126	0.0	64	1.835
1.002	1.572	111.1	34.2	1.078	0.521	0.252	0.0	114	1.389
1.003 Basin	1.281	90.6	34.2	0.521	0.650	0.252	0.0	127	1.194
1.004	2.939	116.8	34.2	0.725	0.424	0.252	0.0	83	2.559
1.005 Swale	3.177	3430.9	34.2	0.073	0.095	0.252	0.0	55	0.861

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.000	68.584	100.0	225	Circular	90.117	89.200	0.692	89.301	88.514	0.562
1.001	28.087	50.0	225	Circular	89.301	88.514	0.562	89.255	87.952	1.078
2.000	58.463	100.0	225	Circular	90.137	89.200	0.712	90.064	88.615	1.224
2.001	19.531	29.5	225	Circular	90.064	88.615	1.224	89.255	87.952	1.078
1.002	9.809	100.0	300	Circular	89.255	87.877	1.078	88.600	87.779	0.521

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	1	1200	Manhole	Adoptable	2	1200	Manhole	Adoptable
1.001	2	1200	Manhole	Adoptable	3	1200	Manhole	Adoptable
2.000	8	1200	Manhole	Adoptable	9	1200	Manhole	Adoptable
2.001	9	1200	Manhole	Adoptable	3	1200	Manhole	Adoptable
1.002	3	1200	Manhole	Adoptable	4 Basin inlet	1200	Manhole	Adoptable

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.003 Basin	19.353	150.0	300	Circular	88.600	87.779	0.521	88.600	87.650	0.650
1.004	8.886	20.0	225	Circular	88.600	87.650	0.725	87.855	87.206	0.424
1.005 Swale	48.213	25.0	600	1:2Swale	87.855	87.182	0.073	85.948	85.253	0.095

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.003 Basin	4 Basin inlet	1200	Manhole	Adoptable	5 FC	1200	Manhole	Adoptable
1.004	5 FC	1200	Manhole	Adoptable	6		Junction	
1.005 Swale	6		Junction		7 Outfall		Junction	

Simulation Settings

Rainfall Methodology	FEH-22	Skip Steady State	✓	Check Discharge Volume	✓
Summer CV	0.750	Drain Down Time (mins)	240	100 year 360 minute (m³)	
Winter CV	0.840	Additional Storage (m³/ha)	20.0		
Analysis Speed	Normal	Check Discharge Rate(s)	✓		

Storm Durations

15	30	60	120	180	240	360	480	600	720	960	1440

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
2	39	0	0
30	39	0	0
100	39	0	0
200	39	0	0

Pre-development Discharge Rate

Site Makeup	Greenfield	Growth Factor 30 year	1.95
Greenfield Method	IH124	Growth Factor 100 year	2.48
Positively Drained Area (ha)		Betterment (%)	0
SAAR (mm)		QBar	
Soil Index	1	Q 1 year (l/s)	
SPR	0.10	Q 30 year (l/s)	
Region	1	Q 100 year (l/s)	
Growth Factor 1 year	0.85		

Pre-development Discharge Volume

Site Makeup	Greenfield	Return Period (years)	100
Greenfield Method	FSR/FEH	Climate Change (%)	0
Positively Drained Area (ha)		Storm Duration (mins)	360
Soil Index	1	Betterment (%)	0
SPR	0.10	PR	
CWI		Runoff Volume (m³)	

Node 5 FC Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	✓	Sump Available	✓
Invert Level (m)	87.650	Product Number	CTL-SHE-0075-2500-1000-2500
Design Depth (m)	1.000	Min Outlet Diameter (m)	0.100
Design Flow (l/s)	2.5	Min Node Diameter (mm)	1200

Node 5 FC Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	1.0	Invert Level (m)	87.650
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	105.0	0.0	1.000	270.0	0.0

Results for 2 year +39% CC Critical Storm Duration. Lowest mass balance: 98.94%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	10	89.280	0.080	14.2	0.2409	0.0000	OK
15 minute winter	2	11	88.596	0.082	20.0	0.1743	0.0000	OK
15 minute winter	8	10	89.281	0.081	14.2	0.2432	0.0000	OK
15 minute winter	9	11	88.687	0.072	20.0	0.1205	0.0000	OK
15 minute winter	3	11	88.020	0.143	39.8	0.1621	0.0000	OK
15 minute winter	4 Basin inlet	7	87.967	0.188	39.9	0.2125	0.0000	OK
360 minute winter	5 FC	264	87.945	0.295	8.3	38.4637	0.0000	SURCHARGED
360 minute winter	6	272	87.194	0.012	2.5	0.0000	0.0000	OK
360 minute winter	7 Outfall	272	85.265	0.012	2.5	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	1	1.000	2	13.8	1.089	0.265	0.8728	
15 minute winter	2	1.001	3	19.9	1.553	0.269	0.3593	
15 minute winter	8	2.000	9	13.7	1.159	0.264	0.6938	
15 minute winter	9	2.001	3	20.0	1.871	0.208	0.2084	
15 minute winter	3	1.002	4 Basin inlet	39.9	1.165	0.359	0.3368	
15 minute winter	4 Basin inlet	1.003 Basin	5 FC	40.3	1.826	0.445	0.4891	
360 minute winter	5 FC	Hydro-Brake®	6	2.5				
360 minute winter	6	1.005 Swale	7 Outfall	2.5	0.337	0.001	0.3570	66.8

Results for 30 year +39% CC Critical Storm Duration. Lowest mass balance: 98.94%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	10	89.338	0.138	36.0	0.4182	0.0000	OK
15 minute winter	2	11	88.653	0.139	51.2	0.2950	0.0000	OK
15 minute winter	8	10	89.342	0.142	36.0	0.4252	0.0000	OK
15 minute winter	9	10	88.730	0.115	51.3	0.1922	0.0000	OK
480 minute winter	3	456	88.276	0.399	13.6	0.4518	0.0000	SURCHARGED
480 minute winter	4 Basin inlet	456	88.276	0.497	13.3	0.5625	0.0000	SURCHARGED
480 minute winter	5 FC	456	88.276	0.626	13.1	98.8250	0.0000	SURCHARGED
15 minute winter	6	40	87.194	0.012	2.5	0.0000	0.0000	OK
15 minute winter	7 Outfall	42	85.265	0.012	2.5	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	1	1.000	2	35.1	1.375	0.674	1.7488	
15 minute winter	2	1.001	3	51.0	1.576	0.692	0.9201	
15 minute winter	8	2.000	9	35.1	1.500	0.675	1.3708	
15 minute winter	9	2.001	3	50.5	1.797	0.526	0.5878	
480 minute winter	3	1.002	4 Basin inlet	13.3	0.842	0.120	0.6907	
480 minute winter	4 Basin inlet	1.003 Basin	5 FC	13.1	0.830	0.144	1.3628	
480 minute winter	5 FC	Hydro-Brake®	6	2.5				
15 minute winter	6	1.005 Swale	7 Outfall	2.5	0.337	0.001	0.3570	35.5

Results for 100 year +39% CC Critical Storm Duration. Lowest mass balance: 98.94%

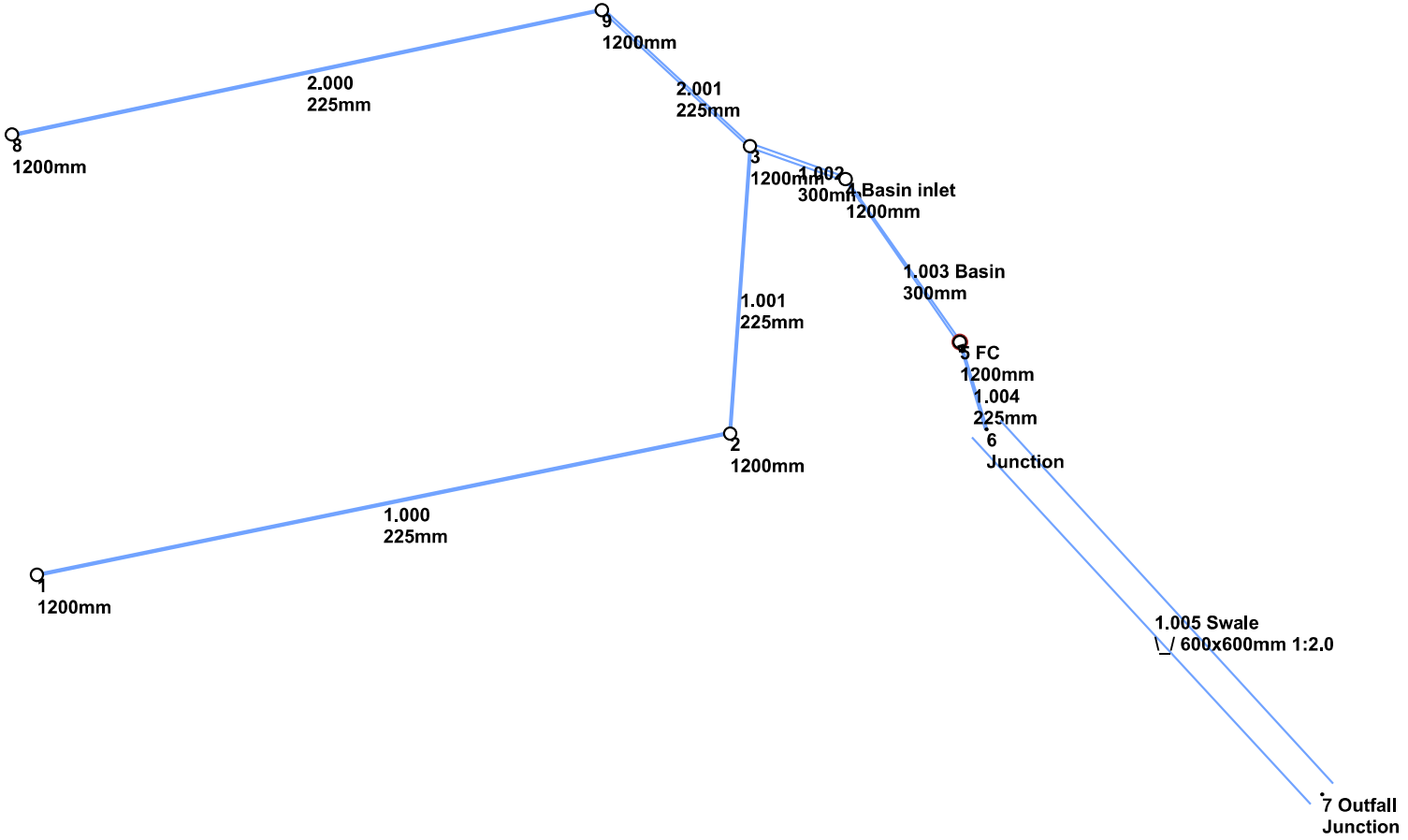
Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	10	89.365	0.165	46.3	0.5010	0.0000	OK
15 minute winter	2	12	88.818	0.304	66.1	0.6444	0.0000	SURCHARGED
15 minute winter	8	10	89.370	0.170	46.3	0.5085	0.0000	OK
15 minute winter	9	11	88.780	0.165	66.2	0.2762	0.0000	OK
600 minute winter	3	570	88.452	0.575	14.8	0.6499	0.0000	SURCHARGED
600 minute winter	4 Basin inlet	570	88.452	0.673	14.5	0.7606	0.0000	FLOOD RISK
600 minute winter	5 FC	570	88.451	0.801	14.4	138.0382	0.0000	FLOOD RISK
15 minute summer	6	87	87.194	0.012	2.5	0.0000	0.0000	OK
15 minute summer	7 Outfall	89	85.265	0.012	2.5	0.0000	0.0000	OK

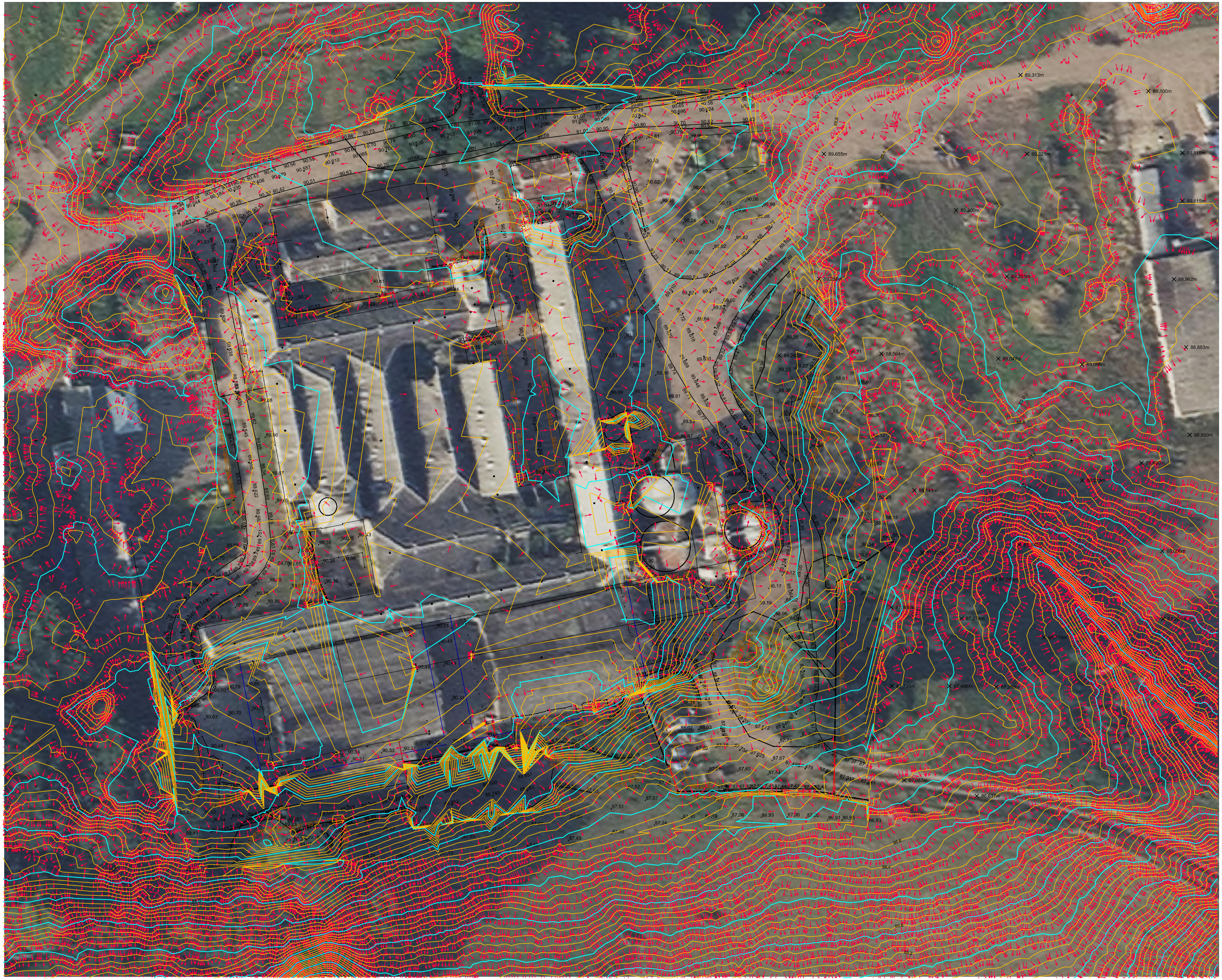
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	1	1.000	2	45.3	1.405	0.871	2.3939	
15 minute winter	2	1.001	3	58.9	1.531	0.799	1.1171	
15 minute winter	8	2.000	9	45.4	1.520	0.873	1.8250	
15 minute winter	9	2.001	3	65.0	1.770	0.676	0.6940	
600 minute winter	3	1.002	4 Basin inlet	14.5	0.806	0.130	0.6907	
600 minute winter	4 Basin inlet	1.003 Basin	5 FC	14.4	0.830	0.159	1.3628	
600 minute winter	5 FC	Hydro-Brake®	6	2.5				
15 minute summer	6	1.005 Swale	7 Outfall	2.5	0.337	0.001	0.3570	36.2

Results for 200 year +39% CC Critical Storm Duration. Lowest mass balance: 98.94%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	12	89.527	0.327	52.9	0.9915	0.0000	SURCHARGED
15 minute winter	2	12	88.996	0.482	73.7	1.0227	0.0000	SURCHARGED
15 minute winter	8	10	89.391	0.191	52.9	0.5712	0.0000	OK
15 minute winter	9	12	88.920	0.305	75.2	0.5091	0.0000	SURCHARGED
600 minute winter	3	570	88.553	0.676	16.8	0.7650	0.0000	SURCHARGED
600 minute winter	4 Basin inlet	570	88.553	0.774	16.5	0.8758	0.0000	FLOOD RISK
600 minute winter	5 FC	570	88.553	0.903	16.5	163.1564	0.0000	FLOOD RISK
15 minute summer	6	142	87.194	0.012	2.5	0.0000	0.0000	OK
15 minute summer	7 Outfall	144	85.265	0.012	2.5	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	1	1.000	2	50.0	1.410	0.963	2.7277	
15 minute winter	2	1.001	3	63.1	1.587	0.856	1.1171	
15 minute winter	8	2.000	9	51.5	1.511	0.990	2.1789	
15 minute winter	9	2.001	3	70.5	1.791	0.733	0.7768	
600 minute winter	3	1.002	4 Basin inlet	16.5	0.794	0.149	0.6907	
600 minute winter	4 Basin inlet	1.003 Basin	5 FC	16.5	0.830	0.182	1.3628	
600 minute winter	5 FC	Hydro-Brake®	6	2.5				
15 minute summer	6	1.005 Swale	7 Outfall	2.5	0.337	0.001	0.3570	36.5





MC28(7)

FLOW PATH DIRECTION

0 5 10 15 20

SCALE 1:250 METRES

REV	DESCRIPTION	DRAWN	CHK'D	APPR'D	DATE
0A	ISSUED FOR PLANNING	EH	AGC	GD	28.02.24

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CLIENT
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PROJECT
METHVEN CASTLE STEADING

TITLE
EXISTING TOPOGRAPHIC SITE SURVEY & OVERLAND FLOW PATHS

SCALES	AT SHEET SIZE
1:250	A1

STATUS
FOR PLANNING

DRAWN	CHECKED	APPROVED
EH	AGC	GD
DATE 28/02/2024	DATE 28/02/2024	DATE 28/02/2024

DRAWING No.
603513-DRG-0003-0A

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METHVEN CASTLE FARM – NEW STEADINGS DRAINAGE IMPACT ASSESSMENT (DIA)
DRAINAGE STRATEGY REPORT

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Report Ref. 603513-REP-0001-03
Date 19th March 2024

Issue and Revision Record

Rev	Date	Originated	Checked	Approved	Description
01	17.01.2023	AGC	GJD	GJD	First issue.
02	01.11.2023	AGC	GJD	GJD	Plans and FEH13 updated.
03	19.03.2024	AGC	GJD	GJD	Section 4.3 & 4.4 amended & 6.7 added.

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Contents

Tables

Appendix

1. Introduction

1.1. Allen Gordon LLP have been commissioned to undertake a drainage impact assessment (DIA) for a proposed new steading at Methven Castle Farm. The assessment will describe the surface water drainage arrangements for the proposed steading and will assess the impact on existing drainage systems and the water environment. The assessment is intended to support a planning application to Perth & Kinross Council. A copy of the Site Layout Plan is included in Appendix A.

2. Site Details

2.1. The proposed site is approximately 600m northeast of the A85 on the eastern edge of Methven (OS grid reference NO 04310 26150). The site rises south to north from approximately 85.0m AOD to around 90.5m AOD.

2.2. The proposed site is in a rural setting with a scattering of dwellings surrounding the site. There are existing dilapidated buildings occupying the site which are to be demolished and replaced by high quality agricultural buildings. A copy of the Existing Site Plan is presented in Appendix A.

3. Existing Drainage

3.1. Little is known about the existing surface water disposal arrangements for the existing buildings, although is believed they are directed to local soakaways which, given the age of the buildings, will not comply with current standards.

3.2. There is a ditch to the south of the site where surface water from the proposed steading could be disposed of at restricted greenfield runoff rates. The watercourse channel appears to be small suggesting that it serves a small, local catchment.

3.3. The watercourse is not included in the SEPA Water Classification online hub for water bodies. For the purposes of this report, the water quality in the ditch will be categorised as 'good'.

4. Proposed Drainage Arrangements

4.1. A copy of the proposed drainage plan is included in Appendix B. The following statements provide additional information on the individual SUDS elements:-

- Runoff from the roof of the main steading will be directed to adequately sized rainwater pipes. Once below ground, flows will be piped by gravity to a proposed SUDS basin. A number of silt trap chambers will be strategically located around the building to provide pre-treatment.
- A SUDS basin is proposed to the east of the steading. The basin will be sized to provide adequate attenuation and treatment. The discharge rate from the basin will be controlled.
- The SUDS basin will discharge to a swale for further attenuation and treatment before discharge to the receiving ditch. A series of check dams will be provided across the swale to increase storage and control the discharge rate.
- An analysis of flow in the swale will be required at the detailed design stage. There may be a requirement to use energy dissipation measures where flow velocities in the swale have the potential to lead to scouring.

4.2. From data provided by the British Geological Survey, the native soil on the site is anticipated to be glacial till, which is likely to exhibit poor permeability. Note that The SUDS Manual (CIRIA C753, 2015) suggests that a permeability rate of $3x10^{-7}$ m/s would be a reasonable estimate for glacial till. The same document also suggests that the lowest percolation rate at which a soakaway is still efficient is 1 $x10^{-6}$ m/s. Therefore, for the purposes of the planning stage design, it has been assumed that no infiltration will occur from the basin or swale.

4.3. Analysis of the main SUDS basin was originally carried out in Micro Drainage. However the package has not been upgraded for use with the new FEH22 rainfall data. An updated SUDS basin calculation has been carried out in Causeway Flow using a 39% allowance for climate change.

4.4. Additional flow controls will be provided at each swale check dam using 30mm diameter orifices to further reduce the discharge rate adopted for the SUDS basin.

4.5. A copy of the Causeway Flow calculation is included in Appendix C.

5. Hydrological Characteristics

5.1. The hydrological catchment characteristics for the site which have been used in the hydraulic design of the surface water system, including SUDS components, are presented below in Table 1.

Table 1 - Hydrological Catchment Characteristics

Parameter	Value
SAAR	839 mm
SOIL factor	0.37
M5–60	17.0 mm
Ratio r	0.3
Hydrological region	1

5.2. In order to mimic the existing natural surface water environment, all new developments are required to take account of the quantity and quality of surface water runoff. Guidance on best practice and design requirements are given in The SUDS Manual[1].

6. Greenfield Runoff Rate Analysis

6.1. Equation 24.3 (*IH124 catchment description equation*) from The SuDS Manual[1] was used to calculate greenfield runoff rates. For the purpose of planning, the access road (0.28ha), the development site (0.26ha) and surrounding land (0.76ha) give a total area of 1.29ha.

6.2. The existing site access road has been omitted from the post development impermeable site percentage calculation, this equates to 34% of the total red line planning boundary area. With regards to SUDS design for the site, the area has been restricted to the footprint of the proposed steading and concrete hard standing areas, taken as 0.26 hectares. A copy of the calculation is included in Appendices D.

[1] The SUDS Manual (CIRIA C753) 2015.

6.3. As the site is less than 50ha, the formula is applied for 50ha and the result factored based on the ratio of the two areas. To get the 1 to 200 year throttle rates, the FSR growth curve for Hydrological Region 1 is required (as set out in FSSR14). Adopting this approach, the greenfield runoff rates are as displayed in Table 2.

Table 2 - Greenfield Runoff Rates

Flow rate	Value
QBAR for 50 ha	3.6 l/s/ha
Q1 yr.	0.8 l/s
Q2 yr.	0.8 l/s
Q30 yr.	1.7 l/s
Q100 yr.	2.3 l/s
Q200 yr.	2.6 l/s

6.4. A Hydrobrake® flow control device is proposed to control discharge flows from the SUDS basin. The risk of blockage of the orifice has been categorised as moderate to high and in line with industry standards the Hydrobrake® orifice opening will be no less than 75mm in diameter.

6.5. The minimum flow rate for a Hydrobrake® orifice diameter of 75mm is 2.5 l/s at a head of 1.0m (calculated using Causeway Flow design selector module to minimise upstream storage).

6.6. The flow rate from the SUDS basin would normally be limited to QBAR divided by the catchment area. Using this approach, the discharge from the SUDS basin would be restricted to approximately 1.0 l/s. The proposed figure of 2.5 l/s is higher but still lower than the greenfield runoff rate for the 1 in 200 year return period storm. As above, further flow control will be provided in the second SUDS stage i.e. the swale.

6.7. The 30mm diameter orifice flow controls for the swale check dams will further reduce the discharge rate adopted for the SUDS basin and further reducing the rate of surface water disposal from the site.

6.8. Urban creep factor has not been included in the surface water design calculations due to the nature of the development being agricultural within a rural setting. Current guidance[2] for the addition of the urban creep factor is specified for residential development only.

7. SUDS Water Quality

7.1. Calculation of the water quality volume has been carried out in accordance with CIRIA C753 Equation 23.1, *"Vt* calculation using variable rainfall depths for Scotland". The calculation returned a treatment volume for the SUDS basin of 40m^3. Note that the required long-term storage when flows are restricted is just over 159m^3 i.e. almost four times the minimum treatment volume. A copy of the calculation is included in Appendix D.

7.2. SEPA's Simple Index Approach is a simplified risk-based method for selecting appropriate sustainable drainage systems (SUDS) for the treatment of surface water runoff. The approach, as outlined in CIRIA C753, assigns pollution hazard indices based on land use. The contaminants considered are total suspended solids (TSS), metals and

[2] https://www.susdrain.org/files/resources/other-guidance/lasoo_non_statutory_suds_technical_standards_guidance_2016_.pdf

hydrocarbons. Suitable SUDS features are then selected to achieve a combined mitigation index greater than the pollution hazard index, indicating that the pollution risk has been appropriately managed.

7.3. The proposed roof runoff has been categorised as medium risk of metal leaching and requires, in addition to a detention basin, an extra level of treatment to further reduce metals. As set out in Section 4, it is proposed to introduce a swale to further enhance the treatment and reduce the metals content. It should be noted that the swale will need regular check dams to increase the storage capacity and control flow rates. A copy of the calculation is included in Appendix E.

8. Detention Basin – Construction

8.1. The bottom and side slopes of the basin should be carefully prepared to ensure that they are structurally stable and the grading should be uniform and smooth to the correct slope so that water does not pond in depressions and the risk of channelling and erosion through preferential flow paths is minimised. Checks should be made that any embankment structures meet their design criteria. The preparation should also ensure that the basin will satisfactorily manage design flows without significant erosion damage.

8.2. Backfilling against inlet and outlet structures needs to be controlled so as to minimise settlement and erosion. The soils used to finish the side slopes need to be suitably fertile, porous and of sufficient depth to ensure healthy vegetation growth. Where an impermeable liner is proposed, care should be taken to ensure that it is not damaged during construction.

8.3. During the SUDS establishment phase, runoff from bare soils should be minimised. For example:

- Vegetation on slopes should be rapidly established.
- Base-of-slope trenches should be introduced to retain the inevitable runoff of sediments.
- As far as practicable, construction should be timed to avoid autumn and winter when high runoff rates are to be expected.

8.4. Detention basins may be used to manage construction runoff and trap construction sediments, provided they are fully rehabilitated to original design formation levels before handover.

8.5. Detention Basin Operation and Maintenance Requirements

8.5.1. Detention basins will require ongoing regular maintenance to ensure continuing operation to design performance standards.

8.5.2. Maintenance of detention basins is relatively straightforward for landscape contractors, and typically there should only be a small amount of extra work (if any) required for a SUDS detention basin over and above what is necessary for standard public open space.

8.5.3. Maintenance responsibility for a basin should always be placed with an appropriate organisation. Adequate access should be provided to all detention basin areas for inspection and maintenance, including for appropriate equipment and vehicles. Litter and debris removal should be undertaken as part of general landscape maintenance for the site. All litter should be removed from site.

8.5.4. The major maintenance requirement for detention basins is usually mowing. Regular mowing in and around detention basins is only required along maintenance access routes, amenity areas (e.g. footpaths), across any embankment and across the main storage area. The remaining areas can be managed as "meadow", unless additional management is required for landscape/amenity/recreational or aesthetic reasons.

8.5.5. Mowing should ideally retain grass lengths of 75-150 mm across the main "treatment" surface to assist in filtering pollutants and retaining sediments and to reduce the risk of flattening during runoff events. Longer lengths of vegetation may be appropriate, depending on the functionality of the component, and its associated design criteria and are not considered to pose a significant risk to functionality.

8.5.6. Shorter lengths may be required when recreational facilities form part of the basin, but in this case the basin will be dealing with exceedance flows only and not treatment.

8.5.7. Grass clippings should be disposed of off-site or outside the detention basin area to remove nutrients and pollutants. Where a detention basin has a small permanent pool at the outlet, its submerged and emergent aquatic vegetation should be managed as for ponds or wetlands. Plant management, to achieve the desired habitat effect, should be clearly specified in a maintenance schedule. All vegetation management activities should take account of the need to maximise biosecurity and prevent the spread of invasive species.

8.5.8. Occasionally sediment will need to be removed (e.g. once deposits exceed 25 mm in depth). Sediments excavated from a detention basin that receives runoff from residential or standard road and roof areas are generally not toxic or hazardous and can therefore be safely disposed of by either land application or landfilling. However, consultation should take place with the environmental regulator to confirm appropriate protocols. Sediment testing may be required before sediment excavation to determine its classification and appropriate disposal methods. For runoff from busy streets with high vehicle traffic, sediment testing will be essential. In the majority of cases, it will be acceptable to distribute the sediment on-site if there is an appropriate safe and acceptable location to do so. Any damage due to sediment removal or erosion and scour resulting from major events should be repaired and immediately reseeded or planted.

8.5.9. Table 4 provides guidance on the type of operational and maintenance requirements that may be appropriate. The list of actions is not exhaustive and some actions may not always be required.

Table 3 - Detention Basin Operation and Maintenance Requirements

Maintenance schedule	Required action	Typical frequency
Regular maintenance	Remove litter (including leaf litter) and debris.	Monthly (or as required).
	Cut grass - for spillways and access routes.	Monthly (during growing season, as required).
	Cut grass - meadow grass in and around basin Manage other vegetation and remove nuisance plants.	Half yearly (spring - before nesting season, and autumn).
	Remove sediment from pre-treatment devices.	Six monthly.
	Inspect inlets, outlets and overflows for blockages, and clear if required.	Bi-monthly.
	Inspect banksides, structures, pipework etc for evidence of physical damage	Six monthly or as required.
	Check any penstocks and other mechanical devices and tidy all dead growth before start of growing season.	Yearly.
Occasional maintenance	Remove or control tree roots where they are encroaching the sides of the basin, using recommended methods (e.g. NJUG, 2007 or BS 3998:2010). Prune and trim any trees and remove cuttings.	As required.
	Clear pipework/channel blockages.	As required.
	Reseed areas of poor vegetation growth.	As required.
Remedial actions	Repair erosion or other damage by reseeding or re-turfing.	As required.
	Realignment of rip-rap.	As required.
	Repair/rehabilitation of inlets, outlets and overflows.	As required.
	Relevel uneven surfaces and reinstate design levels.	As required.

9. Swales

9.1. The bottom and side slopes of the swale should be carefully prepared to ensure that they are sound, uniform and smooth. Checks should be made that any side slopes meet their design criteria. The preparation should also ensure that the swale will satisfactorily manage the design flows without significant erosion damage.

9.2. Backfilling against inlet and outlet structures needs to be controlled so as to minimise settlement and erosion. The soils used to finish the side slopes need to be suitably fertile, porous and of sufficient depth to ensure healthy vegetation growth.

9.3. During the SUDS establishment phase, runoff from bare soils should be minimised. For example:

- Vegetation on slopes should be rapidly established.
- Base-of-slope trenches should be introduced to retain the inevitable runoff of sediments.

- As far as practicable, construction should be timed to avoid autumn and winter when high runoff rates are to be expected.

9.4. The swales may be used to manage construction runoff and trap construction sediments, provided they are fully rehabilitated to original design formation levels before handover.

9.5. Operation and Maintenance Requirements

9.5.1. The swales will require ongoing regular maintenance to ensure that they continue to operate as designed.

9.5.2. Maintenance of swales is relatively straightforward for landscape contractors, and typically there should only be a small amount of extra work (if any) required for a SUDS swale over and above what is necessary for standard public open space.

9.5.3. Maintenance responsibility for a swale should always be placed with an appropriate organisation. Adequate access should be provided to all areas surrounding swales for inspection and maintenance, including for appropriate equipment and vehicles. Litter and debris removal should be undertaken as part of general landscape maintenance for the site. All litter should be removed from site.

9.5.4. The major maintenance requirement for swales is usually mowing. Regular mowing in and around the swales is only required along maintenance access routes, amenity areas (e.g. footpaths), across the side slopes and along the main storage channel. The remaining areas can be managed as "meadow", unless additional management is required for landscape/amenity/recreational or aesthetic reasons.

9.5.5. Mowing should ideally retain grass lengths of 75-150mm across the main "treatment" surface to assist in filtering pollutants and retaining sediments and to reduce the risk of flattening during runoff events.

9.5.6. Grass clippings should be disposed of off-site or outside the swale area to remove nutrients and pollutants.

9.5.7. Occasionally sediment will need to be removed (e.g. once deposits exceed 25mm in depth). Sediments excavated from a swale that receives runoff from residential road and roof areas are generally not toxic or hazardous and can therefore be safely disposed of by either land application or landfilling. However, consultation should take place with the environmental regulator to confirm appropriate protocols. Sediment testing may be required before sediment excavation to determine its classification and appropriate disposal methods. In the majority of cases, it will generally be acceptable to distribute the sediment on-site if there is an appropriate safe and acceptable location to do so. Any damage due to sediment removal or erosion and scour resulting from major events should be repaired and immediately reseeded or planted.

9.5.8. Table 7 provides guidance on the type of operational and maintenance requirements that may be appropriate. The list of actions is not exhaustive and some actions may not always be required.

Table 4- Swale Operation and Maintenance Requirements

Maintenance schedule	Required action	Typical frequency
Regular maintenance	Remove litter (including leaf litter) and debris. Cut grass - for side slopes and channel. Cut grass - meadow grass in and around swale Manage other vegetation and remove nuisance plants. Remove sediment from pre-treatment devices. Inspect inlets, outlets and overflows for blockages, and clear if required.	Monthly (or as required). Monthly (during growing season, as required). Half yearly (spring - before nesting season, and autumn). Six monthly. Bi-monthly.
Occasional maintenance	Remove or control tree roots where they are encroaching the sides of the swale, using recommended methods (e.g. NJUG, 2007 or BS 3998:2010). Prune and trim any trees and remove cuttings. Clear pipework/channel blockages. Reseed areas of poor vegetation growth.	As required. As required. As required
Remedial actions	Repair erosion or other damage by reseeding or re-turfing. Realignment of rip-rap. Repair/rehabilitation of inlets, outlets and overflows. Relevel uneven surfaces and reinstate design levels.	As required. As required. As required. As required.

10. SUDS Adoption

10.1. The SUDS basin and swale will only be serving a single commercial property and as such Perth & Kinross Council (PKC) would not consider them for adoption and they will remain private. The owners will be responsible for the routine SUDS maintenance.

11. Conclusions and Recommendations

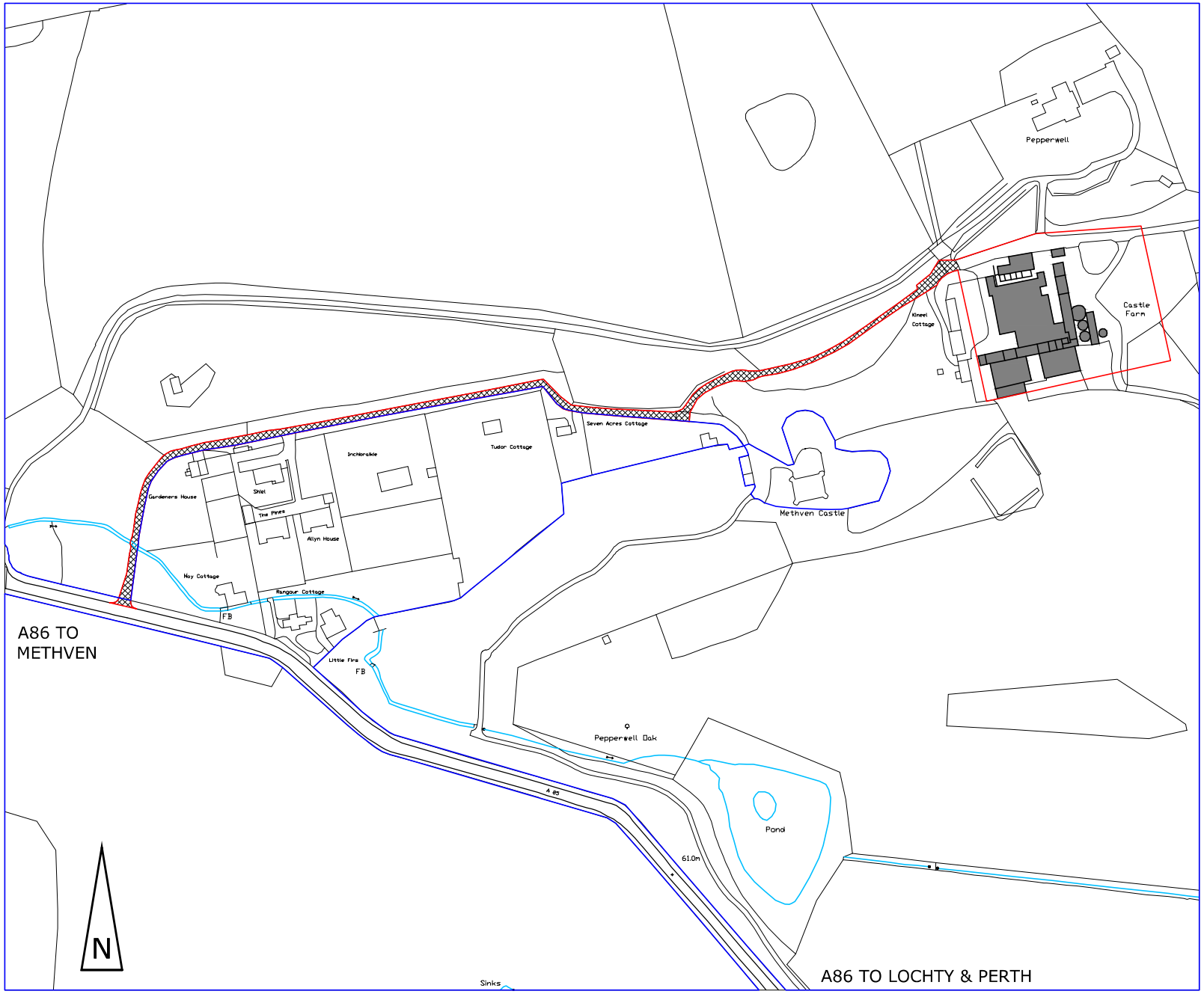
11.1. The proposed drainage arrangements comprising a SUDS detention basin and swale would appear to satisfy the requirements for SUDS treatment. The basin will have a minimum storage volume of 174.3m^3. Outflow from the basin will be restricted to a rate close to the greenfield runoff rate for the 1 in 200 year return period.

11.2. The discharge from the proposed SUDS basin has been restricted to 2.5 l/s. This assumes a Hydrobrake® orifice of 75mm and a design head of 1.0 metres. A 75mm minimum orifice has been adopted in line with industry standards where the risk of blockages is categorised as high.

11.3. The 30mm diameter orifice flow controls for the swale check dams will further reduce the discharge rate adopted for the SUDS basin and further reducing the rate of surface water disposal from the site.

12. Appendices

Appendix A: Existing Site Plan



Location Plan 1:2500 A3

APPLICANT OWNERSHIP BLUE EXTENTS

0 80 160 240 320 400

NOTES

REVISIONS

REV	NOTE / DRAWN BY	DATE
REV:A:	NON DEVELOPMENT SITE ACCESS ADDED	14-06-23

NON DEVELOPMENT SITE ACCESS

savills

PROJECT TITLE
FARM RATIONALISATION
METHVEN CASTLE FARM, METHVEN
PERTH, PH1 3SU

CLIENT
PILKINGTON TRUST

DRAWING TITLE
LOCATION PLAN

SCALES @ A3	PROJECT / DWG / REV NO.
1:2500	DHBU393113-01 A

DRAWING STATUS
PLANNING

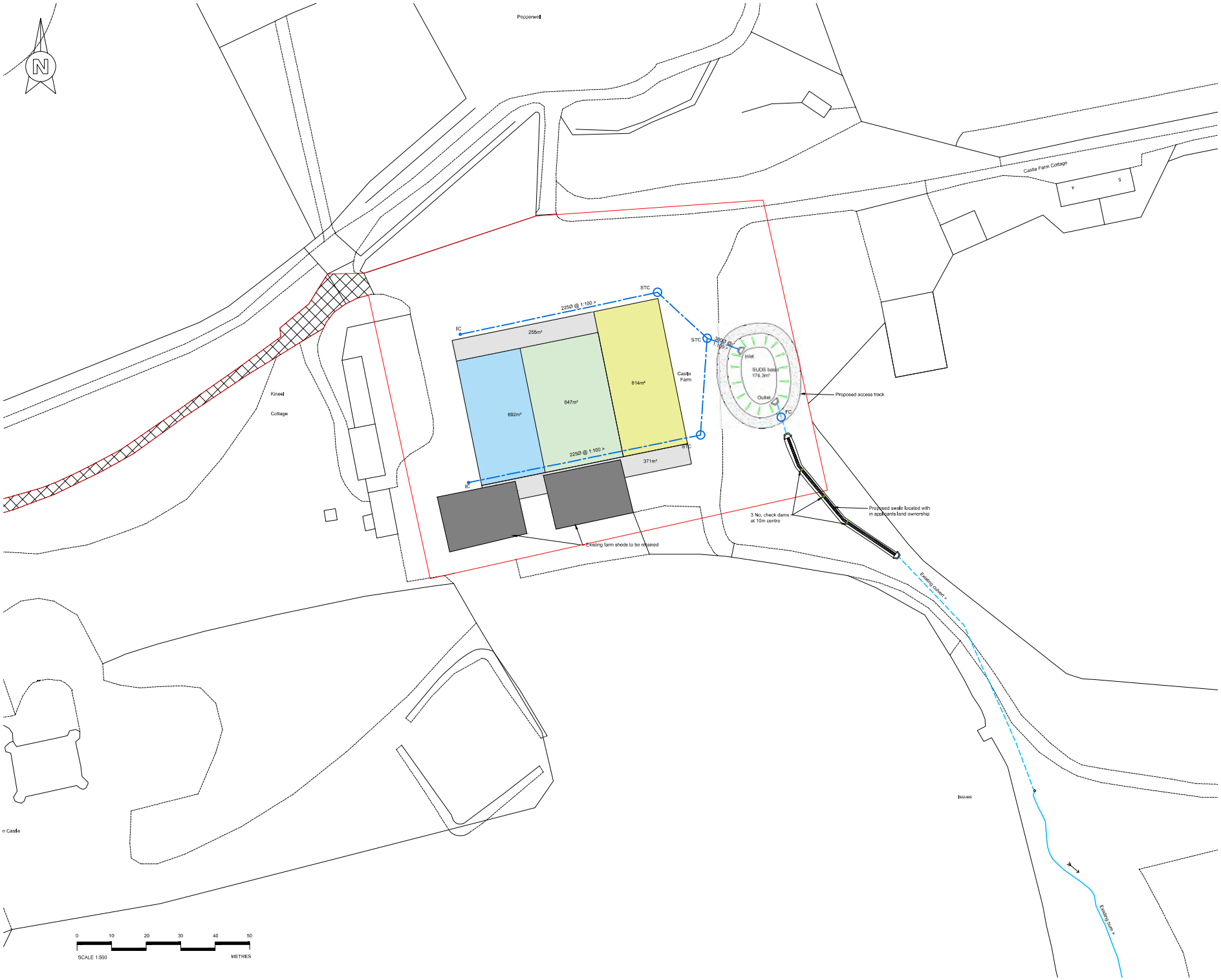
DRAWN BY	CHECKED BY	DATE
CR	-	01-05-23

RICS

Earn House
Broxden Business Park
Lamberkine Drive
Perth, PH1 1RA

t: 01738 477528
f: 01738 445599

Appendix B: Proposed Drainage Layout Plan



KEY

STC SILT TRAP CHAMBER
IC INSPECTION CHAMBER
FC FLOW CONTROL CHAMBER

REV	DESCRIPTION	DRAWN	CHKD	APPRD	DATE
0C	SWALE ADDED	EH	AGC	GD	06.03.24
0B	BUILDING FOOTPRINT MOVED	EH	AGC	GD	31.10.23
0A	ISSUED FOR PLANNING	EH	AGC	GD	17.01.23

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STIRLING FK7 9JQ
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CLIENT
SAVILLS

PROJECT
METHVEN CASTLE STEADING

TITLE
PROPOSED SUDS ARRANGEMENT

SCALES 1:500
AT SHEET SIZE A1

STATUS
FOR PLANNING

DRAWN	CHECKED	APPROVED
EH	AGC	GD
DATE 20/09/2022	DATE 16/01/2023	DATE 17/01/2023

DRAWING No.
603513-DRG-0002-0C

Appendix C: Causeway Flow Network Calculations

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
1	0.087	5.00	90.117	1200	304289.744	726121.989	0.917
2	0.039	5.00	89.301	1200	304356.930	726135.767	0.787
8	0.087	5.00	90.137	1200	304287.326	726164.906	0.937
9	0.039	5.00	90.064	1200	304344.516	726177.039	1.449
3			89.255	1200	304358.863	726163.787	1.378
4 Basin inlet			88.600	1200	304368.123	726160.551	0.821
5 FC			88.600	1200	304379.188	726144.673	0.950
6			87.855		304381.794	726136.178	0.673
7 Outfall			85.948		304414.306	726100.576	0.695

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.000	1	2	68.584	0.600	89.200	88.514	0.686	100.0	225	5.87	50.0
1.001	2	3	28.087	0.600	88.514	87.952	0.562	50.0	225	6.13	50.0
2.000	8	9	58.463	0.600	89.200	88.615	0.585	100.0	225	5.75	50.0
2.001	9	3	19.531	0.600	88.615	87.952	0.663	29.5	225	5.88	50.0
1.002	3	4 Basin inlet	9.809	0.600	87.877	87.779	0.098	100.0	300	6.23	50.0
1.003 Basin	4 Basin inlet	5 FC	19.353	0.600	87.779	87.650	0.129	150.0	300	6.48	50.0
1.004	5 FC	6	8.886	0.600	87.650	87.206	0.444	20.0	225	6.53	50.0
1.005 Swale	6	7 Outfall	48.213	0.030	87.182	85.253	1.929	25.0	600	6.79	50.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.000	1.307	52.0	11.8	0.692	0.562	0.087	0.0	73	1.061
1.001	1.854	73.7	17.1	0.562	1.078	0.126	0.0	73	1.515
2.000	1.307	52.0	11.8	0.712	1.224	0.087	0.0	73	1.061
2.001	2.419	96.2	17.1	1.224	1.078	0.126	0.0	64	1.835
1.002	1.572	111.1	34.2	1.078	0.521	0.252	0.0	114	1.389
1.003 Basin	1.281	90.6	34.2	0.521	0.650	0.252	0.0	127	1.194
1.004	2.939	116.8	34.2	0.725	0.424	0.252	0.0	83	2.559
1.005 Swale	3.177	3430.9	34.2	0.073	0.095	0.252	0.0	55	0.861

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.000	68.584	100.0	225	Circular	90.117	89.200	0.692	89.301	88.514	0.562
1.001	28.087	50.0	225	Circular	89.301	88.514	0.562	89.255	87.952	1.078
2.000	58.463	100.0	225	Circular	90.137	89.200	0.712	90.064	88.615	1.224
2.001	19.531	29.5	225	Circular	90.064	88.615	1.224	89.255	87.952	1.078
1.002	9.809	100.0	300	Circular	89.255	87.877	1.078	88.600	87.779	0.521

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	1	1200	Manhole	Adoptable	2	1200	Manhole	Adoptable
1.001	2	1200	Manhole	Adoptable	3	1200	Manhole	Adoptable
2.000	8	1200	Manhole	Adoptable	9	1200	Manhole	Adoptable
2.001	9	1200	Manhole	Adoptable	3	1200	Manhole	Adoptable
1.002	3	1200	Manhole	Adoptable	4 Basin inlet	1200	Manhole	Adoptable

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.003 Basin	19.353	150.0	300	Circular	88.600	87.779	0.521	88.600	87.650	0.650
1.004	8.886	20.0	225	Circular	88.600	87.650	0.725	87.855	87.206	0.424
1.005 Swale	48.213	25.0	600	1:2Swale	87.855	87.182	0.073	85.948	85.253	0.095

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.003 Basin	4 Basin inlet	1200	Manhole	Adoptable	5 FC	1200	Manhole	Adoptable
1.004	5 FC	1200	Manhole	Adoptable	6		Junction	
1.005 Swale	6		Junction		7 Outfall		Junction	

Simulation Settings

Rainfall Methodology	FEH-22	Skip Steady State	✓	Check Discharge Volume	✓
Summer CV	0.750	Drain Down Time (mins)	240	100 year 360 minute (m³)	
Winter CV	0.840	Additional Storage (m³/ha)	20.0		
Analysis Speed	Normal	Check Discharge Rate(s)	✓		

Storm Durations

15	30	60	120	180	240	360	480	600	720	960	1440

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
2	39	0	0
30	39	0	0
100	39	0	0
200	39	0	0

Pre-development Discharge Rate

Site Makeup	Greenfield	Growth Factor 30 year	1.95
Greenfield Method	IH124	Growth Factor 100 year	2.48
Positively Drained Area (ha)		Betterment (%)	0
SAAR (mm)		QBar	
Soil Index	1	Q 1 year (l/s)	
SPR	0.10	Q 30 year (l/s)	
Region	1	Q 100 year (l/s)	
Growth Factor 1 year	0.85		

Pre-development Discharge Volume

Site Makeup	Greenfield	Return Period (years)	100
Greenfield Method	FSR/FEH	Climate Change (%)	0
Positively Drained Area (ha)		Storm Duration (mins)	360
Soil Index	1	Betterment (%)	0
SPR	0.10	PR	
CWI		Runoff Volume (m³)	

Node 5 FC Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	✓	Sump Available	✓
Invert Level (m)	87.650	Product Number	CTL-SHE-0075-2500-1000-2500
Design Depth (m)	1.000	Min Outlet Diameter (m)	0.100
Design Flow (l/s)	2.5	Min Node Diameter (mm)	1200

Node 5 FC Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	1.0	Invert Level (m)	87.650
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	105.0	0.0	1.000	270.0	0.0

Results for 2 year +39% CC Critical Storm Duration. Lowest mass balance: 98.94%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	10	89.280	0.080	14.2	0.2409	0.0000	OK
15 minute winter	2	11	88.596	0.082	20.0	0.1743	0.0000	OK
15 minute winter	8	10	89.281	0.081	14.2	0.2432	0.0000	OK
15 minute winter	9	11	88.687	0.072	20.0	0.1205	0.0000	OK
15 minute winter	3	11	88.020	0.143	39.8	0.1621	0.0000	OK
15 minute winter	4 Basin inlet	7	87.967	0.188	39.9	0.2125	0.0000	OK
360 minute winter	5 FC	264	87.945	0.295	8.3	38.4637	0.0000	SURCHARGED
360 minute winter	6	272	87.194	0.012	2.5	0.0000	0.0000	OK
360 minute winter	7 Outfall	272	85.265	0.012	2.5	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	1	1.000	2	13.8	1.089	0.265	0.8728	
15 minute winter	2	1.001	3	19.9	1.553	0.269	0.3593	
15 minute winter	8	2.000	9	13.7	1.159	0.264	0.6938	
15 minute winter	9	2.001	3	20.0	1.871	0.208	0.2084	
15 minute winter	3	1.002	4 Basin inlet	39.9	1.165	0.359	0.3368	
15 minute winter	4 Basin inlet	1.003 Basin	5 FC	40.3	1.826	0.445	0.4891	
360 minute winter	5 FC	Hydro-Brake®	6	2.5				
360 minute winter	6	1.005 Swale	7 Outfall	2.5	0.337	0.001	0.3570	66.8

Results for 30 year +39% CC Critical Storm Duration. Lowest mass balance: 98.94%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	10	89.338	0.138	36.0	0.4182	0.0000	OK
15 minute winter	2	11	88.653	0.139	51.2	0.2950	0.0000	OK
15 minute winter	8	10	89.342	0.142	36.0	0.4252	0.0000	OK
15 minute winter	9	10	88.730	0.115	51.3	0.1922	0.0000	OK
480 minute winter	3	456	88.276	0.399	13.6	0.4518	0.0000	SURCHARGED
480 minute winter	4 Basin inlet	456	88.276	0.497	13.3	0.5625	0.0000	SURCHARGED
480 minute winter	5 FC	456	88.276	0.626	13.1	98.8250	0.0000	SURCHARGED
15 minute winter	6	40	87.194	0.012	2.5	0.0000	0.0000	OK
15 minute winter	7 Outfall	42	85.265	0.012	2.5	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	1	1.000	2	35.1	1.375	0.674	1.7488	
15 minute winter	2	1.001	3	51.0	1.576	0.692	0.9201	
15 minute winter	8	2.000	9	35.1	1.500	0.675	1.3708	
15 minute winter	9	2.001	3	50.5	1.797	0.526	0.5878	
480 minute winter	3	1.002	4 Basin inlet	13.3	0.842	0.120	0.6907	
480 minute winter	4 Basin inlet	1.003 Basin	5 FC	13.1	0.830	0.144	1.3628	
480 minute winter	5 FC	Hydro-Brake®	6	2.5				
15 minute winter	6	1.005 Swale	7 Outfall	2.5	0.337	0.001	0.3570	35.5

Results for 100 year +39% CC Critical Storm Duration. Lowest mass balance: 98.94%

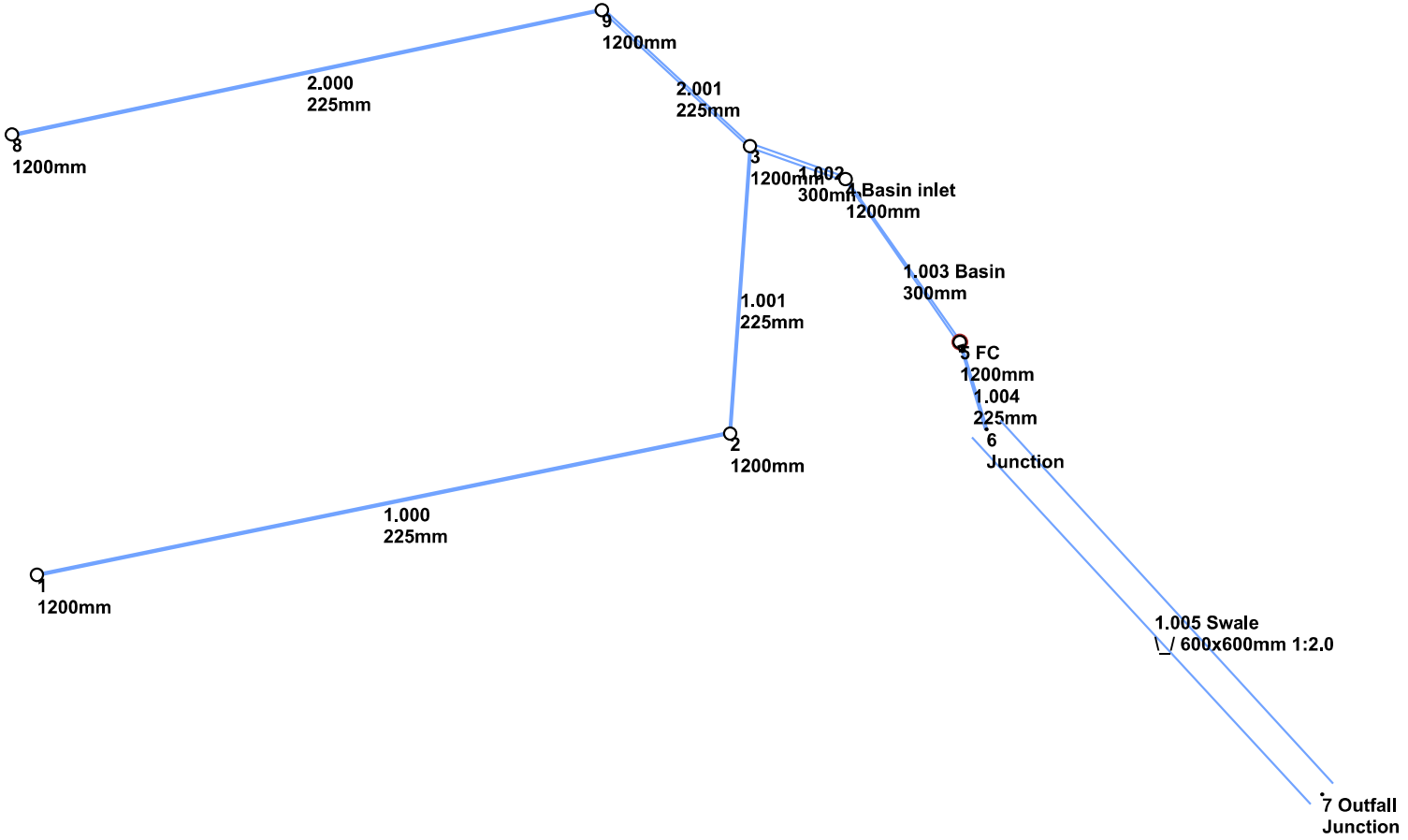
Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	10	89.365	0.165	46.3	0.5010	0.0000	OK
15 minute winter	2	12	88.818	0.304	66.1	0.6444	0.0000	SURCHARGED
15 minute winter	8	10	89.370	0.170	46.3	0.5085	0.0000	OK
15 minute winter	9	11	88.780	0.165	66.2	0.2762	0.0000	OK
600 minute winter	3	570	88.452	0.575	14.8	0.6499	0.0000	SURCHARGED
600 minute winter	4 Basin inlet	570	88.452	0.673	14.5	0.7606	0.0000	FLOOD RISK
600 minute winter	5 FC	570	88.451	0.801	14.4	138.0382	0.0000	FLOOD RISK
15 minute summer	6	87	87.194	0.012	2.5	0.0000	0.0000	OK
15 minute summer	7 Outfall	89	85.265	0.012	2.5	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	1	1.000	2	45.3	1.405	0.871	2.3939	
15 minute winter	2	1.001	3	58.9	1.531	0.799	1.1171	
15 minute winter	8	2.000	9	45.4	1.520	0.873	1.8250	
15 minute winter	9	2.001	3	65.0	1.770	0.676	0.6940	
600 minute winter	3	1.002	4 Basin inlet	14.5	0.806	0.130	0.6907	
600 minute winter	4 Basin inlet	1.003 Basin	5 FC	14.4	0.830	0.159	1.3628	
600 minute winter	5 FC	Hydro-Brake®	6	2.5				
15 minute summer	6	1.005 Swale	7 Outfall	2.5	0.337	0.001	0.3570	36.2

Results for 200 year +39% CC Critical Storm Duration. Lowest mass balance: 98.94%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	1	12	89.527	0.327	52.9	0.9915	0.0000	SURCHARGED
15 minute winter	2	12	88.996	0.482	73.7	1.0227	0.0000	SURCHARGED
15 minute winter	8	10	89.391	0.191	52.9	0.5712	0.0000	OK
15 minute winter	9	12	88.920	0.305	75.2	0.5091	0.0000	SURCHARGED
600 minute winter	3	570	88.553	0.676	16.8	0.7650	0.0000	SURCHARGED
600 minute winter	4 Basin inlet	570	88.553	0.774	16.5	0.8758	0.0000	FLOOD RISK
600 minute winter	5 FC	570	88.553	0.903	16.5	163.1564	0.0000	FLOOD RISK
15 minute summer	6	142	87.194	0.012	2.5	0.0000	0.0000	OK
15 minute summer	7 Outfall	144	85.265	0.012	2.5	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	1	1.000	2	50.0	1.410	0.963	2.7277	
15 minute winter	2	1.001	3	63.1	1.587	0.856	1.1171	
15 minute winter	8	2.000	9	51.5	1.511	0.990	2.1789	
15 minute winter	9	2.001	3	70.5	1.791	0.733	0.7768	
600 minute winter	3	1.002	4 Basin inlet	16.5	0.794	0.149	0.6907	
600 minute winter	4 Basin inlet	1.003 Basin	5 FC	16.5	0.830	0.182	1.3628	
600 minute winter	5 FC	Hydro-Brake®	6	2.5				
15 minute summer	6	1.005 Swale	7 Outfall	2.5	0.337	0.001	0.3570	36.5



Appendix D: Greenfield Runoff Rates

Allen Gordon	Project	Methven Castle Farm		
	Description	New Steadings		
	Date	18 August 2022	Job Number	603515-CAL-0002-01
Version 1.0	Prepared By	AGC	Checked By	GD

PRE-DEVELOPMENT RUN-OFF CALCULATION

IH124 Equ. 7.2

Mean QBAR RURAL = $0.00108 \times AREA^{0.89} \times SAAR^{1.17} \times SOIL^{2.17}$

Where

Area	*0.0026*	*Gross Area in km2*
SAAR	*839*	*value obtained from Wallingford Procedure tables*
SOIL	*0.37*	*porosity test required checked against WRAP class*
M5-60	*17*	*mm*
r	*0.3*	
Hydrological Region	*1*	*from UK Hydrological Growth Curve Regions Map*

Therefore

Area (km2)	=	0.5	Site area<50ha use 50 and lineary Interpolate
SAAR	=	839	
SOIL	=	0.37	
QBARrural		0.18	m^3/s
		177.5	l / s
QBARrural/ha	=	3.6	l/s/ha
QBARsite	=	1	

1 year factor	=	0.85
2 year factor	=	0.91
30 year factor	=	1.85
100 year factor	=	2.45
200 year factor	=	2.85

Therefore, greenfield limiting discharge rates are:

1 year throttle	3.0 l/s/ha	0.8 l/s
2 year throttle	3.2 l/s/ha	0.8 l/s
30 year throttle	6.6 l/s/ha	1.7 l/s
100 year throttle	8.7 l/s/ha	2.3 l/s
200 year throttle	10.1 l/s/ha	2.6 l/s

Appendix E: Treatment Volume Calculation (Vt)

Initial sizing of Treatment storage volume

Project Title	Methven Castle Farm – New Steadings
Project Number	603513-CAL-0003-01

Cal. From C697 Box 4.12 Vt calculation using variable rainfall depths (For Scotland)

$$Vt\ (m3/ha) = 9.D.[SOIL/2+(1 - SOIL/2).I]$$

Where:
Vt = Water Quality Treatment Volume (as a function of the total development area)
SOIL = Soil classification (from Flood Studies or Wallingford Procedure WRAP map)
I = Fraction of the area which is impervious (eg 30 per cent impermeable area = 0.3)
D = M5 – 60 minute rainfall depth (ie 5-year return period, 60 minute duration storm depth determined from the Wallingford Procedure)

Site Area	0.26	ha	
Area of Public open space	0	ha	which is not modified by the development
Impermeable Area	0.26	ha	Yellow cells to be populated only green cells automatically populate.

Development Area	0.26	
Soil	0.37	
I	1.00	%
D	17	mm
Vt (m^3/ha)	152.62	
$Vt_{(Site)}$	40	m3

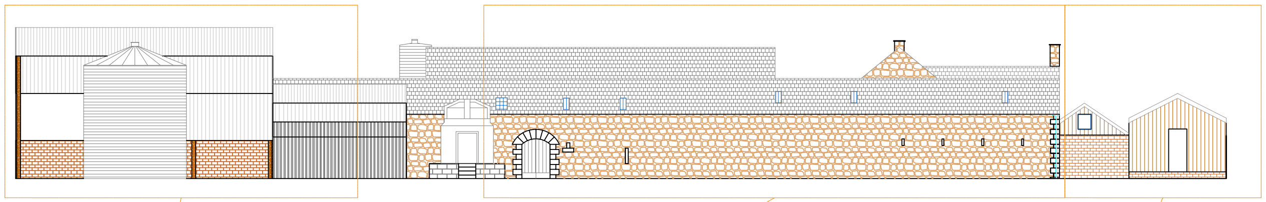
Note

1 The concept of treatment volume is to provide sufficient volume to provide partial treatment of the stormwater effluent. There are no specified water quality discharge criteria to comply with. Accepted best practice in Scotland is based on (CIRIA report C522, 2000) requiring 1 times Tv except in certain circumstances when up to 4 times Tv is needed. See SEPA guidance. Elsewhere in UK the volume equivalent to 15mm of rainfall is used. It should be noted that the emphasis on the importance of ponds to provide treatment has changed to some degree in favour of emphasising the need to use vegetative units to provide treatment or pre-treatment. This therefore has implications on treatment volume requirements and the need for flexibility in pond sizing.

2 Compliance with the SuDS Manual or the National SuDS Standards, if different, in terms of providing a treatment sequence of 1, 2 or 3 treatment units, makes any rule of thumb for modifying the sizing of the treatment volume difficult. It is unlikely that a Tv of less than 10mm of rainfall runoff from impermeable areas draining to the pond would be acceptable.

Appendix F: SEPA's Simple Index Approach (SIA) Calculation

SUMMARY TABLE		DESIGN CONDITIONS			
		1	2	3	4
Land Use Type	Commercial/Industrial roofing. Medium potential for metal leaching	This classification should be informed by an assessment of the leachability of metals from the adopted roofing materials. Particular risks are likely to be posed by materials that include copper and galvanised steel			
Pollution Hazard Level	Medium				
Pollution Hazard Indices					
TSS	0.3				
Metals	0.6				
Hydrocarbons	0.05				
SuDS components proposed		SuDS components can only be assumed to deliver these indices if they follow design guidance with respect to hydraulics and treatment set out in the relevant technical component chapters of the SuDS Manual. See also checklists in Appendix B			
Component 1	Detention basin				
Component 2	Swale	SuDS components can only be assumed to deliver these indices if they follow design guidance with respect to hydraulics and treatment set out in the relevant technical component chapters of the SuDS Manual. See also checklists in Appendix B			
Component 3	None				
SuDS Pollution Mitigation Indices					
TSS	0.75				
Metals	0.8				
Hydrocarbons	0.9				
Groundwater protection type	None				
Groundwater protection Pollution Mitigation Indices					
TSS	0				
Metals	0				
Hydrocarbons	0				
Combined Pollution Mitigation Indices					
TSS	0.75	Reference to local planning documents should also be made to identify any additional protection required for sites due to habitat conservation (see Chapter 7 The SuDS design process). The implications of developments on or within close proximity to an area with an environmental designation, such as a Site of Special Scientific Interest (SSSI), should be considered via consultation with relevant conservation bodies such as Natural England			
Metals	0.8				
Hydrocarbons	0.9				
Acceptability of Pollution Mitigation					
TSS	Sufficient				
Metals	Sufficient				
Hydrocarbons	Sufficient				



MC29

Notes

Revisions

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PROJECT TITLE
Methven Steading, Methven Castle, Perth, PH1 3SU

CLIENT
Perth & Kinross Council

DRAWING TITLE
A0 Landscape

SCALE	PAPER SIZE	DRAWING NUMBER	
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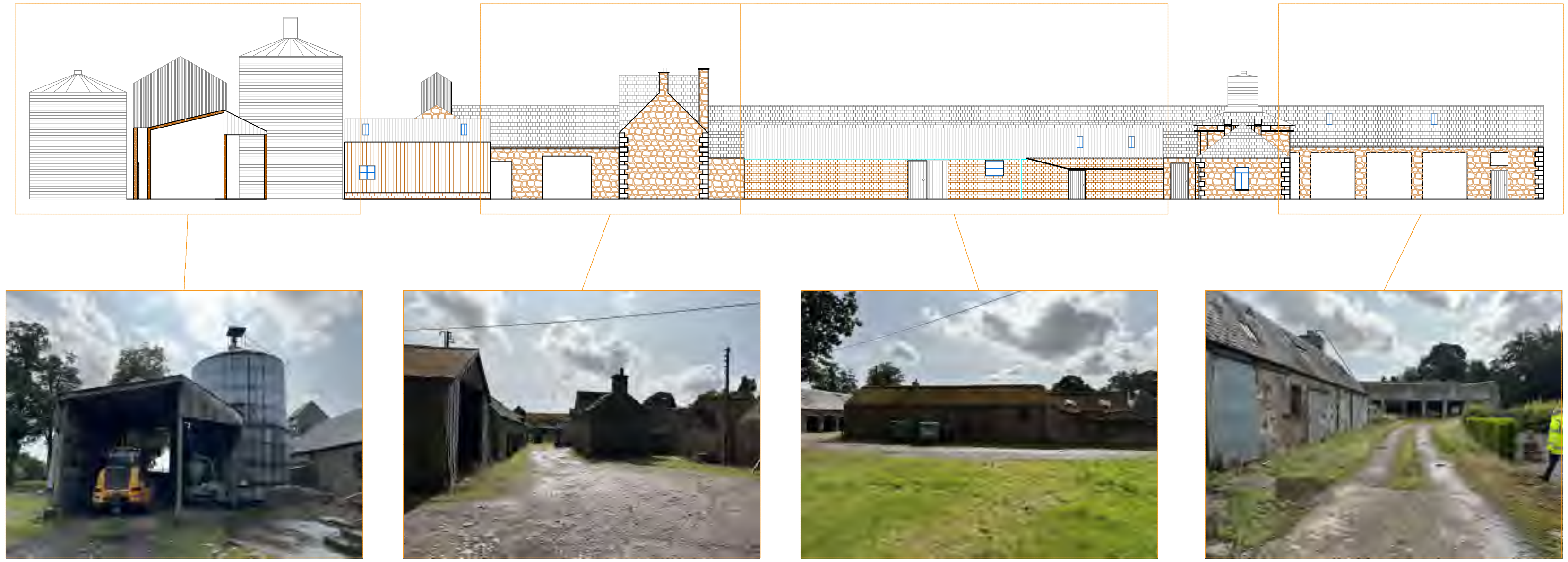

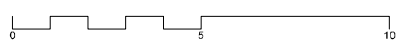

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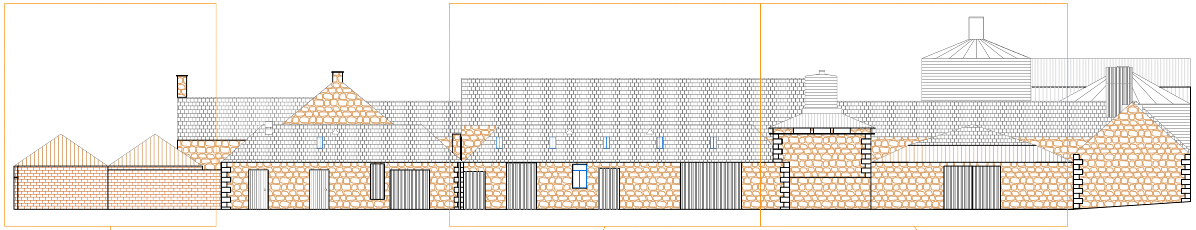

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DRAWING STATUS Planning			**REVISION** -
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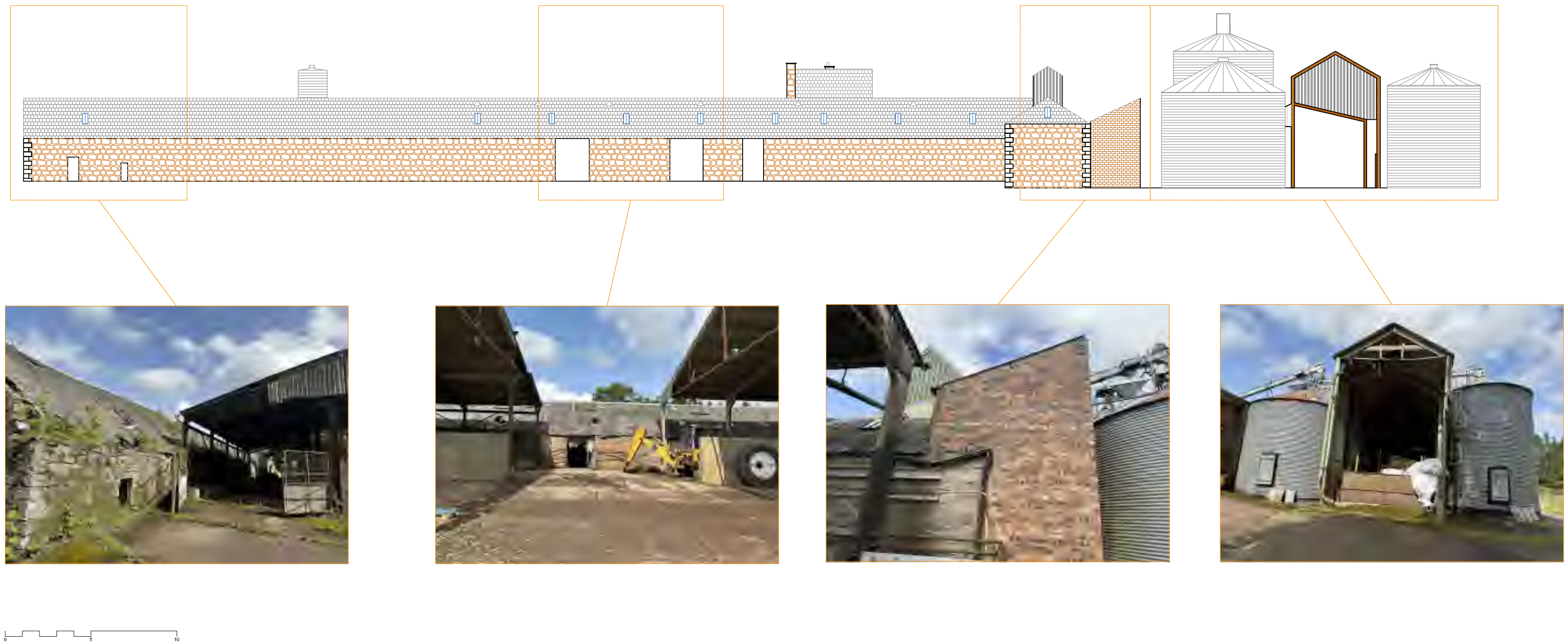

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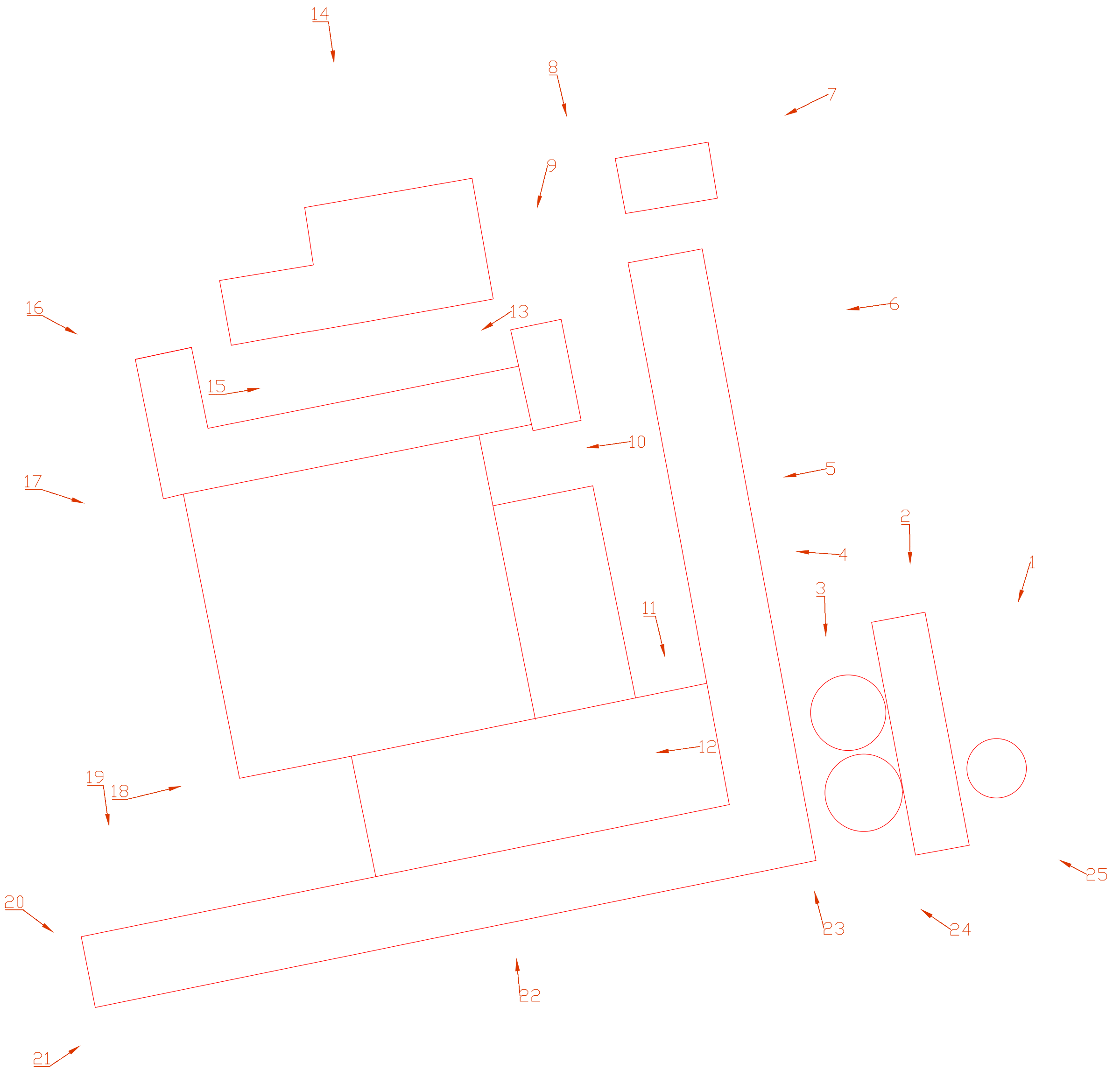

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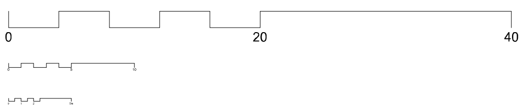

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Photograph 1


Photograph 2


Photograph 3


Photograph 4


Photograph 5


Photograph 6


Photograph 7


Photograph 8


Photograph 9


Photograph 10


Photograph 11


Photograph 12


Photograph 13


Photograph 14


Photograph 15


Photograph 16


Photograph 17


Photograph 18


Photograph 19


Photograph 20


Photograph 21


Photograph 22


Photograph 23


Photograph 24


Photograph 25

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(LRB) Supporting Statement – Demolition of farm steading and erection of new agricultural buildings

Methven Castle Steading, Perth, PH1 1SU

Contents

Supporting documents

MC1: Planning Statement
MC2: Structural Condition Survey
MC3: Agricultural Justification Statement and Waste Management Plan
MC4: Feasibility Study
MC5: Pre Application Enquiry Response
MC6: Planning letter response April 2024
MC7: 23/01610/FLL Report of Handling
MC8: 23/01611/LBC Report of Handling

Other information submitted with the planning applications and relevant to the appeal:

- Location Plan
- Site plan
- Proposed section
- Proposed floor plan
- Proposed elevations
- Proposed block plan
- Existing Block plan
- Existing West elevation
- Existing South Elevation
- Existing North Elevation
- Existing East Elevation
- Demolition plan
- Schedule of Works
- Topographical Survey
- Proposed Photomontages
- Odour Impact Assessment
- Noise Impact Assessment
- Ecological Impact Assessment
- Design Statement
- Bat Survey Report
- Drainage Impact Assessment and associated documents
- Measured Survey

1. Introduction

1.1 This appeal statement has been prepared by Savills Planning on behalf of Pilkington Trust, in support of their application for Demolition of buildings and erection of 3 agricultural buildings, formation of hardstanding and associated works at The Castle Farm, Methven, Perth, PH1 1SU.

1.2 The demolition and erection of agricultural buildings were subject to two applications, a listed building consent and a planning application. These applications are interrelated and therefore both are outlined in this appeal statement.

1.3 This appeal is against the refusal of the planning application for planning permission 23/01610/FLL and the application for Listed Building Consent 23/01611/LBC by the delegated officer on 6th June 2024.

1.4 The reasons given for refusal of the planning application 23/01610/FLL:

1. The proposals which would include the demolition of the Category A curtilage listed steading complex is contrary to National Planning Framework 4 (NPF4) Policy 7b) Historic Assets and Places and Policy 28A of the Perth and Kinross Local Development Plan 2019 which seeks to preserve the character, special architectural or historic interest of listed buildings. Furthermore, it is considered that it has not been adequately demonstrated that this is the only suitable site for the replacement buildings, which would have a reduced impact on the setting of the Category A listed castle, and its associated designed landscape.
2. The proposal is contrary to Policy 14 Design Quality and Place of National Planning Framework 4 and Policy 1A Placemaking of the Perth and Kinross Local Development Plan 2019 as it would not contribute positively to the quality of the surrounding built and natural environment, and associated landscape character in the vicinity of Methven Castle by virtue of the siting, scale and appearance of the buildings proposed.

1.5 The reasons given for refusal for 23/01611/LBC:

1. The proposal would result in the loss of Category A curtilage listed building. This is not fully justified in accordance with the requirements set out in national policy and guidance. Approval would therefore be contrary to Sections 14 and 59 of the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997; Policy 7(b) of National Planning Framework 4 and Policy 27B of the Perth & Kinross Local Development Plan 2.

1.6 The planning application 23/01610/FLL is subject to appeal to Perth and Kinross Council Local Review Body and the Listed Building Consent 23/01611/LBC is subject to appeal to Scottish Ministers.

1.7 The focus of this statement is to specifically address the reasons for refusal, and we set out our grounds of appeal for the planning application in the remainder of this statement. Where appropriate, we reference supporting information and sources that provide a more general analysis of the proposals or deal with specific technical elements relevant to the application from the submitted material, no new information has been introduced.

1.8 To summarise this Supporting Statement outlines that the refusal decision should be overturned and that planning permission should be granted in respect of the application for the following reasons:

- There should be a balance of policies, the Chief Planner letter dated 27th June 2024 stated that '*NPF4 should be read and applied as a whole and that conflicts between policies are normal and to be expected'*. HES, as a statutory consultee, did provide this balance and although would prefer the retention and repair of the existing steading they '**do not object**', as outlined in the report of handling of 23/01610.
- The current farm buildings that the farmer uses at another location are being taken back in-hand to facilitate a significant Local Development Plan allocation for Perth at Almond Valley therefore the farmer requires new buildings to undertake ongoing farming operations.
- The applicant has looked at options to retain the historic buildings however no viable alternatives has been found and therefore they will inevitability continue to degrade as no viable alternative uses exist .
- Locationally the site for the new farm buildings is appropriate given the largely the agricultural setting and they have been designed and suitably scaled and sited to fit with the character of the area and to be functional for today's farming requirements.

2. The proposal and development need

2.1 A full and detailed account of the development proposals are set out in the Planning Statement (document ref: MC1) submitted with the planning application. The proposal is for, three new agricultural buildings which would comprise of one grain store, one cattle building and a general-purpose building. As mentioned, the two large, non-traditional agricultural sheds to the south of the site would be retained.

2.2 The site is located 1.19km to the east of Methven at Methven Castle Farm, in an area predominantly rural in nature. It can be accessed via a private agricultural track off the A85, the main road between Perth and Crieff.

2.3 The proposal site comprises of a series of farm buildings at Methven Farm, a working farm, surrounded by its own farmland. These are currently leased by Pilkington Trust to a long-term agricultural tenant. The tenant has use of the buildings and surrounding area at Methven Castle Steading as part of the tenancy agreement.

2.4 Until recently, the farmer has benefited from farm sheds at another location close-by. The farmer uses these sheds for grain, cattle and machinery as there are no suitable facilities at Methven Farm. These farm buildings have had to be taken back in hand by the landlord because they form part of a wider residential development project allocated in the Perth and Kinross Local Development Plan (Ref: MU73 Almond Valley).

2.5 Therefore by necessity, the use of the sheds has had to be lost and a replacement location is required with some urgency. The most appropriate alternative location is the Methven Farm complex. This is because of its central location to the farming operations ,supporting a working farm, the rural economy and local jobs avoiding the necessity to re-locate the farm buildings onto greenfield and prime agricultural land.

2.6 The farm buildings are in poor condition and the plan is to replace them with modern agricultural buildings. The buildings have for some time been inappropriate for modern day agricultural practices both in terms of size and scale of the farming operations currently taking place or for the machinery used to operate the land. The replacement buildings would improve the operation of the farm and to enhance the amenity and safety of the area.

2.7 The buildings serve no function on this active farm except for ancillary stabling for horses which is now no longer viable due to the building condition causing a safety concern. The buildings have been challenging to maintain for many years since they no longer have an economic use. In addition, they have suffered significant weathering and damage from storms, are in disrepair and will continue to degrade.

2.8 The Structural Condition Survey, Agricultural Justification Statement and Feasibility Study (document ref: MC2, MC3, MC4) accompanied the Planning application to convey to the Planning Authority the condition of the current buildings and the operational requirement for demolition. The buildings are:

- found to be in poor condition and in a state of disrepair;
- pose a health and safety hazard;
- economically unviable to convert, re-use or repair.

2.9 The planning application sought to demolish the farm buildings which would then be replaced with three modern agricultural sheds, including a grain store, cattle shed and general-purpose building. These sheds are required to meet the operational needs of the farm tenant.

2.10 In terms of shed design, the proposed grain store is approximately 36m x 19m, the proposed cattle shed is approximately 36m x 23m and the proposed general-purpose shed is approximately 36m x 18m. The grain store has two roller doors on the north and south elevations. The cattle shed has sliding doors on both sides accessing a 4.5m feed passage on to four pens. The general purpose shed simply has sliding doors on both sides. Please refer to full suite of drawings including location plan, existing block plan, demolition block plan, proposed block plan, proposed floor plan, proposed elevations, proposals portal section and proposed photo montages (visualisations) that accompany this application.

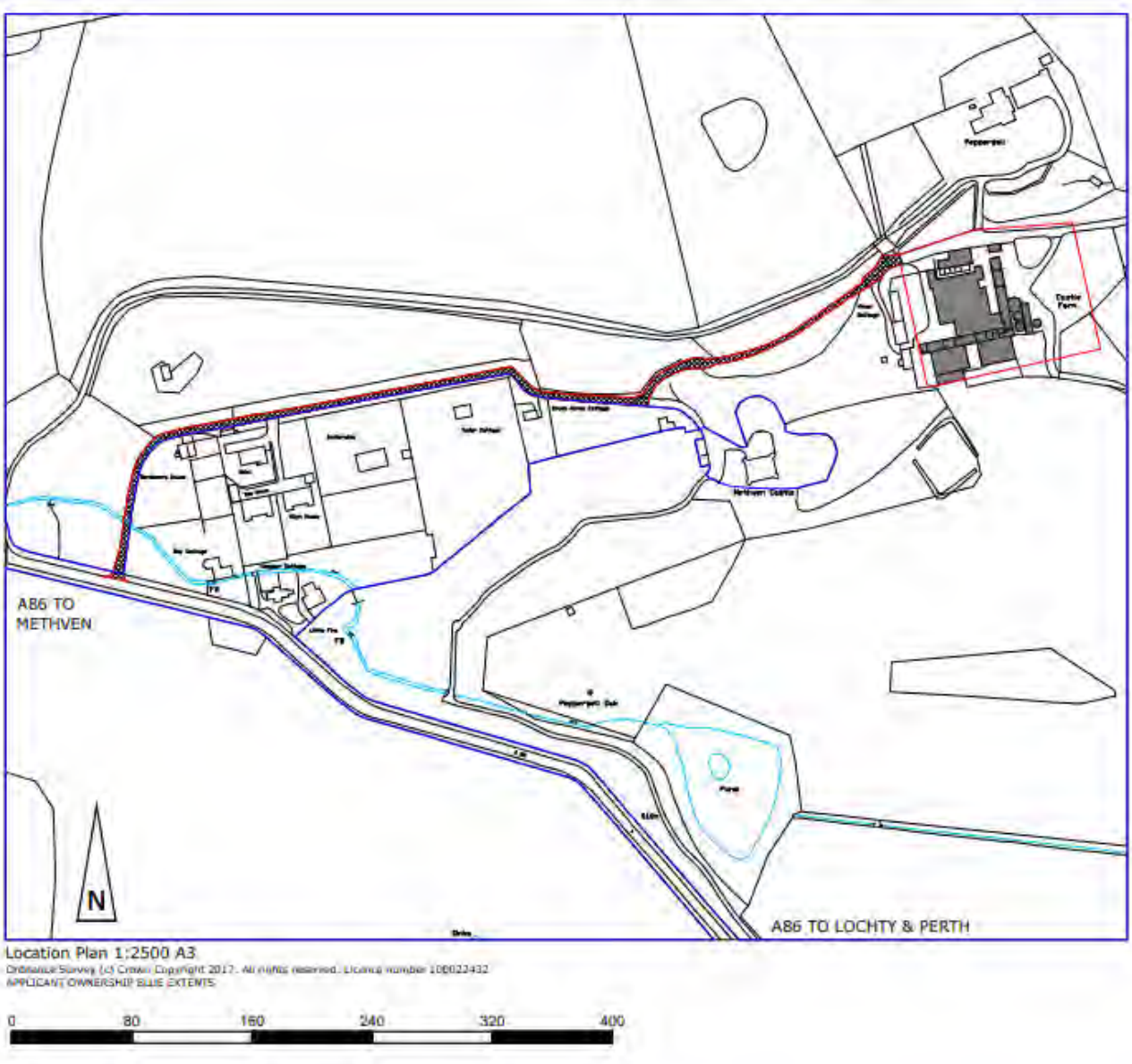


Figure 1: Location Plan

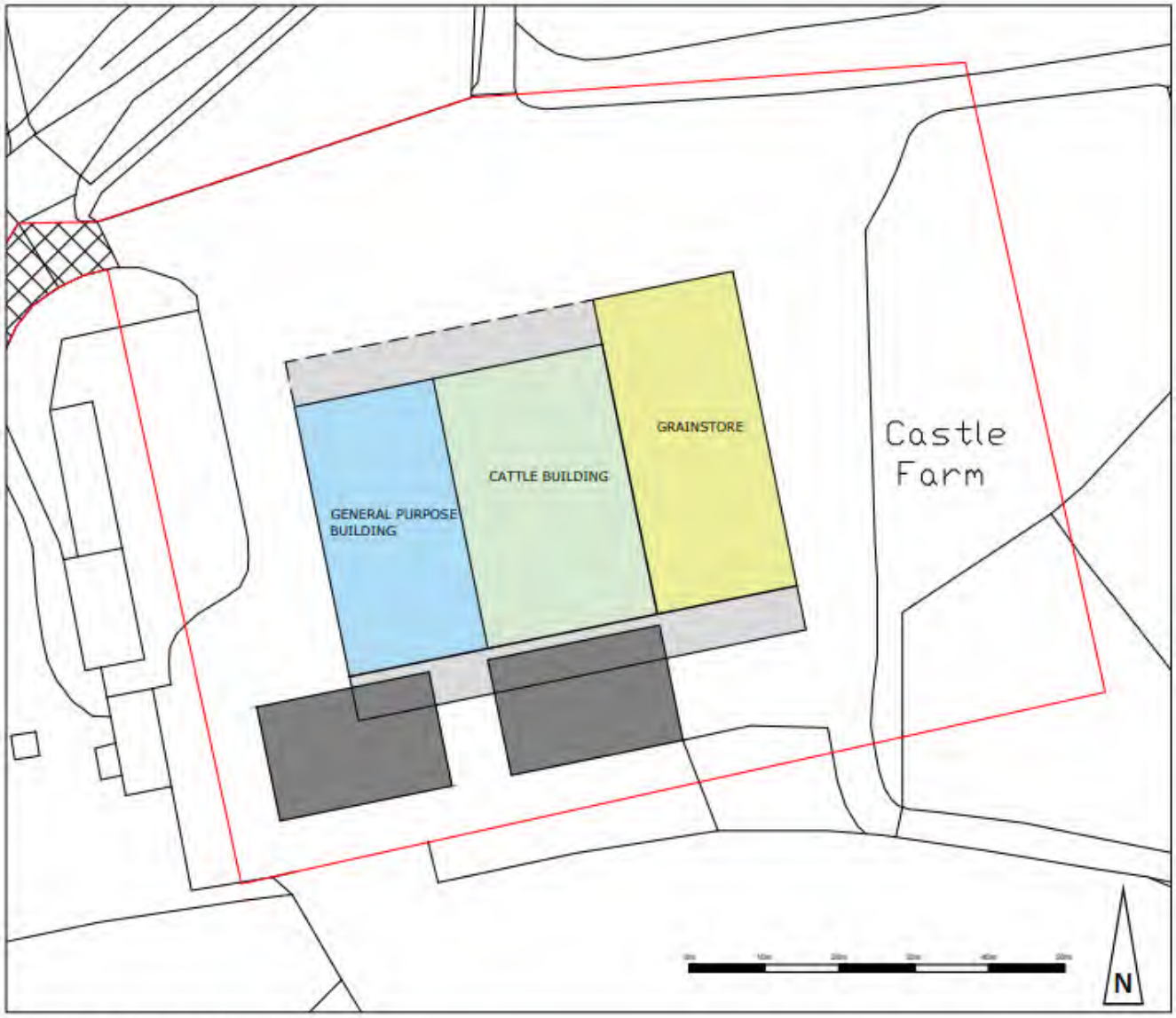


Figure 2: Site Plan

3. The development Plan

3.1 The proposals are required to comply with the relevant policies and provisions of the development plan unless there are relevant material reasons that would suggest otherwise. A full planning policy assessment has been carried out for the proposals in the Planning Statement (Document Ref: MC1) submitted with the application. This assesses the site against National Planning Framework 4 and the adopted Perth and Kinross Local Development Plan (2) 2019 and supplementary guidance.

3.2 As noted in point 1.4 the reasons for refusal of planning application 23/01610/FLL were:

1. The proposals which would include the demolition of the Category A curtilage listed steading complex is contrary to National Planning Framework 4 (NPF4) Policy 7b) Historic Assets and Places and Policy 28A of the Perth and Kinross Local Development Plan 2019 which seeks to preserve the character, special architectural or historic interest of listed buildings. Furthermore, it is considered that it has not been adequately demonstrated that this is the only suitable site for the replacement buildings, which would have a reduced impact on the setting of the Category A listed castle, and its associated designed landscape.

2. The proposal is contrary to Policy 14 Design Quality and Place of National Planning Framework 4 and Policy 1A Placemaking of the Perth and Kinross Local Development Plan 2019 as it would not contribute positively to the quality of the surrounding built and natural environment, and associated landscape character in the vicinity of Methven Castle by virtue of the siting, scale and appearance of the buildings proposed.

3.3 The points for refusal have been broken into three aspects: heritage policies, site suitability and placemaking. These are reviewed in more detail below:

Refusal reason – Heritage policies

3.4 A pre-application enquiry response was received in April 2022 (reference: 22/00094/PREAPP), (Document MC5: Pre Application Enquiry Response) which outlined planning challenges related to the impact on cultural heritage in relation to the Methven Castle Garden and Designed Landscape and the Category A Listed Methven Castle building. As noted in the Historic Environment Scotland website : 'What does a listing include?' it notes '*to decide if a curtilage applies, planning authorities will consider whether the structures: were built before 1 July 1948, were in the same ownership as the main subject of the listing at the time of listing, clearly relate to the main subject of the listing in terms of their (original function), still relate to the main subject on the ground'.* The pre application response (MC5) did not mention that the farm buildings are listed and so a planning application was submitted.

3.5 As noted in the report of handling (23/01611/LBC), both NPF4 and LDP include considerations which must be addressed when a listed building is proposed for demolition. NPF4 Policy 7b) states that such considerations include whether:

I. building is no longer of special interest;
II. building is incapable of physical repair and re-use as verified through a detailed structural condition survey report;
III. repair of the building is not economically viable and there has been adequate marketing for existing and/or new uses at a price reflecting its location and condition for a reasonable period to attract interest from potential restoring purchasers; or
IV. demolition of the building is essential to delivering significant benefits to economic growth or the wider community.

3.6 Like the NPF4 policy for demolition of listed buildings, LDP2 Policy 27B states that where the application proposes the demolition of a listed building, applicants will be expected to provide evidence to show that:

a) the building is not of special interest; or
b) the building is incapable of repair; or
c) the demolition of the building is essential to delivering significant benefits to economic growth or the wider community; or
d) the repair of the building is not economically viable and that it has been marketed at a price reflecting its location and condition to potential restoring purchasers for a reasonable period.

3.7 A letter to HES in response to comments received regarding Policy 7b) of NPF4 and Policy 27B of Perth and Kinross Local Development Plan was submitted as part of the planning application (see MC6). It should be highlighted that the Chief Planner letter dated 27th June 2024 stated that '*NPF4 should be read and applied as a whole and that conflicts between policies are normal and to be expected*'. Therefore the relevant policies should be weighed up and a balanced planning judgement applied for rural diversification and revitalisation to support a working farm. This is in line with NPF4 Policy 29 Rural Development, clause a)i), outlined in the planning supporting statement MC1, as the development proposals would contribute to the viability, sustainability and diversity of the area's local rural economy.

Refusal reason – Site suitability

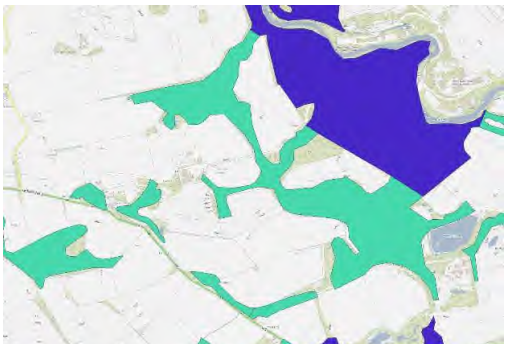
3.8 The site was reviewed for constraints as part of the planning application, this detailed; natural heritage, flood risk, trees and core path. The report for handling noted *'there is no indication of what detailed alternatives to the current proposal have been considered, including the investigation of siting the proposed agricultural buildings elsewhere within the blue line'.* The constraints are detailed below to show the wider site context to visualise the challenges of finding an alternative area for sitting agricultural buildings, and access to them, and the suitability of the site within the blue line.

Core Path (METH/114) – A85 AT West Lodge, Methven Castle to Methven wood

Soils – Prime agricultural land, Class 3.1

Gardens and Designed Landscape – Methven Castle GDL00285

SEPA Flood Map – Areas of Surface water flooding



Woodland – Areas in green denote Long Established (of plantain origin) Woodland

3.9 There are many constraints on and surrounding the site, posing challenges for an alternative site for the buildings. The applicant is mindful of clause b) of NPF4 Policy 29 which requires that development proposals are suitably, scaled, sited and designed to be in keeping with the character of the area, and must contribute to local living and take account transport needs in a rural location. The proposal site has been subject to farming operations historically and is therefore in a suitable location to continue to run a farming business from. The replacement sheds have a rural and agricultural character which fits in with the sheds that are to be retained. The 3D Visualisations accompanying the application demonstrate how well hidden the new buildings will be and how they assimilate with the existing character of the site.

3.10 The land in the vicinity at Methven farm is prime agricultural land, therefore developing on greenfield and agricultural land would take away a vital area of farmland required for production either for arable or livestock use. This would negate **National Planning Framework 4 Policy 5: Soils**. Policy 5 Soils aims to protect and restore valued soils from development. Clause a) notes, *Development proposals will only be supported if they are designed and constructed: i. In accordance with the mitigation hierarchy by first avoiding and then minimising the amount of disturbance to soils on undeveloped land;*.The construction on greenfield, undeveloped, prime agricultural land would disturb the soils and Clause b) notes, '*Development proposals on prime agricultural land, or land of lesser quality that is culturally or locally important for primary use, as identified by the LDP*', the land is required for the operation of the farm business, and is therefore locally important for it's primary use.

3.11 **Perth and Kinross Local Development Plan 2 (2019) Policy 50: Prime Agricultural Land** states '*development on prime agricultural land will not be permitted … and only when there is no other suitable site available on non -prime land*'. And **Perth and Kinross Local Development Plan 2 (2019) Policy 51: Soils** where Perth and Kinross Council seek to *'protect soils from damage such as erosion or compaction'.* To reduce impact and protect the surrounding prime agricultural land it was proposed to locate the buildings where the current agricultural buildings are. This limits the agricultural shed impinging on the land which is required to carry out agricultural operations.

3.12 The Agricultural Justification Report provides a locational justification as follows:, *'at the current steading there are two buildings that are being kept and are used for storage of straw for the cattle enterprise which are not near the current housing for livestock which makes it difficult for moving supplies around to the livestock. The new site for cattle housing is a more preferred location as it is beside the storage buildings, making the cattle enterprise more efficient'.* It is vital to ensure that the buildings are in a good location for all farming operations so that the business can perform efficiently . Additional to this, having the buildings in a central location to the farmed area makes it easier for transporting goods and carting grain back to the steading saving: time, money and emissions.

Refusal reason – Placemaking

3.13 A pre-application enquiry response was received in April 2022 (reference: 22/00094/PREAPP), (Document MC5) which noted *'the general principle of erection agricultural buildings within a countryside location is considered to be acceptable'*

3.14 As part of the planning process Historic Environment Scotland (HES) were consulted, as a statutory consultee, on the planning application. It was noted in the delegated report of handling for 23/01610/FLL that '*HES would prefer the retention and repair of the existing steading because it is an important feature of the designed landscape and contributes positively to the castles setting. However, while they consider the proposals would have adverse impacts on these assets, the submitted visualisations show that the level of potential impact does not reach a level that raises issues of national importance and they do not object to it'.*

3.15 The proposed design of the development would be larger than the current buildings in both scale and height, this was commented on in the delegated report of handling (23/01610/FLL). As discussed in the Agricultural Justification (MC3) the current buildings do not allow access for modern machinery or the appropriate amount of storage. The proposed grain store is designed to be significantly taller than the cattle shed and general store due to the height of modern agricultural machinery for arable farming. The height is needed to allow the machinery to tip the grain into the shed. There are different agricultural vehicles for arable and livestock farming practices.

3.16 The agricultural justification statement gives details on the number of animals to be housed in the buildings, which in total is 180 livestock which require 800m2 of storage. The proposed sheds meet this requirement.

4 Conclusion

4.1 This proposal is essential to ensure the continuing efficient and commercial operation of Methven Castle Farm. The farm buildings that the farmer currently uses at another location are being taken back in-hand to facilitate a significant allocation in the Perth and Kinross Local Development Plan and therefore the farmer requires new buildings from which to undertake the farm operations. To meet modern farming practices, a grain store, cattle shed and general purpose shed of the scale and design shown are required. The current steading buildings do not support the current farming practices and are unviable to convert, whilst posing a health and safety risk. Therefore, full replacement is the only option. This particular site location is important as it is central to the landholding. Alternative sites do not exist given the number of other constraints which exist such as prime agricultural land. This proposal will use brownfield land instead.

4.2 There should be a balanced approach to applying planning policies, The Chief Planner letter dated 27th June 2024 stated that '*NPF4 should be read and applied as a whole and that conflicts between policies are normal and to be expected'*. HES, as a statutory consultee, did provide this balance and although would prefer the retention and repair of the existing steading they '**do not object**', as outlined in the report of handling of 23/01610.

4.3 We therefore hope that the Local Review Body will take a balanced view and approve this appeal.

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Director

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NOTICE OF REVIEW

UNDER SECTION 43A(8) OF THE TOWN AND COUNTRY PLANNING (SCOTLAND) ACT 1997 (AS AMENDED)IN RESPECT OF DECISIONS ON LOCAL DEVELOPMENTS

THE TOWN AND COUNTRY PLANNING (SCHEMES OF DELEGATION AND LOCAL REVIEW PROCEDURE) (SCOTLAND) REGULATIONS 2013

THE TOWN AND COUNTRY PLANNING (APPEALS) (SCOTLAND) REGULATIONS 2008

IMPORTANT: Please read and follow the guidance notes provided when completing this form. Failure to supply all the relevant information could invalidate your notice of review.

Use BLOCK CAPITALS if completing in manuscript

Applicant(s)

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Contact Telephone 2

E-mail*

Agent

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Contact Telephone 2

E-mail* alexandria.scott@savills.com

Mark this box to confirm all contact should be through this representative: ☒

*Do you agree to correspondence regarding your review being sent by e-mail? Yes

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Planning Authority **Perth and Kinross**

Planning authority's application reference number 23/01610/FLL

Site address The Castle Farm, Methven, Perth, PH1 3SU

Description of proposed development

Demolition of Methven Castle Steading and replacement with three new agricultural buildings

Date of application 26/09/2024 Date of decision (if any) 06/06/2024

Note. This notice must be served on the planning authority within three months of the date of the decision notice or from the date of expiry of the period allowed for determining the application.

Nature of application

1. Application for planning permission (including householder application) ☒
2. Application for planning permission in principle ☐
3. Further application (including development that has not yet commenced and where a time limit has been imposed; renewal of planning permission; and/or modification, variation or removal of a planning condition) ☐
4. Application for approval of matters specified in conditions ☐

Reasons for seeking review

1. Refusal of application by appointed officer ☒
2. Failure by appointed officer to determine the application within the period allowed for determination of the application ☐
3. Conditions imposed on consent by appointed officer ☐

Review procedure

The Local Review Body will decide on the procedure to be used to determine your review and may at any time during the review process require that further information or representations be made to enable them to determine the review. Further information may be required by one or a combination of procedures, such as: written submissions; the holding of one or more hearing sessions and/or inspecting the land which is the subject of the review case.

Please indicate what procedure (or combination of procedures) you think is most appropriate for the handling of your review. You may mark more than one box if you wish the review to be conducted by a combination of procedures.

1. Further written submissions ☐
2. One or more hearing sessions ☐
3. Site inspection ☒
4. Assessment of review documents only, with no further procedure ☐

If you have marked box 1 or 2, please explain here which of the matters (as set out in your statement below) you believe ought to be subject of that procedure, and why you consider further submissions or a hearing are necessary:

Site inspection

In the event that the Local Review Body decides to inspect the review site, in your opinion:

1. Can the site be viewed entirely from public land? No

2. Is it possible for the site to be accessed safely, and without barriers to entry? Yes

If there are reasons why you think the Local Review Body would be unable to undertake an unaccompanied site inspection, please explain here:

Statement

You must state, in full, why you are seeking a review on your application. Your statement must set out all matters you consider require to be taken into account in determining your review. Note: you may not have a further opportunity to add to your statement of review at a later date. It is therefore essential that you submit with your notice of review, all necessary information and evidence that you rely on and wish the Local Review Body to consider as part of your review.

If the Local Review Body issues a notice requesting further information from any other person or body, you will have a period of 14 days in which to comment on any additional matter which has been raised by that person or body.

State here the reasons for your notice of review and all matters you wish to raise. If necessary, this can be continued or provided in full in a separate document. You may also submit additional documentation with this form.

Information submitted as part of a supporting statement for the appeal to the Local Review Body

Have you raised any matters which were not before the appointed officer at the time the determination on your application was made? Yes ☐ No ☒

If yes, you should explain in the box below, why you are raising new material, why it was not raised with the appointed officer before your application was determined and why you consider it should now be considered in your review.

List of documents and evidence

Please provide a list of all supporting documents, materials and evidence which you wish to submit with your notice of review and intend to rely on in support of your review.

See attached letter outlining the supporting information

Note. The planning authority will make a copy of the notice of review, the review documents and any notice of the procedure of the review available for inspection at an office of the planning authority until such time as the review is determined. It may also be available on the planning authority website.

Checklist

Please mark the appropriate boxes to confirm you have provided all supporting documents and evidence relevant to your review:

☒ Full completion of all parts of this form

☒ Statement of your reasons for requiring a review

☒ All documents, materials and evidence which you intend to rely on (e.g. plans and drawings or other documents) which are now the subject of this review.

Note. Where the review relates to a further application e.g. renewal of planning permission or modification, variation or removal of a planning condition or where it relates to an application for approval of matters specified in conditions, it is advisable to provide the application reference number, approved plans and decision notice from that earlier consent.

Declaration

I the agent hereby serve notice on the planning authority to review the application as set out on this form and in the supporting documents.

Signed: Alexandria Scott Date: 04/08/2024
